Tourism Resilience and Adaptation to Environmental Change
Definitions and Frameworks

Edited by Alan A. Lew and Joseph M. Cheer
In recent years, resilience theory has come to occupy the core of our understanding and management of the adaptive capacity of people and places in complex social and environmental systems. Despite this, tourism scholars have been slow to adopt resilience concepts, at a time when the emergence of new frameworks and applications is pressing.

Drawing on original empirical and theoretical insights in resilience thinking, this book explores how tourism communities and economies respond to environmental changes, both fast (natural hazard disasters) and slow (incremental shifts). It explores how tourism places adapt, change, and sometimes transform (or not) in relation to their environmental context, with an awareness of intersection with societal dynamics and links to political, economic and social drivers of change. Contributions draw on empirical research conducted in a range of international settings, including indigenous communities, to explore the complexity and gradations of environmental change encounters and resilience planning responses in a range of tourism contexts.

As the first book to specifically focus on environmental change from a resilience perspective, this timely and original work makes a critical contribution to tourism studies, tourism management and environmental geography, as well as environmental sciences and development studies.

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Part I

Introduction
1 Environmental change, resilience and tourism
Definitions and frameworks

Alan A. Lew and Joseph M. Cheer

Resilience and environmental change
The repercussions of global warming and changeable weather patterns such as El Niño on many of the world’s coral reefs, as exemplified by Australia’s Great Barrier Reef, demonstrate significant local-level effects of environmental change that are potentially severe for tourism communities (Norström et al., 2016). Indeed, natural hazard disasters are often ‘glocalized’, rather than limited to only one particular locality, as demonstrated in incidences of tsunamis, volcanic eruptions and hurricanes (Uitto, 2016). This renders local adaptive responses inescapably interdependent within global action contexts, with the success or failure of either linked to some degree.

That said, while environmental crises can be catastrophic in their outcomes, they can also present opportunities for change and innovation where feedback loops signal directional potentials, possibly resulting in more effective cooperation and better outcomes, and mitigating the ‘tragedy of the commons’ (Lindahl, Crépin & Schill, 2016). In a sense, this is illustrative of the aims of resilience where the new state condition can at times lead to far more resilient conditions. One of the benefits of a crisis, so long as the change does not lead to permanent destruction, is that tipping points may become obvious, enabling a clearer understanding of the causal mechanisms that generated the crisis situation (SRC, 2015). In identifying such tipping points, communities can ‘self organise and respond’ (Arctic Council, 2016), as well as spur innovation in a kind of creative–destruction manner (Schumpeter, 1943; Holling, 2001).

Adaptive responses that leverage knowledge, experience and innovation are underpinned by policy learning and paradigm changes (Lew, 2014). However, the development of optimal adaptive capacities rests on ‘ensuring that a system is able to accept change and unpredictability, and is designed to be safe to fail, as well as being able to respond to the needs of the most vulnerable’ (Hall, 2018, p.28).

Tourism and the natural environment
The experience of natural environments has probably always been a motivation for leisure, recreation, education and other forms of touristic travel (Meyer-Arendt,
In response, tourism industries have become prominent in places that have the kinds of natural resources that people associate with their travel and tourism needs. Mountains, beaches, islands, and tropical climates are among the many natural features that tourists, and therefore tourism industries, are drawn to, especially when they are all found in the same place. Tourism economies in such places are largely dependent on their natural endowments and are vulnerable to any threats that might damage those resources.

Every tourism place, whether its attractions are nature-based or cultural, are defined by their location in terms that geographers refer to as *site* and *situation* (Lew, Hall & Timothy, 2015). *Site* characteristics are all the natural environmental features that are inherent and intrinsic to the place’s location. This includes the topography of the land and water, as well as types of vegetation and soil, and climate and weather patterns. These offer opportunities for human settlement and development, which includes tourism development where such features meet the touristic interests of visitors. As these are developed, they become new topographic features added to the site characteristics of a place. (Thus, a topographic map not only shows ground elevation, but also vegetation, roads and built-up settlement areas.)

Human settlements tend to be created with an assumption that the site characteristics at the time of their development will remain largely unchanged into the future. In some instances, such as in floodplains, we know through experience that this is not true and we therefore use regulation and engineering to adapt land uses and to manage the potential changes that we can foresee. Unfortunately, it is not always possible to foresee all of the potential changes that nature can bring our way, and, even when potential nature-related hazards are known, there are often insufficient funds to address a community’s vulnerabilities.

