



Research Article

Regenerative tourism as a pathway to stakeholder empowerment: localizing regenerative principles in a coastal wetland in southern Iran

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Abstract

Wetlands provide essential ecosystem services and support local livelihoods; however, environmental degradation and socio-economic pressures increasingly threaten their ecological and social functions. Regenerative tourism offers an emerging approach that seeks positive contributions to ecosystems, local economies, and communities beyond minimizing tourism impacts. This study investigates the potential for regenerative tourism development in the Shour, Shirin and Minab International Wetland in southern Iran, focusing on stakeholder empowerment and the localization of regenerative principles. An applied, descriptive-analytical case study design was employed. Data were collected through documentary research, field observations, interviews with local residents and environmental experts, and a researcher-developed questionnaire administered in villages surrounding the wetland. Descriptive statistics were used to analyze the data, while the wetland's environmental, socio-economic, cultural, and tourism capacities were assessed against regenerative tourism principles. The findings reveal considerable potential for regenerative tourism through nature-based and non-extractive activities, restoration of native vegetation and habitats, local accommodation, handicrafts, local products and food markets, cultural festivals, environmental education, local guiding, and participatory conservation. However, poverty, unemployment, inadequate infrastructure, water scarcity, wastewater discharge, environmental degradation, and limited local participation remain major constraints. Based on these findings and the wetland's sensitivity zoning, a localized guideline for regenerative tourism development was developed. The framework emphasizes stakeholder participation, capacity building, local employment and entrepreneurship, cultural revitalization, ecosystem restoration, and environmentally responsible tourism infrastructure. The study demonstrates that regenerative tourism can provide a practical pathway for integrating ecosystem restoration with livelihood improvement and stakeholder empowerment in wetland destinations.

Keywords: Regenerative tourism, Ecosystem restoration, Stakeholder empowerment, Coastal wetland, Shour Shirin and Minab International Wetland.

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Introduction

Protecting and restoring ecosystems ensure human survival, as they are inextricably linked with their lives. Over the years, rapid growth urbanization have considerably transformed regional land-use patterns, natural landscapes, as well as land and water environments (Luo et al, 2020). Given the relationship between poverty and livelihood insecurity, among the main elements of rural development, the Sustainable Livelihood Approach (SLA) was thus put forward in the 1980s as a novel method aimed at reducing rural poverty (Corney and Litvinoff, 1988). The SLA mostly gives prominence to people's ability to act by themselves and have no dependence on outsiders. In view of that, all efforts toward livelihood improvement demands more knowledge and understanding of a couple of associated factors and processes (Morse and McNamara, 2013). Thus, investigating household livelihood conditions and the existing capitals is a platform for advancing the Sustainable Development Goals (SDGs) in such regions. In recent times, tourism and recreational activities in wetlands have been highly respected as cultural ecosystem services (Clarke et al, 2021). Tourism is among the ecosystem services delivered to humans, especially those living in villages and as a powerful tool for national development, the value added of this industry in many developed nations has been a vital source for funding other infrastructure sectors (Hajiaghazadeh and Sarbaz Ghadim, 2021). In this line, the World Tourism Day 2023 theme is "Tourism and Green Investments", highlighting the capacity of tourism to empower individuals and provide them with skills to make a change in their local communities. In the modern era, the tourism industry is flourishing as fast as possible across the world. It is thus a key tool for national income generation, a pillar of sustainable global economy, as well as a significant concept in sustainable development. Community participation in tourism development can be examined from two perspectives, viz, participation in decision-making (PDM) and development profits. As an example, 4.5% of total investments (about \$900 billion) in 2018 have been on the tourism industry. High turnover and the engagement of a broad range of sectors and industries in tourism have further led to the allocation of 10.4% of the world's

gross domestic product (GDP) to this industry. However, the statistics show that the contribution of tourism to Iran's economy has been hardly visible. Following emergence of "mass tourism", the foremost issues associated with the health of ecosystems have been gradually addressed (Banarsyadhimi, 2022; Ririmasse et al, 2026). Compared to other industries, tourism is quite eco-friendly. With regard to the potentials of tourism to make less pollution and create high social welfare, much attention has been thus drawn to this industry in many regions (Sari and Nazli, 2021; Weng et al, 2018; Buckley, 2012). On the other hand, irrational tourism development along with overtourism and irresponsible tourist behaviors has been heavy burdens. Therefore, there is a dire need to rebuild tourism because the health of tourist destinations is the key to the development of high-quality tourism and ensures sustainable regional development in the long run (Luo et al, 2022). As defined in the Ramsar Convention, wetlands are "areas of marsh, fen, peat, and/or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters." (Ramsar Convention, 1971). In this respect, there are 18 wetlands in Hormozgan Province, in southern Iran, including four cases registered in the Ramsar Convention as the international ones. Shour, Shirin and Minab International Wetland (hereafter, the SSMIW) is among the coastal wetlands in this region, located in the city of Minab, directly meeting the livelihoods of local communities by numerous services, such as tourism, wildlife conservation, air purification, flood control, beach erosion and destruction prevention, gene banking for aquatic species and their breeding, aquatic and crustacean fishing, shrimp farming, education, recreational activities by the local people, preservation of natural-cultural heritage, fisheries and aquaculture, and maritime transport. However, it has been damaged in the past few years and needs to be protected. Following the coronavirus disease 2019 (COVID-19) pandemic, tourism was interrupted all over the world, leading to the loss of trillion dollars in this industry. This provided a good opportunity for scholars working in this field to dwell on the ways to minimize the impacts of tourism and promote it

in small communities far from cities. As sustainable tourism development had already become a cliché like the SDGs, regenerative tourism (RT) was addressed, whose meaning was beyond sustainable tourism development and not harming the environment. RT can thus complement sustainable tourism development, wherein the regenerative principles form “rooted systems based on values, agreed upon rules, traditions, and relationships” (Becken and Kaur, 2021). In fact, RT implies that people do not leave destinations unless they have improved their conditions positively. Accordingly, this type of tourism embraces sustainability. Therefore, a type of tourism providing a chance for mutual learning, genuine interest, and meaningful exchange is assumed to be regenerative and seeking for active restoration, with a positive impact on local communities and economies, that is sustainable restoration (Sustainability for All, 2021; Nikšić Radić and Dragičević, 2025). As acknowledged, empowering local communities is the philosophical core of tourism, which significantly helps combat social injustice. The Empowerment Theory (ET), emerging in the 1960s, is rooted in social work, citizen security and human rights, as well as the movements of women and non-governmental organizations (NGOs). With the growing trend in the interdisciplinary nature of tourism research, the ET was thus extended to tourism in the 1980s (Chen et al, 2017). In unison, the approach to “Empowering Local Tourism Stakeholders” was taken into consideration in the development planning of most countries to establish socio-spatial justice and deal with the big challenges of irresponsible and environmentally destructive tourism development (Dukic and Volic, 2017). Tourism plays a leading role in achieving the SDG no. 8, viz., promoting inclusive and sustainable economic growth, employment, and decent work for all. To fulfill the SDGs no. 1 and 11, calling for the end of poverty in all forms and establishing sustainable cities and communities, as well as the development of local communities, much attention should be thus devoted to their capabilities, both in terms of the surrounding nature and residents. As the lower class can significantly contribute to the positive transformation of these regions, it is necessary to precisely plan for their empowerment. To this end, governments

should make an effort to empower and support local communities to tell their stories and share their places, and even raise their awareness of the available opportunities to provide authentic experiences regarding cultural practices. Only if local communities are empowered to express their knowledge in ways consistent with their values, tourism becomes consistent with cultural responsibilities, and then develops (Matunga et al, 2020). As humans are born with the desire to be close to nature, numerous studies within environmental psychology have demonstrated that natural environments can have positive effects on human health restoration (Macaulay et al, 2022). Accordingly, places have been suggested by Hussain (2019) as meta-capitals. He further argues that spatial capital incorporates other capitals within a geographic area, which can be described as “the features embodied in a specific geographic area that receive distinctive attention in terms of various development activities, and are dependent on a specific place and context” (Hussain, 2019). A place is defined as a geographic space described by meanings, feelings, and stories in preference to a set of coordinates (Hague, 2005). It is also an inspiring source for developing activities to “inculcate a landscape with deeply personal and local meanings” (Opp and Walsh, 2010). In its broadest sense, tourism is a mutual exchange between local residents and visitors. The sole spirit of a place cannot be defined, but expressed, lived, and shared by those homing there (Pollock, 2019; Bellato, 2025). Local regeneration preserves local culture and heritage and revives the dying arts, handicrafts, and traditions. The main point here for planners is to lay much focus on the values and principles of the locals. In this way, there are some communications with the past, the present is better understood, and it becomes possible to predict the future (Higgins-Desbiolles and Akbar, 2018). Studies have so far confirmed that the characteristics of local places create a more pleasant feeling and a sense of attachment than the modern ones (Wells, 2017), and tourists are more willing to spend their time in traditional places. This study was also the development RT in the SSMIW based on the approach to Empowering Local Tourism Stakeholders to preserve this wetland along with boosting tourism development and livelihood among residents. Most studies in

