



MONITORING NATURE-BASED TOURISM TRENDS IN JAPAN'S NATIONAL PARKS: MIXED MESSAGES FROM DOMESTIC AND INBOUND VISITORS

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ABSTRACT

Nature-based tourism (NBT), including visits to protected areas such as national parks, is said to rank among the tourism sector's fastest growing segments. However, protected area visitation statistics can be inaccurate or unreliable, leading to mixed messages when trends are extrapolated to national level. This paper examines one such case using empirical evidence to investigate the reported decline in visits to Japan's national parks. First, trends in domestic and international visitors are examined at the national level. Next, the case study of Kamikochi in the Japan Alps is introduced to assess challenges in monitoring emerging NBT segments, epitomized here by inbound visitors. Findings suggest that current monitoring methods are not yet sufficient to track visitor diversification, resulting in underreported segments such as inbound visitors whose profiles and behaviour differs from conventional domestic NBT. However, the Ministry of Environment, which administers Japan's national parks, is aware of the increasingly heterogeneous visitor spectrum, and taking steps to track the evolving range of variables that shape visitation by examining domestic and international visitors at national and local levels. This study's twin-segment approach uses multiple-scale case studies to revisit the debate over improved visitation data. Lessons learned from visit trends in Japan's national parks underline the importance of targeted monitoring of segments due to changes in NBT demand.

Key words: nature-based tourism, monitoring, domestic, international, Japan

INTRODUCTION

Nature-based tourism (NBT) has expanded from a niche role to rank among tourism's fastest growing market segments (Nyaupane et al., 2004; Tisdell & Wilson, 2012). Considerable research efforts have thus been devoted to monitoring the increasing volumes of visits in order to manage their associated environmental, economic and social impacts (Manning et al., 1999; Eagles, 2002). Monitoring NBT visitation in this way should be fundamental to effective management of protected areas, directing limited budgets towards mitigation of high priority impacts or particular flashpoints, such as those related to trails, trash and congestion (Newsome et al, 2012). However, in reality few protected area managers have the luxury of sophisticated monitoring systems such as that of Yosemite National Park, where data is collected not only on visitor use levels but also on the associated impacts via monitoring of soundscapes, use of formal and informal trails and spatial distribution of visitors (Eagles,

2014). Many are conversely forced to function without proper data on visitation, as statistics from individual sites are not systematic and can be inaccurate or out-of-date (Cope et al., 2000; Cessford & Muhar, 2003; Buckley (2009b). When local trends are scaled up to national level this can lead to mixed messages – or even confusion over the direction of growth – as this paper aims to demonstrate using empirical evidence from Japan.

Japan's national park visitation provides a convenience sample of visit data that stretches back to 1950. Despite this longitudinal consistency, the Japanese case typifies the challenges common to monitoring many protected areas given the lack of an entrance fee system that precludes the utilization of admission receipts. Instead, data is collected at local level and scaled up to create national trend indices. Interestingly, aggregated visitation to Japan's national parks has demonstrated negative growth since 1991, seemingly bucking the



Kappabashi Bridge, over the River Azusa and with the Hodaka Range in the background © Matsumoto City Tourism Dept.

forementioned trend of universal NBT growth. The data has thus attracted the attention of international researchers, with one comparative study contending that national park visitation had peaked and entered a state of per capita reduction in the USA¹ and absolute decline in Japan (Pergams & Zaradic, 2007). However, the validity of the Japanese data was not discussed in detail, and there have been no follow-up studies to date, so this paper employs empirical evidence to firstly investigate Japan's monitoring methods and then reassess the reported decline in visitation. Trends in domestic visits to Japan's national parks are compared with those of international tourists, an emerging segment. To contextualize the aggregated visitation data, a case study is introduced to demonstrate how mixed messages might emerge from monitoring domestic and international visitor trends at local and national levels.

MONITORING VISITOR TRENDS

This section defines some of the key terminology and reviews the literature on visitation data collection. Visitation can be defined as 'the sum of visits during a period of time' (Hornback & Eagles, 1999: 8). Visits are thus the basic measurement unit, while higher-level systems use more precise stay-time data to calculate visitor hours and days. Visits are made by visitors who should be distinguished from protected area residents and workers, as visitors receive no monetary reward but instead are motivated primarily by the opportunity to participate in NBT. Based on operational definitions such

as visits to national parks, NBT is said to rank among the fastest growing segments of the tourism sector (Higgins, 1996; Nyaupane et al., 2004; Tisdell & Wilson, 2012). It is an umbrella term that can be specifically defined in terms of visitors' choice of destination (e.g. national parks: see Boo, 1990) or activity (e.g. adventure or wildlife tourism: see Sung, Morrison & O'Leary, 2000). NBT can be sub-classified into segments based on scales of volume, difficulty and price. A variety of precise criteria could in theory be used to distinguish bona fide NBT from the kind of mass tourism that often occurs at 'natural' destinations. However, the case study approach employed herein sacrifices a more precise definition of NBT for the sake of macro-level analysis of a contemporary phenomenon – national park visit trends – within its real-life context (Yin, 2009).

