Keeping it pure: could New Zealand be an eco paradise?

Ian Yeoman, Marcela Palomino-Schalscha and Una McMahon-Beattie

Abstract

Purpose – The world is changing and key change agents include climate change and scarcity of resources. The purpose of this paper is to address how New Zealand and tourism could address the future and generate appropriate strategic responses.

Design/methodology/approach – Using the process of scenario analysis and drawing upon recent research from the www.tourism2050.com project, this paper describes the circumstances, drivers, economic consequences and key decisions that New Zealand would have to take in order to position itself as an eco paradise. The background to the scenario presumes overarching behaviours in a cooperative world in which resources are scarce.

Findings – The scenario portrays a future of collective individualism, where a high degree of personal freedom exists but within the constraints of a world in which there is a scarcity of resources. A communitarian ethos drives policy making with an emphasis on efficient resource use and waste minimisation. New Zealand is a nation favoured by climate change. Environmental intellectual property is one of the nation’s key resources and in the spirit of achieving a global environmental equilibrium these technologies are shared with the rest of the world. Life is simple. Competitive individualism is equated with excess and resource waste, while cooperation, harmony, and the continuation of a global cooperative psyche are seen as the foundation stones of the continued, relatively comfortable survival of humanity. Tourism is a luxury and activities are environmentally ethical. Visitors are well-off, purposeful, highly respectful and careful to prove their worth.

Originality/value – Eco paradise represents the classic tale of a prisoner’s dilemma in which decision makers and consumers ponder the betterment of humankind against individualism. The scenario concludes with a strategic map of the core decisions New Zealand’s tourism industry would have to take. The significance of the paper is its portrayal of a possible future to industry leaders, researchers and stakeholders thereby facilitating decision making in order to adapt to this future.

Keywords Sustainability, New Zealand, Trends, Scenario planning, Eco tourism

Paper type Research paper

Introduction – tourism in New Zealand today

Paradise is a religious term for a place in existence that is positive, harmonious and timeless. So, could New Zealand be an eco paradise? Its “natural unspoiled beauty” (McClure, 2004), has been the main reason to come for those visiting the country since the later half of the nineteenth century. The very first significant attractions were hot springs and the magnificent Pink and White Terraces (later destroyed in 1886 by a volcanic eruption) around Rotorua. By the 1890s tourists enjoyed spas and thermal areas around the country, did hiking in the Milford Sounds, Mt Cook and Tasman Glaciers, visited Waitomo Glowworm Caves, were taken by steamer on the Whanganui river and engaged in sporting activities including hunting and fishing. Today, in general, tourists consider that the main reason for coming to New Zealand is its beautiful landscapes, its people, and visiting family (Hall, 2010). Indeed, a survey conducted in 2008 demonstrated that natural attractions are the main reason why international tourists visit the country (Ministry of Economic Development, 2012).
Considered by some as one component of a broader national branding strategy to project the country as a unique and innovative place to visit, live and invest in, the 100% Pure New Zealand campaign is considered to be a "natural extension and elegant expression for the clean and green space that New Zealand had long occupied in the minds of global consumers" (Bose and Muthukumar, 2011, p. 4). Thus it constructs a national image aligned with New Zealand resources, consumer demands and expectations, and one which is also adaptable to target specific segments of the diverse global market. Portraying New Zealand as a young, beautiful and clean country, the idea of “purity” is mainly applied to the natural environment, represented as pristine, undiluted and de-humanised, but also to other elements such as Maori culture and hospitality, and locally produced food and wine. However, as Bose and Muthukumar (2011) point out, 100% Pure New Zealand is a brand with problems because of the country's environmental issues. The issues were highlighted in a report “Beyond Rio” (Howe, 2012) by the global conservation organisation World Wildlife Fund (WWF), stating “Aotearoa, the land of the long white cloud, is now a land of polluted rivers and lakes, rising greenhouse gas emissions, pressured marine ecosystems and disappearing bird and mammal species”.

Can New Zealand be an eco paradise?

This paper portrays a scenario in which a paradise is achieved based upon a cooperative world where resources are scare. However, in order to deliver an eco paradise, sacrifices have to be made which involve changes in behaviour and new policy directions. This is a scenario that fundamentally follows an environmental prisoner's dilemma approach (Clemons and Schimmelbusch, 2007) in which the circumstances and the actions stakeholders take to address the issue of climate change are presented. One of the dilemmas for tourism is the economic trade-off modelled in the scenario. Eco paradise is a scenario that discusses New Zealand's future relationship with the environment and presents a possible tourism industry response. The scenario is part of a wider study that examined a range of scenarios about the future of tourism in New Zealand and possible strategic responses. Further details of the wider study can be found at www.tourism2050.com or Yeoman and McMahon-Beattie (2014) “New Zealand tourism: which direction does it take?”

The future of resources

Perhaps one of the most important questions of the twenty-first century is how, against the omnipresent threat of climate catastrophe, the world will provide sustainable forms of energy, food and other resources to meet the demands of a growing global population that, by 2050, is expected to consume nearly double the amount of renewable and non-renewable resources it did in 2010 (Yeoman, 2012a, b). This is a world that saw 23 million tourists take an international holiday in 1950, and such holidays are forecasted to grow to 4.7 billion by 2050 (Yeoman, 2012a, b). Is such a forecast sustainable? As Krautkraemer (2005) points out, the past two centuries have seen unprecedented growth in human population and economic wellbeing for a good portion of the world population. This growth has been equalled by unprecedented natural resource consumption and environmental impacts, such as the conversion of large portions of the natural world to human use. This has prompted recurring concern about whether the world's natural resource base is capable of sustaining such growth. The challenge of growing competition for resources is likely to be met by more efficient exploitation of existing resources, an evolution in consumer behaviour and attitude and increased use of alternative sources of energy and nutrition. However, due to the uneven distribution of vital resources and the sheer extent of global competition, some regions will likely face resource shortages in years ahead.

