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Rural Development Challenges in Addition to Effective Solutions to Overcome Obstacles

Fayaz Gul Mazloum Yar*

Ph.D. Scholar of Geography and Rural Planning at the University of Guilan, Iran *Corresponding author

Majid Yasouri

Professor of Geography and Rural Planning at the University of Guilan, Iran

Abstract

Rural development is vital for both developing countries and those with large rural populations. To achieve economic and social progress, it is essential to examine the challenges of rural development in macroeconomic planning. Villages, fundamental to national development, face economic, social, cultural, administrative, and environmental challenges. Identifying these issues is crucial for formulating sustainable rural development strategies.

This study explores the primary challenges of rural development in Afghanistan and proposes effective solutions. The research involved collecting data through field studies, library research, and interviews with experts and scholars. The study's statistical population included 80 participants, such as university professors and experts in rural development, economics, and agriculture. Data collection tools included questionnaires and personal interviews, and data were analyzed using scatter and centrality statistics, coefficients of variation, and confirmatory factor analysis.

Findings indicate that Afghanistan's rural development faces economic challenges, like lack of credit and investment; social challenges, including low female participation; environmental challenges, such as overexploitation of groundwater; physical challenges, like weak urban-rural networks; and managerial challenges, especially unskilled labor in rural activities. Addressing these challenges is crucial for Afghanistan's rural and national development.

This study identifies the main rural development challenges in Afghanistan and offers key solutions, serving as a valuable resource for planners and policymakers. Notably, no previous study in Afghanistan has comprehensively identified rural challenges and proposed solutions. The involvement of experts and university professors adds a unique dimension to the research.

Keywords

Rural Development, Rural Economy, Rural Planning, Challenges, Afghanistan

1. Introduction

The design of a comprehensive rural development policy is crucial for empowering in addition improving the sustainability of rural households(Liu et al., 2023). This multidimensional process encompasses economic growth, adaptation to human behavior, and the socio-political structure of rural communities, in addition to their participation in development(Yuan et al., 2018). Rural areas, as fundamental components of national organizations, have similar environmental, social, cultural, in addition economic characteristics(Adamowicz & Zwolińska-Ligaj, 2020). The majority of inhabitants are engaged in agriculture, animal husbandry, horticulture, handicrafts, in addition fishing(Raza et al., 2020). It is extremely important to pay attention to rural areas in national development planning(Pylianidis et al., 2021). The main objectives of policymakers are to improve the economy, enhance the quality of life, promote technology in addition to industrial culture in rural areas, encourage public participation, strengthen the role of villagers in governance, in addition attract private investment for rural entrepreneurship(Piwowar & Dzikuć, 2019). Rural development is a major concern for the third world in addition to developing countries, as the underdevelopment of these areas leads to poverty, inequality, poor health, unemployment, in addition migration(Meng et al., 2022). Rural economies are highly dependent on agriculture, resulting in limited occupational diversity in addition to sources of income(Dax & Fischer, 2018). While this structure was viable in the past, expanding markets in addition to natural, and economic, in addition, social instabilities have challenged the sustainability of rural livelihoods(Leakey, 2020). Challenges such as climate variability, fluctuating product prices, marketing restrictions, unemployment, the destruction of natural resources, in addition a

declining quality of life are rooted in this economic structure(<u>Kiruki et al., 2020</u>). The lack of a theory of rural development has led to the disintegration of rural planning in Afghanistan(<u>Muñoz-Ulecia et al., 2023</u>). Despite progress toward stability after decades of war in addition to unrest, cultural, political, in addition, economic conditions remain unfavorable(<u>Asher & Novosad, 2020</u>).

Despite rural development efforts, problems such as poverty, low income, inadequate health in addition to education services, excessive outmigration, lack of jobs, economic in addition social inequality, illiteracy, in addition weak local governance persist in rural areas(Ozili, 2018). Given the recent droughts in addition to the importance of agriculture, which accounts for around 80% of the population, the stability of agriculture plays a crucial role in national stability(Jia et al., 2022). Due to the lack of services in addition to facilities, many villagers have migrated to the cities(Ahmad et al., 2022). Rural development policy in addition to planning in Afghanistan is neither systematic nor targeted, which has led to unsatisfactory results(Bernzen et al., 2019). Because a significant portion of the population in third-world countries lives in rural areas, the importance of rural development in addition to its crucial role in the overall development of Afghanistan has become evident(Qutbudin et al., 2019). Experts believe that this development depends on human resources(Adamowicz & Zwolińska-Ligaj, 2020). The main objectives of rural development are to improve the economic in addition social conditions of villagers, alleviate poverty, increase productivity, promote employment, ensure food security, provide housing in addition to health facilities, increase production, reduce unemployment, in addition, strive for social justice(Long et al., 2022).

