Journal of APF Command and Staff College (2026), 9 (1), 215-263

From Sustainability to Regeneration: A Paradigm Shift in Tourism Development

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DOI: https://doi.org/10.3126/japfcsc.v9i1.94390

Article History:
Received: 20 March 2026
Revised: 9 April 2026
Accepted: 15 April 2026

Keywords:
Regenerative tourism, sustainability science, citizen science, social ecological systems, regenerative economy

To cite this article:
Kunwar, R. R., & Ulak, N. (2026). From sustainability to regeneration: A paradigm shift in tourism development. *Journal of APF Command and Staff College, 9*(1), 215–263. https://doi.org/10.3126/japfcsc.v9i1.94390

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Abstract

This study explores the conceptual foundations of regenerative tourism by tracing its development from principles of sustainable and regenerative practices. It highlights the shift from sustainability to regeneration, emphasizing how regenerative approaches aim to restore and enhance ecosystems and communities beyond merely minimizing impacts. The paper follows a qualitative and exploratory approach, relying on the review of literature based on the issues of the study. The sources reviewed include scholarly articles, books, policy documents, and related reports. Through careful reading, comparison, and thematic synthesis, the research identifies the key theoretical concepts and principles that form the basis of regenerative tourism, emphasizing its holistic nature. This study focuses on the popular concepts such as social-ecological systems, ecological worldview, tourism living systems and investment in people, places and nature in a long-term perspective for transformation. The major thrust of this study is to raise a question- how regenerative tourism came into existence in the field of tourism academia. It equally helps to understand

theconceptual roots of regenerative tourism. This study is organized into several sections, including the introduction, literature review, methodology, and thematic discussions presented under different subheadings. Finally, the concluding section summarizes the major insights and overall findings.

Introduction

This paper examines the conceptual foundations of regenerative tourism by exploring the concepts of regeneration and restoration. It forms the basis for understanding regenerative tourism as a whole. Majority of the scholars (Mang & Reed, 2012; Plaut et al., 2012; Hussain & Haley, 2022; Dredge, 2022; Della Lucia & Trunfio, 2018; Morseletto, 2020; Dias, 2018; Rhodes, 2017; Pollock, 2019a; Dziakiewicz et al., 2024) have described the origin of restoration emerged before regeneration when discussing these concepts. These concepts have evolved over many centuries and across various languages. The (Latin) prefix "re" indicates repetition. Restoration is from (re)staurare, meaning to repair/give back/build up again. Regeneration is from *generare*, which means to give birth/generate (Morseletto, 2020, p.764). The nouns restoration and regeneration are used to describe the concepts, while the adjectives "restorative" and "regenerative" are used as modifiers that ascribe attributes to specific things (Morseletto, 2020).

If restoration means "to make something well again," regeneration, for some authors, means "to make it better" than a (supposed) origin condition. Advocates of regeneration approaches in the 1990s tended to focus on a vision that may have reflected an optimistic view of social change prevalent during that period (Ferguson, 2002; Park, Conca, & Finger, 2008; in Morseletto, 2020, p.765). The multiplicity of definitions of the concept of "regeneration" echoed the cacophony of frameworks surrounding the idea (Mang & Reed, 2012; Morseletto, 2020). The concept of regeneration can be seen as an advanced form of restoration, because life evolves and is not static, we can never restore a living system to its original condition (Dias, 2018, p.316). According to Kellert (2004; in Mang & Reed, 2012, p.487), restorative re-establishes the self-organizing and evolving capability of natural systems.

In order to understand the meaning of regeneration, it is essential to understand the meaning of generation. A synonym of generative is having the power or function of generating, originating, producing, or reproducing. In biology, the term relates to the production of offspring vegetative and generative plant growth the generative organs of mammals (Merriam-Webster Online Dictionary https://www.merriam-webster.com/dictionary/generative). It simply denotes that it is the production. The word 'regenerative'

means the capacity to bring into existence again; hence, if an item or system is regenerative, it has the inherent capacity to bring itself into existence once more. A perfect example of a completely sustainable/regenerative system is a forest, in which there is no waste, and the detritus from one year becomes the soil from which the new life of the following year is brought forth (Rhodes, 2017, p.103).

Regeneration is not just about not making the existing situation worse, but about improving it (Dziadkiewicz et al., 2024, p.203). Regeneration is about creating the fertile conditions conducive for life to thrive based on the knowledge that life and living systems, unlike machines, self-organize, and are not static but, through living, are constantly adapting, changing, evolving (Holliday, 2016; in Pollock, 2019a, p.3). It's inherently a revitalizing activity that results in enhanced generative capacities. As a consequence, it has an inspirational dimension based on the meaning of the verb "to inspire" as to breathe life back into. The adjectives used most frequently to describe a regenerative state are flourishing or thriving (Pollock, 2019a).

The American Heritage Dictionary of the English Language, as cited by Mang and Reed (2012), regenerate means:

- To give new life or energy; to revitalize; to bring or come into renewed existence; to impart new and more vigorous life
- To form, construct, or create a new, especially in an improved state; to restore to a better, higher or more worthy state; refreshed or renewed
- To reform spiritually or morally; to improve moral condition; to invest with a new and higher spiritual nature
- To improve a place or system, especially by making it more active or successful (Day et al., 2022).

As cited by Kunwar and Phuyal (2025, p.105), the simple meaning of 'regenerate' is to renew, reinvigorate, or replenish (Dredge, 2022, p.270). The meaning of regenerative is "to give new life, strength, or vigour" (Plaut et al., 2012, p.113). Hutchins and Storm (2019) as cited by Hussain (2021) have stated the meaning of 'regenerative' as 'creating the conditions for life to continuously renew itself, to transcend into new forms, and to flourish amid ever-changing life conditions' (p.5). Rhodes (2017, pp. 103-104; Hussain & Haley, 2022) goes on to argue that 'regenerative' means 'the capacity to bring into existence again'; hence, if an item or the system is regenerative, it has the inherent capacity to bring itself into existence once more".Regeneration simply means making a favorable condition for life on earth to thrive equally (Pollock, 2019b; Ajoon & Rao, 2020, pp. 2-3).

Regeneration has been defined as the transformation of a place that has shown symptoms of marginalization or whose previous development models are in crisis (Impact 08, 2007; in Della Lucia & Trunfio, 2018, p.2).

Many scholars focused on the concept of degenerative/degeneration in course of studying regenerative development and design including regenerative agriculture and regenerative tourism (Du Plessis & Cole, 2011; Mang & Reed, 2012, p.484; Plaut et al., 2012; Du Plessis & Brandon, 2014; Wahl, 2016; Fullerton, 2015, p.43; Bellato et al., 2022b, p.559; Bellato & Pollock, 2023, p.313; Dziadkiewicz et al., 2024, p.203; Kunwar & Phuyal, 2025, p.105). Among those authors, Dziadkiewicz et al. (2024) focused on the real difference in terminology lies in their meaning, but in attitude and intension.Similarly, the dictionary meaning of 'degeneration' is the process of declining from a higher to a lower level of effective power or vitality or essential quality (Vocabulary.com). Butcher (2021), Dwyer (2021), Vogler (2021), as cited by Liburd and Duedahl (2025, p.6), have interpreted degeneration as de-growth. The opposite term of regenerative is degenerative which means 'to decline in value or worth' (Plaut et al., 2012). The life on earth is diminished and threatened by degenerative practices and technologies are no longer a matter of dispute (Lyle, 1994, p.11).

Review of Literature

The research is entirely based on the review of existing literatures and therefore follows a non-empirical design grounded in a narrative literature review to examine the conceptual shift from sustainability to regeneration in tourism development. The researchers thoroughly reviewed the major literatures to trace out the related concepts. It draws on a wide range of scholarly works (Mang & Reed, 2012; Reed, 2007; Owen, 2007; Pollock, 2012, 2015; Du Plessis, 2008; Du Plessis & Cole, 2011; Du Plessis, 2012; Du Plessis & Brandon, 2014; Gibbons, 2020; Fusté-Forné & Hussain, 2025; Tao & Wall, 2009; Hussain, 2019; Hussain & Haley, 2022; Bellato et al., 2022; Haklay et al., 2019; Rhodes, 2017; Kates et al., 2001) to trace the diverse conceptual roots of regenerative tourism, including regenerative development and design, permaculture, regenerative agriculture, social-ecological systems, sustainability and sustainable development, sustainable livelihoods, sustainable tourism, sustainability science, citizen science, tourism as a living system, as well as the sustainable and regenerative paradigms. All these concepts are elaborated with the help of neighboring literatures. By synthesizing these interconnected bodies of knowledge, the study presents regenerative tourism as an integrative and system-oriented approach that goes beyond minimizing impacts to actively restoring and enhancing ecosystems and communities.

This review enhanced the researchers to introduce regenerative tourism in a nutshell. The review further contextualizes this emerging paradigm within Nepal, particularly in relation to Panauti, where the concept of regenerative tourism was first coined by Kunwar and Phuyal (2025), thereby contributing to its theoretical and contextual advancement.

Regenerative Development and Design

Mang and Reed (2012) defined the terms regenerative development and regenerative design which is quintessential for this study. According to Mang and Reed (2012), regenerative approaches view development and design as to distinct yet synergistic processes, both of which play an essential role in ensuring the greater scope, neither of which is sufficient without the other. The concepts of regenerative development and design have been studied by several scholars- regenerative developments (Mang & Reed, 2012; Bellato et al., 2023; Aquino et al., 2024), regenerative design (Lyle, 1994; Owen, 2007; Mang & Reed, 2012; Aquino et al., 2024).

Regenerative development, as defined by Reed (2007) implies a holistic approach that brings together social and ecological components as part of a "co-evolutionary relationship" and within a mindset of collaboration, stewardship and environmental ethics (Dwyer, 2018; Gerhards & Greenwood, 2021; in Becken & Kaur, 2021, p.57). It is equally important to understand regenerative development as defined by Mang and Reed (2012), although it is relatively based on technologies and strategies.

Zerim and Jenkins (2009; in Mang & Reed, 2012, p.318; Dias, 2018, p.318), in their study, “Rethinking the Built Environment,” write that “regenerative development… investigates how humans can participate in ecosystems through development, to create optimum health for both human communities (physically, psychologically, socially, culturally and economically) and other living organisms and systems”.This concept was proposed in 1995 by the *Regenesis* Group a North American collaborative, composed of a multidisciplinary team. The practice process of Regenerative Development is based on the *Living System School of Thought* originally developed by Charles Krone in 1980 to enable thinking about organizations as living systems – what organizes and orders them, how they are structured, how they evolve. It uses systemic frameworks and developmental processes to consciously improve the capacity to apply systems thinking to the evolution of human or social and natural living systems (Mang & Reed, 2012; Dias, 2018; Hussain & Haley, 2022).

In 1994 John Tillman Lyle introduce the term “regenerative design” as an approach to the design of urban landscapes which enables them to regenerate lost ecosystems (Doyon & Hes, 2014; in Dias, 2018). Mang and Reed (2012) explain regenerative design as a

system of technologies and strategies, based on an understanding of the inner working of ecosystems that generates designs to regenerate rather than deplete underlying life support systems and resources. Regenerative design also includes social systems such as food, economic, and governance systems (Mang & Reed, 2012; Benne & Mang, 2015; in Gibbons, 2020).

While regenerative development provides the framework to identify life-giving patterns and actions in a living system, regenerative design is an integral part of the process of giving form to patterns and actions (Mang & Reed, 2012; Gibbons, 2020). Regenerative design technologies in the built environment that majorly focuses on facilitating healthy processes and flows within one focal scale of system without catalyzing change at larger scales (Lyle, 1994; Mang & Reed, 2012; Gibbons, Cloutier, Coseo, & Barakat, 2018 in Gibbons, 2020), ecological design and planning (Van der Ryn & Cowan, 2002; in Gibbons, 2020), biophilic design (Kellert, Heerwagen, & Mador, 2008; in Gibbon, 2020), the Living Building and Living Community Challenges (International Living Future Institute, 2020; in Gibbons, 2020), biomimicry (Benyus, 1997; in Gibbons, 2020), permaculture (Holmgren, 2002; in Gibbons, 2020), and ecovillages (Christian, 2003; Litfin, 2014; in Gibbons, 2020).

As Hagaard, Reed, and Mang (2006; in Mang & Reed, 2012) write, "learning how to apply a regenerative approach begins not with a change of techniques but rather with a change of mind- a new way of thinking about how we plan, design, construct and operate our built environment" (p.491).

Permaculture

In the absence of studying permaculture, no study of regenerative tourism will be addressed properly. Therefore, an effort has been made to highlight on the role of permaculture as an important practice associated with transforming to regenerative agriculture to regenerative tourism. Permaculture has been studied by Mang and Reed (2012) and Rhodes (2017) which deals with minimizing human dependence, waste, and incorporate energy and other resources as man-made ecosystems for maximal benefits between design elements to achieve a high level of holistic integrity and resilience.

In 1978 Bill Mollison, an Australian ecologist, and one of his students, David Holm Gren coined the word permaculture from a contraction of permanent agriculture or permanent culture. They developed a field of permaculture as an ecological design system to promote design of human habitats and a food production systems based on the relationships and processes found in natural ecological communities. Much of its inspiration was drawn from the relationships and adaptations of indigenous people to their ecosystems (Mollison, 1988;

in Mang & Reed, 2012). Bill Mollison's in his book entitled *Permaculture: A designers' Manual,* published in 1988 introduced a hierarchy of investment (regenerative, generative and degenerative) as framework for assessing the value of potential actions for building regenerative capacity in a system (Mang & Reed, 2012, pp. 431-432). Permaculture designs are 'organic' and evolve over time according to the interplay of these relationships and elements and can become extremely complex systems, able to produce a high density of food and materials with minimal input (Rhodes, 2017, p.109).

As a working and practical definition, permaculture (Rhodes, 2012, Mollison & Jeeves, 1988; Holmgren, 2011; in Rhodes, 2017, p.108) may be described as a low impact method which uses perennial cultivation methods to produce food crops, working via principles that are in harmony with nature. The term permaculture (Mollison & Jeeves, 1988; Holmgren, 2011; in Rhodes, 2017) (a portmanteau word derived from permanent agriculture, or culture) was coined by Bill Mollison (1928–2016) and David Holmgren in the mid-1970s, to describe an "integrated, evolving system of perennial or self-perpetuating plant and animal species useful to man." According to Holmgren, "A more current definition of permaculture (Mollison & Jeeves, 1988; in Rhodes, 2017) is 'Consciously designed landscapes which mimic the patterns and relationships found in nature, while yielding an abundance of food, fiber and energy for provision of local needs.' People and their buildings, and the ways they organize themselves, are central to permaculture. Thus the permaculture vision of permanent (sustainable) agriculture has evolved to one of permanent (sustainable) culture" (Rhodes, 2017).

