

CHAPTER 08

Eco-Tourism as a Nature Economy Strategy in Pakistan: Conservation, Livelihoods, and Institutional Capacity Building

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Abstract

This chapter examines ecotourism as a strategic pathway toward a nature-based economy in Pakistan, connecting biodiversity conservation with sustainable livelihoods and institutional capacity building. Drawing on national policy frameworks and case studies from Hunza, Swat, Gilgit-Baltistan, Chitral, Neelum Valley, and the Indus Delta, it shows that ecotourism can create financial incentives for conservation while contributing to rural development, extending the land- and resource-governance themes raised for Pakistan's agricultural systems in Chapter 2. The analysis demonstrates that non-extractive ecosystem services, such as landscape aesthetics, wildlife, and cultural heritage, can be monetized successfully through tourism where governance ensures equitable benefit-sharing and environmental safeguards. The chapter identifies key enabling conditions, including community involvement, transparent financing, and coordinated institutions, while also addressing environmental degradation, economic leakage, fragmented governance, and climate vulnerability in mountain and coastal ecologies. Evidence from case studies illustrates both the opportunities and risks of scaling ecotourism, underscoring the importance of adaptive management and site-specific responses. The chapter proposes a holistic model combining sustainable design principles, blended financing, and multi-tier governance reforms, including community-based management, public-private partnerships, conservation trust funds, and ecosystem-based adaptation, concluding that ecotourism can become a viable pillar of Pakistan's nature economy under supportive institutions and sustained investment.

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8.1 Introduction

Pakistan has been blessed with a great ecological diversity: the coastal Indus Delta and mangroves are followed by arid deserts and fertile plains; and the Himalaya-Karakoram-Hindukush mountain systems. The ecosystem services provided by this natural wealth include water control, carbon storage, fisheries, pollination and cultural values which the country cannot do without and are essential in developing in a sustainable way (Rasul & Hussain, 2016). However, these ecosystems are under growing pressure: destruction of habitats, over exploitation, pollution, inappropriate agricultural growth and climate change. At the same time, several rural and mountainous societies have few livelihood opportunities, seasonal joblessness, and migration (World Bank, 2020; Pakistan Bureau of Statistics, 2020).

A possible pathway to the nature economy is ecotourism, particularly community-based tourism that focuses on nature-based experiences while creating opportunities for local participation and economic benefits. Evidence from coastal communities in Balochistan indicates that ecologically sensitive areas can have potential for community-based ecotourism, although basic tourism infrastructure and community capacity building are necessary to develop such activities sustainably (Zia Ullah et al., 2016). To ensure long-term effectiveness, though, eco-tourism would need to be integrated into strong institutions,

participatory governance, equitable system of sharing benefits, and capacity-building initiatives that would empower the communities and agencies to regulate tourism in a sustainable manner.

The chapter is a synthesis of evidence and case experiences and suggestions on mainstreaming eco-tourism as a nature economy strategy in Pakistan. It aims at achieving three objectives that are interrelated:

1. Conservation: using tourism revenues and stewardship incentives to protect biodiversity and habitats.
2. Livelihoods: creating diversified, resilient, and equitable income opportunities for local communities.
3. Institutional capacity building: strengthening governance, planning, regulation, and human capital required to manage eco-tourism sustainably.

The chapter elaborates conceptual backgrounds, national and sub national policy frameworks, operational principles, financing strategies, monitoring and evaluation systems, as well as comprehensive case studies that bring out the issues of how to undertake pilot projects to large-scale and sustainable eco-tourism frameworks. It is intended to offer viable advice to policy makers, conservation practitioners, donor agencies, the private sector actors and community organizations.