Yeoman (2012a, b) notes that demand for energy is to increase significantly within the rapidly emerging economies of India, China and elsewhere as infrastructure is expanded, energy-hungry industries continue to grow and as the emerging middle classes become heavier users of energy (through increased transport demands, in-home energy consumption, air travel, etc.). According to the International Energy Agency (2010), energy demand between 2007 and 2030 is projected to grow, on average, by 1.5 percent a year on a global basis. The Food and Agriculture Organisation (2012) of the United Nations forecasts that global food consumption will nearly
double between 2010 and 2050. A key driver behind food demand is the fact that millions of peoples’ diets across the developing world are changing. As their incomes improve, wealthier cohorts in Asia, Latin America and Africa are adopting new diets (richer in salt, sugar and fat) that increasingly resemble diets enjoyed by consumers in more advanced economies. Water demand has increased substantially in recent decades, with annual water “withdrawals” tripling between 1960 and 2010. This has been driven by a number of factors, including rising populations, the growth of water-hungry urban areas and, importantly, the rise of large-scale irrigation. Water withdrawals are predicted to increase by 50 percent between 2010 and 2025 in developing countries, and 18 percent in developed countries. Food and fuel price inflation can also potentially contribute to societal and international instability; indeed, price rises were a contributory economic factor driving dissent during the so-called “Arab Spring/Summer” in 2011 and it is likely that conflicts over resources will become more prominent in future. Could as-yet untapped oil reserves in the Arctic prove a flashpoint in the years to come (Yeoman, 2012a, b)?

While exponential growth can be expected to lead to resource scarcity, human creativity can ameliorate increased scarcity. Humans have been quite adept at finding solutions to the problem of scarce natural resources including: finding more abundant substitutes for various natural resources; exploration for and discovery of new reserves; recovery and recycling of materials; and perhaps most importantly, the development of new technologies that economise on scarce natural resources or that allow the use of resources that were previously uneconomical. So, is humankind adept at facing the challenge of peak oil prices, reduced food supply and increasing climate change?

Individuals are generally not good at making decisions that require that they trade-off uncertain future benefits against certain and immediate costs. It is even more difficult to coordinate the decisions of large groups when asking them to accept immediate and certain costs in order to gain future and uncertain benefits. Furthermore governments, made up of elected officials, find it difficult to coordinate long-term policies (Clemens and Schimmelpusch, 2007). This is a dilemma, or prisoner’s dilemma, in which two individuals might not cooperate, even if it appears that it is in their best interests to do so. Central to the environmental prisoner’s dilemma is the mistrust of nations and the thorny question of who pays for climate change. In Collapse, Jared Diamond (2005) reviews the frightening examples drawn from numerous societies that were unable to avoid environmental disaster. For example, Diamond (2005, p. 254) asks, “What were the Easter Islanders thinking when they cut down the last tree, ensuring that they could neither fish nor trade with other Polynesian islands for resources they required?” Did they expect scientists to find hidden reserves of other trees, or to invent tree substitutes? Will future generations ask what we were thinking when we ignored the current evidence of climate change and allowed the polar ice caps to melt?

New Zealand, environmental policy and challenges

New Zealand’s protected lands are founded on the basis of legislative framework, sustainable management and the protection of government departments. The Department of Conversation is the primary body responsible for the conservation of New Zealand’s natural and historic heritage including the management of 14 national parks (Dredge and Jenkins, 2007). Historically, the idea of managing of the conservation estate was developed from two contrasting philosophies to nature conservation. Dredge and Jenkins (2007, p. 343) note that, on one hand, wild land was seen, “[...] as barren and sterile until modified for utilitarian use or served with facilities for tourism and recreation. The other [philosophy] values nature for its intrinsic use. The Department of Conservation acknowledges that New Zealand’s earliest attempts to legislate for the protection of natural resources reflected this philosophical ambivalence.”

The development of New Zealand’s national parks dates from 1887 and the anthropocentric philosophy is evident in the National Parks Act of 1952, which states that the country will:

Preserve in perpetuity [...] for the enjoyment of the public, areas of New Zealand that contain scenery of such distinctive qualities or nature features so beautiful or unique that their preservation is in the national interest (cited by Department of Conservation, 2014).

The National Parks Act 1980 succeeded that of 1952, and sections 4 (2) outlines the specific purposes and responsibilities including protection of indigenous species of plant and animal,
archaeological and historic sites conservation. Water, soil and forest resources in national parks are to be maintained and freedom of access is conditional on safeguarding the distinctive qualities of National Parks (Dredge and Jenkins, 2007). Thus the National Parks Act is a balancing act between the need to protect the distinctive character of conservation lands with public access and enjoyment. A further change to the act under the Conservation Act 1987 states that “[…] to the extent that any use of any natural or historic resource for recreation or tourism is not consistent with its conservation, to foster the use of natural and historic resources for recreation and to allow their use for tourism” (Department of Conservation, 2014).

From a policy instrument perspective, the Resource Management Act 1991 (Parliamentary Counsel Office, 2014) primary purpose is the promotion of sustainable management and physical resources that establishes a comprehensive framework for land use, planning and resource management. The essence of the Act covers: stewardship, efficient use and development of natural and physical resources; energy efficiency; maintenance and enhancement of environmental quality and amenity values; the intrinsic values of ecosystems; protection of trout and salmon habitat; the effects of climate change and the benefits of renewable energy. However, as Connell et al. (2009) has noted, the conflicts of environment versus economics are alive in New Zealand and are reported by Howe (2012) as:

- Increased pollution in lakes and rivers, including 43 per cent of monitored lakes in New Zealand now classed as polluted with an estimated 18,000-34,000 people annually catching waterborne diseases.
- More than 60 per cent of native freshwater fish as well as the only freshwater crayfish and mussel species are now threatened with extinction.
- Seven of New Zealand’s ten official “indicator species” for measuring biodiversity status are threatened. The Kokako, for example, has suffered a 90 per cent contraction in its range since the 1970s.
- Iconic species such as Maui’s dolphins and New Zealand sea lions are listed as “nationally critical”. Only an estimated 55 Maui’s over the age of one year remain and New Zealand sea lion pup numbers have halved over the past 12 years at their main breeding area in the Auckland Islands.
- Almost two-thirds of New Zealand’s seabird species are listed as threatened with extinction. The main threats to seabirds are predation by introduced mammals, fishing methods and human disturbance.
- New Zealand’s gross emissions have risen by 20 percent since 1992, due to increased pollution from energy, transport, agriculture and industry sectors. Even with our weakened Emissions Trading Scheme, emissions are projected to continue to rise.