According to Rhodes (2017), permaculture is based on three core ethics such as 1) Earth Care, 2) People Care and 3) Fair Share. Earth Care (take care of the Earth): provision for all life systems to continue and multiply. This is the first principle, because without a healthy Earth, humans cannot flourish. Secondly, it is people care (take care of the people): provision for people to access those resources necessary for their existence. And finally, fair shares (share the surplus): healthy natural systems use outputs from each element to nourish others. Humans can do the same; by taking control of our own needs, we can set resources aside to further the above principles.

Bill Mollison came to Nepal for providing training on permaculture and this has been studied by some scholars like Evans (2017) and Yadav et al. (2023). In 1986, the Institute for Sustainable Agriculture Nepal (INSAN) collaborated with Agricultural Project Services (APROSC) and Win Rock International to organize the first permaculture design course training facilitated by Bill Mollison in Kathmandu (Yadav et al., 2023).

Regenerative Agriculture

Various scholars such as Dias (2018), Hutchins and Storm (2019), Morseletto (2020), Hussain and Haley (2022), Day et al. (2022), Pung et al. (2024) have credited regenerative agriculture as a root for the development of regenerative tourism. If regenerative agriculture is a source for regenerative tourism, the scholars have noted down regarding the origin and the development of how regenerative agriculture including permaculture came into existence and became popular. They are Rhodes (2017), Giller et al. (2021) who have carried out their studies and highlighted on the importance of regenerative agriculture which consequently enhanced other scholars to enter into the field regenerative tourism studies.

The term regenerative has been associated with 'agriculture' or 'farming' since the 1970s (Gabel, 1979; in Hussain & Haley, 2022). However, the term 'regenerative agriculture' and 'regenerative farming' became part of mainstream research in the early 1980s (Giller et al., 2021; Hussain & Haley, 2022). The term has gained popularity amongst activists and civil society organizations to revitalize the global food supply chain (Duncan, Carolan, &Wiskerke, 2021; in Giller et al., 2021; Hussain & Haley, 2022). Like sustainability, the term 'regenerative' was also borrowed from natural sciences (Hussain & Haley, 2022).

The concept of regenerative tourism is derived from the agricultural, forestry, urban design and architecture fields (Dredge, 2022; in Pung et al., 2024). Specifically, regenerative agriculture refers to managing and enhancing condition for the ongoing renewal of life and living systems (Hutchins & Storm, 2019; Morseletto, 2020; Hussain & Haley, 2022; Pung et al., 2024). As such, regenerative tourism adopts principles from agriculture as well as regenerative economic models and designs (Day et al., 2021; Pung et al., 2024); it requires 'long-term, systemic thinking rejects the idea that tourism is separated from the rest of the community and constantly engages the community in decision making' (Sheldon, 2022, p.205; Pung et al., 2024).

Rodale (1983; in Hussain & Haley, 2022) defined regenerative agriculture as one that has a high level of built-in economic and biological stability. It has minimal to no impact on the environment beyond the farm or field boundaries and produces foodstuffs free from biocides. In regenerative agriculture, it is the soil that is the foundation of growth for the farming system (Hutchins & Storm, 2019; in Hussain & Haley, 2022). Regenerative Agriculture is for the improvement to soil health and for the broader environment, human health and economic prosperity (Schreefel et al., 2020; in Giller et al., 2021). It isan approach to farming that uses soil conservation as the entry point to regenerate and

contribute to multiple provisioning, regulating and supporting ecosystem services. It has the objectivestoenhance the environmental, social and economic dimensions of sustainable food production (Giller et al., 2021).

It is Kimmerer (2011) who has developed a concept known as restoration and reciprocity. The idea of reciprocity with land is fundamental to many indigenous belief systems. Reciprocal restoration encompasses repair of both ecosystem and cultural services while fostering renewed relationships of respect, responsibility, and reciprocity. All flourishing is mutual. Reciprocal restoration is grounded in the positive feedback relationship between cultural revitalization and land restoration (Egan, 1988; Oeschlager, 1996; Kimmerer 2000; Martinez, Salmon, & Nelson 2008; in Kimmerer, 2011, p.257).

Social-Ecological Systems

While studying aboutsocial-ecological systems, the scholars have focused on the concept of worldview derived from the term 'world' and the term world itself is very important (Du Plessis, 2008; Du Plessis & Cole, 2011; Du Plessis & Brandon, 2014) for making clear understanding of social-ecological systems. Informed by these shifts, the ecological worldview can be understood as built around the following precepts:

> The world is "a complex, interconnected and finite system" (Meadows, 1982, p.101; in Du Plessis, 2008) within which humans exist as part of larger social-ecological systems (Walker et al., 2002; Anderies et al., 2004; in Du Plessis, 2008). The world as cited by Du Plessis (2008) is an adaptive and self-organising 'living' system, which to be 'sustainable' has to be healthy and viable (Sterling, 2003), and resilient (Brock et al., 2002; Gunderson & Holling, 2002).

Kearney (1984, p.41; in Du Plessis & Cole, 2011) described worldview as a collection of concepts, theorems and assumptions that provides a coherent (but not necessarily accurate) way of looking at and thinking about the world. As cited by Du Plessis (2008, p.10), there are two types of worldview (mechanistic worldview and ecological worldview). The mechanistic worldview operates on an assumption that the properties of the whole can be reduced to and deduced from the sum of the properties of the parts (as is possible with mechanical and other complicated cybernetic systems). The ecological worldview, by contrast, holds that the properties (and behavior) of the whole more than some of, and not deducible from, the properties of the parts, i.e. holistic (as found in complex and living systems) (Capra, 1997; Rees, 1999; Sterling, 2003; in Du Plessis & Cole, 2011). The ecological worldview sees humans as an integral part of, and co-evolving with, nature. Therefore, in order to understand what the term 'social-ecological systems' describes, it is

also necessary to understand what it is that differentiates the role of humans from that of other species-to such an extent that SESs are seen as markedly different from ecological systems without humans (Du Plessis, 2008, p.18).

Du Plessis and Brandon (2014) have classified ecological worldview into three main themes: wholeness, relationship, and change which provide a framework for discussing the implications of this regenerative sustainability paradigm for the production of the built environment – for how it is created, the technologies used, and how it is evaluated (Du Plessis & Brandon, 2014).

In course of studying living systems thinking as a school of thought, it is noteworthy to mention about what system is. The dictionary of Etymology argue that Systems is a word that came from the Greek word "systema", that means an organized whole (Dia, 2018, p.316), a whole compounded of parts (Hussain & Haley, 2022).

Humans have a positive role to play in nature in order to create sustained ecological health; human must evolve a conscious and integral interrelationship where humans and nature are in a mutually beneficial being and becoming relationship-one that is always aware of evolutionary potential. Here comes the evolution of planetary systems. This begins with lithogenesis (formation of the lithosphere or matter), to biogenesis (the formation of the biosphere or life), to noogenesis (the formation of the sphere of mind or the noosphere)-with "life only emerging where matter is favorable and mind only emerging where life is favorable" (Wilber, 2000b; in Du Plessis, 2008, p.22). While in Vernadsky's initial scheme, the lithosphere (sphere of stones) refers to the top geological layers that form the planet's outer crust, the sphere of matter has been subsequently expanded to include the hydrosphere (sphere of water) and the atmosphere (sphere of gases), and is referred to instead as a geosphere. There are two main aspects of geosphere: first one is physical geology and geography of the planet and the second aspect of the geosphere as the source of the basic elements that make up all biotic and abiotic aspects of the universe, including the bodies of humans. Without the geosphere there would be no biosphere, as all organisms are made up of elements found in the geosphere (Du Plessis, 2008). The above mentioned SESs are made up of three distinct spheres or domains of existence in planetary systems: the geosphere (matter), the biosphere (life), and noosphere (mind). The correlation between matter, life, and mind focused on life that requires matter in order to exist, mind requires life to function and matter for its own existence (Du Plessis, 2008).

It is noteworthy to understand what social-ecological systems (SESs) are and why SESs become popular in the study of regenerative development and sustainability. Anderies

et al. (2004; in Du Plessis, 2008, p.19) present an anthropocentric worldview by describing SESs alternatively as systems of humans affecting nature or as nature providing a service to humans. The authors suggest that SESs can be seen as a 'natural' (as oppose to manmade or 'artificial'). The authors later suggest that the term 'social-ecological system' refers to "…the subset of social systems in which some of the interdependent relationships among humans are mediated through interactions with biophysical and non-human biological units" (Anderies et al., 2004, p.3; in Du Plessis, 2008, p.19).

In the context of understanding social-ecological systems (SESs) as a theory, C.S. Holling is acknowledged to be a pioneer in conceptualizing and establishing in the field of academia who introduces ecological resilience in 1973, which becomes the foundation for SESs. Manyani et al. (2024) analysis show a rapid growth in SESs research, since the term 'social-ecological systems' was used in 1998 to conceptualize interlinked nature of social-ecological systems (Berkes & Folke, 1998; inManyani et al., 2024), becoming a lively, productive scientific field, this growth is reflected in the size of the co-authorship network, from only eight authors in 1999 to over 11,000 authors in 2019. Accompanying this growth, we see a shift in the terminology used, notably around the year 2000, when the term social ecological system 'increases rapidly and becomes dominant in relation to other terms describing nature-society relations, as well as in relation to variance of the term SESs (Guo et al., 2011; in Manyani et al., 2024). In the similar vein, two institutions-the Resilience Alliance (RA, 1999) and the Stockholm Resilience Centre (SRC, 2007) have played a pivotal role in the development of the SESs field (Manyani et al., 2024).

Haberl et al. (2006; in Du Plessis, 2008, p.19) used the term 'social-ecological system' as synonymous with terms such as coupled human environment systems, and regard society-nature interaction as a dynamic process in which two autopoiesis systems-society and nature-interact. From this point of view, example of SESs would include agriculture, human settlements and an extractive industry such as mining, which result in anthropogenic "disturbances to otherwise properly functioning ecosystems" (Clark et al., 2004; Haberl et al., 2006, p.2; in Du Plessis, 2008).

The term 'autopoiesis' as mentioned above is a word coined by biologists Maturana and Varela (1980; in Du Plessis, 2008) from the words 'auto', meaning by one self/itself and 'poiesis', meaning production, creation and formation to describe the nature of living systems (Du Plessis, 2008, p.34, fn.2). The opposite term of 'autopoiesis' is 'sympoiesis' as forwared by Donna Haraway which does not agree with the concept of autopoiesis. The meaning of sympoiesis is to learn how to live well with each other, 'making-with'

because '[n]othing makes itself; or self-organizing' (Haraway, 2016, p.58; in Habersang, 2025, p.334).

Tourism sustainability remains contested, with critics arguing that current models sustain growth rather than drive systemic change (Fletcher, 2011; Higgins-Desbiolles, 2010; Lupini et al., 2024; Sharpley, 2020; in Ridanpää, 2025). Recently, the notion of regenerative tourism has gained interest among tourism researchers and practitioners as a possible way forward (Bellato et al., 2022b; Boluk& Panse, 2022; Cave & Dredge, 2020; in Ridanpää, 2025). Regenerative approaches take us beyond mere 'sustaining' and seek to improve the capacities of interconnected socio-ecological systems (Du Plessis & Brandon, 2014; Duarte et al., 2024, p.5; Dziadkiewicz et al., 2024; Ridanpää, 2025). Furthermore, the regenerative paradigm is not detached from sustainability; indeed, it represents an evolution in sustainability thinking, a shift from mechanistic worldviews to living systems thinking (Benne & Mang, 2015; Gibbons, 2020; in Ridanpää, 2025). Living systems thinking posits that humans and social systems are nested in the wider ecology, thereby framing our responsibilities within the living world (Capra, 2002; in Ridanpää, 2025).

Although regenerative tourism holds much promise as a remedy for destructive capitalistic practices (Nieuwland, 2024; in Paddison & Hall, 2024), it is largely hindered by contemporary system logics (Mathisen et al., 2022). From a regenerative tourism perspective, the purpose of tourism is to benefit socio-ecological systems by partnering with place and other stakeholders (Bellato, 2024).

Although the terms 'worldview' and 'paradigm' are frequently used as fully interchangeable notions, a shift in worldview is prerequisite to a paradigm shift. A paradigm can be defined as the shared values, concepts and practices of a community as shaped by the particular view of the world by that community (Kuhn, 1996, p.42; Capra, 1997, p.6; Wilber, 2000a, p.282; in Du Plessis & Cole, 2011, pp. 436-437). Although originally used to describe the practices of a scientific community (a scientific paradigm), the term is also used to refer to the practices of society (a social paradigm). A paradigm has to do with how we pursue knowledge: what we are able to perceive, the ways we acquire knowledge, especially in science, and what we consider to be reliable knowledge (the study of which is formally known as epistemology) (Sanford, 2019).

A worldview, on the other hand, is a cosmological framing of how things work. It is based on societal values and beliefs and has mainly to do with how we ought to live. Within disciplines or fields of endeavor, it is worldviews that describe origins and provide coherence (Sanford, 2019).

Sustainability Paradigm

The term sustainability was borrowed from natural and applied sciences to business, as is 'ecosystem', but often without understanding the complexities of these terms in natural environment (Hussain & Haley, 2022). The values and theory of action of the ecological worldview defines a sustainability paradigm that aligns human development efforts with the creative efforts of nature. This paradigm has the potential to create a future where the damage done to the biosphere and to our social systems has been restored, and people can live in mutually supportive symbiosis with their social and biophysical environment (their whole ecological system) be the one nurturing and growing the potential of the other.