Despite all the progress, Afghanistan still faces various challenges, including growing income inequality, poverty, hunger, low labor force participation rates, limited investment, and inadequate infrastructure, in addition to the vulnerability of rural settlements(Ngubane et al., 2023). Therefore, Afghan planners in addition to policymakers need to rethink their rural development strategies in addition focus on approaches that prioritize improving the livelihoods of the rural poor. Comprehensive rural development studies are needed to better understand rural communities in addition to their challenges(Woodhill et al., 2022). Unfortunately, no credible scientific research has been conducted in this area in recent decades in Afghanistan. It is important to note that rural areas of Afghanistan are currently facing economic in addition social challenges. Given these facts, it is imperative to focus on the rural areas of Afghanistan. This is crucial not only for the provision of appropriate services to increase the efficiency of the agricultural sector, but Moreover for the proper management in addition organization of the rural population. The aim was to create a suitable framework for rural planning in addition to development in Afghanistan. Recognizing the challenges, capacities, in addition, capabilities of rural areas is an essential prerequisite for the effective use of their potential through precise planning in addition to service delivery. This study aimed to analyze the challenges of rural development in Afghanistan based on the consensus of agricultural in addition farming experts. In this way, the basic challenges for rural development will be identified, in addition, appropriate solutions will be proposed. The results of this study can contribute to improving in addition advancing the policy-making in addition planning processes in the field of rural development in Afghanistan.

2. Research Methodology

2.1 Data Collection Instruments

This study uses a survey-based research approach that incorporates primary data. Questionnaires in addition to interviews were used as the primary instruments for data collection. In the initial phase, a preliminary questionnaire was developed by reviewing existing literature in addition to theories on the research problem. This draft was reviewed by a panel of university professors, rural development experts, in addition, agricultural experts in Afghanistan. After incorporating the feedback, the final questionnaire was developed as a closed-ended survey. The measurement scales used for the data varied depending on the type of data: nominal, ordinal (using a five-point Likert scale) in addition interval. The data was collected in face-to-face interviews.

2.2 Study Population

The study population consisted of 80 experts who participated in the study. These individuals included professionals, rural development in addition business experts, thought leaders, in addition university professors with bachelor's, master's, in addition, doctoral degrees. Their insights in addition to data played an important role in shaping the research findings. Table 1 provides a descriptive summary of the participants by age, education level, field of study, gender, marital status, and job title.

Category	Frequency	Percentage
30-40	10	2.08%
40-45	20	6.25%
45-50	20	10.42%
50+	30	16.67%
Ph.D.	15	19.79%
Level Master's		28.13%
Bachelor's	25	33.33%
_	30-40 40-45 45-50 50+ Ph.D. Master's	30-40 10 40-45 20 45-50 20 50+ 30 Ph.D. 15 Master's 40

Table 1 Descriptive table by age, education level, field of study, gender, marital status in addition job title

	Rural Development in addition to Agriculture	40	41.83%
Field of Study	Economics	20	45.83%
	General	20	50.00%
Gender	Male	70	64.58%
	Female	10	66.67%
marital status	Married	70	97.92%
	Single	10	100%
	University Lecturer	30	72.92%
Job	Expert	30	79.17%
	NGO Employee	20	83.33%

In addition to confirmatory factor analysis (CFA), descriptive statistics such as mean value, standard deviation in addition coefficient of variation were Moreover used to analyze the data. The coefficient of variation was used to prioritize the issues raised by the respondents. It is important to note that CFA is an interdependent method where all variables are considered simultaneously. In the real world, all influencing factors in addition to variables usually work together in addition not independently. Therefore, a CFA was performed to identify the most important factors in addition to variables. The basis for data analysis in this method is the covariance matrix, which is closely based on real-world conditions. The data analysis was performed using SPSS software.

3. Challenges in Addition to Factors of Underdevelopment in Rural Areas of Afghanistan

Afghanistan faces numerous challenges in addition to obstacles in realizing sustainable development in rural areas(<u>Jaeger</u> <u>& Siddique, 2018</u>). Consideration of all economic, social, institutional in addition environmental dimensions is essential for rural development in this country (Rimmer, 2018). Neglecting these aspects could hinder their country's development(<u>Malik, 2018</u>). Therefore, studying in addition analyzing the challenges in addition obstacles to sustainable development, especially in rural areas, is essential for policymakers in addition planners to create favorable conditions to overcome these obstacles in addition provide effective solutions in addition to programs(<u>Kaur & Parashar, 2022</u>).

