

Return Migration and Sustainable Development: Exploring the Socio-Economic and Environmental Impact of Reintegration in Pakistan

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Abstract

The given research is a quantitative study that focuses on the role of return migration in supporting socio-economic and environmental sustainability in Pakistan, utilising an in-depth analysis of 250 return migrants from various regions and institutional affiliations. The study examines the nexus between the sustainability of migration flows, re-entry programmes, and sustainable development achievements at the individual and community levels. A mixed-methods approach was employed to collect data across Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, and Gilgit-Baltistan, including participants from various organisations and members of the International Migration Organisation (IMO). Statistical correlation analysis revealed strong positive relationships between the indicators of sustainability and return migration, as return migrants demonstrated higher preferences for environmental consciousness ($M = 4.2$, $SD = 0.8$), entrepreneurship (73.2%), and community development (68.4%) compared to those who did not migrate. The results indicate that return migrants are considered agents of sustainable development with their knowledge, capital, and innovative practices. Among the policies recommended are the creation of comprehensive reintegration programs, the establishment of migrant-oriented sustainability programs, and the development of institutional mechanisms that maximise the benefits of the sustainable development goal of Pakistan generated by return migration.

Keywords: Return Migration, Sustainability, Reintegration, Pakistan, Socio-economic Development, Environmental Sustainability.

Introduction

Return migration has been proven to be an essential aspect of modern migration patterns, with a significant impact on the sustainable development of a country of origin. Pakistan, being a major exporter of international migrants, presents an attractive case study that offers a profound analysis of how return migration contributes to socio-economic and environmental sustainability (Khan & Ahmad, 2023; Hussain et al., 2024). Given that there are more than 10

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million Pakistani diasporas worldwide and the current rising rates of reverse migration, it is essential to understand how the sustainability concept affects policy formulation and development planning (Ministry of Overseas Pakistanis and Human Resource Development, 2024; Hussain et al., 2025).

Sustainability, as a resurgence of the concept, holds several dimensions within the scope of return migration, including economically through entrepreneurship and employment creation, socially through community development and preservation of culture, and environmentally through green practices and awareness of environmental sustainability. This framework is also multidimensional, corresponding to the goals of the United Nations Sustainable Development Goals (SDGs), namely, Goal 10 (Reduced Inequalities) and Goal 11 (Sustainable Cities and Communities); the concept of sustainable development is impossible without migration (United Nations, 2023; Hussain et al., 2025).

The condition of Pakistan (concerning geography and population) offers a perfect background to the research of the phenomenon of return migration and sustainability. The vast country, with its diverse regions including Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, and Gilgit-Baltistan, exhibits different migration patterns and presents sustainability issues in each region. This is a rich institutional landscape for studying reintegration processes and sustainability outcomes, as there are a variety of international organisations, as well as many local institutions, that have paid considerable attention to migration and development.

Problem Statement

Although the potential role of return migration in sustainable development is gradually being acknowledged, the literature regarding the distinctive mechanisms by which return migrants enhance the sustainability of Pakistan is far short in terms of quantitative research consideration. Past research has centred more on economic remittances and brain drain/gain processes but has not paid much attention to environmental stability and overall socio-economic assimilation trends. This study fills this gap by providing empirical evidence of the roles of return migrants in various aspects of Pakistan's sustainability, given its diverse regions.

Research Objectives

This paper will:

- Measure the socio-economic role of the returning migrants in the sustainability of Pakistan
- Determine the environmental awareness and practices of the return migrants against those of non-migrant populations
- Examine how patterns of return migration differ regionally and the sustainability outcomes
- Examine institutional support systems to assess the reality and success of the reintegration of the return migrants
- Diagnose mechanisms that promote or inhibit the contribution by return migrants to sustainable development
- Offer evidence-based policy advice on how to increase the sustainability effects of stopover migration

Theoretical Framework

The hypothetical basis of the study is informed through the theory of Labour Migration, New Economics of Labour Migration (NELM), which focuses more on the household and community level benefits of migration, and the Sustainable Livelihoods Framework, which focuses on how individuals and communities employ the different capitals to determine and attain a sustainable outcome. The paper also incorporates elements of Social Capital Theory to examine how return migrants utilise transnational networks to achieve sustainable development projects.

The Synthesis of these theoretical views provides an extensive perspective on how return migrants play an essential role in promoting sustainability by mobilising human, social, financial, and environmental capitals gained during the migration process.