International perception

Tourism and geographical imaginaries of New Zealand as a nature wonderland, crystalized in and capitalized by, the 100% Pure New Zealand campaign, articulate elements of paradise and utopian discourses. Built around earlier and current historical imaginaries, New Zealand’s clean and green image portray the country as a (tourism) paradise, combining remoteness, beauty, pristine environments, uniqueness, relaxed pace and abundance, all attributes identified by Costa (1998) as key components of paradise tourism discourses. But clean and green New Zealand not only strongly influences tourism. Bell (1996) has demonstrated that it is also a crucial element of New Zealand national identity, based on the centrality of nature and strongly embedded into the “national consciousness” (p. 53).

Most recently the world’s media has focused on 100% Pure New Zealand and the falseness of the clean and green image as a result of reports which undermine the brand and the position of New Zealand tourism (Yeoman, 2012a, b). The Guardian newspaper (Bose and Muthukumar, 2011) has published articles challenging the country’s “purity” due to its environmental pollution levels and because it has gone back on climate change control. The Economist (Bose and Muthukumar, 2011), has also published similar information, asserting that the country is actually “dirtier” than the 100% Pure New Zealand campaign suggests.
Coyle and Fairweather (2005) have noted that there is a more complex reality of water and land pollution, urban growth, ecological degradation and ongoing environmental conflicts. The imaginary of a clean and green New Zealand is “not so much a part of everyday life but a temporally distant Utopian space” (p. 155). Thus, clean and green is a utopian imaginary located in the historical past, in the future or virtual, or in transcendent spaces such as glossy advertisings. As they put it, it is an ideal imaginary “that once was, and one that we should be aiming for” (p. 152), rather than a current situation that permeates and co-constructs the realities of New Zealanders and tourists alike.

Is there a paradise?

Paradises and Utopias

Tourism is first and foremost an activity about difference and encounter, and its influence in the representation of places and societies is crucial (Morgan et al., 2002; Sheller and Urry, 2004). In geography, the notion of “geographical imagination” refers precisely to the ways in which we represent and imagine the world, places and people (Massey, 1995) and the increasing role of tourism in shaping these imaginaries has been stressed (Mowforth and Munt, 1998). Appealing representations of different parts of the world is at the heart of tourism. Salazar (2012, p. 863) has even argued that “it is hard to imagine tourism without the creative use of seductive as well as restrictive imaginaries about peoples and places”. For him these imaginaries are socially constructed representations used to make sense of experiences that at the same time influence the creation and transformation of the world in discursive and material terms. Thus “tourism imaginaries” are complex trans-local processes that involve elements of otherness, exoticism, essentialism, colonial and historical legacies and (often uneven) power relations (Salazar, 2012). As Morgan and Pritchard (1998) have asserted, a certain tourism imaginary “reveals as much about the power relations underpinning its construction, as it does about the specific tourism product or country it promotes [...].” They are powerful images which reinforce particular ways of seeing the world”. Two key terms that mobilise much of tourism imaginaries, in particular in the case of New Zealand, are “paradise” and “utopia”.

The meaning of paradise is not universal and varies within different cultural or religious contexts. In the western world, notions of paradise often refer to heaven or to an ideal or perfect place on earth (Chiu, 2009). Costa (1998) suggests that it was first used by Homer, and later by other Greek and Roman writers since approximately 3,000 years ago. They described paradise as a place of isolation, abundance and difference. Later, the Judeo-Christian tradition included conceptualisations of heaven and the Garden of Eden to the concept of paradise. During the European Age of Discovery, paradise was related to the exotic and primitive, including the notion of the noble savage. In contemporary times, paradise is commonly understood as heaven outside the earthly domain while also acknowledging that paradise-like places exist on earth. These places are usually characterised as unusual places of abundance, where obligations are suspended and hardships do not exist. Therefore, current western “paradisal discourses”, as Costa calls them, carry elements from all these historical times (Costa, 1998, p. 317).

Tourism marketing often taps into images and concepts of paradise to appeal to tourists desires to escape from the everyday (Bleasdale, 2006). The marketing of certain tourist destinations, then, involve historically and culturally embedded paradisal discourses. According to Costa (1998, p. 304), these discourses suggest “a particular type of ideal state-both geographical and psychological-which an individual may desire to experience or consume”. These paradisal tourism discourses, he states, include qualities such as beauty, copious environments, warm climate, relaxed pace, exotic, isolated, abundance, unspoiled, sexuality, leisure, unusual and different. Tourism destinations commonly associated with “paradise” are Hawaii, the Caribbean Islands, Bali, Malta, the Maldives, Tasmania, New Zealand, and areas of Latin America such as Costa Rica or Cancún in Mexico (Mowforth et al., 2008; Brown, 2009). However, tourism constructions of places as a “paradise” have not been free of contestation as the case of Bali illustrates. Once renowned for its remoteness, exotic culture and pristine environment, the explosion of the tourism industry has led to overcrowding, extreme commercialisation,
environmental degradation, and over exploitation of many of its attractions. These challenge not only its “paradisal” characteristics but also its future touristic appeal (Mowforth and Munt, 1998).

Utopia is a contentious and contradictory term, with a strong spatial component. It has been described as a perfect, good, happy place (eutopia), or as “no place” (autopia) that does not exist and maybe will never exist (Brown, 2009). Utopias generally represent both a critique and a proposal. Embedded in the context of their contemporary conditions, they entail a critique to current society and an ideal that provide tools to “measure” it, inspiring a quest for the construction of a better alternative (Hedrén and Linnér, 2009). Therefore, utopias offer an alternative for a good, or at least relatively “better” place, “what should or could be”. This better place or situation is often located in the past, in which case utopias rely in a certain sense of nostalgia (for childhood, a previous golden age or rural idyll), or it is seen as a state of becoming (Coyle and Fairweather, 2005). It has been suggested that to explore the desires and ethical underpinnings of utopias, it is important to look at what aspects of society are being repressed, controlled or erased in proposed utopian alternatives (Levitas, 1990).

The term utopia has been avoided or even rejected by advocates of alternative ideas of society and places because it is often associated with unrealistic and unachievable ideals, making them appear as naïve and impossible. However, some have argued that actually one of the most productive functions of utopias is the challenge they pose to current understanding of the possible and the impossible, often expanding the space of the possible with an intention of radical change (Pinder, 2002) and the sense of the “not yet” (Kraftl, 2007). Thus, utopias can be imagined as an end goal, or a settled and comforting endpoint situation where conflict and severe problems do not exist anymore. They can be seen as minimal (Hedrén and Linnér, 2009), or as on-going (and performed) processes of becoming, that is, a journey towards an aspired set of conditions continuously being (re)produced (Brown, 2009).