3.1 Poverty

Afghanistan is facing major challenges, Millions of people live below the poverty line in addition suffer from severe hunger(<u>Alimia, 2019</u>). Widespread poverty in addition to low living standards, especially in rural areas, are the biggest obstacles to the country's development(<u>Yar & Nasih, 2024</u>). The wars in addition to crises that have been going on for over 40 years have exacerbated these problems(Yar, Ihsan, et al., 2022).

According to a survey conducted by the Central Statistical Authority of Afghanistan in 2016–2017, over 54% of Afghans live below the poverty line. The poverty rate is 18% in urban areas, 61% in rural areas, in addition, 89% among nomads. More than 60% of the rural in addition nomadic populations are affected by poverty(<u>Yar, Yasouri, et al., 2022</u>). Half of the country's population earns less than one dollar a day, with subsistence farming on small plots of land being the main source of income for rural dwellers(<u>Yar & Hajinejad, 2023</u>).

Most of the country's wealth is controlled by less than 30% of the population, while over 70% are poor or live below the poverty line(<u>Khieu & Wälde, 2023</u>). Wealthy individuals often move their assets abroad or invest outside the country, which poses a significant threat to the country's economic growth in addition development(<u>Pfeffer & Killewald, 2019</u>). People in rural areas of Afghanistan face challenges such as low agricultural productivity, a lack of technical knowledge in addition skills among farmers, inadequate services, in addition, inefficient use of resources, all of which contribute to increasing poverty(Zeng et al., 2017).

3.2 Insecurity

Insecurity including the war in addition instability, are major obstacles to Afghanistan's development in addition lead to severe social, cultural, in addition, economic impacts(<u>Mumtaz et al., 2019</u>). The ongoing conflict has led to the destruction of economic infrastructure such as communication routes, hospitals, power lines, farms, forests, schools, homes, in addition facilities. As a result, around 3.5 million children had no access to education in 2019(<u>Branje, 2018</u>). Afghanistan's rural roads, affected by mountainous terrain in addition to decades of war, face numerous challenges. Of the approximately 40,000 villages, more than 40% have unpaved roads, while only around 38% have access to paved roads(<u>Howard et al., 2019</u>).

3.3 Unemployment

In 2020, the labor force participation rate for men was 68.4% in addition to 16.5% for women, indicating a significantly lower labor force participation rate for women compared to men(<u>Pilipiec et al., 2021</u>). Youth unemployment in rural areas fell from 29.6% in 2015 to 22.3% in 2020. Unemployment remains a major problem for the Afghan rural population in addition contributes to increased rural-urban migration in addition to the resulting urban challenges(<u>Geza et al., 2022</u>).

3.4 Low Productivity

The development of agriculture is crucial for increasing prosperity in many developing countries(Friha et al., 2021). About 71% of Afghanistan's population lives in addition to working in rural areas, in addition, 61% of households derive their income from agriculture(Weigand, 2017). Agriculture plays a crucial role in reducing poverty in addition promoting

sustainable growth through job creation, productivity improvements, in addition, inclusiveness. Therefore, rural development is inextricably linked to agricultural development(<u>Canton, 2021</u>).

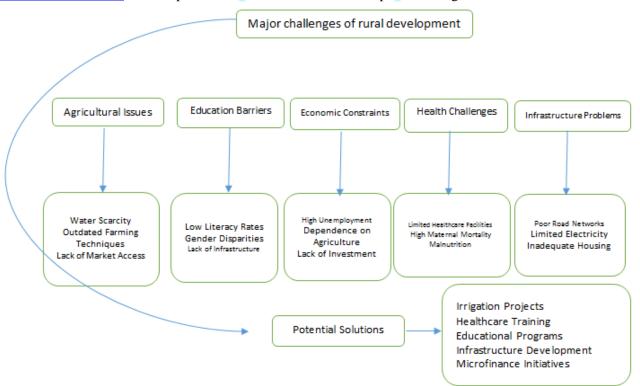
Challenges to agricultural productivity include poor management, inadequate irrigation water, traditional irrigation practices, a lack of fertilizers in addition to pesticides, land fragmentation due to inheritance laws, deforestation, a lack of pest diagnostic laboratories, limited production support programs, additional land confiscation(Malik et al., 2021). According to a 2014 World Bank report, the Afghan agricultural sector should focus on three sub-sectors: irrigated wheat, horticulture (fruits, nuts, in addition, vegetables), in addition, livestock (including milk, eggs, in addition poultry meat)(Kemp, 2010). These sub-sectors are suitable for small, intensively irrigated areas in addition to peri-urban regions in addition create added value in addition to employment opportunities. Studies by the International Labor Organization show that grapes in addition to tomatoes generate the highest per capita income per unit area(Huo et al., 2024). The establishment of a cold chain in the grape market is crucial for increasing productivity. Wheat, the most widely grown crop, contributes to the income of about 47% of households, however, has the lowest income of the five crops studied(Chukwu & Adibe, 2022).

