

Legends and Legacies

Positioning Sustainable Tourism: Humble Placement of a Complex Enterprise

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“We should stop striving for simple answers to solve complex problems.”
(E. Ostrom, 2007, p. 15181)

The United Nations General Assembly declared 2017 the *International Year of Sustainable Tourism for Development* (IY2017), with five pillars framing this theme: 1) sustainable economic growth; 2) social inclusiveness, employment and poverty reduction; 3) resource efficiency, environmental protection and climate change; 4) cultural values, diversity and heritage; and 5) mutual understanding, peace and security (UNWTO, n.d.). The focus of the year stems from the adoption of the Sustainable Development Goals (SDGs) in 2015 by the United Nations. The SDG agenda outlines a plan of action for “people, planet, and prosperity” (United Nations, 2015, p.1).¹ Sustainable tourism (ST) was specifically targeted in SDG 8, 12, and 14, with possibilities for applicability to all SDGs (For details, visit <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>).

What has prompted this inclusion of tourism in a global call for action? First, tourism as a global economic powerhouse (e.g., 10.2% of the world's GDP), with US\$ 1.260 trillion earned from international tourism in 2015, US\$ 3.420 trillion from domestic tourism, and 30% of exports in services globally (WTTC, 2016; UNWTO, 2016). Tourism shows promise in reducing poverty through direct employment and indirectly throughout the tourism supply chain, providing 292 million jobs globally (1 in 10) (WTTC, 2016)—but again, this depends on “how” it is done and “what” mechanisms are utilized (i.e., jobs that actually support livelihoods, offer fair wages, enhance quality of life, etc.). Secondly, tourism requires safe, healthy, and resilient environments and sociopolitical contexts to actually succeed (Randle, 2016).

¹For a complete list of the SDGs visit http://www.un.org/ga/search/view_doc.asp?symbol=A/69/L.85&Lang=E.

While ST is recognized by world leaders as way to address some complex and critical global issues, it is important to understand tourism's potential within the context of the systems in which it operates. Rather than elevating it as a panacea for social and environmental ills, for ST, there is a much-needed focus on how it can do a better job of supporting, restoring, and conserving critical social and ecological systems.

Despite economic and other benefits, myriad challenges exist for tourism—hence a reason to integrate sustainable mechanisms to support the health of the planet. As our population increases, so does the traveling to and fro, with no certainty things are slowing down any time soon (see McCool et al., 2013; WTTC, 2016). As such, the connection between tourism, ecosystems, and society has become an essential part of our cultural and political systems. The tourism “product” itself is unlike any other product in industry. As noted by Berno & Bricker (2001), tourism products have tangible and intangible aspects, which include experiences, places, and individual products, inclusive of accommodation, transportation, attractions, food, and souvenirs, to name a few.

As a result, ST presents a complex system of interactions, leaving a plethora of unanswered critical commentary: What is to be sustained? For how long? And, for whom? However, perhaps the “right” questions have yet to be asked. For example, if we consider ST to be a complex system, filled with challenges and value-based choices, then perhaps it is time to move to an understanding of creating a greater good through tourism activities, and ultimately identifying ways in which ST actually fits into a macro level system. It is incumbent upon all industries and entities in the world today to ensure we do not impede the functioning of the planet—it not only serves ecosystems and biodiversity, it ensures the health and well-being of human beings as part of the socioecological system on earth.

As such, the tourism industry should reconsider its focus on ensuring optimal economic success, and ensure the systems that support actually living on this planet are in check. Several ideas have been put forward in conceptualizing the *Anthropocene Era* (see Steffen et al., 2011) of development. Researchers have demonstrated increased capabilities to understand earth systems and the influences of development on systems that support human functioning. The challenge is to understand how a sustainable tourism industry can function within these systems.