Asian countries on empowering local tourism stakeholders have highlighted challenges such as inadequate tourism infrastructure, low levels of education and awareness among local communities, limited access to the benefits of existing natural and cultural resources, and insufficient transparency in governmental policies (Yavana Rani, 2013). Rural areas in small cities are therefore important contexts for tourism development because of their livelihood challenges and limited access to services and facilities. These challenges are particularly relevant to the Shour, Shirin and Minab International Wetland (SSMIW) in southern Iran, which has considerable ecological and socio-economic value but has experienced substantial environmental degradation in recent years. The main pressures on the wetland include both natural and human-induced factors, with human-related pressures appearing to play a particularly important role. Low precipitation and recurrent droughts, coastal erosion, inadequate land-use planning, trawling, illegal mangrove cutting, camel grazing, agricultural and industrial effluents, oil pollution associated with fuel smuggling, unsustainable tourism development, inadequate infrastructure, unemployment, and socio-economic poverty have been identified among the major threats to the wetland (Jadidi and Nohegar, 2021). These conditions highlight the need for approaches that can simultaneously support the wise use and restoration of wetland resources and improve the livelihoods and capabilities of local communities.

Although previous studies in Iran have examined wetland degradation, land-use change, sustainable tourism, and the livelihood functions of wetlands, regenerative tourism has received limited empirical attention in the Iranian context. More importantly, there is a lack of place-based research that connects regenerative tourism principles with stakeholder empowerment, ecosystem restoration, livelihood improvement, and local participation in environmentally sensitive wetland destinations. Thus, the scientific gap addressed by this study is not simply the limited application of regenerative tourism in Iran, but the absence of an integrated, context-specific approach for localizing regenerative tourism principles through stakeholder empowerment and ecosystem-oriented destination planning. The Shour, Shirin and Minab International

Wetland provides a particularly relevant setting for addressing this gap because of the close relationship between its ecological functions and the livelihoods of surrounding communities, as well as the multiple environmental and socio-economic pressures affecting the area. In response, this study assesses the environmental, socio-economic, cultural, and tourism capacities of the wetland, identifies opportunities and constraints for regenerative tourism development, and develops a localized guideline based on regenerative tourism principles, stakeholder participation, and the wetland's sensitivity zoning. The novelty of the study lies in integrating ecosystem restoration and local livelihood improvement within a stakeholder-empowerment framework and translating general regenerative tourism principles into a place-specific guideline for a sensitive wetland destination in southern Iran. This approach can also provide a transferable basis for considering regenerative tourism in other wetland destinations facing similar environmental and socio-economic challenges.

1.1. Theoretical Foundations

1.1.1. Empowering Local Communities

Empowerment has been highlighted as a process of empowering communities and as a concept for making some changes in human behaviors and actions from scientific aspects to organize environmental reactions and innovations at different levels, such as non-profit organizations, governments, and international unions. Empowerment in the field of tourism may be thus associated with personal, interpersonal, and socio-structural changes with four main dimensions, including personal-financial, psychological, social, and political benefits.

Empowerment for Personal-Financial Benefits

Based on previous studies and the logical combination of the Social Exchange Theory (SET) and the Theory of Formal Rationality (TFR), personal-financial benefits from tourism are among the predictors of residents' understanding of the effects of tourism and their overall support for its development.

Given this, the development of tourism as an industry whose economic benefits are well-known can create job and investment opportunities for the locals and improve local economies.

Psychological Empowerment

Psychological empowerment in the field of tourism occurs when the sense of pride and self-confidence among residents in tourist destinations is boosted as they face tourists who recognize their cultural benefits and values, natural resources, and traditional knowledge. In this respect, Di Castri (2004) describes psychological empowerment as the ability of tourism to restore residents' sense of "globalization of their own values, cultures, and the environment".

Social Empowerment

Social empowerment arises once tourism-related activities strengthen local relationships and result in higher social cohesion. In this vein, Scheyvens (1999) describes social empowerment as making balance and peace in a community in which residents communicate and act together in compliance. Besides, social empowerment includes making some changes in the social structure in a community.

Political Empowerment

Political empowerment expands residents' awareness and knowledge of existing opportunities, and in this way, the local people can be of assistance to tourism decision-makers. This type of empowerment is reminiscent of the general concept of residents' control over their own affairs. This represents the highest rungs of the Ladder of Citizen Participation, because it makes residents pay much attention to the control of tourism planning.

Cultural Empowerment

In sustainable spatial development, the integrated preservation of cultural heritage is also respected (Spaliviero et al, 2019). Notably, without considering the cultures and meanings of rural communities, it is not possible to illustrate the interaction and impact of development programs on the livelihood of rural communities. As a result, understanding rural communities is the upshot of socio-cultural and political structures and is intrinsically linked with the nature of their livelihood. The process of empowering residents in rural communities also takes different paths in various cultures as there are unique cultural and local values as well as flexibility in behaviors. During empowerment, such variances should be kept in mind because overlooking cultural differences leads to failure in this regard (Roknodin Eftekhari and Heidari Sarban, 2017).

1.1.2. Participation

Participation, literally referring to taking part or getting involved in something, has been further defined as acting together in a community to deal with an issue (Mohseni et al, 2013). Community participation in tourism development can have a spectrum, starting from the least and worst form, superficial participation, and ending with spontaneous participation, which seems to be more effective and compatible with the SDGs. The highest level of participation is spontaneous, required to ensure the implementation of development plans. In this type of participation, people perceive the need for change and ask for improvements in a plan.

1.1.3. RT Principles from Different Perspectives

The United Nations (UN) has further presented a set of principles for RT based on the wisdom of nature. Also to develop a conceptual framework for RT, the research works by Mang and Haggard (2016), Sanford (2019), and Matunga et al. (2020) were summarized, and then seven conceptual principles were obtained:

- Having an ecological worldview
- Using living systems thinking
- Discovering unique potentials of tourist destinations
- Recruiting capabilities of living tourism systems to accelerate developments
- Adopting healing approaches to promote cultural revitalization, restore lands, and give priority to views, knowledge, and practices among local and marginalized people
- Creating regenerative places and communities