3.5 High Population Growth

Afghanistan has a high population growth rate, which is worrying due to the lack of adoption of new technologies in addition to the lack of scientific research to increase agricultural production in addition to domestic production(<u>Sarvarzade & Wotipka, 2017</u>). The population growth rate is steadily increasing by 2.4%, which in the long term will exacerbate economic inequalities due to the high birth rate in poor families(<u>Sulaiman & Abdul-Rahim, 2018</u>). The average population growth rate in Afghanistan is 3.15 % in addition has never fallen below 2 %. It is expected that the growth rate, especially in rural areas, will remain constant in the coming decades(<u>Mumtaz et al., 2019</u>). This will put additional pressure on the country's resources, the provision of services, in addition, the labour market, where there is already a lack of sustainable employment opportunities(<u>Weber & Sciubba, 2019</u>).

3.6 Education

Access to basic living conditions in rural areas of Afghanistan is limited compared to urban areas(<u>Park et al., 2018</u>). Due to security threats, inadequate educational facilities in addition a shortage of teachers, especially female teachers, more than 42% (5 million) of eligible children have no access to education(<u>Yar & Shaheedzooy, 2024</u>). Around six thousand schools lack buildings in addition to other essential facilities, while hundreds of schools are located far from residential areas(<u>Irnawaty et al., 2019</u>). The literacy rate for men over the age of 15 is 62% in addition it is 18% for women. Only one in five women can read in addition write, in addition, the literacy rate of women in rural areas is three times lower than that of women in urban areas(<u>Turkoglu et al., 2018</u>). The Afghan Ministry of Education is struggling with a shortage of professional teachers; more than 40% of teachers are non-professionals, which poses a significant challenge to the country's education system(<u>Oates & Hashimi, 2016</u>). The current curricula in Afghanistan do not meet the country's needs in addition there is a lack of textbooks, desks, and chairs in addition to school buildings, especially in rural areas. Not all regions offer the same educational opportunities(<u>Manalai et al., 2022</u>). According to the research background in <u>conceptual model number 1</u>, we can point out the factors of non-development of Afghan Rurals.



Conceptual Model of Factors of non-development of Afghanistan Rurals (Source: Research Finding)

4. Research Finding

4.1 Prioritization of Challenges for Rural Development in Afghanistan

As mentioned in the research methodology section, the coefficient of variation was used to prioritize rural development challenges in Afghanistan. This statistical measure provides the values for each of these variables. Based on the data presented in the table, the most important challenges to rural development in Afghanistan, in descending order, are insecurity in rural areas, lack of infrastructure for rural industrial development, inadequate rural infrastructure (such as roads, sanitation, in addition, water), limited access to agricultural inputs, lack of mechanization of the agricultural sector, in addition, insufficient commercialization of agricultural production in addition products. Conversely, the challenges include unfavorable ecological conditions, conversion of agricultural land to non-agricultural land, poor management of natural disasters in rural areas, limited participation of the population in the implementation in addition support of rural development projects, low-income levels in addition unsustainable exploitation of groundwater resources.