While some environmental change may be primarily associated with a site’s characteristics (such as a landslide or the overuse of groundwater), most environmental changes are much broader in scope and origin. This points to the *situation* characteristics of a place, which is defined as the relationships that a place has with other places, as well as with its larger spatial context beyond its immediate site location. Climate change, for example, is driven more by regional and global processes than by local site changes. (Although there also are some local impacts from urban heat islands and air pollution caused by fossil fuel emissions and seasonal air temperature inversions.) Flooding, as mentioned above, is often caused by weather phenomena that are much broader than the individual site that experiences the flooding. However, how that site is naturally endowed and how humans have changed the site can determine whether the flood’s impact reaches disaster proportions.

In their relationship to their environmental site and situation, tourism places are not separate from non-tourism places. They both share similar challenges (and opportunities) from changing environmental conditions. All places experience environmental changes that sometimes occur fast and unexpected, and at other times are slow and almost imperceptible (Lew, 2014). These changes
have the potential to impact all residents and all economic sectors in a place. Some types of environmental changes, however, may impact tourism more than other economic sectors.

Where a tourism economy is built on environmental attractions, there are special concerns. These tourism places are primarily concerned about changes in their natural resource attractions. The biggest threat (or vulnerability) is the inability to bring tourists to the attractions. This can occur from either:

- the loss of access to a natural resource attraction, including the loss of the attraction itself; or
- a loss of access to tourist source areas, so that tourists cannot get to the tourism place.

From the supply side, tourism is an economic activity and both loss scenarios fundamentally impact the financial viability of the industry. Financial concerns serve as the bottom line for most tourism destination decision making because if tourism activities are not economically worthwhile, then it is likely that the tourism system will either completely collapse or transform into a lower-level form, both of which could be considered undesirable states.

Understanding how to maintain tourism activities, and a tourism community’s overall quality of life, at a desirable level is generally what the study of tourism resilience is all about. Resilience is generally defined as how a system responds without succumbing to external drivers pressuring it to change (Folke 2016). Responses include resistance (sometimes referred to as ‘resilience’), adaptation and transformation. Social-ecological resilience theory applies a systems approach understanding to how communities as integrated social and environment entities respond to change. Systems exist in a nested hierarchy of larger systems and smaller subsystems, known as a ‘panarchy’ (Gunderson & Holling, 2002; Allen et al., 2014). A tourism economy, for example, would be a subsystem of a larger local or regional economy. In reality, all systems are subsets of the global world panarchy system. Within this global panarchy, systems may be defined in different ways, depending on the focus of a research question. In addition to the overall tourism economy system of a destination (place or region), some of the key systems that tourism researchers tend to focus on include:

- the system of tourist attractions;
- the system of tourism infrastructure and workforce (which may be further subdivided into accommodations, food, transportation and travel services);
- the system of tourist markets (tourist origins and types of tourists);
- the system of drivers of change that impact the tourism economy (all the above); and
- a tourism community system (the larger community that a tourism economy is a part of).
Each of these defines a different system that is being impacted by different external pressures and is responding in a different way. They are all, however, legitimate topics within the study of tourism resilience.

**Human- and nature-based change**

The focus of this book is on how tourism places respond, adapt, change and sometimes transform (or not) in relation to changes in their environmental context. Sometimes these changes are primarily nature-driven, with tourism places being forced to respond to them. At other times the changes are mostly human-driven under social policies that modify natural environments to better exploit their resource potential. These two scenarios, however, are extremes on a continuum of human–environment interactions that is far less bifurcated than it may sometimes appear. What seems to start out as a human-driven or nature-driven event or process will quickly evolve into a dialectical discourse as mostly human systems respond to natural processes, and, in turn, mostly natural systems respond to human actions.

The world is a social-ecological system in which separations of nature- and human-driven changes are ontologically difficult to make (Wight, 2005). Humans, animals, plants, soils, water bodies and land masses are all open subsystems that interact and influence each other within an all-encompassing global system. Humans influence climate systems, but so does plant and ocean activity. Conversely, climates (as distinct from weather events) influence human settlement by defining the soils and types of organism and animals that are best adapted to an environment. It is important to recognize that these system relationships are deep and complex, even when, from a human perspective, it is more convenient to generalize the sources of change as being human-driven or nature-driven in their character. Disease epidemics, whether impacting humans or animals (e.g. the H5N1 avian bird flu), are an example of a crisis event that is difficult to categorize into simple human or environmental processes.