Although achieving academic consensus over a strict definition of NBT remains elusive, there is widespread agreement among existing research on the need for a better understanding of NBT trends (Cope et al., 2000). Aside from keeping track of social, environmental and economic impacts, monitoring is vital in order to justify limited management budgets and allocate visitor facilities, services and staff. Accurate visitation data is also fundamental to troubleshoot problematic 'hotspots' and minimize conflicts between visitor segments (Cessford & Muhar, 2003; Eagles, 2014). Efforts to monitor NBT often focus on protected areas such as national parks for a number of reasons. As flagship

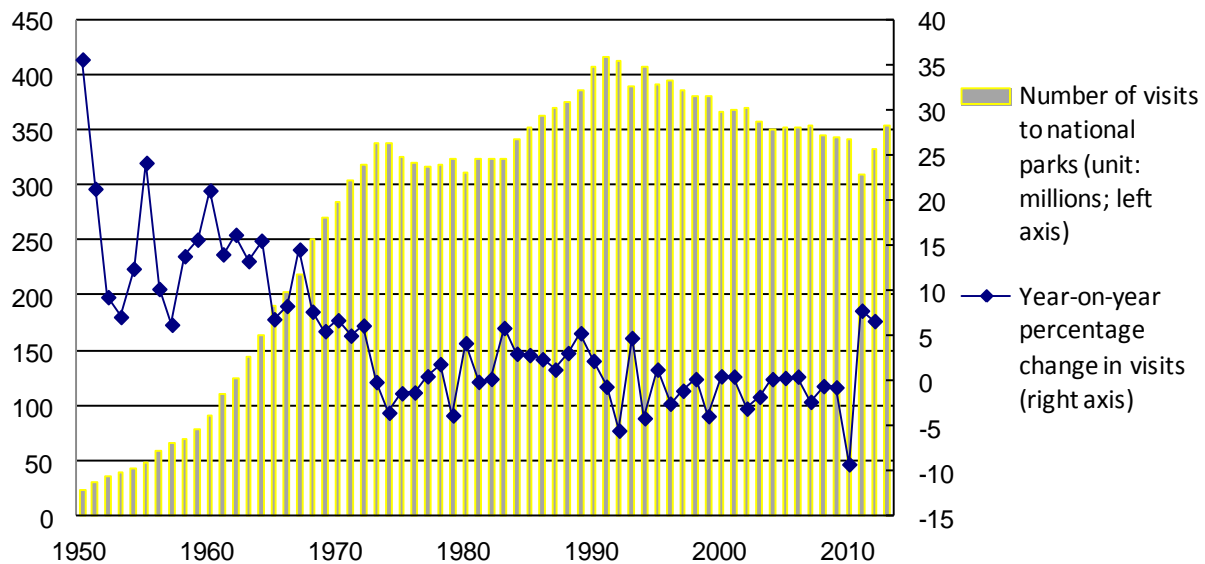


Figure 1. Annual aggregated visitations to Japan's national parks 1950-2013 (MOE, 2015)

conservation mechanisms, national parks dominate the small proportion of national government's fiscal and human resources allocated to protected area management. Consequently, the relatively high priority placed on management and marketing of such destinations ensures that managerial approaches and philosophy pioneered at a few iconic destinations areas often monopolize the debate over national policy-making (Buckley, 2012; Eagles, 2014).

Nonetheless, accurate reporting of visitation trends remains sporadic. A number of practical shortfalls in monitoring methods have been observed related to:

- lack of multi-year time series since count methods, and even management agencies themselves, are subject to change (Hornback & Eagles, 1999; Liu et al., 2012);
- multiple access roads or the presence of non-tourist traffic (Buckley, 2009b);
- cost of continuous staff or automated counters (Cessford & Muhar, 2003; Buckley, 2009b);
- sample days not representative – significant fluctuations in visitor numbers due to weather or public holidays, etc. (Cessford & Muhar, 2003).

There is also a widespread tendency toward under-reporting due to 'low levels of staffing, too many entrances for proper coverage, or other priorities of management' (Hornback & Eagles, 1999: 14). Even where data does exist, it often consists of 'guesstimates' based on the perceptions of staff or local volunteers, or anecdotal evidence (Cope et al., 2000). Despite conceding some of these limitations, Japan's national park database provides a rare longitudinal benchmark of

NBT trends stretching back to 1950 whose validity can be strengthened using representative case study examples such as Kamikochi, discussed below.

DOMESTIC VISITOR TRENDS

Collecting and reporting a central visitation database is one way that national park management can provide insights into long-term NBT trends. In Japan, records of the annual numbers of visits to national parks stretch back to 1950. The data is compiled by the Ministry of Environment (MOE) based on the four indicators below and updated annually in print and electronic form with a reporting lag of two years.

