



SPATIAL INTEGRATION OF THE POTENTIAL AVAILABLE IN THE MARSHES OF SOUTHERN IRAQ

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Abstract

Resources and resources are the best way to achieve sustainable spatial development and its spread through spatial integration. The central marshes are an area of potential and resources, with exceptional global value and unique natural phenomena. It presents a prominent model of a traditional human settlement and thus reflects the interaction between man and his environment. This stands as a unique or at least extraordinary witness to a cultural and cultural tradition. The research (tagged spatial integration of potential in Hawar in southern Iraq) focused on diagnosing the potential for the development of the study area. It discussed the relationship between spatial development and the possibilities available after exposure to research problem (does activating available resources and resources contribute to spatial integration to lead to sustainable spatial development of Central Marshlands), The aim of the research is to identify the potential and resources available in the marshes as well as to guide the use of the natural, historical and cultural resources and resources available in the marshes, which are considered the cornerstones of their development and revitalization using scientific methods and assuming that sustainable investment of natural and historical cultural potential and sustainable economic, social and Achieving spatial integration to lead to the development and revitalization of central marshes).The research sought in its theoretical framework to study the main concepts represented by spatial integration and its objectives and areas and the definition of development potential and to address many development strategies to be adopted for achieving development. While the practical part included identifying the developmental reality of natural, human and material resources (service and economic) and analyzing it spatially according to the planning methods by adopting the questionnaire form and the method of global analysis and defining the strategic aspects of spatial development. The research came out with a vision of proposals and developmental visions according to the appropriate strategies and in line with the development potential of the study area. Despite the existence of many studies in addition to the lack of professional and scientific capabilities of the population of the region and the lack of economic activities that support the tourism side on the one hand and make income for its residents on the other hand. The study recommended the adoption of the strategies of sustainable investment and sustainable economic, social and urban development for the development of (the central marshes) and to take advantage of the decision of UNESCO and its annexation of the World Heritage with emphasis on the need to promote agricultural and tourism activities.

Keywords: Spatial Integration, marshlands.

Introduction

Achieving sustainable spatial development for any region requires knowledge of all natural, archaeological and human developmental resources (economic, demographic, and urban), thus creating a network of relationships that show the interaction between space and activities that create spatial integration. In the process of spatial development of the Marshlands, This requires that the process of analysis of these possibilities according to scientific methodology adopted by planning methods and a means to achieve that purpose to verify the results obtained from the method of global analysis, and this method contributes to the accurate spatial diagnosis of development potential, against which the development strategy can be chosen with the appropriate Potential available.

The concept of spatial integration

Spatial integration means the interrelationships between economic and social activities, so that understanding the spatial relationships between activities in place leads to the pattern that governs their spread or concentration. The procedural definition of the concept of spatial integration is the process of coordination, interaction and exchange between regions because of the difference in the characteristics of space and to achieve cooperation and harmony and the elimination of spatial inequality and spatial

isolation and thus lead to the achievement of sustainable and balanced spatial development.

The role of spatial integration as an important criterion for assessing the situation of the gradual use of different parts of the land according to the adopted perspective of spatial development competitive, coherent or cooperative.

It is defined as a system of multiple links (proximity, dimension, similarity, continuous change, and interdependence) between regions that arise as a result of concrete social, economic and cultural relations, but this system has specific effects at times to increase links of social, cultural and economic development. Organized inclusiveness, balance, interdependence, and all (all parts) (De Boe and Healy, A., 1999).

Objectives of Spatial Integration

- Reducing the effects of natural disasters.
- Promote the development of urban jobs and improve the relationship between the city and the countryside.
- Enhanced accessibility.
- Promote regional cohesion through more balanced social and economic development of regions, and improve competitiveness

- Develop access to information and knowledge. Reducing environmental damage (Spatial Planning, 2008).
- Promotion and protection of natural resources and natural heritage. **Areas of spatial integration**
- Promoting cultural heritage as a factor of development. Spatial integration can be achieved in several areas, which are summarized in the following table (1):
- Development of energy resources while maintaining safety.
- Promote high quality sustainable tourism.