8.2 The Rationale for Eco-Tourism as a Nature Economy Strategy

8.2.1 Ecological and economic linkages

Eco-tourism links conservation results to the local and national economies through the monetization of non-extractive services offered by the ecosystems: scenic landscapes, wildlife viewing, bird watching, and clean waterways and cultural landscapes. The underlying economic motivation is that the marginal economic value of non-extractive uses (visitor spending, hospitality services) may be better than or complementary to extractive or conversion activities when institutional structures extract and redistribute part of tourism revenue to those charged with a stewardship role. The economic value of glacier-based landscape and biodiversity in the mountain ecosystems of Pakistan exists on several levels: direct expenditures of tourism (accommodations, guiding, transport), indirect multiplier, (supply of food, crafts), and option/existence value “global valuation of a willingness to spend to protect flagship species, such as the snow leopard (Nawaz et al., 2018)”. Mangroves of the Indus delta serve as nurseries to the fisheries and defense against the shoreline (Farooqi & Zaman, 2021; BirdLife International, 2020), the ecotourism tools of assigning a price to these services or paying in blue carbon can redirect the incentives away from harmful activities such as unsustainable shrimp farming or conversion of farmland (OECD, 2019). Recent evidence further highlights that mangrove conservation can support coastal agribusinesses and blue-economy activities, including fisheries, aquaculture, and eco-tourism, while strengthening coastal resilience (Azeem & Ishaq, 2026).

Theoretically, the connection between tourism and conservation has been researched in different settings. The management of the protected areas can be financed with the tourism revenue, thus helping to minimize extraction illegally and assisting in restoration. Nevertheless, performance is determined by revenue collection, distributional processes and governance.

8.2.2 Socioeconomic benefits and poverty alleviation

In addition to environmental gains, eco-tourism has the potential of supporting rural development in terms of employment, entrepreneurship and a variety of income sources that make the household less vulnerable to shocks. There is a diversity of jobs, both low- to medium-skill (homestay hosts, porters), and high-skill (eco-lodge managers, conservation educators). Besides that, eco-tourism can stimulate local micro industries (textiles, handicrafts, food processing) and stimulate infrastructure development (roads, internet connectivity) to the advantage of other economic enterprises.

The experience with mountainous destinations in South Asia demonstrates that tourism has the ability to decrease outmigration by providing seasonal or permanent work, especially in situations where complementary services (training, microfinance) allow local business owners to react to market demand. The results of gender are ambivalent: in the areas where the cultural norms and specific interventions permit it, women are engaged in the production of hospitality and handicrafts, which leads to higher income levels in the family and the community overall. Microcredit and targeted training programs and women are critical (Scheyvens & Momtaz, 2017; Khan & Sultana, 2017).

8.2.3 Climate resilience and ecosystem services

Ecosystem-based adaptation (EbA) focuses on the importance of natural systems in alleviating climate risks - a key factor in the case of Pakistan, which has the highest indices in climate vulnerability (Climate Risk Country Profile: Pakistan, 2021). Protected watersheds minimize the risks of landslides and flooding in the lower settlements; mangroves cushion storm surges and store carbon; healthy alpine grasslands stabilize the ice. The EbA actions should be financed by eco-tourism that generates revenue to fund stewardship on the EbA; reforestation, riverbank stabilization, mangrove planting, generating co-benefits in the biodiversity and livelihoods of the local people. Besides, eco-tourism provides less carbon economic activity as compared to resource intensive industries which is in line with the low emission development objectives (UNEP & IUCN, 2018; World Bank, 2020).

8.3 Context in Pakistan: Policy, Ecology, and Socioeconomic Setting

8.3.1 Policy and institutional landscape

The distribution of natural resource and tourism responsibilities is at the federal, provincial and local levels in Pakistan through its system of governance. Legal environmental policies like the Pakistan Environmental Protection Act, offer a legal basis of impact assessment and control of pollution, provincial wildlife acts are used to determine the designation of protected areas and species protection. Tourism is manned by provincial departments that are getting more federal coordination in terms of Pakistan Tourism Development Corporation (PTDC) and provincial tourism boards.