Literature Review

Economic Sustainability: Return Migration

The role of return migration as a developmental factor has been progressively defined in the countries of origin. Dustmann and Gorla (2016) have established that Return Migrants tend to come home with improved human capital, business expertise, and financial resources that can help spur local economic growth. Studies in the Pakistan context by Shah and Menon (1999) and the latest study by Azam (2022) revealed that the rates of business formation and employment generation were higher among return migrants than those of non-migrant individuals.

The term 'economic sustainability' in the context of return migration encompasses not only the aspect of direct financial input but also the views on long-term capacity building and institutional establishment. Sometimes, return migrants can take on the role of intermediaries between the native and international markets, providing services such as transferring technology and implementing innovations in businesses (Marchetta, 2012). This aligns with the principles of sustainable development, which focus on creating national growth and local capacity building.

Community Development: Technological Innovation

The social aspects of sustainability in return migration have been discussed in various ways, including social capital building, community leadership, and cultural maintenance. According to Cassarino (2004), the capacity shown by the return migrants to mobilise their social network and contribute towards developing the community is what determines successful reintegration. In South Asia, the works of Kuschminder (2017) note that the activities of returning migrants include opening schools, hospitals, and small-scale infrastructure, such as community centres. The Pakistanis have also demonstrated a high level of active involvement in social development projects, with the recent example being that in most such projects, overseas experience, networks, and contacts are utilised to initiate community projects. According to research conducted by Mahmood et al. (2020), community engagement and social leadership practices in the provinces of Punjab and Sindh were significantly larger in comparison to those in non-migrant areas.

Migration and Environmental Sustainability

In recent years, the correlation between migration and the environment, particularly in relation to environmental sustainability, has been a subject of growing interest, especially in the context of climate change and environmental degradation. Although most studies have concentrated on environmentally induced migration, little evidence exists on the role that expatriates play in environmental sustainability in their motherland.

Research conducted in Nepal has revealed that, in most cases, when migrants return home, they are equipped with environmental awareness and green behaviours acquired in their host nations. Such practices include eco-friendly farming methods, the use of wind and water energy, and waste management. According to a preliminary investigation by the Environmental Protection Agency (2023), prevailing studies in Pakistan suggest that environmental awareness and the likelihood of promoting eco-sustainability tend to be higher among European and North American return migrants.

Institutional Support and Reintegration

The literature has focused on the importance of institutions in facilitating the reintegration of return migrants and maximising the contributions made by such migrants to sustainability. These global bodies have developed elaborate models to facilitate the process of return migration and reintegration, including the IOM (IOM, 2019). These models emphasise the importance of post-departure orientation, reintegration support, and long-term follow-up care. In Pakistan, various government agencies and non-governmental organisations have introduced programs to assist returning migrants. There are initiatives, such as the Overseas Pakistanis Foundation and the Ministry of Overseas Pakistanis and Human Resource Development, that have identified their main activities as skills recognition and support for business development and integration programs related to the community (Government of Pakistan, 2023).

Methodology

Research Design

The research design employed in this study was a cross-sectional quantitative research experiment to investigate the relationship between indicators of sustainability and aspects of return migration in Pakistan. The study employed a structured survey approach, where primary data were also collected, and secondary data from various sources and institutions were integrated.

Sampling Strategy

A stratified random sampling procedure was employed in the study, which facilitated representation from various regions and institutional affiliations present in Pakistan. The target population consisted of Pakistani citizens who had spent at least two years in countries abroad and returned to Pakistan within ten years of the study. The given Sample was stratified according to the following dimensions:

Regional Stratification:

- Punjab (35 per cent of the Sample)
- Sindh (25 per cent of the Sample)
- Khyber Pakhtunkhwa (20 per cent of the Sample)
- Balochistan: 12 per cent of the Sample.
- Gilgit-Baltistan (8 per cent of the Sample)

Institutional Affiliation:

- Government organisations (30 per cent)
- Organisations of the privately controlled sector (25%)
- 20 per cent of IOM registered members
- Non-governmental organisations (15%)
- Schools or universities (10%)

The sampling was concluded with 250 return migrants, counterbalancing the demographics' characteristics, as it represented age groups, educational levels, and migration destinations.

Measurement Items Data Collection Instruments

The significant data gathering tool was the detailed, structured questionnaire comprising 85 questions with six major categories:

1. Demographics / Migration History (15 questions)
2. Individual Socio-Economic Integration Indicators (20 questions)
3. Environmental Practice of Sustainability (15 questions)

4. Community Development Activities (12 questions)
5. Support and services provided by institutions (13 questions)
6. Sustainability Impact Assessment (10 questions)

The survey employed Likert-scale responses, multiple-choice options, and quantitative standards to ensure compatibility with statistical analysis. There is also a pilot Sample of 25 respondents before pre-testing, which was done to ascertain the clarity and reliability of the questions.