It is, in principle, "the reconnection of human aspirations and activities with the evolution of natural systems essentially co-evolution" (Mang & Reed, 2012, p.6; Du Plessis & Brandon, 2014). In addition, a new scientific paradigm with a specific focus on the problems of sustainability is emerging from this worldview. This transdisciplinary 'sustainability science' (Kates et al., 2001; Burns et al., 2008; in Du Plessis & Brandon, 2014) introduces new ways of thinking, new ways of modeling, new ways of assessment, the new methods of analysis, and new ways of dealing with the integration and dependency between the mini factors which make up this complex topic (Du Plessis & Brandon, 2014).

Reed (2007) suggests that this new sustainability paradigm goes beyond current notions of increased resource efficiency and reduced impact while meeting basic needs, to being based on the idea of whole or living-systems thinking, in which the "purpose of sustainability is sustaining life-enhancing conditions" (p.675). He proposes the following trajectory of increasingly whole approaches:

- restorative approaches that "restore the capacity of local natural systems to a healthy state of self-organization";
- reconciliatory approaches which "acknowledge "that humans are an integral part of nature and that human and natural systems are one"; and
- regenerative approaches that engage and focus "on the evolution of the whole of the system of which we are part" (p.677).

Regenerative Paradigm

This view changes how sustainability is understood in three fundamental ways. Firstly, it introduces the understanding that to be sustainable, it is necessary to move towards a developmental model that aligns human development efforts with the creative efforts of nature. This means following a development approach based on how nature works, not

on how humans would like the world to work. Secondly, the idea of the world as an ever-changing, impermanent and inherently unpredictable set of processes is shifting the interpretation of how sustainability should be defined. Thirdly, the notion that humans and nature are not two separate interacting systems, but rather one autopoietic system where members of the species Homo sapiens participate in the production, trans-formation and evolution of the ecosystem in which they find themselves. This introduces the idea that humans are not only to be responsible for consequences of their actions (reducing impact), but for the general health and well-being of the whole system of which they are part. These three insights form the basis of the regenerative paradigm (Du Plessis, 2012).

Importantly, a regenerative paradigm recognizes the importance of different types of knowledge and perceiving (Gibbons, 2020), including indigenous, spiritual and experiential ways of knowing -all of which can be drawn on a complement scientific understanding in a transdisciplinary approach, or one that is paradigm- transcending (Meadows, 1999; in Becken & Kaur, 2021).

Core to the regenerative paradigm is living systems thinking as a bedrock to build the capacity of humans to align and co-evolve with life systems (Mang and Reed, 2012). Initially developed by Charles Krone in the 1960s, living systems thinking gained traction with Capra's *The Turning Point* in 1982 and *The Wave of Life* in 1997 (Du Plessis & Brandon, 2014). Capra suggested that humanity's problem should be seen as a crisis of perception due to a failure to align human ways of seeing and thinking with how nature worked.

The regenerative paradigm is not detached from sustainability; indeed, it represents an evolution in sustainability thinking a shift from mechanistic worldviews to living systems thinking (Benne & Mang, 2015; Gibbons, 2020; Ridanpää, 2025, p.2). Living systems thinking posits that humans and the social systems are nested in the wider ecology, thereby framing our responsibilities within the living world (Capra, 2002; in Ridanpää, 2025). Living systems is a key element that elevates regenerative tourism beyond sustainability (Bellato et al., 2022b; Bellato & Pollock, 2025; Ridanpää, 2025, p.3).

Tourism Living System

Living system is defined as a self-organized whole (Dias, 2018). However,Mang and Reed (2012) argue – From a regenerative perspective "…natural systems and human systems, …are all living systems" (Dias, 2018; Hes & Du Plessis, 2014; Hussain & Haley, 2022). In the field of systems thinking, James Grier Miller defines living systems as a special subset of concrete systems such as moneres, protists, fungi, plants, animals, groups, organizations, societies, and supranational systems (Dias, 2018; Hussain & Haley, 2022; Bellato et al., 2024).

To understand the complexity of tourism, Leiper (1979; in Hussain & Haley, 2022) came up with a partially industrialized phenomenon of tourism where the elements of the tourism industry are discussed in terms of the degree of industrialization. Leiper's Tourism System comprises of the tourist, geographical features (departing travelers, tourist transition region, returning travelers) and tourism industry (Leiper, 1979; in Hussain & Haley, 2022). Tourism is becoming increasingly recognized as an 'interrelated system within the larger ecological living system' (Jamrozy, 2007, p.125; Paddison & Hall, 2024, p.6), with living systems thinking being applied to tourism within the context of regenerative development (Bellato et al., 2022a; in Paddison & Hall, 2024). Tourism as a living system advocates for a transformation of theory and practice by developing knowledge concerning the interconnections and interrelationships between human and non-human stakeholders (Bellato et al., 2022b; in Paddison & Hall, 2024).

When tourism is planned with this living system mindset, care and respect for residents, visitors and the land are prioritized (Sheldon, 2025).

Sustainable Development and Sustainability

In an academic context, the difference between sustainable and sustainability is one of function: "Sustainable" is an adjective describing a characteristic, while "sustainability" is a noun refereeing to the overarching concept or goal (Google AI Overview). It is quintessential to understand development before explaining the term sustainable development. Throughout history, development has predominantly carried economic connotations and its practice has tended to implement neoliberal and modernization approaches to address the problem of global poverty (Mowforth, 2014; in Vodden et al., 2023, p.45). The basic understanding of development as a field of policy and practice relates to the idea of improving, building up, and advancing the well-being and quality of life of people at various scales, including communities of place (Tombazos & Miller, 2006; in Vodden et al., 2023).

The term 'development' has evolved considerably over the last half-century and is now a multi-dimensional concept which is defined variously throughout the literature (Telfer & Sharpley, 2015; in Rahman et al., 2018). One of the most prominent 'thought leaders' in the study of development, Nobel Laureate Amartya Sen (1999, p.3; Rahman et al., 2018) defines development as "a process of expanding the real freedoms that people enjoy" and extends the definition beyond core economic (growth) criteria like industrialization or technological change emphasized by the neo-classical growth theorists. Such an orientation of development concept signifies the 'alternative growth' paradigm (Telfer, 2015; in Rahman et al., 2018), which is featured by people-centered and bottom-up principle

with an increasing focus on socio-cultural and environmental aspects.Development is an interdisciplinary subject, which has no single broadly accepted definition, but it incorporates social, economic, political and human dimensions of society (Davies & Hossain, 1997; in Hussain, 2019, p.10). According to Edwards (1993; in Hussain, 2019), development is specifically about the enrichment of the livelihoods of people in community. Todaro and Smith (2012; in Hussain, 2019) agreed with Edwards (1993; in Hussain, 2019) and suggested that development is a multidimensional process which involves recognition and reorientation of entire economic and social systems. Such systems are based on raising living standards, ensuring growth through social, political, economic and institutional systems, and increasing freedom of choice through variety of goods and services (Todaro & Smith, 2012; in Hussain, 2019).

Sustainable development concept initiated under the purview of alternative growth in the late 1980s following the publication of "Our Common Future" (United Nations World Commission on Environment and Development [UNWCED], 1987), which is widely referred to the 'Brundtland Report'. Brundtland (1987, p.292; in Rahman et al., 2018) introduced and positioned the concept of sustainable development with a core criterion of "meeting the needs and aspirations of the present generation without compromising the ability of future generations to meet their needs".

Sustainable development is a global socio-political model for changing practices and institutions in order to achieve more equitable opportunities within and between generations while taking into account limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs. Promoting sustainable development therefore necessitates overcoming narrow preoccupations and compartmentalized concerns by involving people from civil society, the private sector and public agencies as actors in participatory deliberation and decision making. Thus sustainable development is a way to conceive the common good as the basic principle of public legislation in a complex world. Agenda 21, a program of the UN, is a comprehensive blueprint of action to be taken globally, nationally and locally (Pohl & Hadorn, 2008, p.431; in Du Plessis, 2012).

The study of sustainable development and sustainability begin with assembling a huge database of scientific publications in English written between 1974 and 2010 that contain the words "sustainability" and/or "sustainable development". The base contains about 20,000 papers, authored by about 37,000 authors found in 174 countries and in 2,200 cities (Science Staff, 2011; in Kates, 2011). The international community embraced

sustainable development at the 1992 UN Conference on Environment and Development in Rio de Janeiro, incorporating it into both the Rio Declaration and Agenda 21 (Benson & Craig, 2014, p.778).

The 2015 report of Millennium Development Goals (MDGs) provide a sobering reflection on the enormity of the challenges facing the world community as it strives to implement the newly established Sustainable Development Goals: about 800 million people still suffer from extreme poverty and hunger; because of malnourishment, more than 160 million children under age five have inadequate height for their age; 57 million children of primary school age do not go to school; about 16,000 children under five die each day; the maternal mortality ratio in developing countries is fourteen times higher than in the developed countries; just fifty percent of pregnant women in developing countries receive the recommended minimum of four antenatal care visits; in 2013 about 36 percent of the 31.5 million people living with HIV in developing countries were receiving ART; almost half of workers globally still work in vulnerable conditions; 2.4 billion people still use unimproved sanitation facilities in 2015; and over 880 million people in the developing world are still living in slum-like conditions (2015 MDGs Report; in Nanda, 2016, p.397).

The concept of sustainable development is so pervasive that almost every sector of an economy embraces the triple bottom-line principle of sustainable development. Accordingly, United Nations (UN) transformed the Millennium Development Goals (MDGs) to Sustainable Development Goals (SDGs) to represent the post-2015 development agenda both at global and local level. SDGs set 17 goals containing 169 sub-targets in total (United Nations, 2018; in Rahman et al., 2018; Shelley, Nov.1, 2022). The goals and targets are developed to achieve within a 15-year time frame from 2015 to 2030. The agenda acknowledges that different issues such as poverty, hunger, health, education, gender equality, environmental degradation, among others, are intertwined and can therefore only be addressed together. Implementing the SDGs as an 'indivisible whole' represents the actual litmus test for the success of the 2030 Agenda (Shelley, Nov.1, 2022). It has been argued by the United Nations World Tourism Organization (UNWTO) that tourism can contribute directly and indirectly to all the goals set by the UN although it has been expressly included as targets in goals 8, 12, and 14 (UNWTO, 2015; in Rahman et al., 2018). These goals are focused on inclusive and sustainable economic growth through employment creation, sustainable consumption and production (SCP) of resources, and the sustainable use of oceans and marine resources (Rahman et al., 2018).

A larger example of sustainable development goals (SDG) includes the issue of ecological modernization and green economy and the belief that economic development,

technology and economic welfare will all contribute to the more ecologically benign products and technologies (WCED 1987; UNEP 2011; in Kopnina, 2015). In fact, one of the central concepts outlined is 'sustained and inclusive economic growth' (UN, 2015; in Kopnina, 2015). Supposedly, part of this 'sustainable growth' would address sustainability itself – also concrete sustainability challenges, including climate change (Kopnina, 2015).

Academics and practitioners have more recently expressed the notion of sustainable development in terms of triple bottom-line approach to human well-being: economic development, environmental sustainability, and social inclusion (Sachs, 2012; in Rahman et al., 2018). John Elkington (1994, 1997; in Joshi & Kunwar, 2018), the sustainability thought leader who coined the term "triple-bottom-line (people, planet and profit)," amplifies the sentiment that "doing less harm" is not enough and now advocates for adopting a regenerative approach to sustainability (Elkington, 2020; in Day et al., 2022).

The concept of sustainability dates back to early UN conferences in the 1970s and has become increasingly difficult to disentangle from sustainable development, although the two concepts are not necessarily the same. In general, ''sustainability'' refers to the long-term ability to continue to engage in a particular activity, process, or use of natural resources (16 U.S.C., ××, 1801–1884; in Benson & Craig, 2014, p.778). Sustainability is an approach of stewardship where well-being is maintained over a long period by bequeathed resources, quality of the environment, and capital to future generations (Kuhlman & Farrington, 2010; in Acharya & Halpeny, 2017, p.3). Many dimensions of sustainability are discussed by different authors, of which a three pillars tradition is a popular approach in tourism studies that includes economy, society and environment. Along with three, some other dimensions such as cultural, political and technological are also considered in some studies (Choi & Sirakaya, 2006; Gibson, Hassan, Holtz, Tansey & Whitelaw, 2013; Park & Yoon, 2011; in Acharya & Halpeny, 2017). Sustainability is becoming a very ambiguous term. An article revealed that until 2007 there were an estimated three hundred definitions of 'sustainability' and 'sustainable development' exist broadly within the domain of environmental management and the associated disciplines which link with it, either directly or indirectly (Johnston et al., 2007; Dias, 2018, p.315).

Ray C. Anderson was inspired from the book written by Paul Hawken, The Ecology of Commerce published in 1993 and developed a concept which is known as climbing mount sustainability. In this study, Anderson focuses on the climb of "seven faces" of mount sustainability. All seven climbs, although it is tough to climb means that achieving true sustainability is harder than the toughest physical challenge on earth. It signifies that it

requires rethinking the entire industrial model, which is much harder than simply changing a few products (Anderson, 2004). The Seven fronts sustainability are: 1) Eliminating Waste, 2) Benign Emissions, 3) Renewable Energy, 4) Closing The Loop, 5) Resource Efficient Transportation, 6)Sensitizing Stakeholders and 7) Redesign.

Anderson (1998) describes sustainability as a "mountain to climb," referring to the journey as "Mount Sustainability." It refers to the monumental challenge of transforming a traditional, linear, and polluting industrial business into a fully sustainable, circular, and zero-environmental-footprint company.

- "A mountain to climb": The concept of a "mountain to climb" illustrates that achieving sustainability is a difficult and demanding process. It emphasizes that sustainability is not a quick or simple goal, but a long term effort requiring significant changes and commitment (Anderson, 1998, p.59).
- "Higher than Everest and infinitely more difficult": This metaphor emphasizes that achieving true sustainability is harder than the toughest physical challenge on earth. It signifies that it requires rethinking the entire industrial model, which is much harder than simply changing a few products. According to Anderson (1998, p.9), higher than Everest "…means creating and adopting the technologies of the future-kinder, gentler technologies that emulate nature".
- "Mount Sustainability": The name for this journey to zero negative impact ("Mission Zero") (Anderson, 1998).
- The Goal: The goal at the summit is to operate in a way that does no harm to the planet, using renewable energy and, in the case of manufacturing, closing the loop on material flows to create a truly circular economy (Anderson, 1998, p.92).