Like notions of paradise, utopias have also shaped tourism imaginations and practices. The search for a utopian, perfect place through tourism motivates many tourists, and is capitalised by the tourism marketing that selectively manipulates or silences certain images and realities in order to fit these idealised places. However, utopias associated with tourism can have also material consequences (Echtner, 2010) to the strong intervention of places to make them fit tourism imaginaries. Connell (2003, p. 573) has suggested that certain tourism destinations are “pervasively utopian places in which to construct social and spatial ideologies, reconfiguring landscapes and people”. For instance, Cancún, one of the most popular destinations in the coasts of Mexico, is a case of “planned utopia” or a tourism destination featuring a high level of government planning and control, that despite utopian rhetoric, resulted in a range of unplanned impacts (Connell, 2003).

Understanding the future

Can the world co-operative in order to deal with the issues of climate change, scarcity of resources and peak oil prices, etc. for the betterment of humankind? If so, what will that co-operation look like? If we could paint a picture about that future, what would it mean for tourism? These are some of the central discussion areas of this paper. For New Zealand, one possible position is to create an eco paradise as the country has an image of natural resources to export. But the management of those resources in a sustainable manner is important. Furthermore a sustainable approach must extend to all forms of life and behaviours in New Zealand where a community ethos drives policy making and an emphasis is placed on efficient use of resources and waste minimisation.

Scenario planning and tourism

In order to understand the complexity of the future, one approach is scenario planning. Scenario planning is a research technique that has evolved into business sectors from the early 1960s subsequently acquiring increasing academic provenance and practical success by assisting businesses to prepare not simply for one “official future” but a range of possible futures. In the postmodern era which is characterised by uncertainty and contingency, we have increasingly seen scenario thinking and planning being used in the public and private sectors. Facilitating
strategic conversations of diverse stakeholders and embracing the complexity of their multiple perspectives, scenario planning promotes a broader action focused perspective. Lindgren and Bandhold (2009) provide a number of rationales for the success of the scenario planning method. First, by reducing complexity to a finite number of divergent options, scenario planning provides a complexity-reducing framework. Second, the scenario framework offers a means to communicate more efficiently by providing a shared structural framework. Third, the human brain relates easily to a story; that is by matching the way the brain works narrative analysis expands the brain's capacity to process information. And finally, by forcing the mind to think in qualitatively different directions you can train the brain to think the unthinkable.

Yeoman (2012a, b) employs scenario planning across a number of typologies and purposeful uses from prediction, prognosis, science fiction, and utopia (Bergman et al., 2010), in order to illustrate the future of tourism. Yeoman's (2012a, b) book 2050: Tomorrow's Tourism envisions a range of futures to illustrate how the drivers of technology, wealth and resources will shape the future of world tourism. The word “scenario” has many semantic definitions and interpretations. These can be reflective of scientific climate change modelling or econometrics or social sciences perspectives to illustrate tourist behaviour (Yeoman, 2008).

Tourism 2050 project

McPherson (2011), Deputy Secretary at the Ministry of Economic Development and New Zealand's highest ranking tourism public servant, stated that tourism was at a flip point due to the turmoil of uncertainties and challenges of global financial crisis, the price of oil, climate change, shifting markets and a strong dollar. New Zealand is a long haul destination, dependent on oil for international air travel. As oil becomes more expensive and more scare New Zealand will become more expensive and uncompetitive as a long haul holiday destination. In order to address the future, the New Zealand government commissioned a study through the Foundation of Research and Science and Technology, which asked the question “What will New Zealand's tourism industry look like in 2050?”

The scenario planning methodology used in the www.tourism2050.com project drew upon the works of Heijden et al. (2002) and Moriarty (2012). At the core of Heijden's approach is the construction of four scenarios representing plausible futures. Each scenario is shaped by a scenario matrix of drivers. The matrix positions factors relating to uncertainty and impact along each axis and scenarios based upon these factors are created. Added to these speculative elements is a quantitative analysis. Eden and Ackerman (1998), Huff (1990) and Sparrow (1998) note that management thinking is historically anchored in rationality; they contend that decision-making is based on positivist principles. By folding numbers back into the scenarios, more buy in and credibility is attached to the scenarios by policy-makers (Yeoman et al., 2005). For details of the research methodology, readers are referred to Yeoman (2012b) Tourism2050: Scenarios for New Zealand and Moriarty (2012) Tourism2050: Planning for the Future. Both books are downloadable from www.tourism2050.com

Scenario framework

The scenarios are shaped by social political driving forces along a spectrum of reciprocity and rivalry against a background of resource use from scarcity to relative abundance. These driving forces are used to construct four scenarios which represent different pictures of the future. All feasible but shaped by different circumstances and outcomes as seen in Figure 1.

Vertical axis. The vertical axis represents a spectrum of social political forces. The concept of reciprocity is present in many explanations of how social norms are formed and maintained. Reciprocity, in social psychology, refers to “in kind” behaviour of individuals. It seeks to explain the processes by which individuals react to positive actions with positive actions and correspondingly to negative actions with negative actions.

Research undertaken by economists for the MacArthur Foundation (2005) suggests that many people have a tendency to cooperate voluntarily, if treated fairly, and to punish non-cooperators. The authors call this behavioural propensity “strong reciprocity” and show empirically that it can lead to almost universal cooperation in circumstances in which purely self-interested behaviour
would cause a breakdown of cooperation. Rivalry is a facet of an entrepreneurial society characterised by innovation and competition. To others, international conflicts are an example of rivalries as nations adopt strategies to secure resources.

**Horizontal axis.** Relative scarcity refers to the fundamental economic problem of having seemingly unlimited human needs and wants in a world of limited resources. Over the last two centuries we have seen unparalleled growth in human populations and economic wellbeing. This growth, fed by equally unprecedented natural resource consumption and environmental impacts, including conversion of large portions of the natural world to human use, have promoted recurring concern about whether the world’s natural resource base is capable of sustaining such growth. Where there is relative scarcity, society has insufficient resources to fulfill all human wants and needs. At the other end of the resource use driver is relative abundance in which we have a full or completely adequate amount or supply of resources at our disposal. Krautkraemer (2005) concluded that to date technological progress had ameliorated the scarcity of natural resource commodities. In an abundance of resources the problem of limited resources continues to be mediated by new technological or social solutions with equilibrium, in terms of supply and use of resources, having been reached.