Table 1: Spatial Integration Areas**Integration in transport**

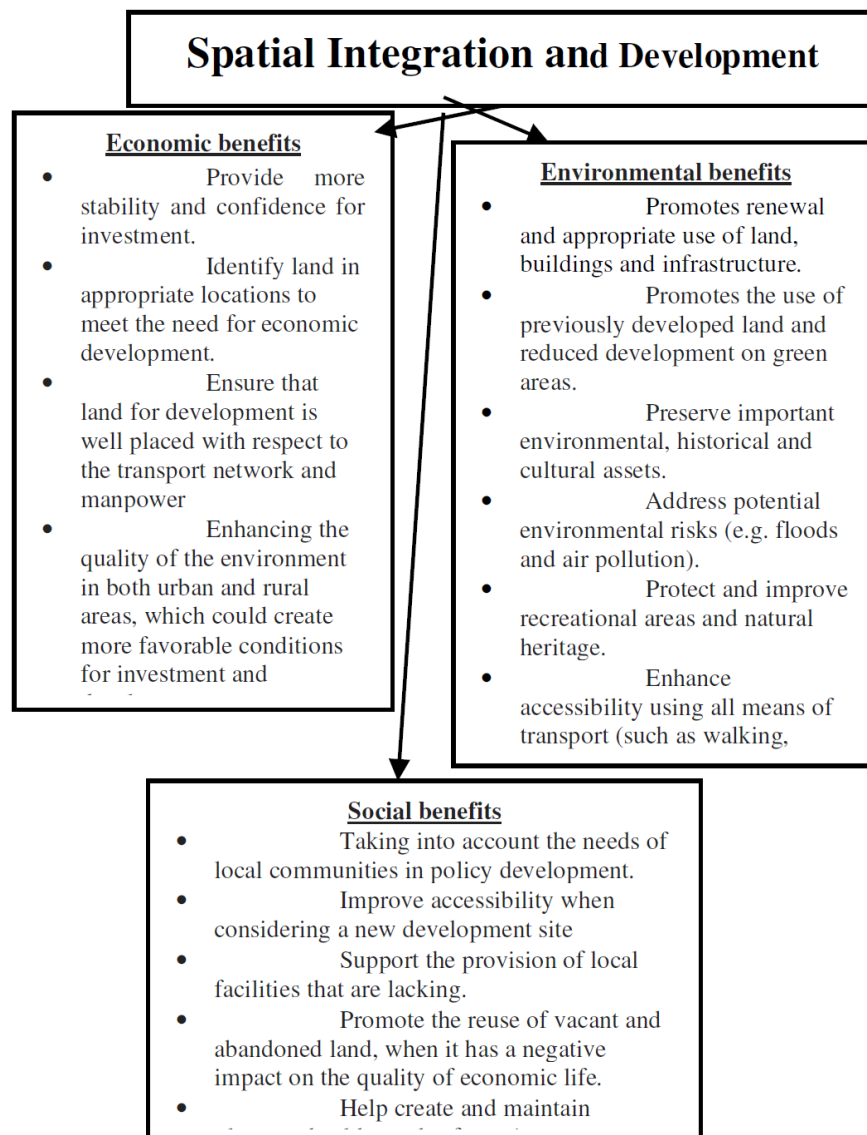
Measures	Core issues
Improved collaborative planning of integrated transport systems	Enhance mobility and connectivity
Integration of various means of transport	Reduce time and cost
Bases for enhanced mobility and communication should be established to improve accessibility while reducing emissions	Low emissions and use of public transport instead of private cars
Integration in Stable Planning	
Measures	Core issues
Improve the quality of life of all residents who have access to all basic services.	Urbanization, the growth of informal settlements and increased densities
Multifunctional spaces with more housing and economic options. Introducing full service, good service, safe and vibrant communities, Green spaces and social facilities.	Lack of social facilities and greening of public spaces
The most appropriate and durable approaches to strengthening mixed and multifunctional communities that can actually overcome spatial and peripheral divisions.	Rising demand for serviced land and lack of public land with good places for residential development
How can we improve cooperative planning in order to provide integrated housing and social services	Housing market deviation
Integration in infrastructure	
Measures	Core issues
Mobilize and unify resources to ensure universal access to services	Ensure universal access to basic social and other services that support equality and inclusiveness
What mechanisms can be implemented for short-term plans and long-term planning of infrastructure and maintenance	Protecting the environment, by reducing emissions and protecting environmental resources
Moving from traditional approaches to more efficient innovative and efficient resource infrastructure systems to minimize negative environmental impact	Poor maintenance of existing infrastructure
The need to promote capital expenditure, operation, maintenance, etc. in local government	Sources of funding for urban infrastructure
Administrative integration	
Measures	Core issues
Other levels of municipalities should assist the Government in accessing appropriate land for spatial integration	State land of high value
Addressing tenure issues, especially in informal settlements	Difficulties in acquiring strategic land owned by state-owned enterprises and the government
Support municipalities to improve land use management	Uncertainty and security, especially in informal settlements
Tools that we can use to address the impact of traditional authorities in urban land management	Slow land planning and management processes
Build strong urban management systems and processes in local government	Lack of appropriate skills and competent staff
Cohesion and social integration	
Measures	Core issues
Capacity building for participation, negotiation and facilitation of intersectional work	Authority of active communities
Strengthening the relationship and partnership between municipalities and civil society	Lack of skills and experience to engage in tourism and civil society projects