By definition, sustainability assumes that there are desirable states of being for social-ecological systems (SESs) that humans can maintain (within a certain range of variability) indefinitely. In practice, sustainability-based goals proved difficult to achieve in many SESs even before climate change impacts became noticeable (Benson & Criag, 2014, p.779).

Edwards (2005, p.5; in Du Plessis & Brandon, 2014, p.1) describes sustainability as "a revolution with a new value system, consciousness and worldview". Orr (2005, p.xiv; in Du Plessis & Brandon, 2014) further describes this 'sustainability revolution' as "… nothing less than are thinking and remaking of our role in the natural world. It is a recalibration of human intentions to coincide with the way the biophysical world works".

While redefining sustainability, sustainable development and design Orr (1992; Van der Ryn & Cownan, 1996; in Mang & Reed, 2012) have been described as falling broadly into two streams- one primarily technical and engineering based (technological sustainability) and the other based in ecology and living systems principles (ecological sustainability). Mang and Reed (2012) focus on ecological sustainability and built environment. The philosophical and technical foundations for regenerative development and design as a distinctive field within ecological sustainability were laid in the 1990s. In the same line, Gibbons (2020) explained three streams of sustainability- 1) conventional sustainability, 2) contemporary sustainability, and 3) regenerative sustainability that have emerged, their context, and their main characteristics.

Contemporary sustainability advances conventional sustainability by adding considerations of ecosystem viability, social justice, social–ecological and social–ecological–technical systems, satisfying livelihoods, and normativity (Miller et al., 2014; Wiek, 2015; in Gibbons, 2020). “Regenerative sustainability” has been called the next wave of sustainability (Lovinset al., 2018), and it represents a necessary worldview and paradigm shift for sustainability (Du Plessis, 2012; Gonźalez-Marquez & Toledo, 2020; Gibbons, 2020, p.3). It includes and transcends conventional and contemporary sustainability, adopting a holistic worldview (Gibbons et al., 2018; Du Plessis & Cole, 2011; Gibbons, 2020).

Regenerative Sustainability

Regenerative development is based on ecological principles and an ecological worldview that consciously adopts a whole living systems approach and works towards regenerative sustainability (Benne & Mang, 2015; in Gibbons et al., 2018, p.5). Regenerative sustainability focuses on strengthening “the health, adaptive capacity, and evolutionary potential of the fully integrated global social-ecological system so that it can continue regenerating itself, thereby creating the conditions for a thriving and abundant future–not only for the human species, but for all life” (Du Plessis, 2012). Regenerative development translates regenerative sustainability principles and values of wholeness, change, and interrelationship into design and development frameworks and technologies that create and manifest designs, plans, and capacities in social-ecological systems. In social-ecological systems, humans are seen as an integral part of nature and partners in the processes of co-creation and co-evolution instead of being merely users or clients of various ecosystem services (Du Plessis, 2012).

The key elements of regenerative sustainability paradigm as per Du Plessis and Brandon (2014) can be summarized as follows:

- The objective of sustainability is to uphold relationships that sustain the ability of the global social-ecological system to provide not just life-supporting but also life-enhancing conditions for the global community of life. To achieve this, it would be necessary to maintain the wholeness of both local and global systems (i.e. their critical structures, functional integrity, overall health and well-being, and capacity for regeneration and evolution), and for human efforts to participate positively in processes of creation, evolution and regeneration.
- Sustainability is about learning how to respond and adapt to, and evolve with, change and surprise, while avoiding changes threatening the life-supporting and life-enhancing capacity of global and local social-ecological systems.
- Sustainability is based on a value system which holds that both people and nature should be treated with respect and in a spirit of fellowship and mutuality, and actions should focus not only on the well-being of humans, but on the well-being of the entire social-ecological system. This means that humans have a duty of care that requires them to support the well-being and evolution of the social-ecological systems of which they are part, and take responsibility for the consequences of their actions.
- Decision-making for sustainability is a reflective process that guides decisions about proposed actions, not by measuring these actions against pre-determined and negotiated criteria and indicators, but by questioning whether the proposed actions uphold the values of the ecological worldview and how it expresses these values, as well as what the possible consequences of an intended action would be across system scales and levels.
- Sustainability initiatives are not goal-driven, but rather reflective responses that allow systems to adapt to changing circumstances, new knowledge and surprise; learning from experience in order to build adaptive capacity and healthy resilience and regenerate themselves by evolving towards more abundant, complex and diverse states.

Sustainable Livelihood

‘‘Livelihood’’ is a more concrete concept than ‘‘development’’ and easier to discuss, observe, describe and even quantify (Tao & Wall, 2009). A livelihood comprises the

capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets, while not undermining the natural resource base (Tao & Wall, 2009). Tao and Wall (2009) introduces and applies a Sustainable Livelihood Approach (hereafter SLA).

SLA is a people-centered paradigm which emphasizes people's inherent capacities and knowledge and is focused on community level actions (Chambers, 1986; UNDP &Wanmali, 1999; in Tao & Wall, 2009). With an emphasis on livelihood security, it recognizes that it is necessary to begin by focusing on people, with the resources that they currently control, and the knowledge and skills that they already have (Chambers, 1988). According to Chambers and Conway (1992; Scoones, 1998, p.5; in Tao & Wall, 2009):

If a community decides to incorporate tourism as one of their livelihood strategies in order to achieve SL, tourism will be a form of livelihood diversification. Ellis (1998, p.5; Hussein & Nelson, 1998, p.4; in Tao & Wall, 2009) defined livelihood diversification as "the process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standards of living." Such diversification can have many advantages and tourism can become:

- a means to enable accumulation (e.g., income) for consumption and investment
- a means to help spread risk;
- an adaptive response to longer-term declines in income or entitlements, due to serious economic or environmental changes beyond local control; and/or
- a means to take pressure off fragile lands and increase household incomes. Appropriate involvement in tourism, which is often desired by local people, will bring changes in uses and values of resources and activities (Tao & Wall, 2009).

In this kind of study, it is noteworthy to mention that Rahman, Simmons, Shone, & Ratna (2021) have developed a concept of 'Capitals Co-management for Sustainable Livelihood Framework (CCSLF)' which has six elements: livelihood capitals, formal institutional arrangements, co-management frameworks and processes, vulnerability context, and livelihood outcomes. Importantly, all of these elements must be addressed within the local tourism and destination context (Plummer et al., 2006; in Rahman et al., 2021). They further elaborate the significance of CCSLF, quality of life (QoL), and community well-being is gaining attention in the sustainable tourism literature (Cakir et al., 2018; Moscardo, 2014; Rahman, 2019; Shen et al., 2008; Tao & Wall, 2009; in Rahman et

al., 2021). Community resources contributing to sustainable livelihoods have been coined by numerous terms in the literature and include 'livelihood assets' (Ashley, 2000; DFID., 1999), 'community capitals' (Flora et al., 2004; Stone & Nyaupane, 2018), and 'rural capitals' (Bosworth & Turner, 2018; Castle, 1998; in Rahman et al., 2021).

Community capital is highly been focused by the scholars such as Flora and Flora who introduced the Community Capital Frameworks (CCF) to understand systems relating to poverty, natural resource management, and social equity (Flora & Flora, 2013; in Kline et al., 2019). The SLA tracks five capitals: human, social, natural, physical, and financial. A total of seven capitals are included in Flora's model, which adds built and political capitals to the SLA model. The community capitals of the CCF are defined as follows:

- Natural capital: air, water, soil, living things, and weather
- Cultural capital: values, perceptions, symbols, and reward systems
- Human capital: individual potential determined by nature (genetics) and nurture (social interaction and the environment)
- Social capital: mutual trust, reciprocity, collective identity, working together, and a sense of a shared future
- Political capital: the ability of a community or group to turn norms and values into standards
- Financial capital: savings, income, fees, loans and credit, gifts and philanthropy, taxes, and tax exemptions
- Built capital: human-constructed infrastructure (Flora & Flora, 2013; in Kline et al., 2019).

This model emerged from the practice and application of the SLA as well as other participatory strategies (Gutierrez-Montes, Emery, & Fernandez-Baca, 2009; in Kline et al., 2019). The SLA was developed with the belief that livelihoods are sustainable when individuals or households can recover from shocks while maintaining their stocks of capitals, including natural resources.

Sustainable Tourism

A couple of decades ago, sustainable tourism was proposed as an alternative practice that would help solve some of the predominant issues with traditional mass tourism (Krippendorf, 1987; Corral-Gonźalez et al., 2023). The first document that specifically relates tourism to sustainability is the 1994 Osaka Declaration on Tourism (OMT-UNWTO, 2016; in Izquierdo-Gascoin & Rubio-Gil, 2022).

Sustainable tourism was first mentioned in the scientific literature in 1993 and grew rapidly to peak at 2932 papers published in 2021, declining to 2620 papers published on the subject in 2022. The 2005 guidelines of the World Tourism Organization and Environmental Program of the UN recommended sustainable tourism to strive at (1) making optimal use of environmental sources, maintaining essential ecological progresses and helping to conserve natural heritage and biodiversity; (2) respecting the socio-culture authenticity of host communities and contributing to inter-culture understanding and tolerance; and ensuring viable, fair, long-term socio-economic benefits to all stakeholders (United Nation Environment Program & World Tourism Organization, 2005). However, by 2019, only 11% of nations had implemented sustainable tourism (Hussain, 2021; in Duarte et al., 2024).

According to Butler (1999), sustainable tourism is "tourism which meets the needs of present tourist and host regions while protecting and enhancing opportunity for the future" (p.10; in Chassagne & Everingham, 2019, p.1). Sustainable tourism also refers to tourism and its related infrastructure that function within the limits of natural systems, ensuring the ongoing regeneration and long-term productivity of natural resources. It acknowledges the vital role of local people, communities, and their customs and lifestyles in shaping the tourism experience. Furthermore, it emphasizes that these communities should receive a fair and equitable share of the economic benefits generated from tourism in their host areas (Eber, 1992; in Butler, 1999).

20 years ago, Jost Krippendorf, one of the founding fathers of sustainable tourism has stressed on the need to come to action and to measurable action, in the field of sustainable tourism which should be practical and simple with five to six indicators with which those responsible could be measured annually and reflect the progress made in the fields of lower energy consumption in developing tourism infrastructure (Krippendorf, 1993, p.58; in Gössling & Peeters, 2015). This reveals that Krippendorf highlights on the significance of sustainable tourism in lowering carbon emission.According to Bellato et al. (2022b, p.11), sustainable tourism derived from sustainable development by academics and industry and the term first documented in 1975 and formally recognized by tourism academics in 1993.

According to Ball (2024; in Jones 2024), 'sustainable tourism' was giving way to 'regenerative tourism.' Sustainable tourism and regenerative tourism have been described as 'different stages on the same continuum' (The Tourism Collective 2023; in Jones 2024).

Sustainability Science

Sustainability science is a new "discipline" in an academia as mentioned by Swart et al. (2004; in Komiyama & Takeuchi, 2006, p.3). Academia has prominently responded through

the initiation of a new field of research, namely, sustainability science, since the late 1990s (Kates et al., 2001; Clark & Dickson, 2003; Swart et al., 2004; Komiyama & Takeuchi, 2006; Martens, 2006; Jerneck et al., 2011; Wiek et al., 2011, 2012; in Lang et al., 2012).When sustainability science came out in 2001, this has been studied by several other scholars such as Kates et al. (2001); Kates (2010); Kates (2011a); Kates (2011b); Komiyama & Takeuchi (2006); Clark (2007); Du Plessis (2008, p.9, 13); Miller (2012); Lang et al. (2012); Clark and Harley (2020); Gonźalez-Marquez and Toledo (2020). Sustainability science is a broad interdisciplinary applied science field aiming to address sustainable development (Clark & Harley, 2020; Pollock et al., 2024, p.1174).

It was found to be an evolving approach relevant to regenerative tourism. Sustainability science draws from great varieties of perspectives, including tacit (traditional and practical) knowledge, ecology and economics, engineering and medicine, political science and law, and a multitude of others (Clark & Harley, 2020, p.5) such as agroecology, ecological economy, political ecology, environmental education, and environmental history (Gonźalez-Marquez & Toledo, 2020) These multiple perspectives are generally a source of strength, bringing potentially complementary bodies of theory, data, and methods to bear on the challenges of sustainable development (Ostrom, 2011; in Clark & Harley, 2020).

According to Gibbons (2020, p.2; Lang et al., 2012), sustainability science is the science of sustainable development. Sustainability science focuses specifically on understanding the dynamic interactions between nature and society (Kates et al., 2001; Du Plessis, 2008, p.9). Sustainability science, as described by the Proceedings of the National Academy of Sciences (PNAS) website, is "... an emerging field of research dealing with the interactions between natural and social systems, and with how those interactions affect the challenge of sustainability: meeting the needs of present and future generations while substantially reducing poverty and conserving the planet's life support systems" (Kates, 2011a; Hussain & Haley, 2022).

Analyzing 43 definitions of SS, Gonźalez-Marquez and Toledo (2020) identified two key elements: Understanding human–environment interactions and linking knowledge to action. These authors concluded that SS is a use-inspired, basic science of SD, which focuses on understanding human–environment interactions and linking understanding to actions by promoting a site-specific, multi-scale, and transdisciplinary approach (Gonźalez-Marquez & Toledo, 2020).

Sustainability science, like agricultural science or health science, is an applied science defined by the practical problems it addresses–specifically, the problem of

sustainable development (Kates, 2011; Clark & Harley, 2020, p.332). That problem was defined a generation ago by the World Commission on Environment and Development (the Brundtland Commission) in a prescient statement that merits careful rereading today:

> "Environment" is where we all live; and "development" is what we all do in attempting to improve our lot within that abode. The two are inseparable... Humanity has the ability to make development sustainable: to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs (pp. ix, 8; in Clark & Harley, 2020, p.332).

As a problem-and solution-oriented field, as cited by Lang et al. (2020) sustainability science is inter alia inspired by concepts of post-normal, mode-2, triple helix, and other science paradigms or "new type of science" (Funtowicz & Ravetz, 1993; Gibbons et al., 1994; Etzkowitz & Leydesdorff, 2000; Gonźalez-Marquez & Toledo, 2020; in Kunwar & Ulak, 2023, 2024, 2025) that employ corresponding research practices, such as transdisciplinary, community-based, interactive, or participatory approaches (Kasemir et al., 2003; Savan & Sider, 2003; Becker, 2006; Robinson & Tansey, 2006; Hirsch Hadorn et al., 2006; Jahn, 2008; Scholz et al., 2006; Scholz, 2011; in Lang et al., 2012). These practices have in common that they focus on research collaborations among scientists from different disciplines and non-academic stakeholders from business, government, and the civil society in order to address sustainability challenges and develop solution options. In the ground-breaking article on sustainability science by Kates et al. (2001), it reads accordingly that ''participatory procedures involving scientists, stakeholders, advocates, active citizens, and users of knowledge are critically needed'' (p.641; Lang et al., 2012).