**The scenarios**

Four scenarios have being constructed to represent four different pathways and outcomes. Scenario 1, **Manaakitanga** envisages New Zealand as a successful tourism destination as a consequence of the world having relative abundance of resources and behaving in a co-operative manner. Humankind has been successful at addressing many of the issues of past failures in which inefficiency and uncooperative behaviour are heavily penalised. Scenario 2, **An Eco Paradise** positions New Zealand as a paradise of resources driving a land-based, export economy. In 2050, as the world suffers from scarcity of resources, eco paradise is the new luxury and the New Zealand tourism industry benefits. Whereas Scenario 3, **Perfect Storm** raises the question, “at what point does tourism in New Zealand become unsustainable as a consequence of changing economic conditions and how would the tourism industry and government respond?” The scenario portrays continued economic malaise in Europe resulting in a long period of stagnation and incremental decline. As a consequence governments cannot respond
with sufficient capacity to deal with external crisis in a cooperative manner. The final scenario, *The State of China*, New Zealand is a successful tourist destination as a consequence of increased prosperity. This scenario highlights the shifts in international markets from west to east with greater diversity of internationalism. The new consumers of China pursue a postmodern fluid identity in which consumerism is at the core. The core of a fluid identity is that consumers seek novelty, new experiences and samples across a wide variety of activities. This paper focuses on *An Eco Paradise* which is discussed in detail below.

**Eco paradise scenario**

The following vignettes represent short impressionistic scenes that focus on one moment to give an impression about dilemma, idea or object. Eden and Ackerman (1998) use vignettes to present future states in the strategic management literature in which senior management can respond whereas Yeoman (2012a, b) uses vignettes to convey circumstances and events of the future in which participants can engage or grasp key ideas. Sparrow (1998) states that stories are a powerful medium for understanding context allowing immersion into a situation, that draws upon tacit knowledge and episodic memory thus allowing participants in problem solving events personal, recall and associate learning in a more systemic and holistic learning environment. The vignettes represent three interconnecting layers of the world, New Zealand and tourism. Each vignette is summarised with context i.e. trends associated with vignette.

**The world: our sustainable future**

As US President Carolyn Adams said in her 2050 address:

> The landscape, the environment and climate change are the key issues in 2050, just as they were in 2011. Reading the newspapers of the time there were resource shortages in society. In Australia it was water, in Africa it was food and in Asia it was floods. Post Copenhagen and Johannesburg the world couldn’t agree on climate change, short term behaviours prevailed and no one was a winner. Today without doubt as a consequence of rising populations, new middle classes and climate change we face a situation of scarcity of resources. To the extent that when I talk to tourism leader’s access to the environment, the beauty of the landscape and authenticity is the new luxury because of its scarcity. The world has come together to tackle the problem of climate change. I feel that we live in a world of altruistic values, ethical behaviour and cooperation. When I speak to President Lin Deng of China there is a realisation that taking a global perspective is the only way to deal with this situation. The power of the United Nations World Trade Organisation has been paramount. I specifically thank my colleague President Lin Deng for her collaboration on this matter. Without the world working together for the benefit of humankind the situation would have been a lot worse. A sustainable future has meant everything from ISO standards for architecture, personal carbon allowances for travel and severe punishment to those who operate an unsustainable future.

This vignette represents a number of trends in society. These include:

- The world’s middle classes are being squeezed as resources become scarce, price inflation erodes consumers level of disposal income, squeezing disposal income for out of home expenditure i.e. dining, tourism and leisure activities.
- Prioritisation and incentive for resource substitution is driven by entrepreneurship and severe penalties for bad practice. Sustainability is the only business model.
- The environment and natural products are perceived as the new luxury in a crowded, urban and metropolis world.

**New Zealand: the 100% Pure New Zealand Act**

In the 2025 election the issue was New Zealand’s green future. Across the political spectrum the only debate was about the degree of resources and commitment. The elected government’s first piece of legislation was the passing of the 100% Pure New Zealand Act which establishes New Zealand’s low carbon economy based upon a controlled pathway motivated by resource maintenance and economic stability. The Act was necessary given the world’s problems of climate change refugees, wars over food supply, and the post peak oil economy. The Act formulates a number of policy levers and instruments that incentivise a Green Economy for business and consumers, educates for change, accelerates investment in Green technologies, facilitates adoption, and penalises “un-green”
behaviour. New Zealand’s real priority is to protect and develop its resources and land economies which are viewed by most of the world as the new gold. In spite of some dissenting voices, New Zealand has come to realise its only future is this Green pathway to the extent that people talk more about the environment than they do about rugby these days. Green is the kiwi psyche.

This vignette represents a number of trends in society. These include:

- The kiwi psyche is green whether it is government, business, society or the individual. However, in order to attain this position, individual rights have being sacrificed for the collective good through ubiquitous networks.

- New Zealand is a successful nation in a world of scarcity of resources, and is deemed a plentiful society due an abundance of resources that are well managed. The country’s diverse economy is based upon intellectual property, a natural resource base and agriculture products, with a strong knowledge research and development attitude.

- New Zealand has a liberal attitude but strong environmental values which is comparable to Nordic countries. Smallness allows uniqueness and specialisation in a global environment.

**Tourism in New Zealand: first and everlasting**

In order to preserve this eco-paradise the New Zealand Government operates a variable tourism tax for international visitors with a range from $50 to $5,000 per visitor, per day, in order to manage demand. The policy operates in a number of ways; for those tourists involved in community projects and volunteering the tariff is low whereas the top end tourists have a minimum spend per day equating to a high tariff. In addition there are a number of schemes that combine these elements.

The tax, although controversial, is the cornerstone of New Zealand’s sustainable tourism policy. Revenues generated have been reinvested into tourism in order to position the industry as the First and Everlasting Industry of the nation. According to Prime Minister Theo Coy tourism is a significant contributor to our economy. New Zealand is the first country that people across the world think of in terms of where to holiday. Tourism is the first industry in terms of professionalism and career choice. The tourism industry has set the standard for others to follow. Its pursuance of an everlasting strategy in which the guardians of the present have set out to secure the environment has enabled the industry to be one of New Zealand’s sustainable industries. Those guardians have protected our children’s future.