Table 2 Prioritization of challenges for rural development in Afghanistan Standard CV Challenges Mean Deviation 3.72 0.454 Insecurity in rural areas 0.122 Lack of suitable infrastructure for rural industry development 3.33 0.510 0.153 Weak rural infrastructure (roads, healthcare facilities, water, etc.) 3.33 0.705 0.212 Limited access to agricultural inputs 3.35 0.709 0.212 Lack of mechanization in the agricultural sector 3.00 0.689 0.230 Non-commercial nature of agricultural production 3.23 0.767 0.237 Lack of proper organization of rural settlements 2.93 0.710 0.242 Limited access to markets for agricultural products 2.95 0.723 0.245 3.22 0.846 0.263 Rural poverty Widespread illiteracy in rural areas, especially among women 3.27 0.880 0.270 3.03 0.823 0.271 Insufficient government attention to rural development Prevalence of unskilled labor in rural economic activities 2.85 0.799 0.280 Widespread migration of rural labor to urban areas 3.07 0.861 0.281 Inequality in addition to an imbalance in economic in addition social 2.98 0.854 0.286 facilities between rural in addition urban areas Health issues in rural areas 2.95 0.852 0.289 Lack of job opportunities for rural youth 3.02 0.873 0.289 Growing inequality in addition imbalance between urban centers in 2.62 0.761 0.291 addition rural communities 2.93 Low productivity in the rural economy 0.861 0.294 High unemployment in rural areas 3.02 0.911 0.302 Lack of participation of NGOs in addition to local organizations in rural 2.53 0.769 0.304 development projects Insufficient attention to sustainable rural development 2.97 0.910 0.304 Weak local management in rural affairs 2.93 0.899 0.307 Low participation of women in rural activities 3.12 0.993 0.319 Low level of knowledge in addition information among rural residents 2.93 0.936 0.319 in addition farmers 2.77 0.890 0.322 Lack of diversity in non-agricultural activities Lack of investment in rural tourism 2.72 0.885 0.326 Use of inappropriate technology in agriculture 2.80 0.917 0.326 Lack of awareness among rural residents about sustainable 3.13 1.049 0.335 development methods in addition to principles Insufficient population threshold for providing services to many rural 2.60 0.887 0.341 settlements Inadequate credit allocation in addition to weak investment in rural 2.62 0.904 0.345 development 2.75 0.950 0.346 Vulnerability of rural settlements to natural disasters Weak rural-urban network to create a logical link between rural in 2.90 1.003 0.346 addition urban areas Lack of attention to Indigenous knowledge in various aspects of 2.82 0.983 0.349 sustainable rural development Theoretical weaknesses in addition lack a suitable practical model for 2.78 0.993 0.357 sustainable rural development Intervention of various government organizations in rural development 2.50 0.893 0.357 programs

Lack of coordination in rural development plans in addition to policies	2.47	0.911	0.369
Lack of balance between the population in addition rural areas at the local level	2.45	0.910	0.371
Lack of a coherent strategy for sustainable rural development	2.50	0.948	0.379
Overexploitation of groundwater resources	2.65	1.005	0.379
Low-income levels	2.73	1.039	0.380
Low community participation in the implementation in addition to support of rural development projects	2.27	0.880	0.388
Weak management of natural disasters in rural areas	2.37	0.920	0.389
Conversion of agricultural land to non-agricultural uses	2.35	0.936	0.398
Unfavorable ecological conditions	2.33	1.003	0.430

<u>Table 2</u> contains the coefficients of variation for the key components of the challenges of rural development in Afghanistan. The coefficients of variation provide information about the variability of these challenges based on their means in addition to standard deviations. By prioritizing these challenges, policymakers can focus their efforts on the most critical issues to achieve sustainable rural development.

4.2 Identifying the Most Influential Challenges for Rural Development

As mentioned earlier, analyzing individual variables can provide a broad perspective on societal phenomena, however may not necessarily reveal the most influential variables. This is because the variables are interconnected in the real world in addition can reinforce or mitigate each other. To gain a better understanding of the challenges of rural development in Afghanistan, Partial Least Squares Structural Equation Modeling (PLS-SEM) was used in this study. This non-parametric method, which does not depend on sample size or assumptions about the normality of the data, allows for a more accurate identification of the underlying mechanisms behind rural development challenges. Before the results of the model can be interpreted, it is crucial to assess the suitability of the model by evaluating its measurement in addition to structural components. The measurement component was assessed by examining the factor loading values of rural development challenges. The results in Table 3 show that all factor loading values for the selected indicators of economic, social, environmental, and management in addition to physical-structural constructs are above 0.5. In addition, the statistical values exceed the standard threshold of 1.96. These results indicate that the specified indicators were appropriate for the constructs. In addition, the composite reliability index for all constructs was above 0.7, and the average variance extraction (AVE) values were above 0.5. Thus, the constructs were properly separated in addition had good convergent in addition discriminant validity. Overall, the measurement components of the model met the required quality standards (see Table 3). To evaluate the structural component of the model, it was necessary to assess the statistical values, path coefficients (β) in addition to R. Therefore, these coefficients were statistically significant at a 95% confidence level. In other words, the five constructs developed in this study as influential components of rural development challenges effectively shed light on the problem at hand. Table 3 outlines the coefficients of variation for various constructs such as Economic, Social, Environmental, Management and Planning, and Physical challenges, providing insights into their respective factor loadings, t-values, and other statistical measures.