1.2. Literature Review

In the last few years, studies have been conducted in the field of wetlands and tourism at the domestic and global level. As an example, the case study of the wetlands of Naqdeh city, West Azarbaijan province, reflected on sustainable tourism and ecosystem and showed that out of 43 variables related to institutional-economic, social-cultural and ecological-environmental aspects of sustainable tourism in wetland ecosystems. 38 and 43 variables have been approved by people and officials respectively. Also, the analysis of opinions showed convergence in 38 variables and divergence in five variables (Ismailzadeh et al, 2014). Salehi et al. (2016) using remote sensing (RS) to study the trend of land cover and land use changes in the international wetlands of the

estuary of Shur, Shirin and Minab rivers in Hormozgan province based on Landsat 7 ETM+ satellite images in 2000 and Landsat 8 OLI in They checked in 2016. They observed that shrimp farms, mangrove forests, and residential areas increased during the study period, but vegetation use decreased due to recent droughts in the region. Another study on the impact of empowerment on residents' support for tourism development in the Kamardog region of Kohgiluyeh and Boyer Ahmad provinces showed that the positive effects of tourism as well as psychological, social and political empowerment can have a significant impact. Support for tourism among residents, these variables make up 47% of the variance of support for tourism development (Shokohi and Yazdan Panah, 2018). In 2019, in a study on RT and the natural maturity of sustainability, Pollock stated that tourism is slowly entering the mainstream of consciousness. This change requires an extensive educational commitment to use marketing and communication skills in this sector. Azami and Shanazi (2020) also investigated tourism wetlands and sustainable rural development in Iran to analyze the effects of wetlands on residents' livelihoods. The results showed that wetlands can have a significant impact on the lives of residents in five dimensions: financial, natural, human, physical and social. Based on the results of path analysis, natural capital has had the greatest impact on people's livelihoods, which indicates the role of wetlands in determining the level of livelihoods and their dependence on the functioning and services of the existing ecosystem. In 2021, Duxbury et al. The models of creative tourism development towards sustainable and regenerative tourism were investigated to increase the understanding of the processes in different conditions to carry out, develop, implement and support creative tourism activities. They therefore reported on a national analysis of approaches developed by organizations participating in a project to deliver creative tourism initiatives. At the organizational level, the main models were obtained on this basis, i.e. independent and repeated proposals. A set of creative activities and other initiatives under a common theme; Local networks for creative tourism; and small festivals including creative tourism activities and accommodations. Blato et al. (2022)

conducted a study on RT using theory and practice and explored the transformative potential of RT and related approaches. They also provided a conceptual framework of practical guidance for tourism stakeholders working towards regenerative futures. Duarte et al. (2024) reviewed the role of regenerative tourism in addressing global climate and biodiversity goals. They emphasized that regenerative tourism goes beyond minimizing negative impacts by creating positive benefits for natural, cultural, and social capital and highlighted the importance of collaboration with local communities. The study also identified five domains of action for supporting the transition toward regenerative tourism. Das and Mishra (2026) developed a destination-scale framework for regenerative tourism by integrating circular economy and community resilience. They emphasized ecological restoration, circular resource systems, community resilience, and the integration of ecological, social, and economic outcomes. Their findings highlighted the need for measurable and place-based approaches to move regenerative tourism from a conceptual framework toward practical destination planning.

Materials and Methods

2.1. Study Area

In 1975, this wetland was registered as an international wetland of Shour, Shirin and Minab in the list of important international wetlands in the Ramsar Convention. The SSMIW with an area of 78,099 ha, is located 70 km to the east of the city of Bandar Abbas, Hormozgan Province, Iran, on the northern coast of the Strait of Hormuz in the Persian Gulf and in front of Hormuz Island, at the sea level with the geographic position of 56° and 45 min east and 27° and 5 min north at the mouth of the Shour, Shirin Minab Rivers, entering the village of Tiab in the form of an estuary, and supplying water to the shrimp farms where many local communities work in. This coastal wetland with an approximate length of 73 km along the coasts includes brackish lands, coastal salt marshes, mangrove forests, sandy terrains, and tidal mud flats as the mouths of the Shour, Khvorjal, Jalabi, Hasan Langhi, and Minab Rivers (Hormozgan Regional Water Company, 2017). The red line indicates the area of the wetland (Figure 1).

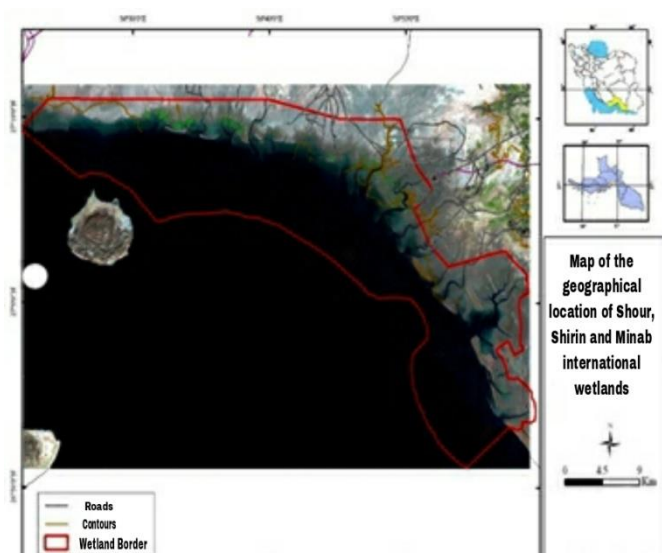


Fig. 1: Geographical location and area of Shour, Shirin and Minab wetland (Abedini, 2014)

The climate is typically tropical to semi-tropical, and the temperature also reaches 45° C in summer. The annual precipitation is 100-300 mm from November to April (Gandomkar and Shabani, 2013). The vegetation cover in this wetland and its surrounding area includes mangroves, acacias, mesquite, tamarix, Christ's thorn jujube, as well as dates, mangos, and lemons and various plant species, such as rubber bush, prosopis, the henna tree, and pistacia atlantica, and even salt-tolerant grasses (Safa-Isani, 2006). Thanks to its mangrove

forests, this wetland is an important wintering area for aquatic and waterside birds, such as gray pelican, Eurasian curlew, and ciconia nigra, and a breeding habitat for species of the heron family (Hormozgan Province Department of Environment, 2017). Small fox, jackal, and all types of rodents are also among the mammals in this region (Behrouzi Rad and Kiabi, 2008). Figure (2) illustrates the wetland and Tiab village wherein the wetland is in the form of an estuary.



Fig. 2: Images of Shoure, Shirin and Minab wetland, and estuary the entering Tiab village

2.2. Methods

This study adopted an applied case-study approach with a descriptive-analytical design to investigate the potential for developing regenerative tourism (RT) in the Shur, Shirin, and Minab International Wetland (SSMIW). The study focused on understanding the

environmental, socio-economic, cultural, and tourism-related characteristics of the wetland and its surrounding communities and on identifying opportunities, constraints, and locally appropriate actions for regenerative tourism development. Given the ecological importance of the SSMIW and the

environmental and socio-economic pressures affecting the wetland and its surrounding communities, a comprehensive assessment of the study area was considered necessary as the first step toward developing an appropriate management and tourism framework. Accordingly, the assessment covered the history and characteristics of the area, environmental conditions, existing infrastructure and facilities, socio-demographic characteristics, local culture, livelihoods, economic conditions, and tourism potentials. The research process consisted of several interconnected stages. First, relevant documents, previous studies, and available information concerning the wetland and the Tiab–Minab area were reviewed. Second, field visits were conducted to examine the wetland environment, local settlements, existing infrastructure, tourism potentials, and environmental conditions. Third, information was collected from local residents through field-based questionnaires and face-to-face interactions, while additional interviews were conducted with environmental rangers to obtain professional perspectives on the environmental conditions and management of the wetland. Finally, the collected information was used to identify locally appropriate regenerative tourism actions and to develop a proposed guideline for regenerative tourism development. The proposed guideline was developed based on the principles of regenerative tourism and the characteristics and capacities of the local context. Particular attention was given to place-based resources, including natural features, local history and heritage, landscape, traditional handicrafts, local music, food, livelihoods, and other forms of local cultural expression.

2.3. Data Collection Methods and Tools

Data were collected using four complementary methods: documentary and library research, field observation, face-to-face interviews, and a researcher-developed questionnaire. Documentary research was used to obtain information concerning the history, environmental characteristics, management conditions, and tourism potential of the SSMIW and the surrounding Tiab–Minab area. Field observations were subsequently conducted to examine the wetland ecosystem, surrounding villages, existing infrastructure and facilities, environmental conditions, and tourism-related

potentials. These observations also provided contextual information for interpreting the responses obtained from local residents. Primary data were obtained from local residents through a researcher-developed questionnaire and face-to-face interactions. In addition, three environmental rangers were interviewed to obtain complementary information regarding the environmental conditions, threats, management issues, and potential measures for improving the condition of the wetland. The Local Community Empowerment Questionnaire (LCEQ) was developed based on the regenerative tourism perspective proposed by Dredge (2022), according to which tourism should generate net positive outcomes for people, places, and nature and contributes to the long-term renewal and prosperity of socio-environmental systems. The questionnaire addressed three broad dimensions of local community empowerment: psychological, socio-economic, and managerial-political empowerment. These dimensions were considered in relation to the principles of regenerative tourism and the local characteristics of the study area. The psychological dimension addressed issues related to local capabilities, community recognition, sense of pride, and preservation of local cultural and social values. The socio-economic dimension focused on livelihoods, economic opportunities, local relationships, and the potential contribution of tourism to improving local economic conditions. The managerial-political dimension concerned the role of local residents in tourism-related decision-making, participation in projects, and their perceived ability to influence tourism development and management. The questionnaire responses were entered into Microsoft Excel and SPSS Statistics version 22. Descriptive statistical procedures were used to summarize the characteristics of the respondents and their responses and to provide an overall description of the current conditions and perceptions of the local community.