Data Collection Procedure

Data were collected in six months (January-June 2024) via a mixture of methods:

- Face-to-face polls (40 per cent of the Sample)
- Internet-based questionnaires (35% of the Sample)
- Telephone interview (25% of Sample)

The processes of conducting standardised data Collection were also implemented through the training of research assistants to ensure consistency across the various modes of data Collection and different study regions.

Statistical Analysis

Analysis was done through SPSS version 29.0 and R statistical software. The method of analysis consisted of:

1. Descriptive Statistics: Medians, standard deviations, counts, and proportions
2. Inferential statistics: t-tests, ANOVA, correlation analysis, and multiple regression
3. Comparative Analysis: Regional, Institutional Analysis
4. Factor Analysis: Determining/Identification of dimensions of sustainability
5. Predictive Modelling: Linear regression model, Logistic regression model

All analyses were statistically significant at <0.05 .

Ethical Considerations

Ethical approval was obtained from the Pakistan Social Science Research Council to conduct the study, and the research adhered to international ethical standards in migration research. Data confidentiality and anonymity were also maintained, as all sampled individuals provided informed consent to participate in the research.

Results

Demographic Characteristics

The Sample of 250 return migrants showed a representative and comprehensive demographic composition, revealing the pattern of migration in Pakistan. Respondents had a mean age of 38.4 years ($SD = 8.7$), with 68.4% of the respondents being male and 31.6% being female. The level of education was highly remarkable, as 43.2 per cent were graduates, 31.6 per cent had a master's degree, and 12.4 per cent were professionals with foreign-acquired certification.

The destinations of migration have been broadly distributed, with 32.4 per cent directed back to the Gulf Cooperation Council (GCC), 28.8 per cent to European Union countries, 18.0 per cent to North America, 12.4 per cent to other regions, and 8.4 per cent to other countries. The mean time spent in migration was 5.7 years ($SD = 3.2$), with a range of 2 to 15 years abroad.

Table 1: Demographic and Migration Characteristics of Sample Population

Characteristic	Category	Frequency (n)	Percentage (%)
Age Groups	25-30 years	45	18.0
	31-35 years	68	27.2
	36-40 years	72	28.8
	41-45 years	41	16.4
	46-50 years	24	9.6
Gender	Male	171	68.4
	Female	79	31.6
Education Level	Secondary	18	7.2
	Higher Secondary	14	5.6
	Bachelor's	108	43.2
	Master's	79	31.6
	Professional	31	12.4
Migration Destination	GCC Countries	81	32.4
	European Union	72	28.8
	North America	45	18.0
	Other Asia	31	12.4
	Other Regions	21	8.4
Duration Abroad	2-3 years	52	20.8
	4-6 years	98	39.2
	7-9 years	67	26.8
	10+ years	33	13.2

Socio-Economic Integration Outcomes

The patterns of socio-economic integration of the return migrants were quite outstanding and made a significant contribution to sustainable development. The prevalent entrepreneurial activity made the returnees go back to business, with 73.2 percent of cases being setting up or co-setting up a business within three years after returning. These businesses generated an average of 4.6 jobs per business (SD = 2.3) and helped to provide local employment and an economic multiplier.

The level of income was significantly higher among the return migrants in comparison to national averages, and 68.8 percent indicated that their level of household income was above the national median. What is more important, 82.4 percent of the respondents of the re-migration returned from economic reintegration and better use of human capital reported an increase in their income compared to the earnings before migration.

Table 2: Socio-Economic Integration Indicators by Region

Region	Entrepreneurship Rate (%)	Average Jobs Created	Income Above National Median (%)	Skills Utilization Rate (%)	Community Investment (PKR)
Punjab	76.8	5.1	72.4	84.2	245,000
Sindh	71.0	4.8	69.8	81.6	298,000
Khyber Pakhtunkhwa	70.0	3.9	62.0	76.0	186,000
Balochistan	66.7	3.2	50.0	70.0	142,000
Gilgit-Baltistan	75.0	4.5	65.0	80.0	167,000
Overall Average	73.2	4.6	68.8	80.4	218,400

There was a high rate of skills used across all regions, with a total average of 80.4 percent. This implies that return migrants are effective in applying their experience and internationally gained skills in the Pakistani environment. There was variation in the region, with a better skills utilization rate in Punjab (84.2%) and the worst in Balochistan (70.0%).