Monitor and promote innovative practices at the local level	Lack of innovative solutions in the production and delivery of services
Strengthening committees to bridge the gap between municipalities and communities What are the challenges?	Lack of understanding of government structures and hierarchical processes of government agencies
To improve the quality of citizen engagement in governance processes	Sufficient forums to promote participation and promote social cohesion
Economic Integration	
Measures	Core issues
Distribution of employment opportunities and strengthening the economic role of municipalities	Economic development has been neglected in many urban areas
Promote and support small and medium-sized cities and encourage the private sector.	Isolate or marginalize the informal sector
To create local conditions to support enterprise development and growth. Expanding economies and towns and supporting community institutions and labor	Lack of response to the unique conditions of different towns and cities

Source: Researcher based on: Department of Cooperative Governance, Draft Integrated Urban Development Framework (IUDF), and South African Urban Conference IV. 4 March 2015.

Spatial Integration and Sustainable Development

Spatial integration achieves economic, social and environmental benefits consistent with the Sustainable Development Goals as illustrated in Figure 1.



Source: Researcher based on: UNITED NATIONS, Economic Commission for Europe, Spatial Planning - Key Instrument for Development and Effective Governance, New York and Geneva, 2008.

A review of strategies that contribute to the achievement of the research objectives, including

1. Urban Axis Strategy.
2. Strategy to reduce population concentrations (new cities).
3. Investment Transfer Strategy.
4. Industry Development Strategy.
5. Agricultural Development and Water Resources Strategy.
6. Strategy for the development and reconstruction of the tourism sector.
7. Economic integration strategy.
8. Strategies for sustainable investment of heritage places.

There are five main strategies for dealing with heritage sites:

- 8.1. **Investment screening:** It contains three secondary strategies namely
- Exclusion
 - Choose the best
 - According to screening criteria.

8.2. Integration

- Investment impact
- Sustainability under Investment:
- Corporate participation and stakeholder effectiveness

We conclude that sustainable investment with multiple strategies has given the investor multiple areas to deal with heritage places and how to reach the goal of investment and reduce its risks by adopting investment screening, in addition to integration or through the impact of investment, as well as linking sustainability to investment or corporate participation and stakeholder effectiveness. More than one strategy to reach the objectives of investors from heritage places in a sustainable manner (GSIA, 2013).

9. Economic and Urban Empowerment Strategy

Therefore, by reviewing the previous policies and addressing their developmental role in the regions that are followed according to the available development potential, it is necessary to draw a summary of those policies, their functional role and the spatial field that can be relied upon in the study area, as shown in Table (2):

Table 2 : Role of Developmental Functional and Spatial Field of Development Policies

Urban Axis Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
It is used to spread development with the extension of existing and proposed main roads and railways	Dissemination of development along major transport networks
Strategy to reduce population concentrations (new cities)	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
It is proposed to be set up in the surroundings of large urban centers	Absorption of population momentum through the establishment of new urban communities surrounding the central cities
Investment Transfer Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Dependent on areas with investment infrastructure	Investing the potential and potential in proposing suitable industrial projects
Industry Development Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Applied in areas with raw materials and labor	Developing the available industrial potential through the development of the industrial sector
Agricultural Development and Water Resources Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Implemented in areas eligible for agricultural development	Utilize the available agricultural potential and make it an important role in the development process
Strategy for the development and reconstruction of the tourism sector	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Applied in areas with a tourist potential	It works to promote all tourism potential (religious, natural and archaeological) and invest in spatial development
Economic integration strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Can be used in the development of secondary regions with development potential	Benefit from them in the development of regions with diverse potentials
Sustainable Investment Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Applied in the development of tourism potential (heritage and historical) within the study area	Utilization in regions with heritage, historical and cultural potential
Economic and Urban Empowerment Strategy	
<i>Spatial field within the study area</i>	<i>Developmental Functional Role</i>
Applied in poor areas with limited potential	Direct private sector investments to use available resources and adopt public sector infrastructure and services

Source: Researcher

Marshlands

The Central Marshlands are considered to be part of the World Heritage property, being a component of the Central Marshes within the World Heritage Convention, in addition to being a national park under the Ramsar Convention. Ramsar in all the possibilities and characteristics possessed by the central marshes in general. The Central Marshlands are unique in terms of resources and resources as follows:

First: Natural Resources

Water resources: Most of the water resources of the central marshes of the Tigris and Euphrates, where it feeds the Tigris River through its branches, which have decreased their expenses.