This vignette represents a number of trends in society. These include:

- The impact of climate change globally has being dramatic, but New Zealand is an oasis as climate change here has not been as dramatic as compared to other countries. The environment is temperate and favourable. New Zealand’s “green” credentials and relative abundance of resources make the country popular as a tourism destination compared to “too hot” California or “no snow” Europe.

- New Zealand’s tourism tax for international visitors balances the needs of the environment with economics. This sustainable approach to tourism taxation is off set if tourists undertake a number of community based projects.

- A strong domestic economy is the main driver of tourism growth to 2050.

**Scenario behaviours**

The overarching behaviours in this scenario are shaped by a cooperative world in which resources are scarce. As a consequence the world has moved to a state of collective individualism, where a high degree of personal freedom exists but within the constraints of a world where there is a scarcity of resources. A communitarian ethos drives policy making with an emphasis on efficient resource use and waste minimisation. New Zealand is a nation favoured by climate change. Environmental intellectual property is one of the nation’s key resources and in the spirit of achieving a global environmental equilibrium these technologies are shared with the rest of the world. Life is simple. Competitive individualism is equated with excess and resource waste, while cooperation, harmony, and the continuation of a global cooperative psyche are seen as the foundation stones of continued relatively comfortable survival of
humanity. As a consequence of these behaviours, with the focus on co-operation, climate change and resources, tourism in New Zealand becomes an exclusive experience available only to the few in which activities are environmentally ethical. The typical international visitor is well off, purposeful, highly respectful and careful to prove their worth. Domestically, lifestyle has changed to reflect a concern for the future of humanity, and the big "Overseas Experience" is now a carefully considered and well planned operation. In an increasingly urbanised and technologized world, New Zealand offers the luxury of connection with the great outdoors and relief from the ubiquitous surveillance of the modern city environment. Basically, consumers and tourists think about the planet, are concerned about the environment, and make sacrifices for the common good.

**Economic perspective**

*Constructing a future tourism satellite account*

In order to build a robust story, that key players can have confidence in, quantitative data from New Zealand's 2007 tourism satellite accounts (TSAs), was added to the scenario mix. This quantification modelling of static economic impacts arising from incremental changes in supply or demand for tourism and non-tourism products or industries within New Zealand is a robust mechanism with which high level changes in scenario drivers can be depicted. TSA value added, (VA), outputs, (direct and indirect), provides policy-makers with insights into future economic changes arising from variations in visitor demand, expenditure portfolios and tourism product ratios derived from scenario outputs. This approach provides a guide to resource allocations, (labour, capital, materials), for broad sectors such as Retail, Accommodation, Hospitality, Transportation and Recreation (Moriarty, 2008, 2009).

In a complex and constantly changing world, the limitations of this analysis relate to its static nature which does not automatically equilibrate if changes occur to macro drivers as it assumes that tourism is a small but complex component of New Zealand GDP (~10 percent), and its secondary or feedback effects are smaller and substitutable. It cannot model dynamic interactions throughout the whole economy. The model allows decision-makers to gain a view of how changes in Tourism appear with respect to the overall economy. The modelling for the scenarios accommodates ranges of variables, for example, visitor growth between 1 and 7 percent coupled with price changes of between 5 and 15 percent and expenditure pattern changes, etc. It can be adjusted to conduct simulations that determine the expected outputs of other chosen industries or groups such as it can be used to construct a probable future TSA. The process is further documented in Moriarty (2012) *Tourism 2050: Effective Planning for Tomorrow* in which links to the scenario behaviours are linked, assumptions identified and process of interpretation documented.

**Economic impact**

The eco paradise scenario (see Table I), commenced post global financial crisis and portrayed the state of the world’s economies as confused, struggling for optimism and apprehensive about the future of critical resources. For governments, ample credit provided the consumptive fuel for capitalism and in many cases also fuelled unsustainable social policies. This was to such an extent that sovereign insolvencies were only avoided through reserve-generated credit (printing money). New Zealand had a relatively narrow economic base, founded on the primary sector, and susceptible to international commodity market prices. Post-2007, maintenance of public-sector programs became difficult without recourse to borrowing, and private sector debt was comparable with the egregious examples elsewhere in the world. The Christchurch earthquakes of 2010-2011 resulted in a $30 billion impost on the nation. For tourism, Europeans, Americans and Japanese stayed at home in increasing numbers. New Zealand’s overall visitor nights were stabilised by the Australians, a few more Asians and internal travel. Length of stay had declined to 15 days, (down 22 percent on the base year). Although tourism expenditure increased very slightly, (2.6 percent), the multiplier effects of visitors improved tourism value-added (by 27 percent), through a slightly stronger economy. Tourism’s position had declined 5 percent to become 5.6 percent of GDP. By 2025, a more cooperative world saw a shift towards an egalitarian perspective, the
rise of middle classes in a steady and unspectacular fashion. There was fervent emphasis on efficiency, profound individual responsibility and accountability, and consumption. New Zealand fared better than most in the new world order. Already a relatively egalitarian nation, the world changes suited the psyche of the country and our exports were in demand to support rising new middle classes in the BRICs (Brazil, Russia, India and China). The more cooperative world also fostered progress on the journey towards genuinely multicultural societies and improved internal cohesion, which further strengthened relentless drives for efficiency. Compared with the hey-days of the early 2000s, post 2025 New Zealand was a sober and purposeful country, reflecting on what needed to be done and doing it; a model global nation within a constrained world. The effects of a more cooperative global framework