2.4. Questionnaire Design and Reliability

The Local Community Empowerment Questionnaire (LCEQ) was developed based on the regenerative tourism perspective of Dredge (2022) and included three dimensions: psychological, socio-economic, and managerial-political empowerment, aligned with the principles of regenerative tourism and

the characteristics of the study area. The questionnaire was reviewed for content validity, and its internal consistency was assessed using Cronbach's alpha. The overall alpha coefficient was 0.81, indicating acceptable reliability of the instrument.

2.5. Statistical Population and Sampling

The study population consisted of residents living in villages surrounding the SSMIW, particularly Shaghan, Dehu, Tiab, Kolahi, and Kargan. A total of 54 local residents participated in the study. Data were collected regarding the past and present condition of the wetland, local handicrafts, wetland-related recreational activities, household livelihoods, and residents' views concerning tourism development and improvement of the local tourism system. The 54 local residents were selected using simple random sampling. The sampling procedure was used for selecting the local residents and was distinct from the qualitative component of the study. Accordingly, theoretical saturation was not used to determine the quantitative sample size. In addition, interviews were conducted with three environmental rangers to obtain complementary information regarding the environmental conditions, threats, management challenges, and tourism-related potentials of the wetland. The qualitative information obtained through these interviews and interactions with local residents was reviewed until theoretical saturation was reached, i.e., until no substantially new information relevant to the research objectives emerged.

Results and Discussion

To develop RT in the SSMIW, there was a need to identify the stakeholders and their relationships with the wetland. Then, the existing principles for RT development were applied. As well, the wetland zoning in the CMP for Tiab and Minab Protected Area was examined. Moreover, the RT guidelines for the desired wetland were provided. Finally, the RT capabilities and potentials in the given wetland were extracted according to previous studies.

3.1. Identifying Relevant Groups and their Influence

Identifying stakeholders and relevant groups is one of the key measures for the implementation of RT development plans, as stated in the CMP or the SSMIW (2016) (Table

1-4). As the tourism industry is highly dependent on natural resources, the ecological environment, and climate change, low ecosystem health is not beneficial for the sustainable development of tourist destinations (Li and Shen, 2021). An ecosystem accordingly supplies the sites, resources, and services for the development of other systems and accelerates ecological service functions. On the one hand, economic development and tourism activities disturb ecosystems, and on the other hand, budget investments in environmental protection and pollution control as well as efforts to restore ecosystems, leading to the resilience of tourist destinations. As reported by the UNWTO (2019), this industry is one of the strongest drivers of economic growth. In addition, it provides opportunities in terms of creating different types of economic benefits and attracting more attention (Monterrubio et al, 2020; Gabdrakhmanov et al, 2016). Economic development can further increase livelihoods. For example, investments to boost medical and educational facilities and services help promote health as well as scientific and cultural literacy in residents. Examining the questionnaire data in this study showed that the level of income in 76% of the local people, despite the high economic potential of the region, was below 100,000,000 IRR (200 dollars) on average in the first six months of 2023, and poverty was growing in recent years. As well, the average number of the family members was five, which corresponded to the statistics released in the Population and Housing Census of 2016, while the Iranian Parliament Economic Committee had declared the poverty line in July 2023 for a family of four by 346,000,000 IRR (690 dollars). The analysis of the answers provided by the local people indicated that many households had been forced to migrate to other cities every year to earn a decent income for their livelihood by finding jobs, due to the environmental conditions and droughts, no job security, and economic problems arising from the destruction of the lands surrounding the SSMIW and its flora and fauna. Statistics further show that the desired region is in the first row among the provinces suffering from unemployment in Iran (Statistical Center of Iran, 2022). RT development in this wetland can thus make a big change in the economic status of the local people. From a social perspective, tourism

creates job opportunities that help moderate employment. In addition, it bolsters urbanization and optimizes the urban and rural population structures (Aghazamani and Hunt, 2017). Social development also plays a critical role in dealing with major problems and eradicating poverty by redistributing existing resources, improving the situation, and making the foundations of communities much more efficient. Poverty embraces dimensions other than economy. For example, in the villages in the vicinity of the wetland, literacy was low and early marriage was very common, which required the promotion of educational programs in this line. With reference to the field studies, one other serious problem threatening this wetland was the discharge of smuggled fuel into the water once faced with officials as well as household sewage, which could both endanger the biodiversity and health of the region. Therefore, a wastewater treatment network should be designed for this region before tourism development to reduce the pollution load of the wetland and maintain its health. Ecosystem management programs with an emphasis on bottom-up and people-centered approaches accordingly pave the ground for inter-sectoral cooperation with the presence of all stakeholders, including the representatives of local communities, in the planning and implementation processes.

3.2. SSMIW Zoning

Zoning refers to limiting the place and time of the implementation or non-implementation of certain activities in different parts of a region, which typically depend on some conditions, such as natural resource management (NRM) techniques, cultural heritage management (CHM) strategies, human benefits, resource utilization methods, visitors' use of a region and their experiences, access to different parts of a region, and using existing facilities and their maintenance. As a tool for wetland management, zoning is thus similar to land-use patterns and planning, in which the legally recognized and unauthorized exploitation zones as well as their boundaries are determined.

3.2.1. Criteria for Determining Wetland Sensitivity

Zoning depends by far on the identification of habitats and their specific characteristics. Determining the intervention boundaries in wetlands and carrying out all activities accordingly requires the knowledge of

sensitivities due to their direct effects. Different levels of sensitivity can be thus explained as follows:

1. *Very high sensitivity*: The areas in which use and disturbance by humans are absolutely prohibited in order to achieve the main goals of CMPs, such as pristine and safe areas for nesting, breeding, and feeding aquatic birds or the commuting areas of endangered species and fish spawning ones. Moreover, the areas with very high sensitivity to wind erosion are placed at this level. These areas also represent the most important and vulnerable natural values in a region. Any human activity leading to the transformation of the values is thus forbidden, and only construction activities that are necessary for management and protection purposes are allowed. Preserved valuable lands that have been destroyed by natural disasters or human interventions and need plans such as the restoration of vegetation cover are at this level.

2. *High sensitivity*: The boundaries in which human-related use and disturbance should be limited in order to achieve the CMP goals. This represents natural lands whose environmental values are generally lower than pristine lands despite having a prominent natural appearance, but human intervention and the effects of exploitation are often observed, such as the places hosting aquatic or land birds.

3. *Moderate sensitivity*: These are areas where a limited range of human activities in line with the CMP goals are endorsed, including other parts of the wetland that are not at this level as those with high and low sensitivity, e.g., areas in which some activities such as hunting and fishing are permitted.

4. *Low sensitivity*: Areas in which a wide range of sustainable human activities are authorized in agreement with the CMP goals, such as those wherein agricultural and grazing activities happen (Hormozgan Province Department of Environment, 2016). The SSMIW zoning has been thus done in the CMP. To this end, the area that included the entire area of the wetland approved was determined as the desired zone. The zoning map of the wetland and the permitted and unauthorized uses at different levels of sensitivity (viz., very high, high, moderate, and low) are thus given in Figure (3). Accordingly, the current status of the wetland is described, and the allowed and unauthorized uses as well as the organizations in charge of determining the implementation

criteria are listed in Table (1). In each zone, the permitted activities in the SSMIW are clearly

defined in this table, which can be utilized for planning.