Countries 3 : Expenditure of the rivers feeding the central marshes annexed by the Ezz River for the years (2012-2017)

Discharge rate m ³ /s 2017	Discharge rate m ³ /s 2016	Discharge rate m ³ /s 2015	Discharge rate m ³ /s 2014	Discharge Rate m ³ /s 2013		Discharge rate m ³ /s 2012	Nutrients
128.67	220.58	241.67	257.6	256.11		145.90	The Petra River
30.41	97.93	178.67	187.69	187.69		81.12	Broad River
30.21	43.71	12.09	33.25	33.25		24.46	Great Hungary River
48.85	47.13	44.76	47.05	47.05		37.04	Abu Sobat River
44.00	44.35	42.46	45.11	45.11	35.14	River Abu Nersi	
45.55	44.28	42.05	45.33	45.33	35.11	Abu Guilana River	
45.55	41.57	42.71	54.19	54.19	35.69	Pigmentation	
43.45	38.15	40.76	53.77	53.77	34.86	Swine	
101.60	114.38	104.91	145.23	145.23	78.83	Reformation	
518.29	699.28	750.48	815.32	815.32	508.23	Total	

Source: Ministry of Water Resources, Marshland Recovery Center, Hydrology Division, unpublished data, 2017

It is a secondary marsh of the central marsh (Ministry of Water Resources, 2004, p. 4) are:

- A. Marsh of Dhi Qar governorate: represented by Bahr Abi Zark as well as the marshes of Jabayish (left Euphrates)
 - B. Marshes of Maysan: represented by Hor return
 - C. Basra province: represented by Al-Zajri Hor
1. **Soil:** The soil of the study area is classified into newly formed soils entisols and within the sedimentary soils fluvents and torrifluvents.
 - A. Soil of the first super group mixtures soil.
 - B. Soils of the second super-clay soil.
 - C. Soils of the third super group mixtures or clay soils with a salt horizon.

2. Plant Diversity

Some of the most common and most beneficial and economically beneficial natural plants for the Marsh population are:

- A. **Reeds (jungle and weeds):** One of the most important and widespread and most useful aquatic plants where reed plant is a biological guide to the presence of water rich in organic materials and nutrients, in addition to the reed

plant the ability to reduce levels of organic pollution and pollution with heavy elements, which is one of the primary treatment plants Simple and inexpensive.

- B. **Papyrus (pelvic):** There is papyrus with reeds in the marshes and marshes, and individually in the marshes quarterly, usually spread by the outer margins of the marshes where the depth of water is less compared with less compared to reeds representing deep places as well as the resistance of the papyrus plant Better for salinity and less oxygen needs than reeds and used in connection with buffalo and other animals.

- C. **Golan plants:** ranges from 1-2 meters at the edge of the temporary marshes, where the water shall be shallow shall not exceed in depth at the time of the flood to 1.5--2 meters as well as using feed and fuel, or to build houses of the marsh dwellers. (Al-Sanjari, 2010, p. 126).

3. Biodiversity:

The marshes represent the natural environments in which many birds, fish, lactates, vertebrates, reptiles and amphibians are grown, as shown in Table 4, over large areas of water areas, marshes, terrestrial and terrestrial ecosystems, and historically, thus reaffirming this. Its vital contribution to global biodiversity priorities (Ministry of Environment, 2016).

Table 4: Marshlands biodiversity in southern Iraq

1-	Key areas for biodiversity
2-	Important areas for IBA birds
3-	The Hawizeh Marsh is listed as a site under the Ramras Convention on Internationally Important Wetlands.
4-	The central marshes are declared a national park.
5-	The property contains (6) systems for the environment
6-	There are approximately 264 species of birds in the marshes
7-	In the marsh (44) species of fish.
8-	In the marshes (38) a kind of building blocks.
9-	In the Marshes (18) a type of reptile.

10-	In the Marshes (3) species of amphibians
11-	In the marshes (371) species of plants.
12-	Marshlands important environments (12) taxonomic rank of the Marshlands.
13-	Marshlands (3) taxonomic mattresses
14-	The Marshlands are an important environment for a species of endangered reptile that is important for global protection.
15-	The marshland is a major area for a number of endemic and beneficial species where it represents an important spawning area
16-	The marshes are of global importance to water bird populations and are one of the three major aviation routes belonging to the Western Palearctic ecological zone for ducks.
17-	The marshes belong to the West Asia-East Africa flight path, one of the world's most important aviation routes for waders and shorebirds.
18-	The four components are an essential part of the path of millions of these migratory birds.
19-	Important areas of migration and breeding areas for a number of fish and marine data.
Source: Researcher, World Heritage Center, Guidelines for the Implementation of the World Heritage Convention, United Nations Educational, Scientific and Cultural Organization, Intergovernmental Committee for the Protection of the World Cultural and Natural Heritage, 2016	