All three of the scenarios described here (human-driven, nature-driven, and nature–human discourse) are considered in the chapters of this book, through studies of community and tourism resilience responses to shifting environmental contexts. Nature-driven change is primarily seen in chapters related to climate change (which is a slow change process: Chapters 8, 9 and 16) and those discussing preparation and responses to natural hazard disaster events (mostly earthquakes, a very fast change process: Chapters 11, 12, 13 and 14; although Chapters 3 and 6 also cover hazardous weather events). A few chapters address both fast and slow environmental drivers (Chapters 3, 10 and 15).

Discounting the fact that climate change is, by most accounts, largely human-driven in its disaster proportions (Pachauri & Meyer, 2014), other human-caused changes also place significant pressures on natural ecosystems. These are discussed to varying degrees in all the chapters with respect to how humans respond to environmental changes through engineering and social modifications.
However, some chapters have a specific focus on, for example, government and other policies that impact specific natural sites (Chapters 3, 4, 5 and 7) or the impacts of private tourism development and tourists themselves on special environments and communities (Chapters 10 and 16).

Although not explicitly stated by all the authors, all of the chapters in this volume recognize an implicit interrelationship between human and natural realms. Traditional indigenous culture groups, however, have historically demonstrated a closer innate awareness of their integration with their natural environments than is often the case in modern, industrial societies (Lew & Kennedy, 2002). A section of the book, therefore, specifically covers potential resilience responses and lessons from indigenous populations to their changing social-ecological conditions (Chapters 16 and 17).

Fast and slow change

In addition to the issue of human-driven and nature-driven change, a second major variable among the chapters of this book is the intensity and speed of change (Table 1.1). Environmental change can happen very quickly and with great intensity, which is often considered a natural disaster, especially when human interests are impacted. Earthquakes, hurricanes and typhoons, landslides and sinkholes, and forest and grassland fires, are all examples of fast and intense environmental changes (see the natural hazard disaster chapters cited above). On the other hand, natural ecosystems are also continually undergoing slow shifts and changes, in almost imperceptible increments. Climate change has historically been a very slow process, although it appears to have sped up in recent years, at least from a human perspective, due to increasingly visible weather event impacts on human settlements and investments (Folke, 2016). Other slow drivers of change that impact natural ecosystems and human relations to those ecosystems include government policies and programmes (Chapters 3, 4, 5, and 7), economic globalization (Chapters 3, 7 and 9), and broader shifts in the social structure of places (Chapter 3, 9, 16 and 17).

Ultimately, however, what is fast, slow or intermediate in speed is dependent on the time scale against which it is measured (Lew, 2014). While most people will recognize sudden natural hazard disaster events as a fast change phenomena, there may be considerable disagreement on whether climate change and globalization related events are slow, intermediate or fast in nature. For example, the economic transformation of some communities following China’s 2008 Wenchuan Earthquake has itself been a fast event, by many standards (Chapter 11). On the other hand, a fast change earthquake has many other impacts that are only recognized and addressed over a relatively long period. These may include psychological impacts (Chapter 13) and issues related to a community’s spiritual resilience (Chapter 12).
Table 1.1 Major resilience themes of chapters in this book

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<th>Human Driven(^1)</th>
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Notes:
1 Human driven change and Nature driven change describe the initial locus of the driver of change and not the larger pre-event context or subsequent responses of mostly human and natural systems.
2 All chapters address Social-Ecological Resilience to a significant degree, but only a few address Engineering Resilience approaches.
Source: Authors
Engineering and social-ecological resilience

A third issue that is especially relevant to environmental change events and processes is the difference between engineering resilience responses and social-ecological resilience responses (Table 1.1). Engineering resilience is the use of engineering techniques and structures to harden and strengthen physical infrastructure and buildings against potential nature-based disaster events and other potential crisis events, with the goal of recovering pre-existing service levels as quickly as possible after such an event (Woods, 2006). Examples of engineering approaches include earthquake-resistant buildings, seawalls, redundant power grids and onsite electrical power generation facilities. Disaster preparedness, including public awareness campaigns, are also part of an engineering approach to building community resilience against these types of environmental change event. Dams are a good example of engineering resilience in many parts of the world where they have primarily been effective in reducing undesirable flood events, while also providing more consistent and dependable water and energy supplies for agriculture and human settlements.