Nevertheless, fragmentation within institutions often compromises the integrated approaches. Tourism departments might be deprived of environmental protection, whereas conservation agencies might not have the knowledge of tourism. This fragmentation provides a viable impediment to match eco-tourism with conservation objectives. Machinery of coordination - interdepartmental task forces, joint management committees, legal machinery of co-management is, consequently, necessary. International capital and technical support in the form of co-operation with donor agencies and non-governmental organizations has funded pilot co-management schemes, however, institutionalization on sustainable basis are still a problem (Government of Pakistan, 2010; IUCN Pakistan, 2018).

Policy instruments relevant to eco-tourism include:

- Protected area legislation and management plans.
- Community-based conservation agreements and recognition of community conserved areas (CCA).
- Tourism licensing and standards for tour operators and guides.
- Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) frameworks for large tourism projects.
- Payment and retention rules for parking fees and visitor charges.

8.3.2 Key ecosystems and tourism assets

Pakistan's major ecological zones present varied eco-tourism opportunities:

- Mountain ecosystems (Himalaya–Karakoram–Hindukush): High-altitude trekking, mountaineering, cultural heritage. Biodiversity includes apex predators (snow leopard), ungulates (ibex, markhor), and diverse flora in alpine meadows.
- Northern Valleys: Scenic valley tourism with potential for community-led homestays, guided trekking, and cultural experiences.
- Indus Delta and coastal zones: Mangrove forests, waterbeds, beaches, and fisheries. Potential for eco-fishing tourism, birdwatching, and mangrove canoe tours.
- Thar Desert and Cholistan: Desert safaris, cultural festivals, and wildlife viewing (desert fauna and unique flora).
- Riverine and wetland systems (such as those associated with the Indus River): fish sanctuaries, bird migration corridors, and cultural sites.

The management of each type of assets will be special: mountains will need safety measures and trail management; mangroves will need pollution and erosion; deserts will need the use of culturally sensitive tourism and not the overutilization of weak soils.

8.4 Case Studies

This section provides detailed case studies illustrating successes, challenges, and lessons that can guide scaling.

Table 8.1 Case studies: Lessons from Pakistani landscapes

Background Context	Key Achievements / Initiatives	Major Challenges	Key Lessons & Policy Implications	Key References
Case Study / Region: Hunza (Gilgit-Baltistan)				
A prominent tourism destination known for dramatic mountain landscapes, terraced orchards, and vibrant cultural traditions. Tourism development has largely emerged through local entrepreneurship and community hospitality networks.	Homestay networks provide culturally immersive accommodation and direct household income. Local guiding services have professionalized through informal apprenticeship systems offering trekking services. Community festivals such as Navroz attract domestic and international visitors and support crafts and cultural performances.	Water scarcity and wastewater management challenges due to increased tourism pressure on limited water supplies. Inadequate solid waste management leading to litter around trails and scenic areas. Road expansion and rising vehicular tourism threaten trail systems and air quality.	Tourism development should be matched with decentralized wastewater and waste management systems. Certification and safety standards for guides can improve visitor experience. Institutionalized benefit-sharing mechanisms through local by-laws can ensure equitable gains.	Parveen & Rahman, 2021
Case Study / Region: Swat Valley				
A region rich in natural and cultural heritage that experienced prolonged socio-political	Revitalization of guesthouses, restaurants, and local businesses has created employment for returning residents	Lack of systematic visitor management has resulted in environmental degradation near riverbanks and	Tourism recovery should combine livelihood with environmental safeguards. Cash-for-work programs	Ahmed & Hussain, 2019