Development Potential of the Study Area

4. Economic potential:

a- Agricultural and Livestock Potentials

Table 5: Agricultural Production in the Central Marshlands 2018

Study area	Rice		Dates		Grain		Paper crops		Sidr	
	Area	Production	Area	Production	Area	Production	Area	Production	Area	Production
	Acres	Tons/ year	Acres	Tons/ year	Acres	Tons/ year	Acres	Tons/year	Acres	Tons/ year
The marshes of Dhi Qar	850	425	4405	1723	47485	2740	6375	7201	0	0
The Maysan marsh	55200	44046	531	1496	96020	54230	90	45	0	0
The Marshes of Basra	70	35	510	376	1170	585	115	95	790	1545
Total	56120	44506	5446	3594	144675	57555	6580	7341	790	1545
percentage	%26	%39	%3	%3	%68	%50	%3	%6	%0.5	%1
Total agricultural production = 114540 tons / year					Total cultivated area = 213611 dunums (28580 ha) A dunum = 0.1338 hectares					
Source: Researcher Based on: Ministry of Agriculture, Directorate of Agriculture in Dhi Qar Governorate, Maysan Governorate, Basra Governorate, Planning and Follow-up Department, Plant Production Division, Unpublished Data, 2018										

First: Agricultural Production:

The agricultural sector occupies a prominent position in the economies of the region in general and the study area in particular and in Table 5

Second: Animal Wealth

Livestock are considered an important asset to sustain the population and with the partial return of the marshes after 2003, there is a noticeable increase in the number of cattle (buffaloes, cows, and sheep). This wealth was distributed in different numbers from one area to another in the Marshlands according to the suitable environment and as in Table (6).

Table 6 : Comparison of the Preparation and Types of Livestock in the Marshes of the Study Area for the Years (1982-2018)

Marshes study area	Animal classification	Pre-drying stage 1982	% Of the fortunes Marshes of the area	Post -dumpling stage 2007	% Of the fortunes Marshes of the area	Post -dumpling stage 2018	% Of the fortunes Marshes of the area
The marshes of Dhi Qar	Buffalo	35000	57,3	34000	65	31526	32
	Cows	23500	39	14294	27,2	16338	16,7
	Sheep	2516	41	4207	8	49760	51
	Total	61016		52501		97624	
The marshes Ahr Missan	Buffalo	365000	71	26200	2,4	25547	11
	Cows	145670	28,2	127150	12	56350	24
	Sheep	5420	1,05	907000	86	150271	64,7
	Total	516090		10605350		232168	
The Marshes of Basra	Buffalo	77000	53	2800	6	1243	0,4
	Cows	40000	27,3	33000	68,3	11462	40
	Sheep	29500	20,1	12500	26	15731	55
	Total	146500		48300		28436	
Total Middle Marshes	Buffalo	477000	66	63000	5,4	58316	27
	Cows	209170	29	174444	18,8	84150	23,5
	Sheep	37436	5	923707	79,5	215762	60
Source: Researcher based on Ministry of Agriculture, Agriculture Directorate, Dhi Qar, Maysan, and Basra, Planning and Follow-up Department, Agricultural Statistics Division, unpublished data, 2018							

Third: FISHERIES

Fish is an important element of livestock for its abundance and a large number prepared by a strain of river fish (which live in double salt and fresh water) in the tidal areas of the marshes, which play a crucial role in their life cycle. (Hask, 1979). In order to determine the numbers of economic resources of the Marshes, including milk as a daily

rate as in Table (7) and livestock represented by red meat at the rate of every six months as in Table (8) and the lagging of the process of slaughter of skins as in Table (9), and fish wealth rate Every six months as in table (10) and these quantities produced sufficient consumption of the local and the remaining governorates and exported to outside Iraq.