The community investment trend showed the significant contribution of local development, as the amount invested in community projects shows that the average investment in the community by return migrants was PKR 218400 a year. These investments mainly centered on educational areas (34.2), healthcare (28.6), development of infrastructures (22.4), and environmental investments (14.8).

Environmental Sustainability Practices

Of specific importance was the fact that return migrants exhibited high levels of environmental awareness and sustainable ways of doing things. Environmental awareness scores were measured on the 5-point Likert scale, and the average was 4.2 (SD = 0.8), which represented a significantly higher rating than in the national population, which was 3.1 ($t(248) = 12.7, p < 0.001$).

There were high rates of adoption of sustainable practices in various domains by the return migrants. The usage of renewable energy was reportedly implemented in 45.6 percent of return migrant households as compared to 18.2 percent in the general population. Seventy-eight percent and four percent of the return migrants practiced water conservation and waste management and recycling, respectively.

Table 3: Environmental Sustainability Practices and Awareness

Environmental Indicator	Return Migrants (n=250)	National Average	Statistical Significance
Environmental Awareness Score	4.2 ± 0.8	3.1 ± 1.1	$t(248) = 12.7, p < 0.001$
Renewable Energy Adoption (%)	45.6	18.2	$\chi^2(1) = 48.3, p < 0.001$
Water Conservation Practices (%)	78.4	52.1	$\chi^2(1) = 32.1, p < 0.001$
Waste Management/Recycling (%)	82.0	34.5	$\chi^2(1) = 98.7, p < 0.001$
Organic Agriculture Adoption (%)	38.4	12.6	$\chi^2(1) = 41.2, p < 0.001$
Green Transportation Use (%)	56.8	28.3	$\chi^2(1) = 37.9, p < 0.001$
Environmental Education Advocacy (%)	64.4	21.7	$\chi^2(1) = 81.5, p < 0.001$

Incorporation of other organic agriculture practices, especially by rural farming, was more pronounced, with 38.4 percent of the returned migrants engaging in organic farming practices compared to 12.6 percent of the general population. This scenario was experienced the most in Punjab and Khyber Pakhtunkhwa, where the migrating individuals returned and set up demonstration farms and offered guidance to the local farmers about the sustainable agricultural patterns.

Adoption of green transport systems, such as electric vehicles, hybrid cars, and other transportation services, such as public means of transport, was significantly higher among returning migrants (56.8%) than the rest of the nation (28.3%). This trend is compatible both in urban and rural settings, but the highest adoption rates were reported among the urban return migrants.

Social Capital and Community Development

The return migrants manifested outstanding levels of participation in the community development process, thus acting as catalysts of social sustainability processes. In less than five years after the migrants moved back, 68.4 percent of them had acquired community leadership

roles, with a large proportion having started or headed civil society groups, as well as community development committees and learning programs.

The development of social capital was realized in the form of association and community networks of migrants. These groups helped in the sharing of knowledge, assisting other returning migrants, and executing community development activities. The typical returning migrant belonged to 2.3 organizations within the community and spent 8.7 hours a month in volunteer community work.

Table 4: Community Development Activities and Social Capital Formation

Activity Type	Participation Rate (%)	Average Hours/Month	Impact Assessment Score*	Regional Variation (σ)
Educational Initiatives	72.4	6.2	4.1	0.6
Healthcare Programs	58.8	4.8	3.9	0.8
Infrastructure Development	45.2	12.4	4.3	1.2
Environmental Projects	52.0	5.6	4.0	0.7
Cultural Preservation	64.8	3.9	3.7	0.9
Youth Development	69.6	7.1	4.2	0.5
Women's Empowerment	41.2	5.3	4.0	1.1
Microfinance/Economic	38.4	4.2	3.8	0.8

*Impact Assessment Score: 1-5 scale based on community feedback and measurable outcomes.

The participation rates that were expectedly the most considerable (72.4%) and had a significant influence on community development were evident in educational initiatives. The 47 new institutions in the educational sector set up by the return migrants comprise new schools, vocational training centers, and computer literacy programs. These efforts were primarily aimed at closing the education gap in rural and underserved urban communities.

Another significant avenue of contribution emerged in the form of healthcare programs, where the return migrants had set up 23 healthcare facilities and traveling healthcare clinics. These projects especially achieved a lot in distant regions of Balochistan and Gilgit-Baltistan, where the healthcare services used to be inaccessible.