1. Individual national park: sourced from sample days and tourism surveys
2. Core facilities zone: sample days and tourism surveys
3. Visitor centres: infrared counters (and annual estimates)
4. Long-distance trail: sample days and traffic counts

As in certain British examples investigated by Cope et al. (2000), national level data is amalgamated from a variety of local government sources. This multi-agency approach poses challenges of reliability and consistency among record-keepers². More specific methodological shortcomings include the lack of consideration for repeat visitors, or those motivated by highly specific or non-park related factors. However, although the data relies on an eclectic mix of sources, the estimates do provide a benchmark of macro trends in visitation. Despite conceding considerable horizontal unreliability, the dataset has the advantage of longitudinal consistency, which enables analysis of the post-war visitation trends in order to examine the current downturn of 20 per cent in 2012 compared to the peak in 1991 (Fig. 1).

The promotion of international tourism was one important designation criteria for Japan's original National Parks Act that was passed in 1931 (Murakushi, 2006). However, the initial batch of 12 parks, designated from 1934-6, and the subsequent post-war additions developed almost exclusively as domestic visitor destinations (Jones, 2014). As a result, the data shown in Figure 1 includes very few international visitors, as will become apparent in the later discussion of Kamikochi.

Japan's designated national parks increased gradually to 17 in 1950 and 19 by 1960, before leaping to 27 by 1974. As the number of parks grew, annual visitation also rose rapidly to exceed 50 million in 1950. Between 1960 and 1963 visits increased from 90 to 145 million, and by 1971 surpassed 300 million (Fig. 1). This was an era in which GDP grew steadily at an annualized average of 11 per cent from 1955 to 1973. Rapid economic growth and urbanization brought construction of new bullet-trains, highways and other access infrastructure in tandem with increasing disposable income, leisure time and car ownership (Oyadomari, 1989). After a cool-off period in the 1970s, including the first year-on-year decline in 1975, visits rose again to a peak of almost 416 million in 1991. Thereafter came the extended decrease wherein the aggregate total fell 20 per cent to 333 million in 2012.

The cause of this decline has not been established, but partially reflects a 'normalization' process in reversal of the post-war correlation between increased visitation and the total number of parks designated. Another factor is Japan's population which increased from 82 million (1950) to a peak of 128 million (2010) but is now in decline. Rural regions face particular demographic challenges due to shrinking, ageing populations (Matanle, 2006; Muramatsu & Akiyama, 2011), and the post-1991 downturn in visitation also coincides with the economic stagnation which followed the bursting of the real estate bubble, epitomized by the 1987 Resort Law plan to convert nearly 40,000 km² (11 per cent of Japan's total landmass) into purpose-built rural resorts (Havens, 2011). By 1992, '39 per cent of the 77 designated infrastructure hubs and 83.8 per cent of the planned 2,046 special facilities were incomplete or abandoned' (Oura, 2008). Aside from such macro demographic and socio-economic trends, NBT dynamics have also been transformed by radical change in domestic demand due to:

- 'substitution' of international destinations for domestic ones linked to an increase in overseas travel (Balmford et al., 2009). Outbound Japanese tourists doubled from 5 million in 1986 to exceed 10 million in 1989 before peaking at 18.5 million in 2012 (JTBF, 2014).

Table 1. Estimated inbound visits to Japan's national parks (MOE, 2015)

	National Park ⁶	2012	2013	% change
1	Fuji-Hakone-Izu	838,000	1,007,000	20%
2	Shikotsu-Toya	240,000	317,000	32%
3	Chubu Sangaku	134,000	314,000	134%
4	Aso-Kuju	259,000	278,000	7%
5	Nikko	104,000	139,000	34%
6	Joshinetsu Kogen	107,000	108,000	1%
7	Seto Naikai	63,000	79,000	25%
8	Daisetsuzan	64,000	56,000	-13%
9	Kirishima Kinkowan	24,000	53,000	121%
10	Akan	46,000	51,000	11%
11	Saikai	32,000	43,000	34%
12	Ise-Shima	19,000	24,000	26%
13	Shiretoko	24,000	17,000	-29%
14	Sanin Kaigan	10,000	16,000	60%
15	Kushiro Shitsugen	13,000	16,000	23%
16	Unzen Amakusa	5,000	15,000	200%
	TOTAL	1,982,000	2,533,000	28%

- reduced demand for winter sports. For example the number of skiers and skaters in mountainous Nagano Prefecture declined from a peak of 22 million in 1990 to under 8 million in 2006, echoing a similarly drastic decline at the national level (Kureha, 2008).
- diversification in travel style away from the predominant package tour profile (Jang et al., 2001) in favour of smaller groups of independent travellers. Access underpins national park visitation (Yamaki, 1997), so diversification in travel modes could drive down demand for purpose-built package tour facilities, causing the closure of some large-scale hotels.