Engineering resilience is the most common approach in preparing for, and responding to, natural hazard disasters, and, for many people, the concept of resilience is equated to engineering resilience (Hall, 2017). In tourism studies, crisis management planning by businesses or a destination area’s tourism industry overall has mostly been undertaken from an engineering approach (Ritchie, 2004). The focus is on identifying potential threats, reducing system vulnerabilities to those threats, maintaining system viability through a crisis or disaster event, and returning to pre-event levels as quickly as possible.

A few chapters in this book specifically focus on engineering resilience responses to environmental change (Chapters 3, 7, 8, 10 and 15). These include snow-making technologies to address warming temperatures in ski areas (Chapter 8), technologies to speed the growth (and recovery) of coral reef organisms (Chapter 10), and the strengthening of transportation and other infrastructure in quake-prone regions (Chapter 15).

An engineering approach is also effective as a first response to a major natural hazard disaster event, such as a large earthquake. Governments may need to respond in an authoritarian manner, suspending the normal legal and market system protocols by banning access to some areas, forcing evacuations and providing emergency medical, housing and food supplies through the use of military personnel who are also charged with repairing key access and utility infrastructure lines. These issues, which fall more under the topic of natural hazards disaster management than community resilience, have not been directly addressed by the chapters in this book.

Slow, non-disaster environmental change processes are very different and often do not lend themselves to engineering resilience approaches (Folke, 2016). In many instances, research scientists or other experts are the first to notice slow environmental changes, and they may find it difficult to convince a skeptical public of their concerns. In other cases, environmental changes may occur in direct response to purposeful human actions, either as a policy initiative by a
government, or as a group or people act in accordance with what they consider to be appropriate social behaviour. Much of resilience theory comprises an effort to model these kinds of slow change using an interrelated open systems approach (Brand & Jax, 2007), with the overall context being that of a coupled social-ecological system. As such, social-ecological resilience has come to be an encompassing concept that includes a deep understanding of how human and environmental systems move through cycles of organization, growth and collapse (the adaptive cycle), and impact one another through space and time (panarchy). It is generally considered quite separate from the engineering resilience approach.

All the chapters in this volume adopt a social-ecological resilience approach to a significant degree, even those that also discuss engineering resilience. This is because of the wide recognition of the complexity of our contemporary world and the challenges that we face. A complex adaptive systems approach lends itself to modelling and understanding those challenges, and social-ecological resilience theory has become the most widely adopted theory in this context (Folke, 2016).

**Conclusion**

As noted above, tourism resilience is about understanding how to maintain tourism activities and a tourism community’s overall quality of life at desirable levels. Based on this definition, enhancing tourism resilience requires knowledge of and answers to these questions:

1. What is a ‘desirable level’ of tourism activities and of a tourism community’s quality of life?
2. What are the social and ecological variables that need to be monitored and managed to achieve or maintain that desirable level?

The answer to the first of these two questions is addressed primarily through the political process, as residents and interest groups express their desires in multiple ways, including direct action, to those in leadership positions. Political issues (including political economy and political ecology) are touched upon to some degree in many of the chapters in this book, although often in a secondary or peripheral manner. (For a greater focus on social change issues and tourism, see Cheer & Lew, 2018.) This is because resilience theory and resilience thinking, with their origins in environmental and systems sciences (Strunz, 2012), tend to focus more on applied theories (question 2) rather than normative theories (question 1). Resilience theory seeks to build descriptive frameworks and models to explain how places respond to changing conditions over time. The goal is to better prepare communities (systems) to adapt to their continually changing contexts.

Based in resilience thinking and resilience theory (the former being a more open concept, the latter more specific), this volume mostly focuses on practical and applied methodologies of resilience. Politics are not completely ignored (see especially Chapters 9, 10 and 16), but are often only one component in a multifaceted discussion of resilience responses to changing environments. With
that consideration in mind, this volume provides a broad range of insight into how resilience relates to tourism within the context of changing environmental conditions. The articles are applied, theoretical and at times critical in nature. Readers will benefit from the considerable depth of experience and knowledge presented, with a more coherent (if still complex) understanding of tourism resilience in the end.

References


12    A. A. Lew and J. M. Cheer


2 Applying the adaptive capacity cycle to tourism development
An exploration of social-ecological resilience

Esther A. Duke, Stuart Cottrell and Jana Raadik Cottrell

Introduction
Tourism is a multifaceted adaptive system with non-linear dynamics, which can cause unpredictable complex and changing outcomes (Cochrane, 2010; Malanson, 1999; Miller & Twining-Ward, 2005). Holling’s (1986, 1987) adaptive cycle demonstrates how complex systems of ongoing transition work and this can be useful for understanding the tourism development process and planning for sustainability. The adaptive cycle shows how “sudden surprises,” such as those impacting tourism destinations, may affect resilience and/or vulnerability (Liburd, 2010).