Bettencourt and Kaur (2011) sought direct evidence that SS has created a new community of practice and a new synthesis in terms of concepts and methods. Hence it is a hybrid discipline as mentioned by (Gonźalez-Marquez & Toledo, 2020). These hybrid disciplines, emerging in practically all the fields of social or applied sciences (agronomy, education, and urbanism), consider that the study of each human dimension (the social, economic, political, historical, and cultural dimensions, among others) cannot be separated from the study of nature (Toledo, 1999; in Gonźalez-Marquez & Toledo, 2020).

Citizen Science

A specific research design can be selected based on the specifics of a particular research issue in different disciplines. This approach is close to the following concepts such as citizen science, case study, cooperative education, critical thinking, design thinking, sustainable development, indigenous knowledge, knowledge transfer, learning in transformation,

participatory action research, performative knowledge, real-world lab, research integrity, research-based education, science communication and so on (Sharia & Sitchinava, 2023, p.2). Transdisciplinary approaches are recognized as effective methods of studying complex issues in modern scientific and educational fields. One of the key objectives of the transdisciplinary research is to integrate scientific and experiential knowledge, which is based on the concept “science with society". Transdisciplinary research has some characteristics; first of all it focuses on socially relevant issues, as well as integration of disciplinary paradigms that should be carried out by joint research. It can be said, that the main emphasis is made on the unity of knowledge existing in different disciplines, which as mentioned above should be focused on solving the problems which exists in society (Khokhobaia, 2018; see in detail Kunwar & Ulak, 2025). Therefore, it is necessary to consider the different perspectives and development scenarios, involving academic and non-academic subjects which requires interconnections of different types of knowledge and focus on problems and the ways to solve them. As for integration, it is a rather complex process, which in turn implies merging of scientific and experience-based knowledge, which exists both in academic and non-academic actors (Khokhobaia, 2018). The neighboring discipline of sustainability science is recently innovated as citizen science which makes comfortable understanding the role of the non-academic actors along with the scientists in the field of research.

Citizen Science is the collection and analysis of data relating to the natural world by members of the general public, typically as part of a collaborative project with professional scientists (Butler et al., 2023). The prevalence and popularity of Citizen Science (hereafter CS) has unquestionably grown, and as Bonney et al. (2016, p.13; in Butler et al., 2023) suggest, ‘what was once a novel idea–lay people engaging in the scientific enterprise–is becoming mainstream’. In the first place, CS tries to find a way through the usual monolithic representations of ‘science’ and the ‘public’. Both the ‘public understanding of science’ and the ‘scientific understanding of the public’ will, therefore, be considered (Irwin, 1995, p.ix).

The term CS was coined in 1989 by R. Kerson (Jaeger-Erben et al., 2023). The term appeared in an issue of the MIT Technology Review (Haklay et al., 2021). The term CS originates from Anglo-American contexts and generally describes the procedure of involving citizens who are not institutionally anchored in academia as active participants in a scientific research process (Jaeger-Erben et al., 2023).

According to US Citizen Science Association, CS is the involvement of the public in scientific research whether community-driven research or global investigations (Haklay

et al., 2019; Haklay et al., 2021). In the academia of all sciences, CS has been repeatedly used. Haklay has collected 34 different definitions defined by different countries and other respected international organizations. Scholars have also named as "community science" or "participative science" (Haklay et al., 2019; Jaeger-Erben et al., 2023). The core issue of 'who is a scientist' is left deliberately blurred. This is because it is easier to identify professional scientists as those that are employed to carry out scientific work or investigation. With unpaid scientists, the situation is more complex–many will not define or identify themselves as scientists even if they are carrying out significant work within the scientific frameworks (Haklay, 2013). It is important for practitioners and policymakers to understand these differences so that they can navigate and support the full breadth of opportunities available in and through citizen science (Haklay et al., 2021).

Schaffer and Tham (2019; in Butler et al., 2023) have broadly categorized CS approaches into four themes in contemporary discourse: 1) enhancing scientific knowledge and public understanding; 2) reducing project costs; 3) the personal growth of participants; and 4) the development of social capital.Enhancing scientific knowledge and public understanding are perhaps the most observed–or anticipated–benefits. Indeed, CS data can have a significant impact on scientific discovery, especially in studies involving biodiversity, climate change, and environmental science (de Sherbinin et al., 2021; Ries & Oberhauser, 2015; in Butler et al., 2023).

They are Mieras et al., (2017; in Jaeger-Erben et al., 2023), who have identified 18 CS and synthesized into five common themes: participation design, diversity, training and education, evaluation and dissemination, partnership and collaboration (Jaeger-Erben et al., 2023). It is found that tourism scholars have applied CS in different tourism studies and there are 5700 papers published (Mieras et al., 2017; in Jaeger-Erben et al., 2023).

Research Methodology

This study adopts a qualitative and exploratory research design to examine the emerging concept of regenerative tourism, situating it within the broader paradigm shift from sustainability to regeneration in tourism development. As the concept is relatively new and continuously evolving, an interpretive approach has been considered appropriate to explore its conceptual foundations and theoretical origins. The study was conducted over a period of nine months as a non-funded academic work, during which various secondary sources such as peer-reviewed journal articles, scholarly books, policy documents, and institutional reports related to regenerative development and sustainable tourism were examined. These

materials were selected purposively based on their relevance, conceptual contribution, and ability to explain the evolution of regenerative thinking. The process of data collection and analysis was iterative and interpretive in nature, where literature was continuously read, compared, organized and discussed into thematic categories to identify recurring ideas, key principles, and theoretical linkages. Particular attention was given to tracing the origin of the regeneration concept and understanding how it has influenced and shaped the discourse of regenerative tourism. Through this continuous process, the study has synthesized major concepts and presented an integrated understanding of the theoretical foundations of regenerative tourism. As the study is conceptual in nature, it does not separate discussion into different section; instead, analysis and interpretation are presented together in a unified narrative to ensure coherence and continuity of ideas.

Regenerative Economy

While studying regenerative agriculture and regenerative tourism, scholars such as Fullerton (2015, pp. 8–9, p. 43), Cave and Dredge (2020, pp. 3–4), Day et al. (2022, p. 28), and Coll-Barneto and Fusté-Forné (2023, pp. 241–244) have engaged with the concept of the regenerative economy. This concept is recognised as a powerful tool for regenerative tourism, derived from plural knowledges–also referred to as the pluriverse–and from diverse economic alternatives. These alternatives are connected to the post-extractive economy (Hussain, 2019, 2021; Pollock, 2019b), post-capitalist economy (Mathisen et al., 2022, p. 232; Cave & Dredge, 2020), circular economy (Day et al., 2022; Morseletto, 2020), the eight principles of regenerative economy (Fullerton, 2015, pp. 8–9; Day et al., 2022, p. 28; Sheldon, 2022), and post-development theory (Bellato, 2025; Demaria et al., 2023; Demaria & Kothari, 2022).

Post-development, as Bellato (2025) writes, is a theoretical perspective articulated by Demaria et al. (2023), Ziai (2023), and Steele and Rickards (2021). It at least partially aligns with regenerative (tourism) development discourse, which draws from the lineage of regenerative development (Bellato et al., 2023; Mang & Reed, 2012; Pollock, 2019; cited in Bellato, 2025, p. 962) in several ways.

New economy ideas also referred to as “nowtopia” (Carlsson & Manning, 2010) include concepts such as natural capitalism, sustainable capitalism, conscious capitalism, doughnut economics, circular economy, sharing economy, and steady-state economy, among others (Fullerton, 2015). The regenerative economy has also been conceptualised through post-extractivism (Chassagne & Everingham, 2019,

p. 8; Escobar, 2021) and capitalocentrism (Gibson-Graham, 2002, pp. 36, 56; Gibson-Graham, 2014; 2020, pp. 480–481).

To reach a post-extractive economy, however, society requires concrete economic alternatives (Chassagne & Everingham, 2019). The pursuit of such alternatives–which may lead to a post-extractive economy by degrowing socially and environmentally damaging sectors–is part of the practical implementation of Buen Vivir (Chassagne & Everingham, 2019).

Since the emergence of mercantile capital, and later capitalist industrial enterprise, strongly capitalocentric theories of economic reorganisation have dominated understandings of economic change. Capitalocentrism refers to the positioning of all economic identities in relation to capitalism as "fundamentally the same as (or modelled upon) capitalism, or as being deficient or substandard imitations; as being opposite to capitalism; as being the complement of capitalism; as existing in capitalism's space or orbit" (Gibson-Graham, 1996, p. 6; cited in Gibson-Graham, 2014, p. S148). Capitalocentric dynamics are those understood as strengthening or bringing capitalist relations into being. Such dynamics include the enclosure of common property, proletarianisation, marketisation, commodification, capital accumulation, and the neoliberal privatisation of state resources (Gibson, Cahill, & McKay, 2010; cited in Gibson-Graham, 2014). All the above-mentioned theoretical constructs and ideas have contributed to a significant paradigm shift and emerged as powerful tools in the fields of regenerative development, regenerative economy, and regenerative tourism.

Regenerative Tourism

The concept of regenerative tourism shall be under shadow if one fails tounderstand the concept of cultural creatives and conscious travel. The idea of conscious travel (Conscious Travel, 2020; in Ajoon & Rao, 2020, p.3) emerged from conscious consumers (Bemporad & Baranowski, 2007; in Ajoon & Rao, 2020) and conscious capitalists (conscious capitalism, 2020; in Ajoon & Rao, 2020). The concept of cultural creatives was put forward in 2000 by the sociologists Paul H. Ray and Sherry Ruth Anderson (2000) and they are defined as individuals who acquire "new ways of looking at, and new ways of being in the world (Ateljevic et al., 2016, p.12; Phillips, 2019, p.70). Cultural creatives are inner-directed, embrace globalism, positivist human values, and relationships, spirituality and authentic experiences, altruism and social activism and lifestyles that are reflective of these values (Ateljevic et al., 2016; Ray & Anderson, 2000; in Phillips, 2019).

The concept of the silent revolution of cultural creatives comes from the historian Arnold Toynbee (1889-1975), an English historian and philosopher, who analyzed the rise and fall of 23 civilizations in world history. Ray and Anderson (2000; in Ateljevic, 2013, 2008) applied this concept in 13 years of research and discovered labeled this new subculture as the 'Cultural Creatives', who deeply care about ecology and saving the planet, about relationships, peace, social justice, self-actualization, spirituality and self-expression. These trans-modern cultural creatives are activists and volunteers who care about ecology and saving the planet, about relationships, peace, social justice, self-actualization, spirituality and self-expression. They are both inner-directed and socially concerned. They are activists, volunteers and contributors to good causes more so than other Americans.

Observing and researching new travel trends, Ateljevic (2020) argued they are indicators manifesting the emerging global shift in human consciousness rather than just 'special interest' market segments. This values-led, humanist perspective that strives for the transformation of our way of seeing, being, doing and relating in tourism worlds, called for the creation of a less unequal, more sustainable planet through action-oriented and participant-driven learnings and acts.Consciousness refers to the awareness of the system, "embodied-self-world-others,"all of which (and aspects and parts of which) are intuitive, that is, presentable;...(Giorgi, 1997, p.238). For Husserl, intentionality the essential feature of consciousness, and it refers to the fact that consciousness is always directed to an object that is not itself consciousness, although it could be as in reflective act (Giorgi, 1997, p.237).

Anna Pollock, with more than 40 years of experience as Tourism researcher, planner, strategist and change agent is the founder of Conscious Travel emphasizing of Regenerative Tourism (Pollock, 2013; in Ajoon& Rao, 2020) which is a new business model of perceiving and practicing tourism that can become a movement. Pollock (2015) uses the term 'conscious travel' which assists this transformation towards a life-affirming, place-based regenerative economy in which all stakeholders and all living forms can thrive and flourish. She has coined the concept of 'conscious traveler', on the basis of this growing body of general market research on 'The Conscious Consumer' (Živoder et al., 2015, p.5). Pollock, as cited by Živoder et al. (2015), claims that conscious travelers are re-inventing themselves and their world; they value what is slow, small and simple and aim for self-reliance; they are connected and communicative; they care about the places they visit; they seek meaningful experiences that help them to develop; they require their host/producers

of tourism experience to think globally but to act locally. In promoting this, she advises destination marketing and management organizations (particularly at the national level) to work on conscious tourism practice as a catalyst of peace, hope and healing of tired and exhausted people (guests and residents) and places (p.5).

The urgency of the many environmental and social crises demands a more transformative approach, and the regenerative tourism model holds promise to bring about that transformation. Sheldon (2025) deals with rethinking tourism systems which is a process of re-evaluating the values by which tourism policies, investments and business decisions are made. In this context,tourism is uniquely placed to contribute to the value shift on a more global scale. Wahl (2019) suggests that tourism is"…possibly the only industry with enough global reach and local trans-sectoral impact and power of influence to effect such an immense transition in a catalytic way…(p.1; in Sheldon, 2025)". This is a powerful statement, and one that tourism can and must respond to. There comes another theory which is known as seeing tourism as proposed by (Bellato & Pollock, 2023; Dredge,2022; Sheldon, 2022, 2025). The authors express that seeing tourism as a seeing tourism as a holistic, living system rather than simply a separate industry with economic benefits is the profound change that is needed (Bellato & Pollock, 2023; Dredge, 2022; Sheldon, 2022, 2025).

Tourism has a potential to become a vital force for regeneration in communities enabling everyone to flourish and thrive only if there is an interaction, interconnection, interdependence, collaborative network, community engagement, purpose, passion and commitment such situations can only be achieved when tourism is considered as a system rather than a industry (Ajoon & Rao, 2020, p.2).