Table I  Eco paradise – scenario results

<table>
<thead>
<tr>
<th>Factor</th>
<th>Base 2007</th>
<th>Mid (2007-2025)</th>
<th>(Δ%)</th>
<th>End (2026-2040 +)</th>
<th>(Δ%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visitors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia/Oceania</td>
<td>1,066,338</td>
<td>1,287,660</td>
<td>20.8</td>
<td>939,992</td>
<td>−11.8</td>
</tr>
<tr>
<td>Americas</td>
<td>302,625</td>
<td>225,570</td>
<td>−25.5</td>
<td>145,042</td>
<td>−52.1</td>
</tr>
<tr>
<td>Asia</td>
<td>531,559</td>
<td>652,676</td>
<td>4.0</td>
<td>353,713</td>
<td>−33.5</td>
</tr>
<tr>
<td>Europe/Africa/ROW</td>
<td>535,145</td>
<td>326,920</td>
<td>−38.9</td>
<td>104,614</td>
<td>−80.5</td>
</tr>
<tr>
<td>Total international</td>
<td>2,435,668</td>
<td>2,392,826</td>
<td>−13.8</td>
<td>1,543,361</td>
<td>−36.6</td>
</tr>
<tr>
<td>NZ day</td>
<td>29,100,000</td>
<td>38,904,078</td>
<td>33.7</td>
<td>36,988,874</td>
<td>27.0</td>
</tr>
<tr>
<td>NZ overnight</td>
<td>16,051,000</td>
<td>19,825,350</td>
<td>23.5</td>
<td>17,842,815</td>
<td>11.2</td>
</tr>
<tr>
<td>Visitor nights (NZ)</td>
<td>48,153,000</td>
<td>50,221,251</td>
<td>4.3</td>
<td>38,956,449</td>
<td>−19.1</td>
</tr>
<tr>
<td>Visitor nights (Intl)</td>
<td>49,863,212</td>
<td>32,614,425</td>
<td>−34.6</td>
<td>11,394,864</td>
<td>−77.1</td>
</tr>
<tr>
<td>Total visitor nights</td>
<td>98,016,212</td>
<td>82,835,677</td>
<td>−15.5</td>
<td>50,351,313</td>
<td>−48.6</td>
</tr>
<tr>
<td>Expenditures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia/Oceania</td>
<td>$2,670</td>
<td>$2,993</td>
<td>12.1</td>
<td>$1,522</td>
<td>−43.0</td>
</tr>
<tr>
<td>Americas</td>
<td>$1,344</td>
<td>$764</td>
<td>−43.1</td>
<td>$276</td>
<td>−79.5</td>
</tr>
<tr>
<td>Asia</td>
<td>$2,135</td>
<td>$1,963</td>
<td>−8.1</td>
<td>$702</td>
<td>−67.1</td>
</tr>
<tr>
<td>Europe/Africa/ROW</td>
<td>$2,649</td>
<td>$1,128</td>
<td>−57.4</td>
<td>$85</td>
<td>9,680.0</td>
</tr>
<tr>
<td>International</td>
<td>$8,798</td>
<td>$6,849</td>
<td>−22.2</td>
<td>$2,584</td>
<td>−70.6</td>
</tr>
<tr>
<td>NZ day</td>
<td>$2,619</td>
<td>$3,598</td>
<td>37.4</td>
<td>$3,299</td>
<td>26.0</td>
</tr>
<tr>
<td>NZ overnight</td>
<td>$8,668</td>
<td>$10,165</td>
<td>17.3</td>
<td>$8,365</td>
<td>−3.5</td>
</tr>
<tr>
<td>Total expenditures</td>
<td>$20,085</td>
<td>$20,612</td>
<td>2.6</td>
<td>$14,248</td>
<td>−29.1</td>
</tr>
<tr>
<td>Mini-TSA ($M)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Primary sector</td>
<td>$419</td>
<td>$721</td>
<td>72.3</td>
<td>$1,244</td>
<td>197.1</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>$1,502</td>
<td>$2,287</td>
<td>52.3</td>
<td>$3,079</td>
<td>105.1</td>
</tr>
<tr>
<td>Utilities and construction</td>
<td>$876</td>
<td>$1,086</td>
<td>24.0</td>
<td>$1,444</td>
<td>64.9</td>
</tr>
<tr>
<td>wholesaling and retailing</td>
<td>$2,993</td>
<td>$3,730</td>
<td>24.6</td>
<td>$4,939</td>
<td>65.0</td>
</tr>
<tr>
<td>Accommodation</td>
<td>$1,652</td>
<td>$1,921</td>
<td>16.3</td>
<td>$2,031</td>
<td>23.0</td>
</tr>
<tr>
<td>Restaurant and bars</td>
<td>$1,673</td>
<td>$1,961</td>
<td>17.3</td>
<td>$2,227</td>
<td>33.1</td>
</tr>
<tr>
<td>Road and rail transport</td>
<td>$1,609</td>
<td>$2,236</td>
<td>39.0</td>
<td>$2,913</td>
<td>81.1</td>
</tr>
<tr>
<td>Water and air transport</td>
<td>$4,622</td>
<td>$5,785</td>
<td>25.2</td>
<td>$5,765</td>
<td>24.7</td>
</tr>
<tr>
<td>Services to transport</td>
<td>$1,163</td>
<td>$1,505</td>
<td>29.4</td>
<td>$1,879</td>
<td>61.5</td>
</tr>
<tr>
<td>Comms, finance and insurance</td>
<td>$782</td>
<td>$931</td>
<td>19.0</td>
<td>$1,398</td>
<td>78.8</td>
</tr>
<tr>
<td>Vehicle and equipment hire</td>
<td>$485</td>
<td>$657</td>
<td>35.3</td>
<td>$878</td>
<td>81.0</td>
</tr>
<tr>
<td>General services</td>
<td>$1,718</td>
<td>$2,171</td>
<td>26.4</td>
<td>$3,085</td>
<td>79.6</td>
</tr>
<tr>
<td>Libraries, museums and the arts</td>
<td>$110</td>
<td>$133</td>
<td>20.5</td>
<td>$182</td>
<td>64.8</td>
</tr>
<tr>
<td>Sport and recreation</td>
<td>$484</td>
<td>$556</td>
<td>14.9</td>
<td>$691</td>
<td>42.9</td>
</tr>
<tr>
<td>Total</td>
<td>$20,085</td>
<td>$25,680</td>
<td>27.9</td>
<td>$31,755</td>
<td>58.1</td>
</tr>
<tr>
<td>DTVA + Imports + GST</td>
<td>$11,797</td>
<td>$14,755</td>
<td>21.5</td>
<td>$16,665</td>
<td>40.4</td>
</tr>
<tr>
<td>ITVA + Imports + GST</td>
<td>$8,288</td>
<td>$10,926</td>
<td>31.8</td>
<td>$15,190</td>
<td>83.3</td>
</tr>
<tr>
<td>DTVA/Total</td>
<td>59%</td>
<td>57%</td>
<td>−2.2</td>
<td>52%</td>
<td>−11.2</td>
</tr>
<tr>
<td>Tourism % GDP</td>
<td>5.9%</td>
<td>5.6%</td>
<td>−4.6</td>
<td>5.0%</td>
<td>−15.5</td>
</tr>
<tr>
<td>GDP ($M)</td>
<td>$339,491</td>
<td>$454,905</td>
<td>34.0</td>
<td>$635,250</td>
<td>87.1</td>
</tr>
<tr>
<td>Population forecast</td>
<td>4,228,000</td>
<td>4,897,668</td>
<td>15.8</td>
<td>5,545,450</td>
<td>31.2</td>
</tr>
<tr>
<td>GDP ($NZ/capita)</td>
<td>$80,296</td>
<td>$92,882</td>
<td>15.7</td>
<td>$114,553</td>
<td>42.7</td>
</tr>
<tr>
<td>GDP ($US/capita)</td>
<td>$59,130</td>
<td>$68,398</td>
<td>15.7</td>
<td>$84,357</td>
<td>42.7</td>
</tr>
</tbody>
</table>
to arrest resource depletion saw prospects and income decline throughout the world but
growth rose slightly to a consistent level of 1.8 percent. Visitors became more price averse,
(reduced price elasticity). Taxes rose significantly to 22 percent, travel decreased dramatically
by 37 percent and overall visitor nights halved.