INBOUND VISITOR TRENDS

Could monitoring methods also be playing a contributory role in the reported decline? The next section of the paper examines changes afoot in international tourism to Japan which has shown significant growth since a renewed policy-focus on 'inbounds³' from 1996 (Soshiroda, 2005). After hosting the FIFA Soccer World Cup (2002), the subsequent Visit Japan Campaign launched in 2003 encouraged international arrivals to increase from 3.8 million to 8.3 million in 2008, when the Japan Tourism Agency (JTA) was established to promote international tourism (Jones, 2014). However, the timing coincided with a global dip in tourism arrivals,

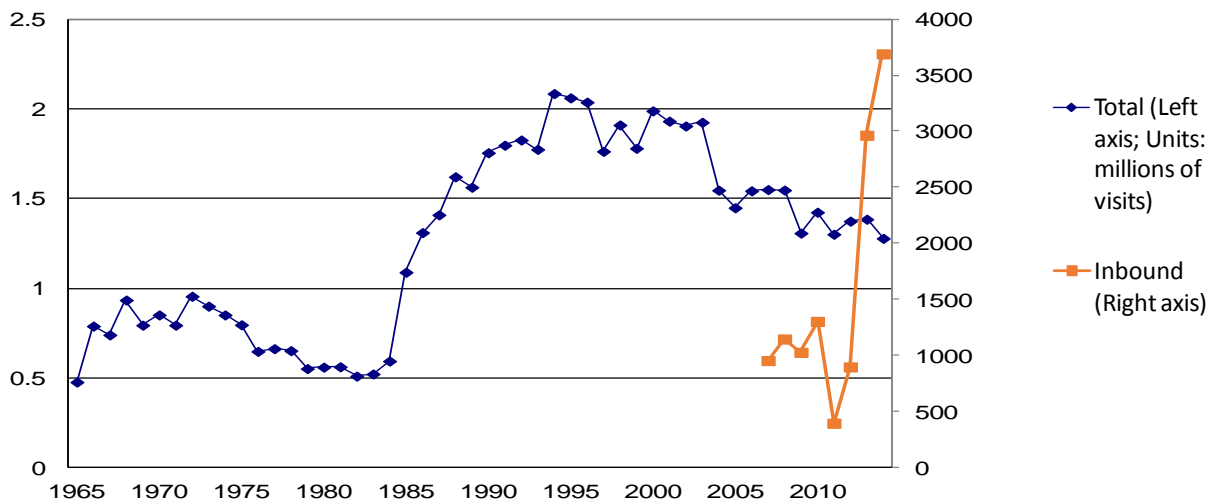


Figure 2. Annual visits to Kamikochi 1965-2014 (MCTD, 2015)

and the JTA's initial target of 10 million arrivals by 2010 was not achieved until 2013, when the awarding of the 2020 Olympic Games to Tokyo inspired a revised target of 20 million arrivals by 2020. Visitors from nearby Taiwan, the Republic of Korea and across East Asia comprise the bulk of inbound travellers, with selective deregulation of visa requirements also encouraging more visitors from countries such as Thailand and Malaysia (Fukunaga, 2013). Beyond broadening the number and range of inbound tourists' nationalities, the additional promotion has encouraged visitors to diversify geographically away from the urban hubs to national parks and NBT destinations such as Mt. Fuji and Kamikochi (Jones, 2014).

However, growth in inbound demand is relatively recent, and monitoring of inbound NBT largely undocumented, so this paper now turns to exploratory efforts to track inbound NBT. Since 2010, expenditure surveys have been commissioned by the JTA at 11 major international airports across Japan to intercept inbound tourists on their way home. The sample⁴ includes a total of 38,840 annual responses collected in 12 different languages (JTA, 2015). Based on these JTA findings, the MOE has begun to estimate the number of inbound visits to national parks since 2012, filtering self-reported destinations visited to match those located within the boundaries of national parks. This enables the generation of a per park multiplier which can then be applied to the total number of inbound arrivals to calculate visitation (MOE, 2014). Results show positive growth at fourteen out of the sixteen parks listed. Visitation more than doubled at three parks for an overall annualized increase of 28 per cent in 2013 (Table 1). Although the total 2.5 million visits still represents just 0.6 per cent of aggregated park visitation, this rapid growth rate seems likely to be underreported since it is based on an exit survey which asks visitors to report the destinations

visited during their trip, so despite the substantial sample size, results face a recall bias exacerbated by 'unfamiliarity with [Japanese] place names' (Funk, 2013). Nonetheless, the most visited park for inbounds, Fuji-Hakone-Izu, was consistent with domestic visitors, although the second and third ranked parks were different (respectively Shikotsu-Toya in Hokkaido and the Chubu Sangaku), suggesting that inbound visitation still tends to cluster around such urban hubs as Kanto and Sapporo⁵. In short, inbound NBT remains underreported, and the market at an embryonic stage with spill-over into rural destinations such as national parks likely to increase further along with the predicted growth in total arrivals.