Table 7 : Preparation of Milk Producing Animals Per Day, By Type and Production Rate Per Hour

Marshes study area	Study area animals	Number of animals producing milk	Standard production	Average production per capita	Final production rate in liters
The marshes of Dhi Qar	Buffalo	10508	12 L	7 L	73557
	Cows	5446	3 L	2L	10892
The Marshes of Maysan	Buffalo	8515	12 L	7 لتر	59605
	Cows	18783	3 L	2L	37566
The Marshes of Basra	Buffalo	414	12 L	7 L	2898
	Cows	3820	3 L	2 L	7640

Source: Researcher based on source: Ministry of Agriculture, Directorate of Agriculture, Dhi Qar Governorate, Maysan Governorate, Basra Governorate, Planning and Follow-up Section, Animal Products Division, Unpublished Data, 2018

Table 8 : Meat Production for 6 Months by Animal Classes and Average Hourly Production

Marshes study area	Product	Number by percentage	Average weight	Average weight / kg	Total production rate / kg
The marshes of Dhi Qar	Buffalo	10508	100- 300	200	2101600
	Cows	5446	70- 150	100	544600
	Sheep	15586	15- 30	20	311720
The Marshes of Maysan	Buffalo	8515	100- 300	200	170300
	Cows	18783	70- 150	100	1878300
	Sheep	50090	15- 30	20	1001800
The Marshes of Basra	Buffalo	414	100- 300	200	82800
	Cows	3820	70- 150	100	382000
	Sheep	5244	15- 30	20	104880

Source: Researcher based on source: Ministry of Agriculture, Directorate of Agriculture, Dhi Qar Governorate, Maysan Governorate, Basra Governorate, Planning and Follow-up Section, Animal Products Division, Unpublished Data, 2018

Table 9 : Skins available for meat products per 6 months according to animal and marsh subordinate

Marshes study area	Product	Leather available
The marshes of Dhi Qar	Buffalo	10508
	Cows	5446
	Sheep	15586
The Marshes of Maysan	Buffalo	8515
	Cows	18783
	Sheep	50090
The Marshes of Basra	Buffalo	414
	Cows	3820
	Sheep	5244

Source: Researcher based on source: Ministry of Agriculture, Directorate of Agriculture, Dhi Qar Governorate, Maysan Governorate, Basra Governorate, Planning and Follow-up Section, Animal Products Division, Unpublished Data, 2018

Table 10: Fish production for one season / 6 months for the marshes of the study area

Marshes study area	Space	Production rate of 1 km / 6 month	Production rate	Fish production for one season 6 months
The marshes of Dhi Qar	355.5	600 -400	500	177750
The Marshes of Maysan	461.5			230750
The Marshes of Basra	80.5			40250

Source: Researcher based on source: Ministry of Agriculture, Directorate of Agriculture, Dhi Qar Governorate, Maysan Governorate, Basra Governorate, Planning and Follow-up Section, Animal Products Division, Unpublished Data, 2018

Table 12 : Preparation of Questionnaire by (Marsh, Governorate and Percent)

Governorate	District / District (Family / Villages)	The number	Total number (family / villages) of the marshes of the province	%
The marshes of Dhi Qar	Aljabayish	51	178	%54
	Alfuhyd	42		
	Alhimar	18		
	Aliislah	66		
The Marshes of Maysan	Alsalam/ Alhidam	47	106	%32
	Aleadl	22		
	Alkhayr	37		
The Marshes of Basra	Eiza aldiyn salim	46	46	%14
Tota			330	%100

as follows

Factor Analysis Approach

The research aims to adopt a scientific methodology that achieves the objectives of spatial integration of the potential and resources available to the marshes of southern Iraq. Factors, and saturation with variables.

Indicators of global analysis:

Conclusion Factors: The results of Table (13) indicate that there are (5) key factors that have an impact on the spatial development process.

Table 13 : Values in kind and the percentage of total variance of the factors derived from the variables in the factor analysis model

(Component)	(Initial Eigenvalues)		
	(Eigen Value)	(Eigen Value)	(Eigen Value)
1	23.560	48.258	48.258
2	12.547	25.560	73.818
3	4.031	9.889	83.707
4	2.737	4.801	88.508
5	1.437	1.518	89.826

Source: The researcher based on the results of the global analysis of the sample survey data

Analysis of the components of the extracted factors: According to the results of the matrix, will be interpreted for the purpose of identifying the factors and their variables affecting the spatial development of the marshes of southern Iraq, namely: -

The first factor: population stability and family cohesion:

This is one of the most important factors if it accounts for (48.3%) of the variability explained in the model matrix,

which is about half of the correlations between variables due to this factor, which is a key factor in the impact on the process of revival of the marshes, In other words, the variables included in this factor are important and should be taken into account in making plans for the spatial development of the southern Iraqi Marshlands. This factor includes (20) variables of significant significance as in table (14)