A strategic direction

New Zealand is a paradise of resources in a world of scarcity of resources. The central feature of
An Eco Paradise is the realisation that consumers have made sacrifices for the common good.
Consumers realise that to save the planet, behaviours have to change. So, in altruistic fashion,
collective responsibility over rides individual desires. The world is designed in such a manner
that inefficiency is penalised because of the impact on the environment. Consumers live in
a sustainable manner and have made sacrifices to do so. From a tourism perspective, the
scenario raises the costs of change: initially portraying the costs of not addressing the issue of
climate change and subsequently the cost of addressing the issue. In order to provide
a strategic direction of the future, Figure 2 summaries a strategy shaped by the scenario as
follows.

Figure 2 An eco paradise – the strategic direction
Economic vision

In 2050, New Zealand’s tourism industry will be:

- Tourism Industry – New Zealand dollars – 14.3 billion.
- Gross Domestic Product – 5.0 percent Tourism.
- Visitor nights – 50.3 million.

The tourist and market direction

The main markets will be domestic tourists and exclusive international high yielding visitors. Tourists are socially aware, predominately female, educated, and desire access to a natural landscape and isolation. The hotels are sustainable, modern, and novel, offering simple luxury.

Guiding principle

New Zealanders first and everlasting industry – a tourism industry that represents the best of New Zealand, an economic driver of change, first in the terms of professionalism, wealth creation and values. In order to protect the future, the tourism industry adopts an everlasting principle to ensure the future is sustainable and acts as a guardian for future generations.

Tourism strategy

The tourism market is substantially smaller compared to the present base line, with a focus on domestic markets and high yield eco luxury experiences. In order to deliver these markets, the country adopts a range of variable tourism taxes to manage demand and supply, mitigated by community exclusions for community based projects. The country adopts a range of penalties for businesses that operate inefficiently and incentivising sustainable practice. Tourism products focus on luxury eco-tourism experiences and community voluntary projects. The industry compulsory certification scheme produces a smaller, more professional industry.

Risks

This scenario envisages a 29 percent decrease in tourism expenditures compared to the present baseline, therefore representing a notable economic and political risk to decision-makers. Tourism also becomes an exclusive experience shaped by international visitors raising the issue of accessibility to the landscape for New Zealand’s population. Would New Zealanders sacrifice individualism and personal liberty for the collective good, again raising the issue of political risk? Parallel to these risks, can New Zealand afford not to address the issue of climate change in a serious manner. The risks evolve around the trade-offs, short- to medium-term sacrifices that a country would have to take in order to provide an environmentally sustainable future.

Concluding thoughts

The essence of the scenario highlights how in a cooperative world in which resources are scare, the environment and New Zealand’s response are essential. The problems of global warming and long-term climate change are real. The solution is both expensive and technologically complex; it is also both economically and technologically feasible as set out in scenario. However, cooperation is most important aspect of this scenario. At the moment, individuals are generally not good at trading off uncertain future benefits against certain and immediate costs. It is even more difficult to coordinate the decisions of large groups when asking them to accept immediate and certain costs in order to gain future and uncertain benefits. Governments made up of elected officials find it difficult to coordinate long-term policies that produce future and uncertain benefits, but impose costs that might decrease their chances of re-election. No organisations going to undertake large capital investments unilaterally to reduce the environmental damage it causes if its competitors do not; the expense of doing so will damage or destroy the company’s competitive position. Is an eco paradise a utopia? A utopia is an idea society, a good place to be but at the same time a no place as we will never get there (Bergman et al., 2010). The scenario portrays a place with new ways in which the world, New Zealand and
tourism could deal with a future world of scarcity of resources. For political leaders, the scenario represents, as Clemons and Schimmelbusch (2007) note, the Environmental Prisoners Dilemma. It asks if there is value in co-operation for the betterment of humankind and the environment. Does New Zealand (and the world) need to take hard decisions in short term for a better future. This scenario, presents one series of issues, actions and decisions which could be taken. These are:

- The realisation that collective responsibility is necessary to create change in order to tackle the world problem of the environmental and climate change. This realisation can be:
- A cooperative approach ensures that excess and waste are penalised from an environmental perspective.
- New Zealand compared to the rest of the world, has favourable status considering the impact of climate change on other countries.
- The enacting of the 100 percent Pure Act established New Zealand as low carbon economy and “doing the right thing” for the betterment of humankind and the environment thus addressing the short falls of previous legislative frameworks.
- However, the price of environmental success is the erosion of civil liberties which is a contentious issue for New Zealand.
- New Zealand develops intellectual capacity in environmental management and innovation.
- The vision for tourism in New Zealand is First and Everlasting Industry. The vision places tourism as a significant contributor to the economy, supported by a professional workforce, sees New Zealand as a country that is first for work and play, and one which is founded on a sustainable tourism strategy which ensures an everlasting future.
- The use of a variable tourist tax in order to balance demand and the environment.
- The rebalance of tourism in New Zealand as a result of policy changes shift in tourist markets, as tourism is now a more exclusive experience for international markets.

References


Further reading


Corresponding author

Dr Ian Yeoman can be contacted at: ian.yeoman@vuw.ac.nz