CASE STUDY – KAMIKOCHI

Having analyzed the diverging trends in domestic and international visitors, the case study of Kamikochi is now introduced to provide context at the local level and assess some of the challenges associated with monitoring emerging NBT segments. Kamikochi is a valley 1,500m above sea level containing the headwater of the Azusa River flanked by steep mountains that rise to peaks of 3,000m. This is the southern gateway to the Chubu Sangaku, a mountainous national park at the heart of Japan's main island of Honshu. More commonly known as the Northern Japan Alps, the park ranked third in the 2013 data, as international visits increased by an annualized 134 per cent to exceed 300,000 (Table 1). The Chubu Sangaku also ranked among the ten most visited national parks overall in 2012, which in turn accounted for 81 per cent of all annual visitation (MOE, 2014).

Kamikochi thus offers useful insights to investigate converging trends in domestic and inbound segments. Moreover, the single paved road that allows access in and out of the Kamikochi valley has enabled long-term and systematic visitor monitoring, with the number of

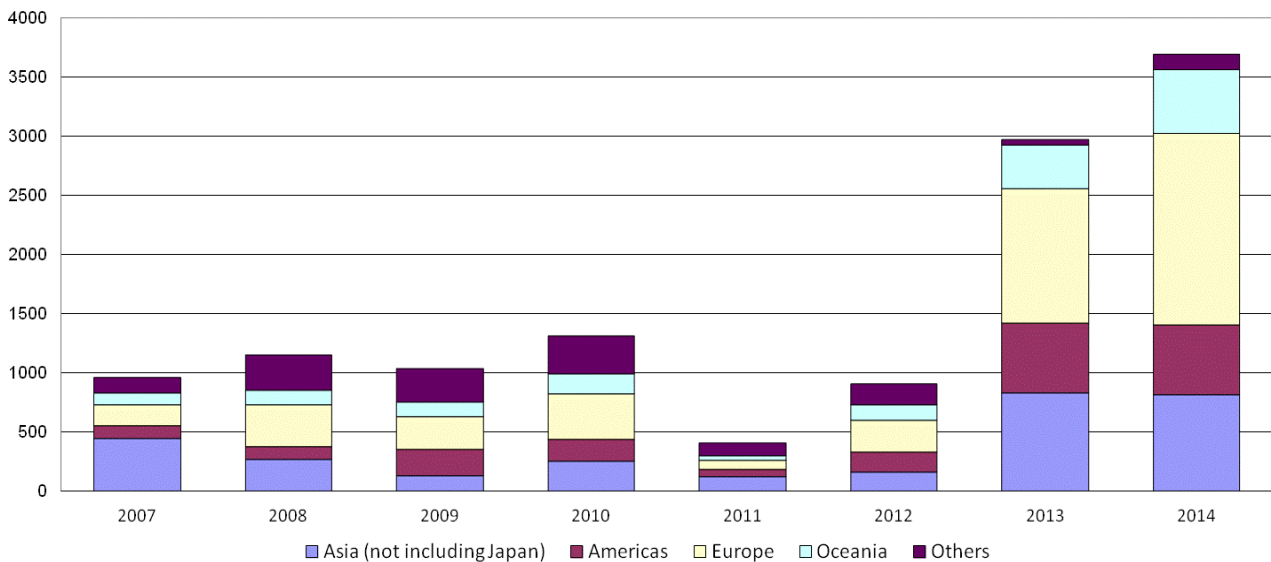


Figure 3. Number of inbound overnight stays at Hotel N 2007-2014

vehicles passing the Kama Tunnel recorded at the gate and multiplied by an average number of passengers⁷. The extreme topography once acted as a proxy cap on visitation to Kamikochi (Murakushi, 2006). However, the destination was transformed by post-war demand for NBT, with annual visits approaching 1 million in 1968 before a cool-off period in the 1970s coinciding with the oil crisis and economic stagnation. Thereafter, a ban on private cars begun in 1975 pre-empted the introduction of a park-and-ride system which inadvertently facilitated a fourfold increase in visits during the 1980s 'bubble economy' (Fig. 2). However, like the national trends, Kamikochi visitation peaked in 1991 before declining 38 per cent over the next two decades (Fig. 2). Tellingly, a 59 per cent decline was also reported in overnight stays from 320,000 in 1988 to 130,000 in 2011 (MCTD, 2015).