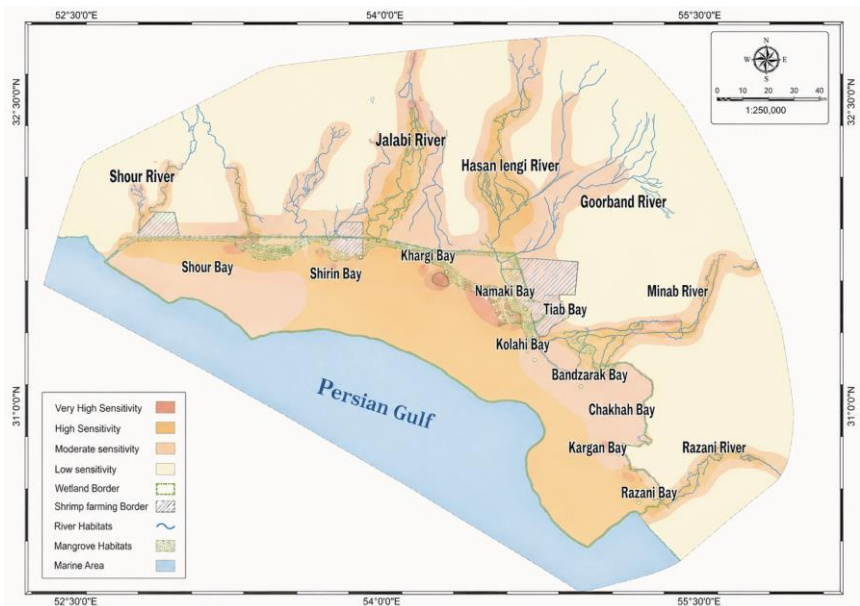


Fig. 3: Sensitivity zoning of habitats in the Shour, Shirin and Minab international wetland

Brown color indicates very high sensitivity, orange color indicates high sensitivity, pink

color indicates moderate sensitivity, and yellow color indicates low sensitivity.

Table 1: Description of authorized and unauthorized uses in different levels of sensitivity of the Shour, Shirin and Minab international wetland

Degree of sensitivity	Authorized uses	Unauthorized uses	Responsible institution(s) for determining implementation criteria
Very high	Monitoring, protection and rehabilitation (according to instructions); Research and limited research (with permission); Aquatic restoration; Mangrove work; Bird watching	Other activities	General Department of Environmental Protection in cooperation with universities and research centers; Department of Natural Resources and Fisheries
High	Local fishing (with authorized methods); Recreational fishing with hooks; Extensive nature tourism (according to instructions); Research and limited research (with permission); Aquatic restoration; Mangrove work; Bird census; Bird watching	Other activities	General Department of Environmental Protection in cooperation with Fisheries Department; Department of Cultural Heritage, Handicrafts and Tourism; universities and research centers; Department of Natural Resources and Fisheries
Moderate	Mangrove forest restoration; Research (with permission); Nature tourism; Sustainable livelihoods for local communities adjacent to the wetland	Other activities	General Department of Environmental Protection in cooperation with Fisheries; General Directorate of Natural Resources and Watershed Management; Cultural Heritage, Handicrafts and Tourism
Low	Sustainable livelihoods, including animal husbandry, aquaculture, ecotourism and agriculture (for local communities adjacent to the wetland and important rivers)	Other activities	General Directorate of Environmental Protection in cooperation with Fisheries; General Directorate of Natural Resources and Watershed Management; Cultural Heritage, Handicrafts and Tourism; Agricultural Jihad Organization

3.3. RT Guidelines

Based on the field findings, stakeholder analysis, ecological sensitivity assessment, and the principles of regenerative tourism (RT), a set of context-specific guidelines was developed for RT development in the SSMIW. As shown in Table 2, the guidelines were derived by linking the identified socio-economic, social, and environmental conditions

of the wetland to relevant RT principles and translating them into locally appropriate interventions. The guidelines therefore emphasize community empowerment, meaningful participation, sustainable livelihoods, ecological protection, place-based tourism development, and long-term institutional and financial support.

Table 2: Linkage between field findings, regenerative tourism principles, localized responses and proposed interventions

Field finding	Interpretation/need	Relevant RT principle	Localized RT response	Proposed intervention	Priority
76% of households had low income	Need for livelihood diversification	Local economic empowerment	Tourism benefits should remain within local communities	Local guiding, homestays, handicrafts, sustainable fisheries	High
Seasonal/annual migration for employment	Lack of stable local employment	Community empowerment and local value creation	Tourism should create locally controlled income opportunities	Local tourism enterprises and training	High
Household sewage discharge	Threat to wetland health	Ecological regeneration	Tourism cannot expand before reducing pollution	Wastewater collection and treatment	Very high
Smuggled fuel discharge	Biodiversity and water-quality risk	Ecosystem restoration	Strengthen monitoring and environmental governance	Community-based monitoring	Very high
Low literacy in nearby villages	Limited capacity to participate in tourism	Capacity building	Training should precede tourism expansion	Basic hospitality/environmental training	High
Early marriage/social vulnerability	Social development need	Social well-being and inclusion	Tourism planning should include vulnerable groups	Educational/community programs	Medium
Existing wetland zoning	Different ecological sensitivities	Place-based regeneration	Tourism intensity must correspond to ecological sensitivity	Zone-specific tourism activities	Very high
Natural/cultural attractions	Untapped local capacity	Place identity	Tourism products should reflect local identity	Birdwatching, mangrove tours, cultural experiences	Medium

Table 2 summarizes the process of translating field-based findings into localized regenerative tourism interventions in the SSMTW. Each intervention was derived by identifying a specific socio-economic, social, or environmental need, linking it to a relevant regenerative tourism principle, and adapting the principle to the local context. The proposed interventions were then prioritized according to their urgency and relevance to local conditions.

3.3.1. Forming an Executive Committee

At the beginning of the RT development process, an executive committee should be established to coordinate the planning and implementation of the proposed measures. The committee should have three main functions: 1) reviewing relevant documents and previous studies to obtain the required information; 2) conducting field observations to assess the ecosystem, local culture, existing infrastructure, and infrastructure needs; and 3) consulting local communities, environmental experts, and other relevant stakeholders to identify their priorities, concerns, and capacities. This participatory structure can provide the information required for context-specific planning and facilitate coordination among the actors involved in RT development.

3.3.2. Identifying Stakeholders and Relevant Groups and Determining Their Influence on the Wetland

All stakeholders and relevant groups involved in wetland management and tourism development should be identified and assessed according to their interests, responsibilities, influence, and potential contribution. These groups may include local communities, environmental authorities, fisheries and natural resource organizations, tourism-related institutions, researchers, NGOs, and other relevant actors. Understanding the roles and influence of these groups can facilitate appropriate participation and improve coordination during the implementation of RT.

3.3.3. Identifying Facilitators and Local Agents

Facilitators and local agents should be identified to strengthen communication between local communities, governmental organizations, tourism stakeholders, and other relevant actors. These individuals can help communicate community needs, facilitate participatory processes, support the implementation of training programs, and contribute to resolving conflicts or emerging problems during the development of RT.

3.3.4. Providing General Training and Clarifying the Implementation Process

General orientation and training courses should be provided for stakeholders before the implementation of the RT program. These courses should explain the objectives and principles of RT, the roles and responsibilities of stakeholders, the importance of wetland conservation, and the proposed implementation process. Establishing a common understanding among stakeholders can improve coordination and increase acceptance of the proposed measures.

3.3.5. Classifying Tourism Activities

Tourism activities should be classified according to their environmental impacts, duration, seasonality, timing, and compatibility with local conditions. In particular, the temporal characteristics of activities, including day and night use and seasonal variations, should be considered when designing tourism programs. This classification can help determine which activities are appropriate for different periods and locations while reducing potential pressure on sensitive habitats.

3.3.6. Identifying Experienced, Interested, and Capable Local People

Experienced, interested, and capable local residents should be identified and their skills and interests assessed. Their participation can provide a basis for developing locally managed tourism services and creating employment opportunities. Particular attention should be given to individuals who have knowledge of the wetland, local culture, traditional livelihoods, and the natural environment.