Table 14 : First Factor Variables: Population Stability and Family Cohesion

T	Variables		Degree of saturation
1-	X1	Achievement of the study area	.889
2-	X3	Housing during the dry period	.486
3-	X4	The desire to stay in the marshes	.901.
4-	X6	Family stay in this village	.827
5-	X10	Leave the housing unit for a period of a year	.922.
6-	X16	Responsible for agribusiness - who is farming	.882.
7-	X17	Who is responsible for the agricultural business - who is harvesting	.970.
8-	X18	Who is responsible for agricultural business - who sells	.933.
9-	X21	Who is responsible for fishing - who is fishing	.974.
10-	X22	Who is responsible for fishing - who sells	.954.
11-	X25	Who cares and breeds animals	.905.
12-	X26	Does the family sell animal products?	.948.
13-	X27	Whoever sells milk and its derivatives	.734
14-	X31	Who manufactures folklore and craft products	.862.
15-	X32	Whoever sells folklore and craft products	.960
16-	X34	Who is reaping reeds	.884.
17-	X35	Who shall sell the reeds	.931.
18-	X46	Reason not to study	.879

19-	X53	If you refuse to visit tourists then what is the distance that allows them to approach them from your home	.950
20-	X60	Where do you prefer tourist accommodation	758.

Source: The researcher based on the results of the global analysis of the sample survey data

1. High values of variables (x4, x6, x10) related to stability and survival for a long period in the marshlands, as the families living in the marshes have two houses, one in the marshes, which is heading to him in the morning to take into account his animals and harvesting reeds and then collect milk and return to sell it became a place of work And the other is outside the marshes at the banks, where the stability is outside the marshes dry period, and this reflects the value of variable (x3) offset that variable (x4), which indicates the desire to stay in the marshes.
2. As mentioned above, the educational level expressed in academic achievement (x1) and non-study (x46), the high negative value of the first variable is the result of the second variable, both of which show the low educational level in the study area due to the distance of primary schools and the difficulty of access to them and the need to provide a living. On the other hand, the lack and lack of schools in other educational levels in the region, The family association is very clear, noting that all family members are cooperative in the work to obtain sufficient income in the 12 variables x16, x17, x18, x21, x22,, x25, X26, x27, x31, x32, x34, x35 It emphasizes that there is no specialization in the type of work as all members of the family contribute to the same work (children, women, men). Gender) clearly.
3. Tradition and customs have a role in the relationship with tourists, as they are considered strangers and are not allowed to integrate with families except to a certain

extent, (buying, buying, and guiding). Their housing is separate from the family housing.

Second Factor: Economic Basis

This factor comes in second place, as it explains the percentage (25.6%) of the total variance in the model matrix, so the correlations of the variables of this factor (17) cover a quarter of the variance explained to them. The economic basis in the region as a source of income and hence the name of this factor. However, the variables (x2, x19, x41) (occupation, hunting, quantity of milk production) clearly indicate the pattern of economic activity prevalent namely uniting, animal husbandry and agriculture.

The third factor: housing and accessibility

This factor contributes to the interpretation of (9.9%) of the total variance and thus reflects the importance of the third factor in explaining the correlations between the variables and their number within this factor (13) variables, as noted in Table (16) and these variables (x52, x9, x7) The rest of the variables of this factor on easy access to the health center, hospital and school, it is associated with this factor (X3, X8, X12, X43, X47, X49). It is noticed that the value of saturation and the opposite behavior of the variable (X48) represented by transport to the school is negligible. The village or the fact that most of the villages do not have schools, in addition to the lack of paved roads.

Table 15 : Second Factor Variables: Economic Basis

T	Variables		Degree of saturation
1	X ₂	Profession in the marshes	905.
2	X ₅	Practicing other works during the dumping period	797.
3	X ₁₃	The mode of transport owned by the family	.754
4	X ₁₄	Agriculture in the Marshlands	837.
5	X ₁₉	Hunting in the marshes	937.
6	X ₂₄	Animals raised by the family within the housing unit	867.
7	X ₂₈	The amount of milk production	872.
8	X ₃₈	What industries do you see suitable in your village	.831
9	X ₃₉	Do you deal directly in the marketing of your products or intermediaries	740.
10	X ₄₀	Monthly income	815.
11	X ₄₁	Is family income enough for a normal life?	930.
12	X ₄₂	Monthly expenditure in dinars	715.
13	X ₅₀	Diseases among animals	883.
14	X ₅₆	Desirable activity	823.
15	X ₅₇	Contribute to service tourism activity	906.
16	X ₅₈	Participate actively tourist service for tourists	837.
17	X ₅₉	The desire to engage in economic activity for tourists	860.

Source: The researcher based on the results of the global analysis of the sample survey data

Table 16 : Factors of the Third Factor: Housing and Accessibility

T	Variables		Degree of saturation
1	X ₃	Housing during the dry period	606 .
2	X ₇	Mode of transport to reach the housing unit	930.
3	X ₈	Arrival time For the residential unit	.631
4	X ₉	Road working	911.
5	X ₁₁	Housing unit area	853.
6	X ₁₂	Type of housing in the marshes	511.