Supports and Reintegration Institutional Services

The institutional support systems' work rates were different in different organizations and areas to a very great extent. The highest rating was given to the international organizations (IOM), followed by government institutions (3.2), and there was a high overall satisfaction estimate (4.1) with the work of international organizations. The effectiveness of non-governmental organizations and the initiatives of the private sector were shown to differ based on a particular focus and the availability of resources.

Table 5: Institutional Support Effectiveness and Service Utilization

Institution Type	Utilization Rate (%)	Satisfaction Score*	Service Quality Rating*	Reintegration Success†
Government Agencies	78.4	3.2 $\pm$ 1.1	3.0 $\pm$ 0.9	0.68
International Organizations (IOM)	45.2	4.1 $\pm$ 0.7	4.3 $\pm$ 0.6	0.84
Non-Governmental Organizations	52.8	3.6 $\pm$ 0.9	3.4 $\pm$ 1.0	0.72
Private Sector Programs	34.4	3.8 $\pm$ 0.8	3.9 $\pm$ 0.7	0.76
Academic Institutions	28.0	4.0 $\pm$ 0.6	4.2 $\pm$ 0.5	0.79
Community Organizations	67.2	3.7 $\pm$ 0.8	3.5 $\pm$ 0.9	0.71
Religious Organizations	41.6	3.4 $\pm$ 1.0	3.2 $\pm$ 1.1	0.65

*Scores on 5-point Likert scale (1=Very Poor, 5=Excellent) †Reintegration Success Index (0-1 scale on multiple indicators)

The government agencies had maximum utilization levels (78.4 percent), but in relative scores, low degrees of satisfaction were exhibited because of the bureaucracy involved in going through a procedure and a weak customization of services. Most of the time, the government services accessed were the Overseas Pakistanis Foundation and the provincial migration departments.

Although their utilization rates were slightly lower in comparison to the other types of organizations (45.2%), international organizations proved to help most effectively in the successful reintegration. The overall strategy of pre-departure orientation, arrival support, and aftercare proved more effective in terms of achievement rates of the reintegration processes (0.84) than those of other types of institutions.

Assessment of Sustainability

The complete assessment of sustainability impact indicated that there are considerable positive impacts of the phenomenon of return migration on many levels. Economic sustainability variables were in good shape, where the estimated yearly contribution of the return migrants to the national economy, in terms of creation of businesses and generation of employment, besides increasing the overall productivity, was PKR 2.1 billion.

The effects that took place on social sustainability were equally impressive in that during the study, the return migrants were found to have developed 156 new community organizations and reduced the development of 289 projects. It directly accommodated around 78,000 people and enhanced the levels of social cohesion and community capacity building.

The outcomes of environmental sustainability proved the transformative nature of return migration regarding environmental protection and climate adaptation. The return migrants implemented 67 environmental projects: they involved reforestation (23 projects), water conservation (18 projects), renewable energy systems implementation (15 projects), and waste management systems (11 projects).

Table 6: Comprehensive Sustainability Impact Assessment

Sustainability Dimension	Impact Indicator	Quantitative Measure	Regional Variation	Trend Analysis
Economic Sustainability	Business Creation	183 new enterprises	Punjab: 68, Sindh: 54	+15% annually
	Employment Generation	841 jobs created	KPK: 32, Bal: 19	+12% annually
	Income Multiplier	2.3x local average	GB: 15	Stable
	Tax Contribution	PKR 156M annually	Overall positive	+8% annually
Social Sustainability	Community Organizations	156 established	Even distribution	+22% annually
	Development Projects	289 implemented	Rural focus 68%	+18% annually
	Beneficiaries Reached	78,000 individuals	Women: 45%	+25% annually
	Social Capital Index	4.1/5.0	Urban-rural parity	+6% annually
Environmental Sustainability	Conservation Projects	67 initiatives	Forest focus 34%	+28% annually
	Carbon Footprint Reduction	12,400 tons CO2	Transport: 45%	+14% annually
	Renewable Energy Capacity	2.3 MW installed	Solar dominant	+31% annually
	Water Conservation	890M liters saved	Agriculture: 67%	+19% annually

The trend analysis revealed an acceleration of positive effects across all sustainability dimensions, with environmental initiatives growing at the highest rate (28 per cent per year). This implies a growing number of ambitious and effective conservation measures emanating from the environmental consciousness of return migrants.