Linear disciplinary approaches to understanding tourism are limited and an emerging more holistic social-ecological systems (SES) view of tourism provides new avenues for exploring tourism:

[T]he dependency of tourism on natural resources, its interlinked elements of economics, politics, psychology, anthropology and ecology, its cross-cultural, cross-sectorial and multi-scalar characteristics and its international linkages, mean that tourism systems constitute excellent examples of complex SES [social-ecological systems].

(Cochrane, 2010, p. 173)

This new ecological view of tourism (Lóránt, 2011) allows for more informed adaptive management of tourism destinations, which can better build resilience. Every tourism destination is comprised of a unique network of socio-cultural features, natural features, and both natural and built infrastructure:

Evidence makes it increasingly clear that a tourism system is an ecosystem, like an urban ecosystem or agro-ecosystem, in which tourism is merged with life support systems and related social systems which are likely to extend well beyond the recognized destination.

(Farrell & Twining-Ward, 2005, p. 115).
To understand the tourism ecology of a destination, one must understand both the human and natural ecology of that place and how these two ecologies interact at different scales (Potts & Harrill, 1998, 2002; Tyler & Dangerfield, 1999).

Through an exploration of recent developments in conceptualizing “sustainability” inspired by ecosystem ecology (Folke, Carpenter, Elmqvist, Gunderson, Holling & Walker, 2002; Holling, Gunderson & Peterson, 2002; Holling, 1996) and ecosystem services (MA, 2005), we can begin to reveal the ecology of tourism: “the relationship of tourists, communities, managers, developers, and policymakers to each other, and especially to their environment…” (Farrell & Runyan, 1991, p. 27). Beginning in the 1990s, there were efforts to apply insights from ecological research to tourism studies (e.g., Tyler & Dangerfield, 1999; Farrell & Runyan, 1991). By exploring how contemporary social and ecological scientists think about SES systems, we can better understand the context and components of a tourism system. It is not necessary to develop an in-depth understanding of SES systems; introductory-level knowledge can greatly expand one’s understanding of tourism systems. The key is to recognize the components and the relationships between them. In Chapter 17 of the Millennium Ecosystem Assessment, de Groot and Ramakrishnan (2005) attribute 30 per cent of global travel and tourism revenue related to cultural tourism and ecotourism. Tourism is a valuable industry that depends on intact biodiversity and ecosystem services, including cultural ecosystem services. As Farrell and Twining-Ward (2004, 2005) emphasize, tourism researchers (and one might argue tourism professionals, as well) are often well versed in the economic, business and sometimes social-cultural components, but know correspondingly little about the natural-resources or ecosystem-service components of tourism systems.

Elsewhere in this book, other authors delve into more human ecology when overviewing the economic, socio-cultural and political/institutional dimensions and drivers of change in tourism development (e.g., conservation initiatives, cultural preservation). Understanding and managing the relationship between ecosystem services, social systems and tourism systems allows one to potentially manage for resilience (Cochrane, 2010; Liburd, 2010). With human induced global change, comes greater uncertainty about the timing and spread of shocks and disturbances (ecological, health or economic crises) (Lew, 2013). This is a major concern for leaders in the tourism industry where success depends upon the flow of people and money on national and international scales.

In this chapter, we introduce the concept of an SES systems perspective to provide a framework for understanding the co-evolution of human and natural systems. We then explore the concepts of resilience and adaptive capacity as they apply to tourism SES systems and examine the utility of the adaptive cycle approach for understanding and managing tourism systems.

**Resilience and SES**

Resilience, initially couched in an ecological context (Holling, 1973; Gunderson, 2000), is the capacity for an ecological, social and linked social-ecological system
Applying the adaptive capacity cycle

(SES) to absorb perturbation while maintaining fundamentally similar structure and function to its pre-disturbed condition (Engle, 2011; Folke, 2006). More specifically, resilience has been characterized as:

(1) the amount of change the system can undergo and still retain the same controls on function and structure; (2) the degree to which the system is capable of self-organization; and (3) the ability to build and increase the capacity for learning and adaptation.

(Benson & Craig, 2014, p. 779).