disruption. Tourism revival following stabilization demonstrates how ecotourism can support economic recovery.	and youth. Community interest in protecting archaeological and natural sites supports heritage-based tourism.	tourist hotspots. Weak coordination between tourism, security, and environmental authorities complicates development strategies.	in trail rehabilitation and habitat restoration can support recovery. Strengthening local governance is essential for visitor management and fair benefit distribution.	
Case Study / Region: Gilgit-Baltistan (Broader Region)				
A large socioecological landscape with international mountaineering routes, fragile alpine ecosystems, and transboundary environmental concerns.	Implementation of waste deposit-refund systems and pack-in/pack-out policies for trekking groups. Community monitoring initiatives using camera traps and citizen science support wildlife conservation.	Mountaineering and trekking increase waste accumulation, glacier route degradation, and human-wildlife interaction risks. Climate change accelerates glacial melt and increases glacial lake outburst floods (GLOFs).	Strengthening early-warning systems and disaster preparedness is essential for tourism safety. Environmental standards should be formalized for high-altitude expedition operators.	Ahmed & Hussain, 2019; Nawaz et al., 2018; McKinney & Ali, 2020
Case Study / Region: Chitral				
A culturally diverse region with important wildlife such as snow leopards and markhor and pilot community-based conservation initiatives.	Community-based wildlife management programs promote conservation incentives and wildlife viewing tourism. Craft cooperatives produce traditional textiles and handicrafts for visitors and online markets.	Human-wildlife conflict remains significant due to livestock depredation. Limited marketing capacity restricts broader market access for crafts.	Livestock insurance schemes and predator-proof corrals can reduce conflict and increase support for conservation. Linking crafts with national tourism platforms and e-commerce can expand markets.	Ali & Khan, 2018
Case Study / Region: Neelum Valley (Azad Jammu & Kashmir)				
A scenic valley with rivers, forests, and cultural attractions where tourism has historically been limited by accessibility and safety concerns.	Growth of small-scale homestays and river-based recreation such as rafting and tubing. Strong community interest in tourism-based livelihood diversification.	Infrastructure such as safe river access points and bridges is limited and must avoid riverbank destabilization. Institutional arrangements for local tourism revenue retention remain weak.	Investment in low-impact, climate-resilient infrastructure is needed. Community-led marketing and integration with northern tourism circuits can increase visibility. Community trust funds could improve benefit retention.	World Bank, 2020; Government of Pakistan, 2010

Case Study / Region: Indus Delta and Coastal Mangroves				
An ecologically significant but economically marginalized coastal region where mangrove ecosystems have declined due to upstream water diversion, salinity intrusion, and land conversion.	Mangrove restoration initiatives engage communities in planting and monitoring activities supported by NGOs and donors. Pilot ecotourism activities such as mangrove canoe tours and bird watching provide emerging livelihoods.	Complex land tenure arrangements complicate stewardship. Industrial pollution and upstream water management decisions limit restoration effectiveness.	Combining blue carbon financing with community restoration initiatives can create long-term conservation funding. Ecotourism can complement restoration while raising awareness and providing local employment.	Farooqi & Zaman, 2021; Memon & Ahmed, 2019

8.5 Ecotourism Sustainability Design in Pakistan.

The section presents some of the major design principles that form an operating base towards the development of ecotourism in a manner that promotes ecological boundaries, sustainability of community lives, and capable governance systems. These principles not only lay stress on what ought to be done, but also how that implementation can be made effective in the variety of socio-ecological situations in Pakistan.

Development of sustainable ecotourism should start with knowledge of the ecological and social carrying capacity of any destination. This is to carry out thorough evaluations to find out how many visitors ecosystems and communities can sustain without being degraded. Another design that must be implemented based on these measurements would be seasonal visitation calendars that would help avoid congestion at sensitive times of the year like breeding times of wildlife. Visitor management systems should be implemented with permits in high-risk or fragile locations with clear quotas. Digital tools, including online booking systems, will enhance efficiency, transparency, and compliance and decrease administrative workloads.

A fair distribution of benefits in tourism is necessary to have the community in support and guarantee sustainability in the long term. Good mechanisms of benefit sharing should be put in place in legal or traditional institutions in which it is clear how revenues earned like park fees or tourism proceeds are shared between community funds and conservation authorities. Such arrangements must be localized but similar and fair. The disclosure of financial information such as annual statements and records of community meetings to the public may result in more trust, less conflict, and accountability between stakeholders.