3.3.7. Dividing Responsibilities and Recruiting Human Resources

Responsibilities should be clearly distributed among the relevant institutions, local communities, and other stakeholders. Appropriate human resources should be recruited for each sector according to their skills and responsibilities. Clear allocation of responsibilities can reduce institutional overlap, improve accountability, and facilitate coordinated implementation.

3.3.8. Determining the Physical Carrying Capacity

The physical carrying capacity of tourism sites should be determined before tourism activities are expanded. The number and intensity of visitors and activities should remain within the limits that can be accommodated by the physical and ecological characteristics of

each site. Carrying-capacity assessment should be periodically reviewed as visitor numbers, environmental conditions, and tourism activities change.

3.3.9. Applying and Localizing RT Principles

The principles of RT should be adapted to the specific social, economic, ecological, cultural, and institutional conditions of the SSMIW. Rather than directly adopting general RT models developed for other destinations, the principles should be translated into interventions that address the needs and capacities identified through fieldwork. In particular, community empowerment, local benefit sharing, ecological regeneration, participation, place identity, and long-term resilience should guide the development of tourism activities in the wetland.

3.3.10. Allocating Permitted Tourism Activities According to the CMP

Tourism activities should be spatially allocated according to the sensitivity zoning and permitted uses defined in the Comprehensive Management Plan (CMP). Very-high-sensitivity areas should be primarily reserved for conservation, monitoring, research, and restoration activities. Low-impact and controlled tourism activities may be considered in high-sensitivity areas where permitted, while moderate- and low-sensitivity areas can accommodate a broader range of nature-based tourism and sustainable livelihood activities. This approach ensures that tourism intensity is consistent with the ecological characteristics of each zone.

3.3.11. Identifying the Unique Features of the Region

The distinctive natural, cultural, and social characteristics of the SSMIW should be identified and incorporated into tourism planning. The development of tourism products should be based on the unique identity of the wetland and its surrounding communities rather than replicating standardized tourism models from other destinations. These characteristics can provide a basis for developing place-specific experiences and strengthening local ownership of tourism.

3.3.12. Developing Diversified Tourism Programs through a Participatory Approach

Diversified tourism programs should be developed through the participation of local communities and relevant stakeholders. Potential activities may include birdwatching, guided nature tours, mangrove-related

experiences, cultural activities, educational visits, and other low-impact activities that are compatible with the ecological sensitivity of each zone. Local residents should be involved in designing and delivering these experiences so that tourism benefits can contribute to local livelihoods.

3.3.13. Providing Initial Financial Support

Given the low income and limited financial capacity of local communities, initial financial support may be required to initiate the RT program, develop essential facilities, provide training, and support local tourism enterprises until they become sufficiently self-sustaining. Governmental institutions and other relevant organizations can contribute to providing initial financial assistance and facilitating access to appropriate funding mechanisms.

3.3.14. Developing Environmentally Friendly Infrastructure

Required tourism facilities and service infrastructure should be developed using environmentally friendly technologies and in accordance with the ecological sensitivity of the wetland. Infrastructure should minimize environmental impacts, resource consumption, waste generation, and disturbance to natural habitats. The scale and location of infrastructure should also be compatible with the carrying capacity and zoning regulations of the wetland.

3.3.15. Establishing a Wastewater Collection, Treatment, and Recycling Network

Given the identification of household wastewater discharge as an environmental pressure in the fieldwork, an appropriate wastewater collection and treatment system should be established. Where technically and economically feasible, treated wastewater can be reused for suitable purposes. Wastewater management should be considered a priority environmental safeguard and, where necessary, a prerequisite for expanding tourism activities in the wetland.

3.3.16. Establishing an Educational and Research Site

An educational and research site can be developed to support environmental education, scientific research, and knowledge exchange. Workshops and educational activities can be organized around wetland conservation, local culture, biodiversity, sustainable livelihoods, and responsible tourism. Such activities can strengthen environmental awareness among both local residents and visitors while

supporting local economic and cultural development.

3.3.17. Developing Certification Mechanisms for the Region and RT Implementation

Appropriate certification mechanisms should be considered to recognize tourism services and activities that comply with environmental, social, and quality standards. Certification can provide incentives for local tourism operators to adopt responsible practices and can help communicate the environmental and social values of the SSMIW to visitors.

3.3.18. Holding Regular Participatory Meetings

Regular meetings should be organized to present progress reports, discuss challenges, exchange information, and address questions raised by stakeholders. Participatory and brainstorming sessions can strengthen trust among stakeholders, improve mutual understanding, and facilitate coordination. Continuous communication can also enable emerging problems to be identified and addressed before they become major obstacles to implementation.

3.3.19. Training and Recruiting Local Consultants

Local consultants with knowledge of the wetland, local culture, livelihoods, and community conditions should be trained and recruited where appropriate. Their involvement can strengthen communication between local communities and tourism managers and provide locally grounded expertise during the implementation of the RT program.

3.3.20. Providing Specialized Training Courses

Specialized training courses should be provided to improve the knowledge and skills of local participants. These courses may cover hospitality, communication, environmental interpretation, waste management, visitor management, tourism entrepreneurship, and wetland conservation. NGOs, universities, and relevant governmental institutions can contribute to delivering these programs. Such training can increase local capacity to participate effectively in tourism and improve the quality of interactions between hosts and visitors.

3.3.21. Developing Promotional Programs and Introducing SSMIW Attractions

Promotional programs should introduce the ecological and cultural attractions of the SSMIW through appropriate communication channels, including web-based resources and

social media. Promotional activities should emphasize the environmental and cultural values of the wetland and target visitors who are interested in responsible and nature-based tourism. Carefully selected scientific, educational, or cultural events may also increase the visibility of the region, provided that they are compatible with the ecological sensitivity and carrying capacity of the wetland.

3.3.22. Conducting Educational Tours before Entering the Wetland

Visitors should receive basic educational information before entering the wetland. These educational activities should explain the ecological importance of the SSMIW, appropriate visitor behavior, local cultural norms, and the importance of respecting the lifestyle and values of host communities. Such orientation can reduce inappropriate visitor behavior, support wetland conservation, and promote respectful interactions between tourists and local residents.

3.3.23. Monitoring and Addressing Emerging Problems

A continuous monitoring mechanism should be established to assess ecological, social, and economic outcomes during RT implementation. Potential problems should be identified through regular field observations, stakeholder feedback, and periodic evaluation. Corrective measures should then be introduced when necessary to ensure that tourism activities remain consistent with the objectives of wetland conservation, community well-being, and sustainable livelihoods.

3.3.24. Establishing Long-term Financing Mechanisms

Long-term financial mechanisms should be established to ensure the continuity of the RT program beyond the initial implementation stage. Governmental support may remain important during the early stages, particularly for essential infrastructure and capacity building. In the longer term, tourism revenues, appropriate local conservation funds, and other suitable financial mechanisms can contribute to covering part of the costs of environmental management, monitoring, and tourism services. This approach can gradually reduce dependence on external financial support while maintaining the ecological and social objectives of RT.

Conclusion

This study examined the potential for

developing regenerative tourism (RT) in the Shour, Shirin and Minab International Wetland (SSMIW), with a focus on local community empowerment, stakeholder participation, and the ecological and socio-economic characteristics of the area. The findings show that RT in the SSMIW should extend beyond minimizing the negative impacts of tourism and instead contribute to wetland restoration, improvement of local livelihoods, and preservation of local cultural values. Based on field observations, interviews, and the local community empowerment questionnaire, several priorities for RT development were identified. These include securing the wetland's environmental water requirement, wastewater treatment and waste recycling, use of renewable energy, restoration of native vegetation, development of local handicrafts and food products, establishment of community-based accommodations and local markets, development of non-extractive recreational activities, training of local tour guides, and participation of residents in environmental restoration and clean-up activities. These activities should be planned and implemented according to the existing ecological sensitivity zoning of the wetland to ensure compatibility between tourism development and conservation objectives. The findings further indicate that local community empowerment is a key requirement for RT development in the SSMIW. Accordingly, the proposed approach emphasizes local participation in planning and decision-making, development of skills and employment opportunities, strengthening local involvement in tourism services, and continuous communication among local communities, environmental authorities, tourism organizations, and other stakeholders. Thus, tourism can function as a means of simultaneously supporting ecological restoration, local livelihoods, and community well-being. The main contribution of this study is the development of a place-based and community-oriented guideline for RT in a sensitive coastal wetland, linking potential regenerative tourism activities to the existing ecological sensitivity zoning. This guideline can provide a practical basis for prioritizing tourism activities according to environmental conditions and the capacities of local communities and can support more integrated wetland and tourism management. Several