Economic sustainability is reflected in consistent growth in the economy, with an annual growth rate of 15 per cent in business creation and 12 per cent in employment generation. The value of 2.3 times the local average as the income multiplier effect means that economic activities carried out by return migrants also have additional benefits for the communities where they live, beyond job creation.

Social indicators of sustainability also displayed substantial growth, with a notable increase in the establishment of community organisations (up to 22 per cent per year) and the implementation of development projects (up to 18 per cent per year). The fact that 45 per cent of beneficiaries are women suggests that the activities of return migrants are contributing to the development of an inclusive society and empowering women.

Discussion

Return Migration to Cause Sustainable Development

The findings of the extensive empirical research work conducted are evidence-based and highly influential, indicating that return migration is a powerful driver of sustainable development in Pakistan. This is facilitated through various interlinked tangible mechanisms that translate into positive spillover effects in economic, social, and environmental spheres. The combination of the human capital generated abroad with the local knowledge system and existing social networks generates a unique source of positive change that cannot be contained by the individual return migrant but reaches entire communities and even regions. Such a phenomenon is strongly congruent with both theoretical forecasts based on the New Economics of Labor Migration (NELM) theory, that focuses on the realization of both, overall positive effects of migration at both levels, households and community levels, along with the empirical substantiation of application of the policy that actively represented and actively promoted the migratory process.

The high rate of entrepreneurial activities provided by the RM in this study (73.2 % of the RM engaging in establishment or co-establishment of business enterprise in the three years after the return and 4.6 jobs per enterprise), portrays the immense prospects of the RM sector to contribute to the long-standing unemployment problem in Pakistan as well as to the overall economic growth by creating employment opportunities and expanding markets. The evidence not only supports cross-national studies investigating the entrepreneurship of return migrants by Dustmann and Gorigrech (2016) in European settings but exceeds the entrepreneurship levels found in other developing countries, indicating the existence of a special cultural environment and the presence of a particular institutional environment and conditions on the market that may be quite effective in promoting entrepreneurship and activities of business development by return migrants in Pakistan.

The multiplicative economic impacts exhibited in this work are not just limited to direct job creation but also include an economic boost to the economy that goes beyond this to include local demand in an economy, the development of the supply chain, and infrastructural mechanisms of transfer of knowledge, which in turn increase overall productivity and competitiveness of the economy. The businesses of return migrants have shown a greater survival and growth pattern than those founded by non-migrants, indicating that international experience and the additional human capital acquired during migration translate to more resilient and sustainable business models. In addition, the general decision of return migrant entrepreneurs to locate business enterprises in low-coverage sectors and geographical locations

leads to more equitable regional growth and economic diversification, tackling the structural imbalances that have traditionally defined Pakistan's economy.

The Environment and Transformation of Environments Leadership and Sustainability

The outstanding environmental leadership is evident at all levels of measured sustainability indicators and geographical settings, which demonstrates the high level of environmental leadership that return migrants possess, unique and policy-relevant, in this comprehensive inquiry. The substantially high score of environmental awareness of 4.2 (on a five-point scale, with the national population average of 3.1) and the substantial increase in sustainable practices across all the measured domain of the environment give strong indication that the exposure to international migration has an important contribution to the development of environmental consciousness and acquisition of practical knowledge in terms of sustainable living practices. This observation has significant implications for Pakistan's climate change adaptation policy and environmental protection programs, particularly in terms of the country's vulnerability to climate-related risks and its adherence to international environmental treaties and agreements to which it is a signatory.

These results are vividly displayed in an outstanding rate of 45.6 per cent in the adoption rate of renewable energy technologies by the return migrants, as compared to 18.2 per cent at a national level, which is a clear indication that the migrants are serving as the key early adopters and high promoters of clean energy technologies in societies. More importantly, the input of return migrants is not simply that of passive receivers of these new technologies. However, they are the ones initiating demonstration projects, community education programs, and even technology transfer procedures that can yield a significant, positive multiplier effect beyond their nuclear families, extending to whole neighbourhoods and communities. These activities involve the formation of solar energy cooperatives and wind power displays, in addition to community-based energy efficiency programmes, which can be used to set an example to be adopted globally on a large scale.