Sustainable ecotourism also entails inclusive participation where benefits are extended to all members of the society, even to the women and the youth. Structural inequalities can be addressed by placing measurable targets of participation with special emphasis on the participation of women in the training and enterprise development. Programs are to be modeled to fit the social setting at the local level, such as flexible training hours and safe means of transportation as well as specific assistance to women-owned businesses like homestays, handicrafts, and food services. The involvement of youth in internships, training and collaboration with tourism operators and conservation societies will also help in strengthening the local capacity and intergenerational continuity.

There should be infrastructural development in the ecotourism regions through environmental sustainability and reduced ecological footprint. This involves the implementation of off-grid renewable energy systems like solar systems, water saving systems like rainwater harvesting systems and composting toilets. The construction of a trail must be done in accordance with low impact design to avoid

erosion and disturbance of animal habitat. Simple yet efficient ecolabel standards on homestay and lodges can be set to promote environmentally friendly operations like minimizing waste, using less energy, and sourcing the materials and services locally. Micro-grants and technical assistance can help to make gradual improvements.

To lessen the stress on certain attractions and stabilize the revenue streams, the ecotourism products ought to be diversified in terms of activities, destinations, and seasons. Cultural experiences, agricultural activities, wildlife viewing, and light adventure tourism can be combined to offer a more balanced visitor demand using multi-day tourism packages. Creating new products to be offered during off-season or shoulder seasons (e.g. birdwatching, cultural festivals, etc.) can reduce the number of people visiting during high seasons and can still ensure that communities have economic opportunities all year round.

Ecotourism systems should be innovative and adaptive to evolving environmental and social factors. Adaptive management strategies are based on the continuous feedback of a variety of sources, such as visitor surveys, community consultation, and data on ecological monitoring. These lessons are supposed to guide the periodic changes in the management strategies of tourism. Community science can be incorporated by incorporating available technologies, including mobile applications to report wildlife species or track their movements with a GPS, to increase the engagement of local people in conservation activities and collect valuable data to make decisions.

Clear and secure land and resource tenure arrangements are basic in facilitating investment in ecotourism by the communities. Certain regions where the right of formal ownership or even usage is ambiguous, a legal document or agreement like use agreement, memo of understanding or even framework of community conservation should be formulated to establish rights and responsibilities. Such arrangements do not only minimize conflicts but also offer a stable base to long-term planning and investment as well as management of resources.

With the growing effects of climate change on the ecosystem and livelihoods, climate resilience should be integrated in the ecotourism planning. This entails undertaking climate risk tests to determine the areas of vulnerability, i.e. glacial lake outburst floods or riverbank erosion or submergence of coastlines. These risks should be incorporated in the infrastructure design and location selection to prevent future losses. Meanwhile, tourism funding models should include ecosystem-based adaptation solutions, e.g., afforestation, riparian buffer restoration, and mangrove conservation. Spending a part of the tourism revenue on such resiliency-building efforts can make ecotourism not only to boost economic development but also to make the environment sustainable in the long term.

8.6 Governance and Institutional Capacity Needs for Scaling Ecotourism in Pakistan

The integrated landscape approaches offer an all-inclusive framework of managing natural resources and tourism development on a larger spatial level. These strategies acknowledge that conservation results and tourism sustainability cannot be attained by emphasizing the use of exclusive areas in the context of ecotourism. Instead, they need co-ordinated management of whole landscapes which incorporate conservation lands, areas of production and human habitation. Landscape approaches are used to balance competing land-use demands and preserve ecological integrity by combining environmental protection with economic activities and community livelihoods. This will see that the development of tourism is not only aimed at the conservation of biodiversity but sustainable rural development.

One of the guidelines in incorporated landscape approaches is ecological connectivity, which entails conservation or as well as restoration of wildlife corridors that connect protected areas with other community lands and natural environments. These corridors are crucial to facilitate the movement of wildlife, genetic diversity and decrease fragmentation of habitat. These corridors may also be converted into ecological tourism sites when incorporated in tourism planning, which will result in nature-based tourism in the form of wildlife viewing, watching birds and trekking. Through maintained connectedness throughout landscapes, ecotourism projects would be able to serve greater conservation objectives besides broadening tourism experiences beyond secluded conservation zones.