If Kamikochi's aggregate visitation mirrors national trends, it also reflects the recent rise in inbounds as one of the most iconic destinations in Nagano Prefecture, host to the 1998 Winter Olympics. The number of overnight stays by international visitors to Nagano increased ten-fold from 47,000 in 1999 to 465,000 in 2014 (NPTD, 2015). International tourism marketing connects national policies, such as the Visit Japan Campaign, with local positioning, emphasizing Kamikochi's proximity to the the Alpen route's 'wall of snow' which traverses the northern section of the national park. As at other national park destinations, the number of international visitors has not been counted directly since there is no entrance fee or registration system, and no way to capture visitors' profile in a systematic but cost-effective manner. However, interviews with local staff confirm that Kamikochi's inbound market has been increasing rapidly in line with the MOE's data (Table 1). For example, at 'Hotel N' the

total number of international guests increased 3.9 times between 2007 and 2014 (Fig. 3). The number of European visitors to Hotel N increased almost ten-fold during the same period, while (non-Japanese) Asian visitors also posted a three-fold increase from 2008 to 2014 and seem likely to increase again in the future. The Hotel N data also hints at the various socio-economic push and pull factors shaping the inbound market, such as the sharp dip following the 2011 disaster and anxiety over the nuclear radiation (Murakami et al., 2013). Findings from Hotel N are important since the 2014 total of 3,690 overnight stays accounts for 55 per cent of all international stays recorded that year in the valley. Local government data has begun to monitor inbound stays since 2013, and the international proportion of all overnight stays at Kamikochi was found to have increased from 2.5 per cent in 2013 to 4.5 per cent in 2014 (MCTD, 2015).

Although Table 1 suggests a particularly rapid increase in inbounds at the Chubu Sangaku, Kamikochi's case is not anomalous since similar trends have also been observed in other NBT destinations. For example, Hakuba in Nagano and Niseko in Hokkaido, two premier ski resorts located respectively in national or quasi-national parks, have both experienced a recent recovery in visitation mainly due to an increase of inbounds (Aoyama, 2015). Such findings all underline the rapid growth trend in inbound NBT and suggest a significantly larger share than the 0.6 per cent estimated by the MOE.

DISCUSSION

Despite consensus on the need for a better understanding of NBT trends to mitigate impacts and prioritize management strategies, protected area



A traditional Irori fireplace inside Kamonji Goya, the oldest hut in the Kamikochi valley © Shinnosuke Hiramatsu

visitation data remains inconsistent or unreliable (Hornback & Eagles, 1999; Eagles, 2014). Such methodological shortfalls encourage expectations of under-reporting or 'guesstimates' that undermine the validity of monitoring efforts and could even jeopardize NBT's claim to rank among the fastest growing tourism segments. This paper has demonstrated how mixed messages may emerge from monitoring domestic and international visitor trends at national and local levels.

Japan's national park visitation was selected as a multi-agency dataset which, although conceding some horizontal unreliability, has shown longitudinal consistency from 1950 to 2013. Aggregated data is drawn from four sources (Table 1) and updated annually by the MOE. National park trends show a 20 per cent decline in 2012 visitation compared to the 1991 peak (Fig. 1). The root cause remains uncertain, but is linked to a complex combination of socio-economic and demographic factors somewhat akin to the USA, where per capita NBT participation is said to be in decline due to structural change in socio-demographics (Ghimire et al., 2014; Stevens et al. 2014). Prior research used Japan's national park data to support such claims from the USA that NBT has peaked and entered a state of decline (Pergams & Zaradic, 2007). This was attributed to shifting trends in recreational demands and the emergence of 'videophilia'⁸

which has in turn been used to corroborate speculation of a 'nature-deficit disorder' whereby young people's connection with nature is being eroded (Louv, 2005). However, several articles refuted the alleged decline using thematically or geographically expanded visitor datasets, including one drawn from 280 protected areas in 20 countries worldwide (Jacobs & Manfredi, 2008; Buckley, 2009a; Balmford et al., 2009). In Japan, NBT demand has been transformed by changes in domestic travel patterns, and there is some evidence for reduced demand due to 'substitution' of international destinations for domestic ones, and a decline in winter sports. However, the findings of this paper echo those of Cordell (2008) in providing contextual evidence of a diversification in Japanese NBT rather than mere shrinkage.

Within this increasingly heterogeneous visitor spectrum, the reversal in fortunes of the international segment symbolizes that diversification, with a renewed policy-focus on 'inbounds' since 1996 (Soshiroda, 2005). The number of international arrivals to Japan increased from 3.8 million (2003) to 8.3 million (2008), then 13.4 million (2014), in line with the national policy emphasis on promotion of inbound tourism in the run-up to the 2020 Olympics. The current increase also reflects macro-economic factors such as the weak yen-dollar exchange

rate, effectively at its lowest level since 1973, making Japanese goods and services comparatively cheaper (Fukao, 2014). Aside from an absolute increase in the number and breadth of nationalities, inbounds are diversifying geographically away from urban hubs to visit more NBT destinations such as national parks. Utilizing JTA data, the MOE began to estimate inbound visits to national parks in 2012, and 2013 results reveal an annualized increase of 28 per cent (Table 1). Although this represents just 0.6 per cent of aggregated park visitation, our case study from the Japan Alps suggests that inbounds may in reality account for a significantly larger share. The number of international guests staying at Hotel N in Kamikochi increased 3.9 times between 2007 and 2014, and the share of international overnight stays in the valley increased from 2.5 per cent in 2013 to 4.5 per cent in 2014 (MCTD, 2015). These findings provide contextual evidence of the rapid diversification process, underlining the rapid growth in inbound NBT that could help offset the 38 per cent decline in overall visitation and 59 per cent decline in overnight stays reported at Kamikochi during the past two decades.