Regenerative tourism is not a type of tourism; it is an understanding of the tourism system that prioritizes local people, places and practices in planning and development (Fusté-Forné & Hussain, 2025). It acknowledges that tourism is deeply connected with everything in the destination system; its food systems, health systems, technology systems, natural resources etc. In this sense, it functions as a living system similar to the forest, where all elements are interdependent and involve together in a system (Toerisme Vlaanderen, 2019; in Sheldon, 2025). Regenerative tourism emphasizes tourism management and marketing that value and strengthen relationships between humans and non-humans, to foster conscious and responsible visitor experiences (Fusté-Forné & Hussain, 2025).

A universal definition of regenerative tourism has not yet been developed or adopted (Dziadkiewicz, 2024). Regenerative tourism discourse lacks a universally accepted

definition and remains vague from both a theoretical and practitioner perspective (Bhalla & Chowdhary, 2022; Rojas et al., 2024; Sharma & Tham, 2023). Bellato et al. (2022a, p.11; 2022b, p.9) propose a working definition that describes regenerative tourism as a 'transformational approach' that enables destinations to 'flourish' through creating 'net positive effects' by 'increasing the regenerative capacity of human societies and ecosystems.' The concept of a 'net-positive' impact is very important, which is popular in regenerative tourism and hospitality. They are Inversini et al. (2025) who have conceptualized the meaning that businesses contribute more to the environment and society than they take.

Although authors generally agree on the goals of regenerative tourism,but its operationalization is less clear, and authors have focused on different aspects. Regenerative tourism is an emerging, evolving and dynamic concept that emphasizes man's relationship with himself, with others and with the earth. Bill Reed (ReGenesis) prioritizes new relationships between humans and nature, "Regeneration is about restoring and then regenerating the capability to live in a new relationship in an ongoing way" (Reed in Galena, 2021). From this perspective, the visitor is called to visit a place by slowing down their rhythm to leave an experience that activates deep and positive connections between themselves (tourist), with the local community (residence), the place (destination) and the systems that sustain life in that territory, which must be lived with the rhythms of nature (Teruel, 2018; in Rodrigues et al., 2024, p.80). Paul Hawken (Project Drawdown) calls for a new humanity: "Regenerative tourism has two components: the need to regenerate life on earth and the need to develop a new generation of humanity wanting to save the planet" (www.regenerative travel.org; in Sheldon, 2022).

80 years ago, two visionary scholars, Walter Hunziker and Kurt Krapf, from the Swiss Universities of St. Gallen and Bern respectively, realized the transformative and regenerative nature of tourism, particularly in the aftermath of the catastrophic period of the Second World War. They proposed that tourism could serve as a powerful catalyst for transformative and regenerative development, fostering peace by rebuilding a war-torn and deeply divided Europe (Buhalis, 2025). Perceiving a destination as a regenerative system replaces production-oriented thinking, profit maximization, separation, individualism and marketization with the notion of interdependence (Dredge, 2022).

From 2005-2013, the term "regenerative tourism" was coined by Owen (2007, 2008) in the context of architectural design for ecotourism facilities. Regenerative tourism derived from the regenerative development approach by practitioners; 2007 term first coined recognized by tourism academics in 2020 (Bellato et al., 2022b, p.11). In 2011,

Anna Pollock introduced the "conscious travel" approach, aligning tourism with an "ecological worldview" (Du Plessis, 2012). By 2012, regenerative development gained acknowledgement in peer-reviewed literature. The subsequent years, spanning from 2014-2021, witnessed further expansion and development of regenerative tourism. Since 2015, numerous practitioners and scholars outside of tourism have introduced regenerative concepts to tourism businesses. Notable authors include Giles Hutchins, Michelle Holliday, Dainel Wahl and others cited in various books and papers such as Major and Clark (2021). The term regenerative tourism was first published by a tourism practitioner in 2017 (Araneda, 2017; in Bellato et al., 2022b) before gaining wider use by practitioners.

Though regenerative tourism first appeared in the peer-review literature in 2007,it grew slowly as a research topic until 2021 when a large increase was evident, with 244 papers published on the concept in 2022 (Duarte et al., 2024, p.4). Idawada and Lee (2025, p.22) highlight 350 papers are published on regenerative tourism based on its context conceptualization. Though regenerative tourism is a novel concept, the published articles in the peer-reviewed journals reveal that regenerative tourism is gaining popularity in academia.

Though there are many definitions of regenerative tourism defined by many scholars of different disciplines. Among those various definitions, the authors have selected only definitions of Owen (2007), describes regenerative tourism as critically engaging Sheller (2021), Bellato (2022) and Cave and Dredge (2020) to delimit this study. Owen (2007) describes regenerative tourism as critically engaging with place, making a positive impact, seeing people as part of nature, and linking ecology to socio-political processes. Sheller (2021) describes regenerative tourism as embracing "alternative non-capitalist forms of ownership, non-monetary exchange and beneficial community-based development" (p.2) and calls for a departure from colonization, racial inequity, and extractive neoliberal development towards an alter-native collective future. Cave and Dredge (2020) similarly envision regenerative tourism incorporating alternative economic practices to mediate global and local values and create 'wealth' (as defined by Māori of New Zealand), thus a more holistic view of well-being. Well-being can be understood through being, belonging and becoming, where being reflects who the individual is, belonging entails individuals' relations with environments and becoming involves what individuals do to achieve their goals and aspirations (Wang et al., 2006, p.53; in Mathisen et al., 2022).

In tourism academia, regenerative tourism has emerged as an extension of sustainable tourism (Becken & Kaur, 2021; Liburd & Duedahl, 2025). Regenerative tourism departs

from sustainability's "do no harm" principle by proactively enhancing destinations, ensuring they are in a better condition than when they were discovered (Radić & Dragičević, 2025, p.7). Dredge (2022) further argues that this shift requires a fundamental mindset change, viewing tourism as an activity embedded in ecological systems and recognizing humans' interconnectedness with nature.

Tourism academics are now focusing on alternative ways of travel and concepts such as 'regenerative tourism' are gaining popularity. Designing regenerative tourism is not easy because it is a new and complex concept and requires a fundamental paradigm shift. The first publication found to relate to regenerative tourism was "Creating place identity through heritage interpretation" written by David L. Uzzell (1996; in Corral-Gonźalez et al., 2023; Uzzell, 1998). A Google scholar search (December 15, 2021) of 'regenerative tourism' between '2020-2021' showed 5140 results in 'one year'. The preposition of regenerative tourism is an opportunity for the recovering tourism industry to mitigate the impact of global shocks such as global pandemic (Day et al., 2021; Hussain, 2021; Hussain & Fusté-Forné, 2021b; in Hussain & Haley, 2022, p.6).

Travel is recuperation and regeneration (Krippendorf, 1987, p.24). Regenerative tourism is primarily concerned with promoting healthy living systems (Pollock, 2019; Paddison & Hall, 2024) where emergent, evolutionary, dynamic, and interconnected relationships exist between people, place and nature. Regenerative tourism is about how social-ecological systemsand processes can improve and transform tourism through embedding local cultural and natural patterns within destination development approaches (Bellato & Cheer, 2021; Duxbury et al., 2020; Hes & Coenen, 2018; in Paddison & Hall, 2024). Rather than focusing on managing the social-ecological impacts of tourism activity, regenerative tourism interventions are concerned with building the capacity of whole systems for restoration and regeneration (Becken & Kaur, 2021; Paddison & Hall, 2024) that produce net-positive effects (Mang & Haggard, 2016; in Paddison & Hall, 2024).

Regenerative tourism replenishes, revitalizes and contributes to the long-term flourishing of destination communities and environments. It is based in the principles of regenerative agriculture and regenerative economics such as: long term thinking; respect for human values and nature's laws; and the ability for self renewal in ever changing conditions (Sheldon, 2022).

Bellato et al. (2022b, p.17; Paddison & Hall, 2024, p.5) developed a conceptual framework for practice-led regenerative tourism where 'regeneration occurs mentally, physically, emotionally, spiritually, culturally, socially, environmentally, and economically'.

This framework identifies seven conceptual principles which recognize tourism as a living system that facilitates encounters, creates connections and develops reciprocal and mutually beneficial relationships.These include: 1) Drawing from an ecological worldview; 2) Using living systems thinking; 3) Discovering the unique potential of a regenerative tourism place; 4) Leveraging the capability of tourism living systems to catalyze transformations; 5) Adopting healing approaches that promote cultural revival, returning lands, and privileging of the perspectives, knowledge and practices of Indigenous and marginalized peoples; 6) Creating regenerative places and communities; and 7) Collaborating to evolve and enact regenerative tourism approaches. These stakeholder characteristics are fundamental for a tourism living system to work as a holistic ecological system (Bellato et al., 2022a, 2022b; Paddison & Hall, 2024). This necessitates the active engagement of all destination stakeholders, across public, private and third sector, to enable innovative solutions and regenerative approaches to be identified that prioritize the interests of destination communities (Scheyvens & Biddulph, 2017; Paddison & Hall, 2024).

The future of sustainability lies in regeneration: seeking to restore and replenish what we have lost, to build economies and communities that thrive, and that allow the planet to thrive too" (Stafford, Tilley, Britton, 2018, p.2; in Day et al., 2022, p.26).Perceiving a destination this way replaces production- oriented thinking, profit maximization, separation individualism and marketization with the notion of interdependence (Dredge, 2022).

"Epistemological decolonization" "demonstrates how a decolonial perspective can enable us to envisage other ways of thinking, being and knowing about tourism", thus supporting paradigm shifts sought by regenerative tourism proponents (Chambers & Buzinde, 2015, p.4; in Bellato et al., 2024, p.1172). Rather than employing Western science methodologies and approaches derived from Western paradigms, a decolonial approach requires place-sourced, context-relevant and transdisciplinary ways of designing and implementing research projects, critiquing the dominant tourism paradigm and producing pluriversal knowledges.

Sustainable tourism understands tourism to be an industry. By comparison, regenerative tourism sees tourism as a living system aligned with the ecological worldview and regenerative paradigm. Regenerative tourism's core purpose is to build the capacity of human and non-human ecosystems to restore, renew, and evolve (Gillbanks, September 20, 2022). "As we cultivate a different mindset, we can begin to develop a different worldview that understands everyone (human and more-than-human) is interconnected in interdependent living systems" (Clark, 2022, p.11). According to Haywood (2022, p.6;

in Gillbanks, 2022) and Sarkar (2022, p.8; in Gillbanks, 2022) ‘regenerative tourism’- ‘tourism that leaves a place better than it was before’.

Conclusion

This study provides a comprehensive exploration of the conceptual roots of regenerative tourism, highlighting its emergence from sustainable and regenerative development paradigms. In the wake of unprecedented global challenges, the field of tourism stands at a crossroads, teetering on the precipice of transformation as it grapples with the converging pressures of over tourism, the pandemic, climate change and an array of socioeconomic crises. Although sustainable tourism has made strides, it falls short in delivering the radical shift in values and mindsets that is essential for all stakeholders (Higgins-Desbiolles et al., 2019; in Omma, 2024). The concept of rethinking is an essential term that needs to be addressed for a paradigm shift which is required to achieve an alternative form of tourism that is sensitive to all spheres of society and nature (Dwyer, 2018). One proposed possibility is that of regenerative tourism, a holistic system change that defines growth and success differently than capitalistic models (Pollock, 2019b; in Omma, 2024). Travel is recuperation and regeneration (Krippendorf, 1987, p.24). In tourism academe, regenerative tourism has emerged as an extension of sustainable tourism (Becken & Kaur, 2021; Liburd & Duedahl, 2025).

The regenerative approach aims to invest in people, places and nature in a long-term perspective for thriving social and ecological systems (Dredge, 2022). Sheller (2021; in Dziadkiewicz, 2024, p.202) described regenerative tourism as embracing 'alternative, non-capitalist forms of ownership, non-monetary exchange, and beneficial community-based development, calling for a shift away from colonization, racial inequality, and extractive neoliberal development towards an alternative collective future. Cave and Dredge (2020) look at regenerative tourism as one that encompasses alternative economic practices to mediate between global and local values and create 'wellbeing', and thus the authors what considers a view of regenerative tourism as a holistic view of wellbeing.The outcome of the study demonstrates that regenerative tourism goes beyond traditional sustainability approaches by emphasizing restoration, enhancement, and co-creation of value for social, ecological, and cultural systems. It integrates holistic, systems-oriented thinking, drawing insights from diverse disciplines to promote practices that actively contribute to community well-being and environmental resilience. By synthesizing these conceptual perspectives, the study offers a framework for scholars, policymakers, and practitioners to understand and implement regenerative tourism strategies in the future. Ultimately, regenerative tourism

represents a transformative approach that aligns tourism development with ecological integrity, cultural preservation, and sustainable livelihoods (Bellato, 2022b).

This study concludes that regenerative tourism has evolved from the foundational principles of sustainable and regenerative development, marking a significant paradigm shift in tourism development. It demonstrates that moving from sustainability to regeneration requires a transition from impact minimization to actively restoring and enhancing ecosystems and communities. Thus, regenerative tourism emerges as a transformative framework that redefines tourism's role toward long-term resilience and co-evolution within social-ecological systems. This study will be important for scholars, policy makers, government bodies, tourism researchers and other students of different disciplines. Therefore, further study is very important.

Disclosure Statement

No potential conflict of interest was reported by the authors

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References

Acharya, B.P., & Halpeny, E. (2017). Sociocultural sustainability of small tourism enterprises: Observations from Ghalegaon's community based homestay. *Journal of Tourism and Hospitality Education, 7*, 1-24. https://doi.org/10.3126/jthe.v7i0.17687

Ajoon, E., & Rao, Y. (2020). A study on consciousness of young travelers towards regenerative tourism: With reference to Puducherry. *Journal of Tourism Economics and Applied Research*, *4*(1), 1-10. https://url-shortener.me/KDN3

Anderson, R. (2004). Climbing mount sustainability. *Quality Progress*, *37*(2), 32-37. https://www.raycandersonfoundation.org/assets/pdfs/rayslife/EssayClimbingMountSustanability.pdf

Anderson, R. C. (1998). *Mid-course correction: Toward a sustainable enterprise- The interface model*. Peregrinzilla Press.