Product diversification is another key aspect of landscape approaches, and it will alleviate pressure on vulnerable core conservation areas. Instead of focusing the tourism activities in the conservation areas, the integrated landscape strategies facilitate the support of other economic activities in the adjacent areas. They can be such as sustainable agriculture and agro-tourism, community forestry projects, and encouragement of cultural heritage experiences like the traditional crafts, local cuisine, and cultural traditions. Through the connection between tourism and other sustainable livelihoods, communities can gain economically at the expense of over-exploitation of sensitive ecosystems. Such diversification also improves visitors' experiences as they have more attractions and genuine local interactions.

The strategy to plan and implement the integrated landscape strategies must involve developing multi-stakeholder forums that unite different interested parties in land-use planning and tourism development. They usually involve conservation agencies, local governments, the tourism operators in the private sector, a civil society organization, and members of the local communities. The stakeholders will be able to negotiate the land-use priorities, solve possible conflicts, and coordinate policies by means of collaborative planning and decision-making efforts to reconcile the conservation goals with the economic development goals. These participatory forms of governance are important in transparency and accountability as well as the sustainability of landscape management in the long run.

Practically, integrated landscape planning tends to carry out the mapping and development of tourism circuits which spread tourism activities at different areas within the landscape. As an illustration, such routes can start in the community-controlled regions where the visitors can experience the local culture and hospitality, proceed to the buffer zones where a controlled use of the resources is allowed and eventually to the core protected areas where the visitors can see the wildlife and explore the nature. This is facilitated by the spatial concentration of the tourism activities to spread out visitor pressure thereby decreasing environmental impacts on the sensitive habitats and at the same time distributing the economic benefits among various communities. Integrated landscape approaches present an effective avenue through which conservation and sustainable development goals can be met by combining tourism development with landscape management strategies at large.

8.7 Financing Eco-Tourism: Detailed Tools and Instruments

The funding of ecotourism takes a wide array of instruments able to raise sustainable stream of revenue and at the same time contribute towards conservation and community development. The application of local revenue retention and fiscal tools is one of the most necessary methods that guarantee that a large portion of the income from tourism is retained at the local level. The introduction and entry fees may be designed based on tiered pricing mechanisms that distinguish between local and foreign travelers that explicitly allocate a percentage of the case to community trust funds, protection area administrations and provincial tourism companies. Besides this, conservation surcharges may be imposed as minor fee on tourism services including accommodation, tour packages, or vehicle permits where the proceeds are channeled to conservation programs. Local governments can also implement small service taxes to the activities associated with tourism to support the improvements of infrastructure. To make such mechanisms effective fee collection systems must be automated where it is feasible to reduce leakage and transparent financial reporting systems must be established to trace the revenue collection and distribution (Conservation Trust Fund Network, 2016).

Outside the direct revenue generation per se, blended finance and grant-based mechanisms are very important in helping ecotourism to develop in its initial stages. Government or development partners can provide seed grants to assist communities to fulfill eco label requirements, invest in renewable energy solutions or develop a waste management system. By multiplying local savings and investments in tourism ventures, matching fund programs may serve to increase the participation of the community further. Also, the results-based financing models can make payments when certain outcomes, including restoration of an ecosystem, creation of employment, or building capacity, are verified. These mechanisms help in reducing the financial risk in addition to matching funding with quantifiable environmental and social effects.