Resilience-thinking acknowledges disequilibrium and nonlinear change in social-ecological systems and can be a useful concept for tourism management and planning (Seidl, 2014; Stockholm Resilience Centre, 2014). In ecology, resilience is often defined as the capacity for a system to absorb a perturbation while maintaining fundamentally similar structure and function to its pre-disturbed condition (Gunderson, 2000). In a societal context, this definition is adapted to encompass the capability of a coupled social-ecological system to recuperate the environmental, economic and aesthetic properties that sustain a system prior to some disturbance (e.g., hurricane, fire, war, economic upheaval) (Folke, 2006). In recent years, resilience theories have been applied to tourism with great success (Lew, 2013; Lew, Ng, Ni & Wu, 2016; Liburd, 2010). However, much about how social and ecological factors and processes work in isolation and in combination to promote or erode resilience in social-ecological systems is currently unknown, as the degree to which management policies and market forces can help to mitigate undesirable social and ecological outcomes in tourism requires new research (Cochrane, 2010; Lew, 2013; Liburd, 2010). Meanwhile, the concept of resilience in SES is not well established and needs further clarification for it to enhance tourism development (Brand & Jax, 2007; Cochrane, 2010; Liburd, 2010).

Holling’s adaptive cycle model (see Figure 2.1) was developed by and named after biologist and systems theorist C.S. Holling. Beginning with his seminal paper in 1973, and throughout his career, Holling’s research furthered the scope, application and understanding of what is often labeled resilience-thinking. His work applied systems theory in ecology through simulation modeling and policy analysis. His most influential work focused on adaptive management, the adaptive cycle, resilience and panarchy. His work has revolutionized ecology and has also been applied to social systems with great success (Gunderson & Holling, 2002; Holling, 1973, 1986, 1996).

Adaptive capacity and SES

Working on ecosystem modeling, Holling (1973, 1986, 1996) argues that ecosystems and social systems do not have a single state. These systems do not follow a linear path along a single equilibrium, but actually move across multiple points within and even sometimes across a basin of attraction. There are multiple stable points which systems can move between in response to external (e.g., hurricane, flood, acts of war or terrorism) or internal (e.g., change in leadership)
forces. This has important implications for tourism systems and our ability to actively manage a system for sustainability (Cochrane, 2010). For example, this model illustrates how it is possible to push a system beyond its basin of attraction into a new basin with a new set of equilibrium points. This ability to escape a basin of attraction is referred to in the resilience literature as a transformation or a measure of adaptive capacity (Walker, Holling, Carpenter & Kinzig, 2004).

Thirty years after Holling’s seminal paper, Walker, Holling and colleagues continue to clarify the increasingly applied (and often misused) concept of resilience. In Walker, Holling et al. (2004) they couch the application of resilience within an SES framework and emphasize the importance of three attributes:

- resilience;
- adaptability; and
- transformability.

They explore a rangeland case study in Zimbabwe where an SES rangeland defined originally by the amount of grass, shrubs and cattle transforms to a new stability landscape through environmental degradation coupled with the introduction of new ways for earning a living, such as ecotourism, based on wildlife and rivers:

At times societies or groups may find themselves trapped in an undesirable basin that is becoming so wide, and so deep, that movement to a new basin or sufficient reconfiguration of the existing basin becomes extremely difficult. At some point, it may prove necessary to configure an entirely new stability landscape— one defined by new state variables, or the old state variables supplemented by new ones.

(Walker, Holling et al., 2004, p. 5)

Similar transformations have taken place elsewhere in Africa, including Kenya and Namibia. In these countries diverse players, including NGOs with an interest in using tourism as a development tool, and for-profit tourism operators, have come together to address impacts on wildlife stemming from the shift away from large swaths of communally managed lands and towards privatization and fenced parcels of land. These partners have launched an ecotourism model known as wildlife conservancies to mitigate the growing threat of habitat fragmentation (Jandreau & Berkes, 2016). Such capacity to create a new stable landscape is referred to as transformability: the capacity to start anew from and evolve new livelihoods when existing ecological, economic or social structures change dramatically with new emergent variables introduced. Such vital changes cascade through and possibly transform the entire panarchy with its multitude of constituent adaptive cycles. Many examples of SESs exist that are becoming locked in and unable to transform until it is too late (mass tourism destinations such as Cancun, floodplains and flood control; forest fire suppression at ever larger scales). In this context, how can individual tourism businesses and tourism destinations work together to develop transformability and avoid such lock-ins? These lock-in examples exemplify the importance of adaptive capacity.