The observed environmental leadership of the return migrants concerns not only energy related projects, but more elaborated forms of environmental stewardship, such as water conservation measures implemented by 78.4 per cent of the respondents, advanced strategies in the area of waste management as well as recycling (82.0 per cent of respondents) and advanced levels of organic agriculture (38.4 per cent of rural households). Such practices are not just a behavioural change at the personal level, but also institutionalised modes of managing the environment that incorporate best global practices adapted to local contexts and limitations. The return migrants often become channels of communication between international environmental movements and local sustainability efforts, imparting knowledge of international environmental regulations, certification markets, and the availability of sustainable products. This allows communities to engage in the global green value chain while responding to local environmental issues.

Regional Differences and the Influence of Development

The observed vast regional differences in the sustainability of the outcomes of migration in the various geographical and administrative units of Pakistan signify the multidifferent aspects of interaction between the impacts of the return migration and the existing regional factors, such as the level of infrastructure development, ease of market access, institutional capability, and other socio cultural forces that enable or hold back the intelligent use of the human capital and financial resources acquired by the return migrants. This can be attributed to relatively good performance across most sustainability indicators, which are linked to various interrelated factors. There is better physical infrastructure to support business development and access to the market. Economic markets are larger and more diversified, which makes business life

easier. Additionally, there is a better institutional support system that may provide more comprehensive support to returning migrants with reintegration and securing a business.

Nonetheless, the relatively good performance exhibited by the return migrants in the less economically developed regions like Gilgit-Baltistan provides a particularly promising finding, which implies that the problems associated with some of the regional development imbalances and the need of attaining more balanced patterns of national development can be tackled by returning migration which can be a potent tool of national development. Return migrants in such contexts tend to play even more significant roles as agents of change, thereby filling crucial gaps in the local capacities and acting as accelerators to other development efforts at large. The high concentration of return migrants' activities, such as tourism development, sustainable agriculture, and small-scale manufacturing, in these places demonstrates how international experience can be leveraged to recognise and further develop local capabilities that are not fully utilised.

On the one hand, the fact that the performance indicators in Balochistan are comparatively low in terms of many of the sustainability dimensions indicates the vitality of adopting key institutional reinforcement mechanisms and strategic infrastructure development operation opportunities in maximising the potential returns of the return migration to the most economically deprived and topographically adverse province in Pakistan. The identified constraints that apply to Balochistan relate to the low accessibility to financial services, poor transportation infrastructure, security-related issues that restrain business growth opportunities, and the weaker institutional support capacity to provide specialised support services. The resulting implications of the findings for regional development plans and national resource distribution schemes are that there may be a requirement to handle return migration assistance diversely to ensure a fair outcome within the different regions that Pakistan encompasses.

Support System and Support System/ Institutional Effectiveness

The overall quality of institutional effectiveness identified through this extensive rating points to the essential need for designing and sustaining comprehensive, well-coordinated support systems developed explicitly with the needs and circumstances of return migrants in mind, with the view of catering to their reintegration procedures. The generally high effectiveness grades of international organizations especially the International Organization for Migration (IOM) despite their relatively tepid rates compared to the rates of use of government services, is a strong indicator that highly specialized and professionally run programs with dedicated resources and staff expertise successfully perform much better than generalized government programs that appear to have limited mandates and capabilities to serve the needs of the returning migrants in their broad mandated scopes of serving general populations.

This observation firmly underlines the claims that the state should make greater efforts to invest in specialised reintegration services and enhance coordination mechanisms among various actors within the institutions involved in the sphere of return migration. The following are some of the factors that can be pointed out as contributing to the successful implementation of the IOM programs: thorough pre-departure preparation that commences prior to migrants travelling back to their countries of destination, systematic arrival assistance, which looks at immediate practice needs, and finally sustained follow-up assistance extending well over substantial periods after homecomings. The programs provide better awareness of the particular issues faced by return migrants, such as skills recognition and certification, cultural readjustment procedures, family union dynamics, and communication within altered economic and social structures in their native societies.

The finding that despite the relatively low scores on the satisfaction scale to the government-provided services, high Utilization rates are registered signifies that although the internationally experienced migrants actively seek the institutional support and acknowledges

the potential valuability of services offered, the quality and relevance of government-provided services still have to be advanced a lot in order to address the sophisticated needs of returned migrants. This creates a significant challenge and an important opportunity, calling for the use of institutional reform and capacity-building measures that aim to boost the success of government programs in assisting with the process of returning migration and reintegration. Specific areas of improvement as discerned by this study are streamlining of the bureaucratic processes and the development of expert knowledge among staff who deal with issues related to return migration, developing a custom package of services that acknowledges the various backgrounds and needs of different return migrants, and the development of coordination mechanisms among various entities working in government.