The other area where ecotourism can be financed in the future is the incorporation of the carbon and blue carbon market systems where communities can earn income by conserving and restoring the ecosystems. As an example, it is possible to generate blue carbon credits through the established standards in mangrove conservation initiatives in the Indus Delta which will generate recurring streams of income but also help in climate mitigation initiatives (Shah & Qureshi, 2022). In a similar way, the payment of ecosystem services (PES) schemes in mountainous areas may encompass the downstream beneficiaries, which may be hydropower producers or municipalities, to remunerate upstream communities to continue with the watershed services. Nonetheless, the process of engaging in carbon markets can be associated with high costs of transactions and certification that might need to be pooled together in more than one location or initially financed by donors. This would ensure fair benefit-sharing programs and good governance structures to ensure the community trust and sustainability.

The social enterprise models and impact investment are also capable of providing considerable opportunities through private sector involvement. Ethical tourism operators and impact investors may cooperate with communities to create mid-sized ecotourism businesses in shared ownership schemes, like village-equity schemes where local stakeholders have a financial ownership interest in the business. Moreover, effective community-based tourism projects may be replicated using social franchising schemes which see the replication of an established business principle in new destinations with unified branding, quality controls and technical assistance. The strategies assist in attracting capital and keeping the community engaged and dominate tourism development.

Lastly, resilience in the ecotourism sector can be achieved through insurance and risk financing mechanisms, especially in areas that are susceptible to climatic risks. Micro-insurance products may be used to cushion tourism businesses like guesthouses and tour operators against any form of disruption due to extreme weather conditions or liability or interruption of businesses. Community level: Disaster contingency funds can be used to offer quick funds to respond to disaster in the event of floods, storms, or glacial lake outburst floods (GLOFs) at the community level financed by a small portion of the tourism revenues. These financing tools together form a holistic system that can enhance the growth of ecotourism, as well as their sustainability, stability and the sustainability of ecotourism to the local development (McKinney & Ali, 2020; World Bank, 2020).

8.8 Challenges, Risks, and Trade-offs

The development of ecotourism in different locations is bound to be associated with various trade-offs, which should be well addressed to provide long-term sustainability. The conflict between the need to maximize tourism revenues and ecological integrity is one of the most problematic issues. With the rise in the number of visitors, delicate ecosystems can be degraded by disturbance of the habitat, littering and overloading of natural resources. This poses a basic contradiction between immediate economic benefits and conservation goals in the long run. To deal with this, there is a need to implement adaptive management measures like permit systems, seasonal limits on visitor numbers and group sizes, especially at times when the environment is sensitive. Also, tourism products should be diversified in various destinations and activities to diffuse the pressure of the visitors to a wider range, decreasing congestion in destinations and continuing to earn profits.

The other major issue is economic leakage whereby a huge portion of tourism earnings are taken by the external players and not the local communities. This has a tendency of happening when non-regional tour operators, suppliers, and service providers realize dominance in tourism value chains, reducing the earnings that can be retained in the local economies. To deal with this issue, it is necessary to implement the policies that are oriented towards local procurements, promotion of hiring local employees, and support of the local enterprises. The empowerment of local marketing platforms such as digital marketplaces and direct booking systems can then go further to empower communities to deal directly with the tourists and thus earn more of the tourism revenue and avoid reliance on external channels.

Another issue that may arise during the development of ecotourism is equity within communities, especially in case the gains are not equally distributed to households or social groups. These differences

may cause tensions, conflicts, and less support for conservation efforts in the community. It is crucial that long-term success of ecotourism projects is therefore pegged into fairness and inclusiveness. This can be done by transparent benefit sharing mechanisms, well spelt out by-laws and involvement in decision making process. Concentrating benefits and facilitating social integration through the rotating leadership in community organizations and making training, jobs, and other financial resources like microfinance accessible to all can be used in preventing the concentration of benefits and social cohesion.

Another significant threat is institutional and governance constraints particularly where ecotourism projects are expanded at a high rate without proper capacity building. Mismanagement, overuse of resources and loss of stakeholder trust may follow due to weak institutional structures, unclear roles and responsibilities and lack of monitoring mechanisms. One way of reducing these risks is that ecotourism development must be gradual in that the rise of ecotourism must be matched with growth in the capacity of the local governance and management systems. The regulatory frameworks, frequency of monitoring and reviewing, and financial security, including clear accounting processes and maintained revenue management systems need to be put in place to promote accountability and sustainability.