Keeping track of such changes in visitor demand is fundamental to effective protected area management, and these results justify recent initiatives by national and local government agencies to monitor inbounds, one of the principal – but underreported – growth segments for Japanese NBT. However, forecasting future inbound trends remains problematic due to hurdles that range from geo-political spats and faltering international relations to macro-economic conditions and natural disasters. For example in 2011, the numbers of inbounds declined rapidly following the tsunami and subsequent fears of radiation, with a year-on-year drop of 70 per cent at Hotel N. One way to improve forecasting and longitudinal validity of inbound data could be to increase the scope of monitoring. For example, MOE's opportunistic use of tourism data collected by JTA could be expanded further to report the economic impact of inbound NBT segments, which include potentially desirable niche markets such as wealthy, repeater 'ecotourists' from neighbouring countries. Such economic impact data could assist budget justification in the current climate of market-oriented conservation (Pascual & Perrings, 2007), and as JTA survey data already contains socio-economic variables such as nationality, gender, age, more detailed analysis of inbound NBT should be feasible. The current dearth of economic impact monitoring in national parks in Japan (and elsewhere) stands in stark contrast to the concerted efforts that have been made to develop internationally-recognised tourism satellite accounting procedures (Eagles, 2014).

Park planning could also be improved if quantitative data was backed up with qualitative insights into visitor experience and attitudes. In the USA, the National Survey on Recreation and the Environment (NSRE) has been monitoring recreational activities, environmental attitudes and values since the 1980s to provide a more holistic portrayal of NBT (Cordell, 2008). An equivalent profiling system in Japan could form the basis of a NBT marketing strategy, as there are currently few holistic attempts to promote the parks to an international audience (Jones, 2014). A better understanding of inbounds would also assist targeted management interventions, such as multilingual trail signs. Service provision could be tailored to meet the needs of inbounds, whose younger average age, coupled with different underlying beliefs, expectations, and values results in behavioural patterns that differ significantly from those of their domestic counterparts (McDonald & McAvoy, 1997). Language and cultural barriers make multilingual explanations of local customs and rules invaluable. Monitoring is thus a step on the way to mitigating constraints to inbound NBT, such as those 'related to personal safety, language, money, time and transport' (Ghimire et al., 2014). Cross-cutting data could also pave the way for more holistic management. Via more opportunistic use of inbound visitation data, such as the method pioneered by the MOE, new growth segments could be used to revitalize stagnant or shrinking markets. For example, the winter sports sector has already begun to benefit from an influx of international skiers and snowboarders to help offset the post-bubble domestic decline (Kureha, 2008; Aoyama, 2015). Inbounds may also visit parks during off-peak seasons, helping reduce the chronic spatial and temporal congestion of domestic visitors (Jones, 2014). These results hint at the potential of inbounds to contribute to the revitalization of NBT, by countering the current downturn in visitation and encouraging park planning based on long term trend records (Cope et al., 2000).

Finally, this paper acknowledges certain methodological limitations, including the two year lag between data collection and reporting. The time gap reflects the multi-agency composition of the monitoring system, which may represent its greatest challenge due to discrepancies in collection methods that undermine the validity of intra-site comparison and makes it difficult to break down the aggregated totals. Scaling up local trends to generate total visitation in this way can lead to mixed messages and create confusion over the direction of growth trends, as this paper has demonstrated using empirical evidence from Kamikochi. Despite this limitation, and the lack of a more stringent exclusion criteria for NBT, Japan's park data offers a 65 year snapshot of trends that offers a



A trail sign points the way to Mt. Yari (3,180 m) at the head of the Kamikochi valley © Thomas Jones

useful benchmark. It could be incrementally supplemented with targeted indicators that gauge trends in emerging segments such as inbound visitors. In fact, monitoring of inbounds has already begun at the national level since 2012, and the local level (in Kamikochi) since 2013, but it remains to be seen how the new data collected by separate agencies could be integrated and incorporated into aggregated visit data to improve the overall validity.

In conclusion, this paper utilized long-term visit data from Japan's national parks to contribute the debate over improved visitor monitoring. A twin-segment, multiple-scale case study demonstrated how the decline in Japanese NBT is being overstated by current methods of monitoring. Managers are aware of the increasingly heterogeneous visitor spectrum, and taking steps to track diversifying visit trends. Findings underline the importance of targeted monitoring of segments due to changes in NBT demand. Future research will seek to provide practical, site-specific examples of visitor monitoring that can slip between the cracks of academic and applied research since it 'is regarded as something of a luxury and is a lower priority than many other [park management] functions' (Cope et al., 2000). Efforts will also be made to investigate the effects of interrelated socio-economic variables, such as fluctuations in population and economic growth, on the aggregated number of national park visits.