Planetary Boundaries and ST

The operating system of the planet is a complex suite of integrating functions which support life. Nine boundaries represent the “rules of the game” for humans, focused on key Earth System processes which exist regardless of “people’s preferences, values, or compromises based on socioeconomic feasibility, such as expectations of technological breakthroughs and fluctuations in economic growth” (Rockstrom et al., 2009, p. 4). They include climate change, ocean acidification, stratospheric ozone depletion, interference with the global phosphorous and nitrogen cycles, rate of biodiversity loss, global freshwater use, land-system change, aerosol loading, and chemical pollution (Rockstrom et al., 2009). We are already exceeding boundaries in climate change, biodiversity loss, and the amount of nitrogen removed from the atmosphere for human use (see Rockstrom et al., 2009).

Ideally, ST would operate within the “rules of the game”—that *impacts* create a net positive for earth’s systems. Specifically, ST employs notions including long-term considerations for development, social equity, environmental justice, critical review of impacts (positive, negative, cumulative), require consideration of collaboration, partnerships, and other inter-sectoral linkages, all of which cause us to consider implications for a healthy planet.

Ecosystem Services and Human Beings...

Human life is dependent on the Earth’s ecosystems and the services they provide (Chivian & Bernstein, 2004; Dustin, Bricker, & Schwab, 2010; Scholes, Hassan, & Ash, 2005). Specifically, ecosystem services include “provisioning services such as food and water; regulating services such as regulation of floods, drought, land degradation, and disease; supporting services such as soil formation and nutrient cycling; and cultural services such as recreational, spiritual, religious, and other non-material benefits” (Scholes et al., 2005, p. 3).

Unfortunately, we are experiencing unprecedented degradation of ecosystem services. According to a recent report by The Economic Land Degradation Initiative (2015), alarming rates of land systems change are occurring, resulting in consequences that affect ecosystem services:

- Land cover changes since year 2000 are responsible for half to 75% of the lost ecosystem services value.
- The value of lost ecosystem services due to land degradation averages U.S. \$43,400 to \$72,000 per square km, some U.S. \$870 to \$1,450 per person, globally each year.
- Agricultural investments of U.S. \$30 billion per year are needed to feed the world’s growing population.
- The percentage of Earth’s land stricken by serious drought doubled from the 1970s to the early 2000s.
- One-third of the world is vulnerable to land degradation; one third of Africa is threatened by desertification.

The cumulative impact of these changes affects material well-being, health, freedom, choice, security, and a range of social relationships. Tourism plays a significant role, as one of the world’s strongest economic activities. Yet, when ecosystems are degraded there is a direct consequence to human well-being, and directly connected to tourism and related activities. The impact of a degraded ecological system affects us in many ways:

- **Security.** Provisioning services, whereby food and other goods are impacted by declining resources, increasing potential for conflict; increased potential for changes in regulating services, which can influence frequency and magnitude of natural disasters (floods, droughts, landslides, etc.); and loss of cultural resources, which can impact communities and sense of place, as well as spiritual and ceremonial aspects of places.
- **Access to basic material for a good life.** Specific to access to provisioning, as well regulating services such as water purification processes.

- **Health.** Access provisioning services; regulating services, disease distribution and control; and through the linkage between recreation and spiritual aspects of daily life contributing to health and well-being.
 - **Social relations.** Affected by changes to cultural services (recreation, spiritual, sense of place) affect quality of life.
 - **Freedoms and choice.** Influenced by changes in provisioning, regulating, and/or cultural services from ecosystems.
- (Adapted from Scholes, Hassan, & Ash, 2005, p. 11).

Humans are an integral part of ecosystems, yet continue to be a dominating negative influence on changes in ecosystem services. As demonstrated by the Millennium Assessment Conceptual Framework (MA) (Scholes et al., 2011, p. 37) (see Figure 1.), a dynamic interaction exists between people and ecosystems of which they are a part. The dynamic human condition both directly and indirectly drives change in ecosystems and changes in ecosystems cause changes in human well-being (Scholes et al., 2005). As depicted within the framework, biodiversity and ecosystems are closely related, with biodiversity being the “variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are a part” (Scholes et al., 2005, pp. 8-9). As such, the Convention on Biological Diversity (CBD) fully endorses this framework to understand the human-environmental relationships, and states that the “ecosystem approach is a strategy for the integrated management of land, water, and living resources that promotes conservation and sustainable use in an equitable way” (Scholes et al., p. 11).