limitations should be considered when interpreting the findings. The study was conducted as a single case study, which limits the generalizability of the results to other wetlands. In addition, the study involved 54 local residents and three environmental staff, and the findings therefore reflect the specific context and perceptions of the study area. The questionnaire was researcher-developed; although its overall Cronbach's alpha coefficient was 0.81, indicating acceptable internal consistency, further validation with larger samples is recommended. The interview data may also have been influenced by participants' perceptions and potential response bias. Furthermore, the fieldwork was conducted within a limited period and may not fully reflect seasonal variations in environmental conditions, livelihoods, and tourism activities. Finally, this study developed and prioritized RT measures but did not practically evaluate their implementation or outcomes. Future research should therefore evaluate the proposed guideline through pilot projects and assess its environmental, economic, and social outcomes over time. Such longitudinal and participatory research can provide stronger evidence for the implementation and further development of regenerative tourism in the SSMIW.

Conflict of Interest

There is no conflict of interest in this research.

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References

- Aazami, M. and Shanazi K., 2020. Tourism wetlands and rural sustainable livelihood: The case from Iran. *Journal of Outdoor Recreation and Tourism*, v. 30 (In Persian).
- Aghazamani, Y. and Hunt, C.A., 2017. Empowerment in tourism: A review of peer-reviewed literature. *Tourism Review International*, v. 21(4), p. 333-346 (In Persian).
- Banarsyadhimi, URAMF, Dargusch, P. and Kurniawan, F., 2022. Assessing the impact of marine tourism and protection on cultural ecosystem services using integrated approach: a case study of Gili Matra Islands. *Int J Env Res Pub He*. Doi: 10.3390/ijerph191912078.
- Becken, S. and Kaur, J., 2021. Anchoring "tourism value" within a regenerative tourism paradigm – a government perspective. *Journal of Sustainable Tourism*, v. 30(1), p. 52-68.
- Behrouzi-Rad, B. and Kiabi, H., 2008. Identification and seasonal comparison of the diversity and density of waterfowl in the international wetlands of Kolah and Tiab in four seasons from autumn 2010 to summer 2011. *Environmental Science Quarterly*, v. 5(3), p. 113-126 (In Persian).
- Bellato, L., 2025. Regenerative development approaches involving tourism: Insights derived from place. *Tourism Planning and Development*, v. 22(6), p. 960-980. <https://doi.org/10.1080/21568316.2024.2415119>
- Bellato, L. and Cheer, J.M., 2021. Inclusive and regenerative urban tourism: Capacity development perspectives. *International Journal of Tourism Cities*, v. 7(4), p. 943-961. <https://doi.org/10.1108/IJTC-08-2020-0167>.
- Bellato, L. and Frantzeskaki, N., 2021. Transformative roles in a tourism living system CAUTHE 2021 Transformations in uncertain times: Future perfect in tourism, hospitality and events, Online.
- Bellato, L., Frantzeskaki, N. and Nygaard, C.A., 2022. Regenerative tourism: a conceptual framework leveraging theory and practice. *Tourism Geographies*, DOI: 10.1080/14616688.2022.2044376.
- Buckley, R., 2012. Sustainable tourism: research and reality. *Ann Tourism Res*, v. 39, p. 528-46. Doi: 10.1016/j.annals.2012.02.003.
- Cave, J. and Dredge, D., 2020. Regenerative tourism needs diverse economic practices. *Tour. Geogr*, v. 22, p. 503-513.
- Chen, Z., Li, L. and Li, T., 2017. The organizational evolution, systematic construction and empowerment of Langde Miao's community tourism. *Tourism Management*, v. 58, p. 276-285.
- Chen, B., Qiu, Z., Usio, N. and Nakamura, K., 2018. Tourism's impacts on rural livelihood in the sustainability of an aging community in Japan. *Sustainability*, v. 10(8), p. 28-96.
- Clarke, B., Thet, A.K., Sandhu, H. and Dittmann, S., 2021. Integrating Cultural Ecosystem Services valuation into coastal wetlands restoration: A case study from South Australia. *Environmental Science and Policy*, v. 116, p. 220-229. doi:10.1016/J.ENVSCI.2020.11.014.
- Corney, C. and Litvinoff, M., 1988. *The greening of aid: Sustainable livelihoods in practice*. London: Earth scans Publications Limited.
- Das, A. and Mishra, S., 2026. A destination-scale framework for regenerative tourism integrating circular economy and community resilience. *Green Technology, Resilience, and Sustainability*, v. 6(1). <https://doi.org/10.1007/s44173-026-00027-x>

- Dredge, D., 2022. Regenerative tourism: transforming mindsets, systems and practices. *Tourism Futures*, v. 8(3), p. 269-281. Emerald Publishing Limited, ISSN 2055-5911.
- Duarte, C.M., Cousins, R., Ficociello, M.A., Williams, I.D. and Khowala, A., 2024. Advancing Global Climate and Biodiversity Goals through Regenerative Tourism. *Sustainability*, v. 16(20). <https://doi.org/10.3390/su16209133>
- Dukic, V. and Volic, I., 2017. The Importance of Documenting and Including Traditional Wisdom in Community-Based Ecotourism Planning: A Case Study of the Nature Park Ponjavica in the Village of Omoljica (Serbia). *SAGE Open*, v. 7(1).
- Duxbury, N., Bakas, F.E., De Castro, T.V. and Silva, S., 2021. Creative tourism development Models towards Sustainable and Regenerative Tourism. *Sustainability (Sustainability)*, v. 13(1). (<https://doi.org/10.3390/su13010002>).
- Esmailzadeh, H., Salehpour, S. and Ismailzadeh, Y., 2014. Sustainable tourism in wetlands ecosystem (case study: Naqdeh city). *Natural Geography Quarterly*, v. 8(30), p. 118-99 (In Persian).
- Gabdrakhmanov, N.K., Rubtsov, V.A., Baybakov, E.E., Somehow, H.S. and Nugaev, F.S.E., 2016. Tourism and sustainable development. *Academy of Strategic Management Journal*, v. 15(4), p. 183-188.
- Gandomkar, A. and Shabani, N., 2013. Investigation of temperature changes in the Minab river basin and its effect on the international wetland of the estuary of Shur, Shirin and Minab rivers. The first conference on the protection of wetlands and water ecosystems in Iran. Farda Environmental Thinkers Company, Hamedan, April 2013 (In Persian).
- Hague, C., 2005. Planning and place identity. In *Place Identity, Participation and Planning*; Hague, C., Jenkins, P., Eds.; Routledge: London, UK, p. 3-18.
- Haji Aghazadeh Roudsari, M. and Sabaz Ghadim, S., 2021. Investigating the impact of empowering the local community on the development of sustainable tourism with the mediating role of social capital (case study: East Azerbaijan province). *Human Islamic Studies*, v. 7(27), p. 1-12.
- Higgins-Desbiolles, F. and Akbar, S., 2018. We will present ourselves in our ways: Indigenous Australian tourism. In B. Grimwood, K. Caton, and L. Cooke (Eds.), *New moral natures in tourism*, p. 13-28.
- Hormozgan Regional Water Company, 2017. Studies to determine the boundary of the bed and boundary of the international wetlands of Shour, Shirin and Minab and Gaz wetland, geological and geomorphological report (In Persian).
- Hormozgan Regional Water Company, 2017. Studies to determine the boundary of the bed and boundary of international wetlands of Shour, Shirin and Minab and Gaz wetland, report of physiographic studies and geographical location (In Persian).
- Hormozgan Regional Water Company, 2017. Studies to determine the limit of the bed and boundary of the international wetlands of Shour, Shirin and Minab and Gaz Wetland, surface water resources studies report (In Persian).
- Hoxie, C., Berkebile, R. and Todd, J.A., 2012. Stimulating regenerative development through community dialogue. *Build. Res.*, v. 40, p. 65-80.
- Hussain, A., 2019. Transport Infrastructure Development, Tourism and Livelihood Strategies: An Analysis of Isolated Communities of Gilgit-Baltistan, Pakistan (Doctor of Philosophy). Lincoln University, New Zealand.
- Hussain, A. and Haley, M., 2022. Regenerative Tourism Model: Challenges of Adapting Concepts from Natural Science to Tourism Industry from Natural Science to Tourism Industry. *Journal of Sustainability and Resilience*, v. 2(1), p. 1-14.
- Iranian Statistics Center. 2022. Unemployment rate report in the provinces of the country (In Persian).
- Jadidi, M. and Nohegar, A., 2021. Investigating the effect of environmental education on the level of environmental knowledge of students of different educational levels in the field of wetlands (case study: Shor, Shirin and Minab wetlands). *Environmental Education and Sustainable Development*, v. 10(1), p. 131-142 (In Persian).
- Li, J. and Shen, W., 2021. Spatial heterogeneity of the effects of human activities on ecosystem health of a coastal tourism city - a case study of Rizhao, China - 3029 -3054. *ALÖKI Kft.*, Budapest, Hungary.
- Luo, Q.L., Zhou, J.F., Li, Z.G. and Yu, B.L., 2020. Spatial differences of ecosystem services and their driving factors: a comparison analysis among three urban agglomerations in China's Yangtze River Economic Belt. *Sci. Total. Environ.*, 138452.
- Luo, R., Zhou, N. and Li, Z., 2022. Spatiotemporal Evolution and the Driving Force of Tourism Ecosystem Health in the Yangtze River Economic Belt, China. *Pol. J. Environ. Stud.*, v. 31(4), p. 3235-3248. DOI: 10.15244/pjoes/146473.
- Macauley, R., Lee, K., Johnson, K. and Williams, K., 2022. Mindful engagement, psychological restoration, and connection with nature in constrained nature experiences. *Landsc. Urban Plan.*, v. 217, 104263.
- Mang, P. and Reed, B., 2012. Designing from place: A regenerative framework and methodology. *Building Research and Information*, v. 40(1), p.