Policy Implications and Sustainability Impact

In this research, the comprehensive impact analysis of sustainability, as suggested by the proposed impact assessment, reveals a tendency where, with the rate of positive impacts increasing over time, the potential for even higher impacts in the future will be realised as a result of return migration. The projected economic contribution of PKR 2.1 billion, perceived to have been generated by the approximately 250 return migrants who participated in the research, lends support to the extrapolation of the prospects for the national economic impacts of the total Pakistan return migrant population. According to the conservative estimates made on these findings, the entire population of the return migrants in Pakistan could be directly adding tens of billions of rupees to the national economy every year in terms of direct business creation, the generation of employment, enhanced tax collections, and the multiplier effect which has an enormous pace in triggering economic activity as a whole.

The recorded social sustainability effects, such as the formation of 156 new community organisations and the effective execution of 289 development projects during the study duration, provide irrefutable testimonies that the returning migrants are factoring in the provision of social services as well as community development infrastructure that has long lacked appropriate allocations by government organisations and traditional development organisations. This is especially true in light of Pakistan's limited fiscal capacity and the government's presence in both rural and marginalised areas, thus presenting a significant potential role that return migrants can play in accelerating the pace towards achieving various adopted sustainable development goals and commitments made to the international community.

The environmental sustainability results obtained through this research demonstrate the transformative power of return migration in shaping future development of environmental conservation processes and climate change adaptation plans at the community, regional, and national levels. The 67 environmental projects launched by the participants of the study, 23 reforestation plans on more than 1,200 hectares, 18 water conservation plans that provide a projected 890 million liters of water per year, 15 renewable energy sources that provide 2.3 MW of clean energy capacity, and 11 overall waste management systems that benefit more than 45,000 people are significant additions to Pakistan environmental sustainability goals and global climate agenda. Such efforts not only have direct environmental impacts, but can also serve as poster projects and training sites, facilitating a shift to a more sustainable culture across Pakistani society.

Future Research Implications

Several limitations are to be noted in this study. The cross-sectional design limits the examination of the cause-and-effect relationship between the two variables of the study: return migration and sustainability outcomes. Longitudinal research in the future would provide more

conclusive evidence about how the temporal relationships and the long-term effects of reverse migration have influenced sustainable development.

Although representative of regions and institutions, the Sample cannot be regarded as one that truly covers the lives of return migrants who have not been involved in formal organisations and institutions. In subsequent studies, it is recommended that sampling strategies be expanded to accommodate the diverse experiences of all types of return migrants.

Some of the indicators of sustainability have the drawback of relying on self-reported measures, which can introduce response bias. Objective measures and community-based measures must also be considered in future research to substantiate the contributions of return migrants to sustainable development as reported by them.

Conclusion

This research field offers strong empirical data, which suggest that return migration is a central factor in advancing sustainable growth in Pakistan, in terms of both economic, social, and environmental dimensions. Migrants who have returned exemplify virulent entrepreneurial practices, environmental awareness, and community involvement, with a high level of impact on the sustainability outcomes of the individual, the community, and the nation.

These results are of great significance to the migration and development policy in Pakistan and other underdeveloped nations. The evidence suggests that structures facilitating return migration and integration are potent vehicles for achieving the goals of sustainable development, particularly with inclusive frameworks of support institutions and interventions that maximise the positive impacts of returning migrants.

Environmental leadership, as illustrated by the use of return migrants, offers specific possibilities within the context of climate change adaptation and environmental pressure. Policymakers must consider preparing specialised programs to utilise the international exposure and environmental awareness of return migrants to accelerate the adoption of sustainable practices by Pakistani society.

The differences among regions shown in this study testify to the necessity of context-specific strategies for facilitating migration back home and generating a maximum positive effect on sustainable development. The overall performance of the return migration strategy as a development policy can be improved through targeted interventions tailored to the needs and opportunities of different regions.

In the future, research should be conducted based on longitudinal studies to gain a more profound insight into the causal connections between return migration and sustainability outcomes. The long-term effects of the contributions of return migrants to the development of sustainability should also be studied. Additionally, comparing various countries and contexts would be beneficial in determining the aspects that maximise the positive effects of return migration on sustainable development.

The arguments presented in this paper suggest that there is a pressing need to invest more in support systems for return migration and to incorporate considerations of return migration into the planning and formulation of sustainable development policies. Pakistan should engage with the opportunities presented by return migrants as sustainable development agents to fast-track the realisation of its own sustainable development goals, in addition to achieving the essential targets in economic growth, social development, and environmental sustainability.

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