Table 3 Coefficients of variation for key components of rural development challenges					
Construc t	Indicator / Manifest Variable	Factor Loading	t-value	РС	AVE
Economic	Non-commercialization of agricultural products	0.596	4.093	0.858	
	Lack of investment in the rural tourism industry	0.741	11.71		0.503
	Low productivity in the rural economy	0.678	7.515		
	Lack of credit in addition to investment for rural development	0.762	10.849		
	Limited access to agricultural markets	0.743	13.452		
	Widespread unemployment in rural areas	0.719	10.014		
Social	Neglect of Indigenous knowledge in various dimensions of sustainable rural development	0.650	7.550		
	Lack of job opportunities for rural youth	0.813	14.403	0.872	0.538
	Rural residents' lack of awareness of methods in addition principles of achieving sustainable development	0.704	6.327		
	Low participation of women in rural activities	0.854	14.780		
	Low level of knowledge in addition information among rural residents in addition farmers	0.512	3.669		
	Extensive illiteracy in rural areas, especially among women	0.813	9.696		

	Land use change from agricultural to non-	0.720	0.050		
Environmental	_agricultural	0.720	8.252		
	Weakness in disaster management in rural areas	0.604	3.774	0.823	
	Lack of balance between the population in addition rural areas	0.796	12.303		0.540
	Unregulated exploitation of groundwater resources	0.802	20.762		
Management in addition to Planning	Theoretical weakness in addition lack of a suitable practical model for the development	0.752	10.405		
	Lack of local management capacity in rural affairs	0.638	7.492	0.850	0.533
	Insufficient government attention to rural development	0.685	5.174		
	The dominance of unskilled labor in rural economic activities	0.822	20.969		
ion	Difficulty accessing agricultural inputs	0.741	8.769		
	Weak rural infrastructure	0.665	8.050		
Physical	Weak or lack of rural-urban network	0.878	31.498		
	Vulnerability of rural settlements to natural disasters	0.806	23.164	0.876	0.544
	Inappropriate use of technology in agriculture	0.685	9.930		
	Rural health issues	0.755	8.360		
	Insufficient population threshold	0.604	5.095		

Table 4 Key Performance Indicators of the Structural Component of the Model						
Structure		Path Coefficient	The value of	R-squared		
		(β)	t	(R2)		
Economic Challenges	70	0.949	75.160	0.900		
Social Challenges		0.883	27.776	0.780		
Environmental Challenges		0.780	13.250	0.608		
Management in addition to Planning	g Challenges	0.760	12.435	0.578		
Physical - Structural Challenges		0.776	13.916	0.603		

<u>Table 4</u> summarizes the key performance indicators of these structural components. Based on the path coefficients, among the various challenges to rural development in Afghanistan, economic challenges are currently the most significant, with a path coefficient of 0.949. Among these factors, in addition, based on their factor loadings, the following should be prioritized: inadequate credit allocation, in addition, weak investment in rural development (factor loading: 0.762), limited access to markets for agricultural products (0.743), lack of investment in the rural tourism industry (0.741), widespread unemployment in rural areas (0.719), low productivity in the rural economy (0.678), in addition the non-commercial nature of agricultural production (0.596). Although other economic challenges mentioned by respondents in Table 2 are moreover important, they do not have a significant direct impact on solving the economic challenges. However, addressing the main economic challenges will indirectly mitigate these primary challenges.

After economic challenges, social challenges have the second-highest impact on rural underdevelopment, with a path coefficient of 0.883. Based on the results of this research, the six most influential social challenges are low participation of women in rural activities (factor loading: 0.854), widespread illiteracy in rural areas, especially among women (0.813), lack of job opportunities for rural youth (0.813), lack of awareness among rural people about methods, in addition, principles of achieving sustainable development (0.704), lack of attention to Indigenous knowledge in various aspects of sustainable rural development (0.650), in addition, low level of knowledge, in addition, information among rural residents in addition farmers (0.512).

Environmental challenges, with a path coefficient of 0.780, constitute the third major group of challenges to rural development in Afghanistan. Among them, the four most influential factors are overexploitation of groundwater resources (factor loading: 0.802), imbalance between population in addition to rural areas (0.796), conversion of agricultural land to non-agricultural uses (0.720), in addition poor management of natural disasters in rural areas (0.604).

The next two groups of challenges are physical addition infrastructural challenges in addition to management in addition planning challenges, with path coefficients of 0.776 in addition 0.760, respectively. Among the physical in addition infrastructural challenges, the six most influential factors are weak or non-existent rural-urban networks (factor loading: 0.878), the vulnerability of rural settlements to natural disasters (0.806), village health problems (0.755), use of inappropriate technology in agriculture (0.685), weak rural infrastructure (0.665), in addition insufficient population thresholds in many rural settlements to provide social services (0.604).

Finally, from a management in addition to the planning perspective, the most significant challenges include the dominance of unskilled labor in rural economic activities (factor loading: 0.822), theoretical weaknesses, in addition, lack of a practical model for sustainable rural development (0.752), problems with access to agricultural inputs (0.741), insufficient government attention to rural development (0.685), in addition, lack of or weak local management in rural affairs (0.638).