- 23-38.
<https://doi.org/10.1080/09613218.2012.621341>.
- Matunga, H., Matunga, H. and Ulrich, S., 2020. From exploitative to regenerative tourism. *MAI Journal: A New Zealand Journal of Indigenous Scholarship*, v. 9(3), p. 295-308. <https://doi.org/10.20507/MAIJournal.2020.9.3.10>.
- Monterrubio, C., Andriotis, K. and Rodríguez-Munoz, G., 2020. Residents' perceptions of airport construction impacts: a negativity bias approach. *Tourism Management*, v. 77, 103983.
- Morce, S. and McNamara, N., 2013. Sustainable Livelihood Approach. A Critique and Practice. Berlin: Springer. <http://www.springer.com/social+sciences/population+studies>.
- Mtapuri, O. and Giampiccoli, A., 2016. Towards a comprehensive model of community-based tourism development. *South African Geographical Journal*, v. 98(1), p. 154-168.
- Nikšić Radić, M. and Dragičević, D., 2025. Integrative review on tourism gentrification and lifestyle migration: Pathways towards regenerative tourism. *Sustainability*, v. 17(11), 5163. <https://doi.org/10.3390/su17115163>
- Opp, J. and Walsh, J.C., 2010 Introduction: Local acts of placing and remembering. In *Placing Memory and Remembering Place in Canada*; Opp, J., Walsh, J.C., Eds.; UBC Press: Vancouver, BC, Canada, v. 3-21.
- Pollock, A., 2019a. Flourishing Beyond Sustainability ETC Workshop in Krakow, February 6, 2019.
- Pollock, A., 2019b. Regenerative tourism: The natural maturation of sustainability.
- Ramsar Convention, 1971.
- Razaghi Melle, H. and Ebrahimi, G.A., 2018. Analysis of the causal relationship between social capital and sustainable tourism development (case study: Sari city. *Tourism planning and development*, v. 7(25), p. 46-71.
- Ririmasse, O., Samuel, H., Wijaya, S. and Thio, S., 2026. From sustainable to regenerative tourism mediated by empowering community and competitive productivity. *Discover Sustainability*. <https://doi.org/10.1007/s43621-026-03145-5>
- Roknuddin Eftekhari, A. and Heydari Sarban, V., 2017. Rural empowerment (fundamental principles, approaches, theories and experiences), Tarbiat Modares University Publications: Tehran, first edition (In Persian).
- Safa Isini, H., 2006. Environmental management of mangrove forests in Tiab and Kolahi area based on habitat structure and evolution. Master's thesis, Islamic Azad University, Bandar Abbas branch, (In Persian).
- Salehi, M., Moradi, A. and Bakhtiari Kia, M., 2016. The application of remote sensing in investigating the changes in land cover and land use in the international wetland of the mouth of the rivers Shirin, Shirin and Minab. The third international conference on sustainable development, solutions and challenges, focusing on agriculture and natural resources, environment and tourism (6-1). Permanent secretary of the conference, Tabriz, March 2015 (In Persian).
- Sari, F.O. and Nazli, M., 2021. Exploring the effects of "excessive tourism growth" on public health and ecosystem. *Journal of Hospitality and Tourism Insights*, v. 4(1), p. 1-17. <https://doi.org/10.1108/JHTI-04-2020-0060>.
- Scheyvens, R., 1999. Ecotourism and the empowerment of local communities. *Tourism Management*, v. 20(2), p. 245-249.
- Shafiei Sabet, N. and Haratifard, S., 2017. Impact of Empowering Local Stakeholders in Tourism Development and Sustainability of Marginal Rural Settlement in Iran, *WIT Transactions on Ecology and the Environment*, v. 226a, p. 493-504 (In Persian).
- Shafiei Sabet, N. and Herati Fard, S., 2019. Empowering local stakeholders to participate in the sustainable development of tourism by mediating the perceived effects of tourism. *Tourism Planning and Development*, v. 8(2), p. 71-90 (In Persian).
- Shokohi, M. and Yazdan-Panah, A., 2019. The effect of empowerment on residents' support for the development of tourism in Kamerdogh. *Space planning and design*, v. 23(1), p. 151-168 (In Persian).
- Spaliviero, M., Luc, B., Montserrat, G., Giovannini, S. and Manka, B., 2019. The Spatial Development Framework to facilitate urban management in countries with weak planning systems. *International Planning Studies*.
- Sustainability for all 2021. From https://www.activesustainability.com/sustainable-development/regenerative-tourism/?_adin=02021864894.
- UNESCO, 2020. Experts Call for Inclusive and Regenerative Tourism to Build Back Stronger Post-COVID-19 [News Article from an Online Debate 'Culture, Tourism and COVID-19: Recovery, Resiliency and Rejuvenation', held on 28 September 2020]. Available online: <http://whc.unesco.org/en/news/2177> (accessed on 20 October 2020).
- United Nations. 2022. Principles of regenerative tourism. Regenerative tourism: moving beyond sustainable and responsible tourism.
- UNWTO, World Tourism Organization a UN Specialized Agency, 2018.
- UNWTO, World Tourism Organization a UN Specialized Agency, 2019.
- Weng, G.M., Pan, Y. and Li, L.Y., 2018. The eco-security grading and spatial-temporal evolution of tourism based on improved DPSIR-DS model:

- a case study of the five northwestern provinces along the Silk Road. *Tour Scien*, v. (32), p. 17-32.
- Wells, J.C., 2017. How are old places different from new places? A psychological investigation of the correlation between patina, spontaneous fantasies, and place attachment. *Int. J. Herit. Stud*, v. 23, p. 445-469.
- Yavana Rani, S., 2013. Stakeholder's analysis on Karaikudi as a rural tourism destination. PhD thesis, Kalasalingam University (In Persian).
- Zhang, J., Zhu, X. and Gao, M., 2022. The Relationship between Habitat Diversity and Tourists' Visual Preference in Urban Wetland Park. *Land*, v. 11, 2284. <https://doi.org/10.3390/land11122284>.