Lastly, climate change is a long-term crisis to the sustainability of ecotourism because it changes the ecosystems on which tourism is based. In mountainous areas, the glacier melting and the rising rates of extreme events like glacial Lake Outburst floods may interfere with the tourism operation and pose threat to visitors and the local communities. Mangroves, as well as other important ecosystems, are threatened by the rising sea levels and intrusion of salinity in the coastal regions. To overcome these difficulties, the planning of tourism needs to incorporate the ecosystem-based adaptation (EbA) strategies that comprise the restoration of habitats, resilience to the climate through the development of climate-resistant infrastructure, and risk management frameworks. Meanwhile, tourism products should be diversified (cultural tourism, heritage sites, educational experiences) to decrease the reliance on natural resources that are sensitive to climate and increase the resilience of the tourism industry.

8.9 Policy Recommendations

Priority 1: Institutional reform and policy alignment

- Create an Eco-Tourism Coordination Mechanism (ETCM) at federal and provincial levels to align tourism, conservation, and disaster management objectives.
- Formulate an Eco-Tourism Act (or provincial ordinances) that mandates local revenue retention, co-management frameworks, and safeguards.

Priority 2: Financial sustainability measures

- Mandate a minimum percentage of protected area revenues for local community funds; provide matching grants to capitalize community trust funds.
- Pilot blue carbon and mountain PES schemes with donor underwriting for up-front transaction costs.

Priority 3: Capacity building and human capital

- Roll out national certification schemes for eco-guides and community accommodation.
- Fund scholarships and vocational training in eco-tourism for youth from target communities.

Priority 4: Infrastructure and environmental services

- Invest in decentralized waste and water management systems in priority tourism corridors.
- Fund climate-resilient infrastructure upgrades (bridge retrofits, riverbank stabilization).

Priority 5: Information, marketing and market access

- Develop a national platform to market community-based experiences, aggregating homestays, guiding services, and local crafts.
- Link with international responsible tourism networks and certifications to attract high-value, low-impact tourists.

Priority 6: Research, monitoring and adaptive learning

- Establish a national eco-tourism research fund to support applied work on carrying capacity, visitor impact, and socio-economic studies.
- Publish open-access annual reports on eco-tourism performance across indicator sets.

8.10 Conclusion

Ecotourism provides an attractive and viable route to the development of a nature-based economy in Pakistan especially those areas where ecological can be very rich and livelihood opportunities are scarce. As has been illustrated in this chapter, when properly designed and well managed, ecotourism can at the same time help in the conservation of biodiversity, diversify income as well as institutionalize the system. Nevertheless, it cannot always be successful: it will require the correspondence of economic incentives with conservation goals, which will be facilitated by open systems of governance and the engagement of all individuals. Evidence provided by Pakistani landscapes points out that community-based strategies, aligned with proper financial systems and organizational coordination, and would be needed to put ecotourism potentials into sustainable results. Local revenue retention, community trust funds, and blended finance are some of the mechanisms that can be used to make sure that the economic benefits are distributed and reinvested into conservation evenly. Simultaneously, enhancing the institutional capacity, including coordination between agencies, professional training, and well-developed monitoring, is essential in regulating tourism development and eliminating environmental and social risks. Notably, the chapter highlights the fact that ecotourism needs to be integrated into larger landscape and climatic resilience approaches. With the growing influence of climate change on ecosystems and tourism products, there will be a need to incorporate ecosystem-based adaptation and diversify tourism products to remain viable in the long term. Finally, to scale ecotourism in Pakistan, there is a need to ensure that it is done in a gradual and dynamic way so that it can achieve equilibrium between growth and environmental sustainability, enhance equity among people and establish resilient governance frameworks. Under these conditions, ecotourism has the potential to be transformative to the way the nature economy is operationalized - providing co-benefits in conservation, livelihoods, and sustainable development.

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