ENDNOTES

¹ Also other US land tenures such as National Forest visits since 1990 (Buckley, 2009b).

² Reliability is questionable because the count method varies from prefecture to prefecture, with some using multipliers and others extrapolating from entrance figures to core facilities such as Visitor Centres (Interview with MOE on 20 May 2014).

³ However, the proportion of inbound travellers is disputed – for example in 2010, of 8.7 million international visitors to the country only 6.5 million were estimated to be tourists (Uzama, 2012).

⁴ The sample excludes transit visitors, tour guides and long-term visitors staying for a year or more.

⁵ Kanto includes seven prefectures around the Greater Tokyo Area. Sapporo is the capital city of Hokkaido, the northernmost of Japan's four main islands.

⁶ National parks which recorded <10,000 inbound visitors in FY2013 were excluded.

⁷ Counted as 45 visits per bus; 35 per shuttle bus; 3 per taxi. However, Hagiwara et al. (2001) claim that this figure inflates the actual number of visits by approximately 30 per cent based on independent testing of official data using video stills.

⁸ Pergams and Zaradic (2006) define videophilia as 'a preference for virtual reality over nature.'

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RESUMEN

Se dice que el turismo basado en la naturaleza (NBT), incluyendo la afluencia de visitantes a las áreas protegidas como los parques nacionales, se encuentra entre los segmentos del sector turístico de más rápido crecimiento. Sin embargo, las estadísticas sobre las visitas a las áreas protegidas pueden ser inexactas o poco fiables, dando lugar a mensajes mixtos cuando se extrapolan las tendencias a nivel nacional. Este artículo examina uno de esos casos en el que se utiliza evidencia empírica para investigar la disminución reportada en las visitas a los parques nacionales de Japón. En primer lugar, las tendencias en términos de visitantes nacionales e internacionales se examinan a nivel nacional. Luego, se introduce el estudio de caso de Kamikochi en los Alpes de Japón para evaluar las dificultades para realizar un seguimiento de los nuevos segmentos del NBT, caracterizados aquí por los flujos de entrada de visitantes. Los resultados sugieren que los métodos de seguimiento actuales son insuficientes para evaluar la diversificación de los visitantes, lo que

resulta en segmentos reportados de menos, tales como los flujos de entrada de visitantes, cuyos perfiles y comportamiento difieren del NBT interno convencional. Sin embargo, el Ministerio de Medio Ambiente, que administra los parques nacionales de Japón, es consciente del espectro de visitantes cada vez más heterogéneo, y está tomando medidas para evaluar la evolución de la diversa gama de variables que configuran la afluencia de visitantes mediante el análisis de los visitantes nacionales e internacionales a nivel nacional y local. Este planteamiento basado en dos segmentos utiliza estudios de casos de múltiples escalas para revisar el debate sobre la mejora de los datos de visita. Las lecciones aprendidas en torno a las tendencias de la visita a los parques nacionales de Japón subrayan la importancia del seguimiento preciso de los segmentos debido a cambios en la demanda de NBT.

RÉSUMÉ

Le tourisme basé sur la nature, y compris les visites des aires protégées tels les parcs nationaux, compte parmi les secteurs les plus dynamiques de l'économie touristique. Cependant les statistiques de fréquentation des aires protégées sont souvent inexactes ou peu réalistes, créant ainsi des confusions lors de l'extrapolation des tendances à l'échelle nationale. Le présent article examine l'un de ces cas à la lumière de preuves empiriques, en analysant la chute du nombre de visites des parcs nationaux du Japon. Tout d'abord, les tendances de fréquentation nationale et internationale sont étudiées à l'échelle du pays. Ensuite est présentée l'étude du cas de Kamikochi dans les Alpes japonaises afin d'évaluer les défis posés par l'émergence du tourisme basé sur la nature, en particulier par les visites en provenance de l'étranger. Nous constatons ainsi que les méthodes actuelles de recensement ne sont pas encore suffisantes pour appréhender la diversité des visiteurs, entraînant ainsi une sous-évaluation de certains segments tels les visiteurs étrangers, dont le profil et le comportement diffèrent de ceux présentés par le tourisme basé sur la nature national et conventionnel. Cependant, le Ministère de l'Environnement qui régit les parcs nationaux au Japon et est conscient de l'éventail de visiteurs de plus en plus hétérogène, met en place des mesures de suivi des différents types de fréquentation à l'échelle nationale et locale à l'échelle nationale et locale, via l'analyse de la provenance des visiteurs (nationale ou internationale). Cette étude bi-segmentaire se réfère à des études de cas multiples afin de réévaluer le débat portant sur l'amélioration de l'évaluation des visites. Les leçons tirées de l'analyse des visites des parcs nationaux japonais soulignent l'importance d'un suivi ciblé, en phase avec les évolutions du marché du tourisme basé sur la nature.