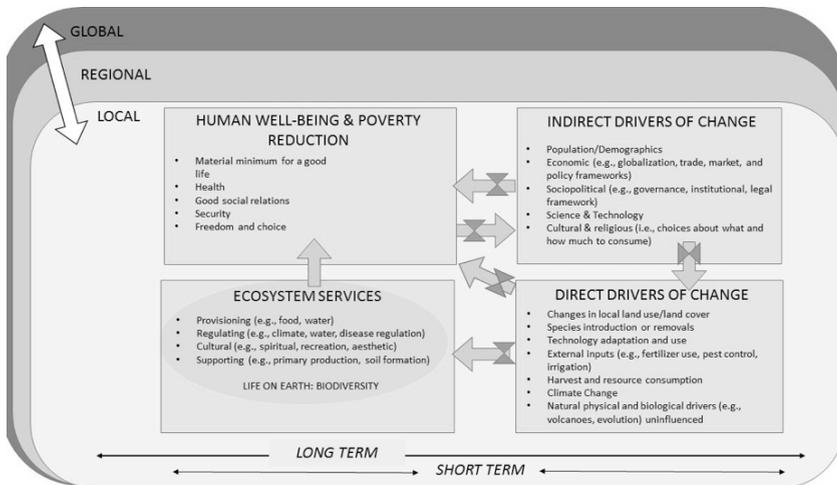


Figure 1. Millennium Ecosystem Conceptual Framework, adapted from Scholes et al., 2011, p. 37

As global leaders recognize ST as a means to effect positive change, it is imperative ST accepts a humble position within planetary systems and is guided by the limitations of these systems, which are much greater than economic development activities of tourism itself. This means placing a ST industry under the scrutiny of its impact on

ecosystem services and the finite boundaries our planet provides. ST must utilize frameworks and concepts which measure and monitor its innovation and contributions to developing within its means.

Tourism is indeed a social-ecological system (SES) (see McGinnis & Ostrom, 2009; Ostrom, 2007a), comprising people, places, and political contexts that shape destinations all over the world. It is time for the diverse set of actors who touch ST to begin to ask questions focused on systems that support a healthy planet.

Despite evidence of applied examples recognizing complexities of the tourism system exist (see GSTC Destination Criteria, n.d.), considering a SES framework would enable researchers and practitioners to take a cumulative, coherent approach supported by empirical evidence, to address questions such as: What patterns of interactions and outcomes of ST, such as overuse, conflict, collapse, stability, and increasing returns are likely to result from using a particular set of rules (i.e., voluntary certification programs) for governance, ownership, and use of a resources system and specific resource units in a specific technological, socioeconomic, and political environment? What is the likely endogenous development of different governance arrangements, use patterns, and outcomes with or without external financial inducements or imposed rules? And, how robust and sustainable is a particular configuration of users, resource system, resource units, and governance system to external and internal disturbances? (Applied from Ostrom, 2007b, p. 8). When we think of systems, it allows us to see insights we have not seen before.

While some see *sustainability* in tourism as sustaining the economic engine of the industry and its associated products, others take perhaps what I see as an expanded and long-term view, which increases the potential for ST to effect positive change, or provide a net positive impact, due to its enormous reach and impact on production and consumption globally (Bricker, Black, & Cottrell, 2012; Epler Wood, 2017; UNEP, 2011). That said, it is incumbent on a range of actors in ST to not only consider the social, cultural, and ecological challenges of tourism management and development, they must embrace the socioecological system and its complexity. ST holds promise when we address the complexities head on, and place it humbly within the health of earth's dynamic systems.

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