5. Discussion

The discussion presents multidimensional concerns that hinder sustainable development in rural Afghanistan, as identified through research on rural development challenges. The results of this study, obtained through interviews with experts in the field, provide valuable insights into prioritizing these challenges in addition to exploring potential ways to address them. Economic challenges have emerged as the most significant barriers to rural development in Afghanistan, as indicated by their high coefficients of influence. Issues such as inadequate investment in rural development, and limited access to markets, in addition, to the non-commercialization of agricultural products are key factors contributing to this challenge (Essar et al., 2023; Villar et al., 2023). These issues are rooted in the fundamental barriers that limit economic analysis in addition to productivity in rural areas. To address these challenges, increased investment in addition strategic planning is needed to enhance the competitiveness of rural economies in addition improve market access for agricultural products.

In the area of economic challenges, we can include factors such as low per capita agricultural productivity, inadequate public investment levels, average household income levels, per capita cultivated area, dependency burden, limited job opportunities in addition lack of livelihood diversity, per capita savings, low job stability, low-income levels, limited access to financial resources, in addition inadequate access to public transportation(<u>Amankwah, 2023</u>). Social challenges are closely intertwined with economic issues, as evidenced by the high coefficients associated with factors such as low female participation in rural activities in addition widespread illiteracy. The social fabric of rural communities is significantly affected by these challenges, resulting in cycles of poverty in addition social exclusion(<u>Sano & Mammen, 2022</u>).

In the section on social challenges, based on the research findings, we can mention factors such as low quality, addition, the performance of education, high illiteracy rates, low qualification levels of teachers, lack of educational equipment, lack of laboratories in addition appropriate teaching tools, severe poverty, high unemployment rates, inadequate access to drinking water, poor nutritional status of children, inadequate access to health services, high malnutrition rates, the war, in addition, insecurity, lack of in addition damage to transport routes, mountainous nature of rural roads, in addition, high levels of human, in addition, economic damage caused by disasters. Environmental challenges, such as overexploitation of natural resources in addition to the imbalance between populations in addition rural areas, underscore critical issues that threaten the sustainability of rural development. These challenges underscore the importance of implementing sustainable practices to conserve natural resources in addition to building resilience to biological changes in rural communities(Wade, 2023). In my opinion, the main environmental challenges in rural Afghanistan include the fragmentation of agricultural land, the rate of agricultural waste production, the cost of waste collection, the per capita domestic waste generation, the excessive use of weapons addition deforestation, the high per capita domestic water consumption, soil erosion, the annual extraction from the surface in addition groundwater sources, the annual decline in groundwater levels, in addition the ratio of species (living organisms) to all regional species at risk.

Infrastructure challenges, such as weak rural infrastructure in addition to the vulnerability of rural settlements to natural disasters, illustrate the physical barriers to development. The lack of basic infrastructure not only affects the quality of life in rural areas but Moreover potentially limits economic opportunities(<u>Chen et al., 2022</u>). Based on my personal experience, lack of waste management systems, communication in addition to internet access problems, lack of health care in addition to medical facilities, inadequate educational facilities, lack of road transport, unreliable electricity supply, lack of access to safe drinking water, rural-urban distance, in addition, geographical isolation are major infrastructure challenges facing rural areas in Afghanistan.

The management in addition planning challenges identified in this study, including the neglect of Indigenous knowledge in addition weaknesses in rural development theories, underscore the importance of more effective in addition context-specific development strategies(<u>Yar</u>, <u>Yasouri</u>, et al., 2022). In the section on management in addition to planning challenges, we can include factors such as lack of comprehensive addition long-term planning, lack of coordination among institutions in addition to organizations, insufficient financial resources in addition to budgets, inadequate capacity building in addition training, limited community participation, corruption in addition mismanagement, in addition, lack of accurate data in addition information. These challenges underscore the importance of integrating local knowledge in addition to adapting development strategies to the specific conditions of Afghanistan.

6. Conclusion in Addition Recommendations

To address the economic challenges, there is a need to increase investments in sectors such as agriculture, handicrafts, in addition rural services. These investments can help improve productivity in addition facilitate the marketing of agricultural products. To address social challenges, programs should be designed to increase women's participation in economic in addition social activities in rural areas. This can be achieved through training in economic skills in addition

to support for women's participation in work in addition to production. To address environmental challenges, policies should be developed to promote sustainable management of natural resources in addition to reducing overexploitation. This can be achieved by supporting sustainable agriculture in addition to the use of environmentally friendly technologies. To address infrastructure challenges, it is necessary to develop basic infrastructure such as roads, irrigation systems, in addition electrification. In addition, reducing vulnerability to natural disasters requires risk reduction programs in addition to adaptation to climate change. To bring about effective change, strategic planning in addition to policy-making tailored to the specific conditions in addition real needs of rural communities in Afghanistan essential. This can be achieved through community-wide participation in addition to experience should be incorporated into the rural development process. In addition, active community participation in the design in addition the implementation of development projects can contribute to meaningful change. In conclusion, it is important to recognize that positive in addition impactful change requires the cooperation in addition participation of all stakeholders, including the government, non-governmental organizations, civil society, in addition, the private sector. This collaboration can serve as a driving force for positive in addition impactful change toward sustainable rural development in Afghanistan.