Aquino, J., Falter, M., & Fusté-Forné, F. (2024). A community development approach for regenerative tourism in the Nordics: Lifestyle entrepreneurs towards a placed-based research agenda. *Journal of Tourism Futures,* 1-13. https://doi.org/10.1108/JTF-06-2023-0148

Ateljevic, I. (2013). Transmodernity: Integrating perspectives on societal evolution. *Futures*, *47*,38-8. https://doi.org/10.1016/j.futures.2013.01.002

Ateljevic, I. (2020). Transforming the (tourism) world for good and (re)generating the potential "new normal". *Tourism Geographies*, *22*(3), 467-475. https://doi.org/10.1080/14616688.2020.1759134

Ateljevic, I., Sheldon, P., & Tomljenovic, R. (2016). The new paradigm of the 21st century: Silent revolution of cultural creatives and transformative travel of and for the future. In *Global report on the transformative power of tourism: A paradigm shift towards more responsible tourism traveller* (pp. 12–20). UNWTO & Institute for Tourism.

Bellato, L., & Pollock, A. (2023). Regenerative tourism: A state-of-the-art review. *Tourism Geographies*, *24*(3-4), 558-567. https://doi.org/10.1080/14616688.2023.2294366

Bellato, L. (2025). Regenerative development approaches involving tourism: Insights derived from place. *Tourism Planning & Development,22*(6), 960–980. https://doi.org/10.1080/21568316.2024.2415119

Bellato, L., Frantzeskaki, N., & Nygaard, C. (2022b). Regenerative tourism: A conceptual framework leveraging theory and practice. *Tourism Geographies,25*(4), 1026–1046. https://doi.org/10.1080/14616688.2022.2044376

Bellato, L., Frantzeskaki, N., Briceño Fiebig, C., Pollock, A., Dens, E., & Reed, B. (2022a). Transformative roles in tourism: Adopting living systems thinking for regenerative futures. *Journal of Tourism Futures, 8*(3), 312–329. https://doi.org/10.1108/JTF-11-2021-0256

Bellato, L., Frantzeskaki, N., Lee, E., Cheer, J. M., & Peters, A. (2024). Transformative epistemologies for regenerative tourism: Towards a decolonial paradigm in science and practice? *Journal of Sustainable Tourism*, *32*(6), 1161–1181. https://doi.org/10.1080/09669582.2023.2208310

Benson, M. H., & Craig, R. K. (2014). The end of sustainability. *Society & Natural Resources: An International Journal*, *27(*7), 777-782. https://DOI:10.1080/08941920.2014.901467

Bettencourt, L. M. A., & Kaur, J. (2011). Evolution and structure of sustainability science. *Proceedings of the National Academy of Sciences, 108*(49), 19540–19545. https://doi:10.1073/pnas.1102712108

Bhalla, R., & Chowdhary, N. (2022). Green workers of Himalayas: Evidence of transformation induced regeneration. *Journal of Tourism Futures*, *8*(3), 380–392. https://doi.org/10.1108/JTF-12-2021-0273

Bhandari, D., & Bista, B. (2019). Permaculture: A key driver for sustainable agriculture in Nepal. *International Journal of Applied Sciences and Biotechnology*, *7*(2), 167–173. https://doi.org/10.3126/ijasbt.v7i2.24647

Buhalis, D. (2025). 80 years of Tourism Review – transformative and regenerative power of smart tourism. *Tourism Review*, *80*(1), 1–7. https://doi.org/10.1108/tr-01-2025-905

Butler, G., Ross, K., Beaman, J., Hoepner, C., Baring, R., & Da Silva, K. B. (2023). Utilizing tourist-generated citizen science data in response to environmental challenges: A systematic literature review. *Journal of Environmental Management*, 339, 1-12. https://doi.org/10.1016/j.jenvman.2023.117889

Butler, R. W. (1999). Sustainable tourism: A state-of-the-art review. *Tourism Geographies, 1*(1), 7–25. https://doi:10.1080/14616689908721291

Carlsson, C., & Manning, F. (2010). Nowtopia: Strategic exodus? Antipode, 42(4), 924–953. https://doi.org/10.1111/j.1467-8330.2010.00782.x

Cave, J., & Dredge, D. (2020). Regenerative tourism needs diverse economic practices. Tourism Geographies, 22(3), 503-513. https://doi:10.1080/14616688.2020.1768434

Chassagne, N., & Everingham, P. (2019): Buen Vivir: Degrowingextractivism and growing wellbeing through tourism. *Journal of Sustainable Tourism 27(12),* 1909-1925. https://DOI:10.1080/09669582.2019.1660668.

Clark, W. C., & Harley, A. G. (2020). Sustainability science: Toward a synthesis. *Annual Review of Environment and Resources*, *45*(1), 331–386. https://doi.org/10.1146/annurev-environ-012420-043621

Clark, W.C. (2007). Sustainability science: A room of its own. *Proceedings of the National Academy of Sciences*, *104*(6), 1737-1738. https://doi:10.1073/pnas.0611291104

Coll-Barneto, I., & Fuste-Forne, F. (2023). Understanding environmental actions in tourism systems: Ecological accommodations for a regenerative tourism development. *Journal of Tourism, Sustainability and Well-Being, 11*(4), pp. 239-253. https://doi.org/10.34623/0v3w-7192

Corral-Gonźalez, L., Cavazos-Arroyo, J., & Garcia-Mestanza, J. (2023). Regenerative tourism: A bibliometric analysis. *Journal of Tourism, Heritage & Services Marketing, 9*(2), 41-54. https://doi.org/10.5281/Zenodo.10539722

Day, J., Sydnor, S., Marshall, M., & Noakes, S. (2022). Ecotourism, regenerative tourism, and the circular economy. In D.A. Fenell (Ed.) *Routledge handbook of ecotourism* (pp. 23-36). London: Routledge.

Della Lucia, M., & Trunfio, M. (2018). The role of the private actor in cultural regeneration: Hybridizing cultural heritage with creativity in the city. *Cities 28*, 35-44. https://doi:10.1016/j.cities.2018.05.003

Demaria, F., & Kothari, A. (2022). The post-development agenda paths to a pluriverse of convivial futures. In F. Adloff, & A. Caille' (Eds.), Convivial futures: Views from a post-growth tomorrow (pp. 2588–2599). Deutsche Nationalbibliothek. https://library.oapen.org/bitstream/handle/

Demaria, F., Kothari, A., Salleh, A., Escobar, A., & Acosta, A. (2023). Post-development: From the critique of development to a pluriverse of alternatives. In S. Villamayor-Tomas & R. Muradian (Eds.), The Barcelona school of ecological economics and political ecology: A companion in Honour of Joan Martinez-Alier (pp. 59–69). Springer International Publishing. https://doi.org/10.1007/978-3-031-22566-6_6.

Dias, B. D. (2015). Beyond Sustainability–Biophilic and Regenerative Design in Architecture. *European Scientific Journal*, 11(9), 147-158. https://last.eujournal.org/index.php/esj/article/view/5385

Dias, B. D. (2018). Regenerative development-building evolutive capacity for healthy living systems. *International Journal of Design & Nature and Ecodynamics, 13*(3), 315–323. https://doi.org/10.2495/dne-v13-n3-315-323

Dredge, D. (2022). Regenerative tourism: Transforming mindsets, systems and practices. *Journal of Tourism Futures, 8*(3), 269–281. https://doi.org/10.1108/JTF-01-2022-0015

Du Plessis, C., & Brandon, P. (2014). An ecological worldview as basis for a regenerative sustainability paradigm for the built environment. *Journal of Cleaner Production,* 109, 53-61. https://doi.org/10.1016/j.jclepro.2014.09.098

Du Plessis, C., & Cole, R. J. (2011). Motivating change: Shifting the paradigm. *Building Research and Information, 39*(5), 436-449. https://doi.org/10.1080/09613218.2011.582697

Du Plessis, C. (2008). A conceptual framework for understanding social-ecological systems. In M. Burns & A. Weaver (Eds.), *Exploring Sustainability Science: A Southern African Perspective* (pp. 59–90). African Sun Media.

Du Plessis, C. (2012). Towards a regenerative paradigm for the built environment. *Building Research Information*, *40*(1), 7-22. https://doi.org/10.1080/09613218.2012.628548

Duarte, C. M., Cousins, R., Ficociello, M. A., Williams, I. D., & Khowala, A. (2024). Advancing global climate and biodiversity goals through regenerative tourism. *Sustainability*, *16*(20), 1-14. https://doi.org/10.3390/su16209133

Dziadkiewicz, A., Borawska-Dziadkiewicz, J., & Sokolowska, E. (2024). Regenarative tourism–between theory and practice. *Scientific Papers of Silesian University of Technology Organization and Management Series,* 192, 199-214. https://doi.org/10.29119/1641-3466.2024.192.12

Escobar, A. (2021). Reframing civilization(s): from critique to transitions. Globalizations, 1–18. https://doi. org/10.1080/14747731.2021.2002673

Evans, C. (2017). Himalayan Permaculture Centre (HPC): Agroecology case study. Food and Agriculture Organization (FAO).

Fullertoin, J. (2015). *Regenerative capitalism: How universal principles and patterns will shape our new economy*. Capital Institute.

Fusté-Forné, F., & Hussain, A. (2025). Introduction. In F.Fusté-Forné & A. Hussain (Eds.), *The routledge handbook of regenerative tourism* (pp. 1-9). Routledge.

Ghisi, M. L. (2010). Towards a transmodern transformation of our global society: European challenges and opportunities. *Journal of Futures Studies*, *15*(1), 39–48. https://hostwebs.info/Fu8zNc

Gibson-Graham, J. K. (2002). Beyond global vs. local: Economic politics outside the binary frame. In A. Herod & M. Wright (Eds.), *Geographies of power: Placing scale* (pp. 25–60). Blackwell.

Gibson-Graham, J. K. (2014). Rethinking the economy with thick description and weak theory. *Current Anthropology, 55*(S9), S147–S153. https://doi.org/10.1086/676646

Gibson-Graham, J. K. (2020). Reading for economic difference. In J. K. Gibson-Graham, & K. Dombroski (Eds.), *The handbook of diverse economies* (pp. 476-485). Cheltenham: Edward Elgar Publishing.

Gibbons, L., Cloutier, S., Coseo, P., & Barakat, A. (2018). Regenerative development as an integrative paradigm and methodology for landscape sustainability. *Sustainability*, *10*(6), 1-20. https://doi:10.3390/su10061910

Gibbons, L. V. (2020). Regenerative -The new sustainable? *Sustainability*, *12*(13), 1-19. https://doi.org/10.3390/su12135483

Gillbanks, D. (September 20, 2022). Really, what's the difference? 'Sustainable tourism' vs 'regenerative tourism'. *The "Good Tourism Blog*". https://goodtourismblog.com/2022/09/really-whats-the-difference-sustainable-tourism-vs-regenerative-tourism

Giller, K. E., Hijbeek, R., Andersson, J. A., & Sumberg, J. (2021). Regenerative agriculture: An agronomic perspective. *Outlook on Agriculture*, *50*(1), 13–25. https://doi:10.1177/0030727021998063

Giorgi, A. (1997). The theory, practice, and evaluation of the phenomenological method as a qualitative research procedure. *Journal of Phenomenological Psychology*, *28*(2), 235–260. https://brill.com/view/journals/jpp/28/2/article-p235_4.xml?ebody=Abstract%2FExcerpt#access-options2

Gonźalez-Marquez, I., & Toledo, V.M. (2020). Sustainability science: A paradigm in crisis? *Sustainabilty*, 12, 1-18. https://doi.org/10.3390/su12072802

Gössling, S., & Peeters, P. (2015). Assessing tourism's global environmental impact 1900–2050. *Journal of Sustainable Tourism*, *23*(5), 639–659. https://doi:10.1080/09669582.2015.1008500

Habersang, A. (2024). Tackling terricide, not (only) ecocide: further exploring the nexus between social-ecological destruction. *Globalizations*, *22*(2), 323–341. https://doi.org/10.1080/14747731.2024.2400002

Haklay, M. (2013). Citizen science and volunteered geographic information: Over-view and typology of participation. In D. Sui, S. Elwood, M. Goodchild (Eds.), *Crowdsourcing geographic knowledge* (pp. 105–222). Dordrecht: Springer.

Haklay, M., Daniel Dörler, Heigl, F., Manzoni, M., Hecker, S., & Vohland, K. (2021). What is citizen science? The challenges of definition. In K. Vohland, A. Land-Zandstra, L. Ceccaroni, R. Lemmens, J. Perelló,M. Ponti, R. Samson, &K. Wagenknecht (Eds.), *The science of citizen science* (pp. 13-33). Cham: Springer.

Haklay, M., Hulbert, J., & Lea. (2019, November 25). CitSciDefinitions: Citizen science definitions (Version v1.2). Zenodo. https://zenodo.org/records/3552753

Harvey, D. (1989). From managerialism to entrepreneurialism: The transformation in urban governance in late capitalism. *Geografiska Annaler: Series B, Human Geography,71*(1), 3–17. https://doi.org/10.1080/04353684.1989.11879583

Heigl, F., & Zaller, J. G. (2014). Using a citizen science approach in higher education: A case study reporting roadkills in Austria. *Human Computation*, *1*(2), 165–75. https://doi.org/10.15346/hc.v1i2.7

Hes, D., & Coenen, L. (2018). Regenerative development and transitions thinking. In D. Hes, & J. Bush (Eds.), *Enabling eco cities: Defining, planning, and creating a thriving future* (pp. 9-20). Palgrave Macmillan. https://doi:10.1007/978-981-10-7320-5_2

Hes, D., & Du Plessis, C. (2015). *Designing for hope: Pathways to regenerative sustainability.* Earthscan. https://doi.org/10.1080/14747731.2024.2400002

Hussain A., & Haley, M. (2022). Regenerative tourism model: Challenges of adapting concepts from natural science to tourism industry. *Journal of Sustainability and Resilience*, *2*(1), 1-14. https://digitalcommons.usf.edu/jsr/vol2/iss1/4

Hussain, A. (2019). *Transport infrastructure development, tourism and livelihood strategies: An analysis of isolated communities of Gilgit-Baltistan, Pakistan* [Doctoral Dissertation, Lincoln University].https://doi:10.13140/RG.2.2.25561.06245

Hutchins, G., & Storm, L. (2019). *Regenerative leadership: The DNA of life-affirming 21st century organizations.* Wordzworth Publishing.

Inversini, A., Talhouk, S. N., & Daou, A. (2025). Regenerative hospitality. In F. Fusté-Forné, & A. Hussain (Eds.), *The routledge handbook of regenerative tourism.* Routledge.