7	X ₄₃	Proximity to a health center	.651
8	X ₄₄	Access to the health center	880.
9	X ₄₅	The nearest hospital where you receive emergency treatment	717.
10	X ₄₇	Proximity to school?	673.
11	X ₄₉	The existence of a veterinary center for the village / km	664.
12	X ₅₂	The desire to develop the area in tourism	918.
13	X ₆₁	If you are ready to receive tourists at home, is it ready to develop it for them?	912.
Source: The researcher based on the results of the global analysis of the sample survey data			

Factor 4: Spatial Integration:

This factor explains (4.8%) of the total variance. It is clear from Table (17) that the values of the correlations of variables related to the buying and selling areas of fishing products and supplies and the areas of sale of milk and folklore products have a significant effect (X29, X20, X23, X30, X36).

Saturation related to agricultural marketing areas (X15), The areas of sale of reeds (X33) and wholesale trade zones (X37), which confirms that the region's economy depends on milk and its derivatives, fishing and products without relying on agricultural production, including harvesting of reeds. Daily.

Table 17 : Fourth Factor Variables: Spatial Integration

T	Variables		Degree of saturation
1	X ₂₀	Areas of sale of fishing products	702.
2	X ₂₃	Areas of purchase of fishing needs	743.
3	X ₂₉	Milk sales areas	696.
4	X ₃₀	Areas of sale of folkloric and handicraft products (cane knitting, rugs forestry, molding industry from palm leaf, other local products	.741
5	X ₃₆	Boat purchase areas	772.
Source: The researcher based on the results of the global analysis of the sample survey data			

Factor V: Tourism Development

This factor represents the last factor in the factor analysis model until it is related to a very specific number of variables and this factor (1.3%) is

explained by the total variance of the variance matrix. Table (18) shows that the correlation values of the variables with significant effect in the factor are (X62, X55, X54, X51).

Table 18 : Factors V Factor 5: Tourism Development

T	Variables		Degree of saturation
1	X ₅₁	Distinctive features of the village and the wet area	678.
2	X ₅₄	The desired pattern of tourism in the region	619.
3	X ₅₅	Desirable tourism	811.
4	X ₆₂	Proposals for the development of tourism activity in the region	773.
Source: The researcher based on the results of the global analysis of the sample survey data			

Conclusions

1. Lack of tourism promotion and marketing plans and inadequate government funds allocated for marketing, research, statistics and tourism media
2. Low protection of natural resources and the decline and the prevalence of overfishing, which threatens many species of fish and birds to extinction, in addition to the weakness and lack of centers for the collection of milk and marketing of products.
3. The lack of veterinary centers to care for buffaloes and cattle and the lack of interest in agriculture and the lack of centers for the collection of milk, which leads to the destruction of large quantities of it.
4. Neglect of archaeological areas, there is a shortage in the work of treatment and rehabilitation and inadequate support the excavation work, as well as the absence of a system to attract tourists to these areas.
5. Any historical site, however neglected, cannot be denied its historical return and its sanctity, and therefore it should be preserved to reach future generations, because historical production is not the physical production of a

particular country, just like contemporary productions, but is the legacy of all mankind, which is as generic as the privacy of the region and its inhabitants.

6. Increasing the skills of local communities in the tourism sector through the provision of capacity building techniques, priority assessment of sites and buildings, heritage preservation, visitor management, tourism management, site guards.

Recommendations

1. Activate and develop water policies to provide a water quota to revive the marsh ecosystem.
2. Promote the sustainability of traditional crafts and traditional knowledge and enhance their production in a manner that contributes to raising the family income in the marshes by opening marketing outlets by local governments and benefiting from the sale of local products by women.
3. Development of fish wealth through the preservation and prevention of overfishing and follow-up and accounting

- for those who exceed and deal with toxic substances and electrical appliances.
4. Development of cultivation of reeds and papyrus and take measures that help to spread to the importance and the establishment of manual workshops that provide jobs for the people of the region.
 5. Preserving society and its traditions, customs and symbols and skills and development in social sustainability to achieve sustainable tourism because the human end of every planning act, and to achieve this must pay attention to training technical and engineering cadres and encourage professionalism.
 6. In order to maintain the sustainability of society and ensure the achievement of bio-tourism, attention to the training of technical, engineering and craft cadres and encourage professionalism and respect for their professions, and develop their skills, techniques and materials to sustain them, because they produce new opportunities for the production of distinctive relationships and details in order to achieve social development and to achieve development in all its meanings.

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