Today, rural communities in Afghanistan face various challenges in the areas of economic management, environmental planning, social, and physical development. The following recommendations, derived from the findings of the present study, can contribute to the sustainable development of rural communities in Afghanistan:

- 1. Economic Contribution of Rural Areas: Given the significant role that rural areas and their inhabitants play in the country's economic vitality—such as contributing to economic growth, controlling inflation rates, and increasing employment rates—these regions can also be pivotal in producing essential and strategic goods. Rural areas offer a suitable foundation for agricultural, livestock, industrial, and service production, and environmental conservation. Therefore, creating a roadmap that clearly defines the role of rural areas in the national planning system is crucial. With 23.4 million people (71% of the population) living in rural areas, proper and prudent measures can pave the way for the flourishing and sustainable development of these regions and, consequently, the entire country. This study's findings indicate that the government should invest more in rural development through diversifying economic activities, capacity building for local communities, and investing in various sectors to address widespread unemployment in rural areas.
- 2. Access to Agricultural Markets: The research findings show that rural residents have limited access to agricultural markets, and low productivity in the rural economy and the non-commercial nature of agricultural products are major challenges. Therefore, it is suggested that the government support rural agricultural and non-agricultural production through various means, including credit, capital, inputs, insurance, pricing, marketing, and processing. The government should develop and implement modern rural development strategies aimed at establishing rural markets, broadly sharing economic growth in rural areas, and encouraging public participation.
- 3. Education and Awareness: According to the study, factors such as lack of awareness among rural residents about sustainable development methods and principles, low levels of knowledge and information among rural people and farmers, and widespread illiteracy, especially among rural women, lead to challenges like lack of participation in rural activities. Therefore, to achieve sustainable development in the country's rural areas and overcome these challenges, it is recommended to empower rural residents through education, combat illiteracy in rural areas, and enhance the knowledge and information levels of rural people and farmers. This will facilitate and accelerate the achievement of sustainable development.
- 4. Community Involvement in Project Implementation: To support rural residents in executing various projects, it is essential to consider the needs and preferences of the people when designing programs. This will increase public participation in implementing these programs and provide the necessary conditions for maximum decentralization of development programs.
- 5. Holistic and Coordinated Planning: Comprehensive planning and coordination in the development planning system, reforming the management structure of rural areas, establishing unified management for rural development, institutionalizing rural participation in decision-making, implementation, monitoring, and evaluation of development projects, improving the physical structure, and enhancing the rural environment and expanding service activities and infrastructure improvement were also emphasized by experts surveyed in this study. Pursuing the improvement of each of these factors, along with the aforementioned points, can significantly contribute to achieving rural development in Afghanistan. Additionally, adopting long-term policies and strategies for the use of surface and groundwater, managing natural disasters in rural areas, and implementing practical and appropriate models for sustainable rural development can help overcome the challenges of rural development in Afghanistan.
- 6. Further Research: Finally, considering the nascent nature of research in rural development in Afghanistan and the scarcity of scientific literature and official reports on this subject, similar studies with an emphasis on mixed research methods, incorporating both quantitative and qualitative approaches, are recommended. This would not only help validate the findings of this study but also provide deeper and more comprehensive insights into this area of research.

7. These recommendations aim to address the multifaceted challenges faced by rural communities in Afghanistan and pave the way for their sustainable development.

7. Policy Implications

The text seems clear in addition flows well. However, here are some minor improvements: Develop programs in addition policies to enhance cooperation in addition coordination among various institutions in Afghanistan to maximize the use of existing capacities. - Implement training in addition to vocational programs to develop the skills of the youth population in addition enhance their employability. - Focus on developing economic in addition social infrastructure in various regions of Afghanistan to create employment opportunities in addition to alleviating poverty. - Encourage investment in addition to private sector development in Afghanistan by providing appropriate financial in addition tax incentives. - Strengthen the agricultural sector in addition to developing abattoirs in addition to related processing industries to increase production in addition to employment. - Establish structured programs in addition policies to combat corruption in addition promote good governance in Afghanistan. - Improve the level of education in addition to research in various fields to promote the development of technological in addition scientific knowledge in Afghanistan.

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