Irwin, A. (1995). *Citizen science: A study of people, expertise and sustainable development*. London: Routledge.

Izquierdo-Gascoin, M., & Rubio-Gil, A. (2022). Theoretical approach to Api-tourism routesas a paradigm of sustainable and regenerative rural development. *Journal of Agricultural Research,* 62(4) 751-766. https://doi.org/10.1080/00218839.2022.2079285

Jaeger-Erben, M., Becker, F., Prūse, B., Mendoza, J. N., Gutberlet, J., & Rodrigues, E. (2023). Citizen science. In T. Philipp, & T. Schmohl (Eds.), *Handbook transdisciplinary learning* (Vol. 6, pp. 41-52). Higher Education: University Teaching & Research. https://doi.org/10.14361/9783839463475-006

Johnston, P., Everard, M., Santillo, D. & Robèrt, K.-H. (2007). Reclaiming the definition of sustainability. *Environmental Science and Pollution Research–International*, *14*(1), 60–66. https://doi.org/10.1065/espr2007.01.375

Jones, P. (2024). Regenerative tourism in the UK. *Athens Journal of Tourism*, *11*(2), 169–178. https://doi.org/10.30958/ajt.11-2-4

Joshi, B., & Kunwar, R.R. (2018). Sustainability in the hospitality industry: A study of Nagarkot, Nepal. *Journal on Tourism & Sustainability*, *1*(2), 35-47. https://journal.ontourism.academy/index.php/jots/article/view/27

Kates, R. W. (2011a). What kind of a science is sustainability science? *Proceedings of the National Academy of Sciences*, *108*(49), 19449-19450. https://doi.org/10.1073/pnas.1116097108

Kates, R.W. (2011b). *From the unity of nature to sustainability science: Ideas and practice* [CID Working Paper No. 218]. Cambridge, MA: Havard Center for International Development. https://url-shortener.me/KDGJ

Kates, R.W. (Ed.) (2010). *Readings in sustainability science and technology* [CID Working Paper No. 213]. Havard Center for International Development. https://url-shortener.me/KDGU

Kates, R.W., Clark, W.C., Corell, R., Hall, J. M., et al. (2001). Sustainabilty science. *Science, 292*(5517), 641-642. https://DOI:10.1126/science.1059386

Khokhobaia, M. (2018). Transdisciplinary research for sustainable tourism development. *Journal of International Management Studies*, *18*(2), 21–26. https://doi.org/10.18374/jims-18-2.2

Kimmerer, R. (2011), Restoration and reciprocity: The contributions of traditional ecological knowledge. In D. Egan, E. E. Hjerpe, & J. Abrams (Eds.), *Human dimensions of ecological restoration: Integrating science, nature, and culture* (pp. 257-276.). Washington DC: Island Press/Center for Resource Economics.

Kline, C., McGehee, N., & Delconte, J. (2019). Built capital as a catalyst for community-based tourism. *Journal of Travel Research*, *58*(6), 899–915. https://doi:10.1177/0047287518787935

Komiyama, H., & Takeuchi, K. (2006). Sustainability science: Building a new discipline. *Sustainabilty Science*, *1*(1), 1-6. https://doi:10.1007/s11625-006-0007-4

Kopnina, H. (2015). The victims of unsustainability: a challenge to sustainable development goals. *International Journal of Sustainable Development & World Ecology*, *23*(2), 113–121. https://doi.org/10.1080/13504509.2015.1111269

Krippendorf, J. (1987). *The holiday makers: Understanding the impact of leisure and tourism.* Butterworth-Heinemann.

Kunwar, R. R., & Phuyal, U. (2025). Prospects of cultural heritage tourism in Panauti, Nepal. *Journal of Tourism & Adventure*, *8*(1), 101-136. https://doi.org/10.3126/jota.v8i1.82637

Kunwar, R. R., & Ulak, N. (2023). Understanding the triple helix model and capitalization of knowledge. *Journal of APF Command and Staff College, 6*(1), 1-34. https://doi.org/10.3126/japfcsc.v6i01.57573

Kunwar, R. R., & Ulak, N. (2024). Extension of the triple helix to quadruple to quintuple helix model. *Journal of APF Command and Staff College, 7*(1), 241-280. https://doi.org/10.3126/japfcsc.v7i1.67006

Kunwar, R. R., & Ulak, N. (2025). Understanding disciplinarity and transdisciplinarity. *Journal of APF Command and Staff College, 8*(1), 238–287. https://doi.org/10.3126/japfcsc.v8i1.77609

Lang, D. J., Wiek, A., Bergmann, M., Stauffacher, M., Martens, P., Moll, P., & Thomas, C. J. (2012). Transdisciplinary research in sustainability science: Practice, principles, and challenges. *Sustainability Science*, *7*(S1), 25–43. https://doi:10.1007/s11625-011-0149-x

Liburd, J., & Duedahl, E. (2025). *Regenerative tourism for flourishing futures* (*TIC TALKS* No. 11). Syddansk Universitet. https://www.sdu.dk/en/forskning/tik/tic-talk-publications

Lovins, H. L., Walls, S., Wijkman, A., & Fullerton, J. (2018). *A finer future: Creating an economy in service to life.* New Society Publishers.

Lyle, J.T. (1994). *Regenerative design for sustainable development*. New York: Wiley.

Major, J., & Clark, D. (2022). Regenerative tourism in Aotearoa New Zealand – a new paradigm for the VUCA world. *Journal of Tourism Futures,8*(2), 194–199. https://doi.org/10.1108/ JTF-09-2021-0233

Mang, P., & Haggard, B. (2016*). Regenerative development and design–A framework for Evolving Sustainability*. Wiley & Sons: Hoboken.

Mang, P., & Reed, B. (2012). Designing from place: A regenerative framework and methodology. *Building Research & Information, 40*(1), 23–38. https://doi.org/10.1080/09613218.2012.621341

Mang, P., & Reed, B. (2012). Regenerative development and design. In R.A. Meyers, (Ed). *Encyclopedia of sustainability science and technology*. New York: Springer. https://doi.org/10.1007/978-1-4419-0851-3_303

Manyani, A., Biggs, R., Hill, L., & Preiser, R. (2024). The evolution of social-ecological systems (SES) research: a co-authorship and co-citation network analysis. *Ecology and Society,29*(1). https://doi.org/10.5751/es-14694-290133

Mathisen, L., Soreng, S.U., & Lyrek, T. (2022). The reciprocity of soil, soul and society: The heart of developing regenerative tourism activities. *Journal of Tourism Futures, 8*(3), 330-341. https://doi.org/10.1108/JTF-11-2021-0249

Miller, T. R. (2012). Constructing sustainability science: emerging perspectives and research trajectories. *Sustainability Science*, *8*(2), 279–293. https://doi.org/10.1007/s11625-012-0180-6

Morseletto, P. (2020). Restorative and regenerative: Exploring the concepts in the circular economy. *Journal of Industrial Ecology*, *24*(4), 763-773. https://doi.org/10.1111/jiec.12987

Nanda, V. P. (2016). The journey from the millennium development goals to the sustainable development goals. *Denver Journal of International Law & Policy*, *44*(3), 389-412. https://url-shortener.me/KDIR

Omma, F. M. (2024). Regenerative nature-based tourism: tour guides and stakeholder dynamics in Arctic Norway. *Journal of Tourism Futures.* https://doi.org/10.1108/jtf-10-2023-0237

Owen, C. (2007). Regenerative tourism: Re-placing the design of ecotourism facilities. *The International Journal of Environmental Cultural Economic and Social Sustainability Annual Review,3*(2), 175–182. https://doi.org/10.18848/1832-2077/cgp/v03i02/54335

Paddison, B., & Hall, J. (2024). Regenerative tourism development as a response to crisis: harnessing practice-led approaches. *Tourism Geographies,* 1–18. https://doi.org/10.1080/14616688.2024.2381071

Phillips, B. (2019). *Learning by going transformative learning through long -term* independent travel. Springer.

Plaut, J.M., Dunbar, B., Wackerman, A., Hodgin, S. (2012). Regenerative design: the LENSES Framework for buildings and communities. *Building Research and Information,40*(1), 112-122. https://doi: 10.1080/09613218.2012.619685

Pollock, A. (2012, September 12*). Conscious travel: Signposts towards a new model for tourism* [Conference paper]. 2nd UNWTO Ethics and Tourism Congress. https://url-shortener.me/KDJS

Pollock, A. (2015). *Social entrepreneurship in tourism: The conscious travel approach.* Tourism Innovation Partnership for Social Entrepreneurship.

Pollock, A. (2019). *Regenerative tourism: The natural evolution of sustainability*. Centre for Regenerative Travel.

Pollock, A. (2019a). *Regenerative tourism: The natural maturation of sustainability.* Medium. https://medium.com/activate-the-future/regenerative-tourism-the-natural-maturation-of-sustainability-26e6507d0fcb

Pollock, A. (2019b). *Flourishing Beyond Sustainability: The promise of a regenerative tourism* [Conference presentation]. ETC Workshop on Managing Sustaibalbel

Tourism Growth in Europe, Krakow. https://etc-corporate.org/uploads/06022019_Anna_Pollock_ETCKrakow_Keynote.pdf

Pung, J. M., Mackenzie, S. H., & Lovelock, B. (2024). Regenerative tourism: Perceptions and insights from tourism destination planners in Aotearoa New Zealand. *Journal of Destination Marketing & Management,32*, 1-10. https://doi.org/10.1016/j.jdmm.2024.100874

Radić, M. N., & Dragičević, D. (2025). Integrative review on tourism gentrification and lifestyle migration: Pathways towards regenerative tourism. *Sustainability*, *17*(11), 1-33. https://doi.org/10.3390/su17115163

Rahman, M. S. U., Muneem, A. A., Avi, M. A. R., & Sobhan, S. (2018). Can rural tourism promote sustainable development goals? Scoping rural tourism prospects in rustic Bangladesh. *Rajshahi University Journal of Business Studies,11*(1), 131-144. https://url-shortener.me/KDLF

Reed, B. (2007). Shifting from 'sustainability' to regeneration. *Building Research and Information, 35*(6), 674-680. https://doi: 10.1080/09613210701475753

Rhodes, C. J. (2017). The imperative for regenerative agriculture. *Science progress,100*(1), 80-129. https://doi:10.3184/003685017x14876775256165

Ridanpää, R. (2025). Framework for regenerative entrepreneurship in tourism: fostering reciprocal relationships within place. *Tourism Geographies*, 1–18. https://doi.org/10.1080/14616688.2025.2535690

Rodrigues, C. L., Mendes, T., Liberato, D., Brandão, F., Esteves, E., & Liberato, P. (2024). Rural regeneration through creative tourism: Local discourses on cultural heritage. *Journal of Tourism & Development*, 47, 74-100. https://doi.org/10.34624/rtd.v47i0.38772

Rojas, N. S., Sand, M. S., & Gross, S. (2024). Regenerative adventure tourism. Going beyond sustainability – a horizon 2050 paper. *Tourism Review*, *80*(1), 270–285. https://doi.org/10.1108/tr-12-2023-0874

Ruttenberg, T. (2022). Alternatives to development in surfing tourism: A diverse economies approach. *Tourism Planning & Development, 20*(6), 1082–1103. https://doi.org/10.1080/21568316.2022.2077420

Sanford, C. (2019). The regenerative paradigm: Discerning how we make sense of the world. In B. S. Caniglia (Ed.), *Regenerative urban development, climate change and the common good* (pp. 13-33). Routledge.

Schaffer, V., & Tham, A. (2019). Engaging tourists as citizen scientists in marine tourism. *Tourism Review, 75*(2), 333–346. https://doi.org/10.1108/tr-10-2018-0151

Sharia, M., & Sitchinava, T. (2023). The importance of the transdisciplinary approach for sustainable tourism development. *Georgian Geographical Journal*, *3*(2). https://doi.org/10.52340/ggj.2023.03.02.12

Sharma, B., & Tham, A. (2023). Regenerative tourism: Opportunities and challenges. *Journal of Responsible Tourism Management*, *3*(1), 1–9. https://doi.org/10.47263/jrtm.03-01-02

Sheldon, P. (2020, September 21). Regenerative tourism 101. Adventure Canada. https://www.adventurecanada.com/regenerative-tourism-101

Sheldon, P.J. (2022). Regenerative tourism. In D. Buhalis (Ed.), *Encyclopedia of tourism management and marketing* (Vol. 3, pp. 646-650), Edward Elgar Publishing. https://doi.org/10.4337/9781800377486.regenerative.tourism

Sheldon, P. J. (2025). Indigenous values and regenerative tourism. In F. Fusté-Forné, & A. Hussain, (Eds.). *The Routledge handbook of regenerative tourism* (pp.12-30), Routledge.

Shelley (2022, November 1). What are the biggest challenges of sustainable tourism today? bizsu. https://bizsu.co/blog/what-are-the-biggest-challenges-for-sustainable-tourism-today

Tao, T. C. H., & Wall, G. (2009). Tourism as a sustainable livelihood strategy. *Tourism Management*, *30*(1), 90–98. https://doi:10.1016/j.tourman.2008.03.009

Uzzell, D. (1998). Interpreting our heritage: a theoretical interpretation. In D. Uzzell, & R. Ballantyne (Eds.), *Current issues in heritage and environmental interpretation: Problems and prospects* (pp. 11-25). London: The Stationery Office.

Vodden, K., Perez, M. A., & Reid, B. (2023). Understanding rural tourism. In H. Mair (Ed.), *Handbook on tourism and rural community development* (pp. 41-60). Edward Edgar Publishing.

Wahl, D.C. (2016). *Designing regenerative cultures.* England: Triarchy Press.

Yadav, S. P. S., Lahutiya, V., Ghimire, N. P., Yadav, B., & Paudel, P. (2023). Exploring innovation for sustainable agriculture: A systematic case study of permaculture in Nepal. *Heliyon,9*(5), 1-17. https://doi.org/10.1016/j.heliyon.2023.e15899

Živoder, S. B., Ateljević, I., & Čorak, S. (2015). Conscious travel and critical social theory meets destination marketing and management studies: Lessons learned from Croatia. *Journal of Destination Marketing & Management,4*(1), 68–77. https://doi.org/10.1016/j.jdmm.2014.12.002