

International Journal of Advanced Multidisciplinary Research (IJAMR)

ISSN: 2393-8870

www.ijarm.com

Coden: IJAMHQ(USA)

Research Article

SOI: <http://s-o-i.org/1.15/ijarm-2-11-8>

Pura an integrated rural development strategy: a case study of rural Jhalawar

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Abstract

Keywords

Regional disparity,
Rural areas,
PURA,
Jhalawar,
Integrated rural
development strategy.

The diverse regions of India are showing different levels of development. This regional disparity is also quite visible in many other forms also and rural urban gap is an important example of this. To proceed towards the goals of equitable development such regional disparities must be reduced remarkably. In India more than two-third population is residing in rural areas and largely depending on agricultural activities. These rural areas are lagging behind in terms of levels of development and to achieve the objective of equitable regional development rural areas must be focused with pragmatic developmental strategy. Provision of Urban Amenities in Rural Areas (PURA) Scheme is an important integrated rural development strategy for self-sustaining development of these areas. If this scheme is synergies with other rural development programmes than this render good results for development of rural areas. In this paper a case study of rural Jhalawar (a district in Rajasthan) is discussed. This is an attempt to find out the strategies for the development of rural Jhalawar based on local needs and strengths as well.

Introduction

Regional disparity is quite visible on Indian map. The regional disparities have increased with course of time, even in the post independent era, despite of many efforts in the area of equitable regional development in India. The gap between the levels of development in rural and urban areas is also widened.

Rural areas are having abundance of natural resource like soil resource, cultivable land, mineral resources, energy resources etc. The strength of human resource is quite impressive but underutilized. The scope of industrialisation is quite impressive in many rural areas.

In the post independent era, many regional development strategies have been adopted in India. But the developmental planning strategy of rural development in India is tuned with top to bottom approach and designed in a generalized fashion rather than with taking care of specific needs according to the defined regional settings. This paradigm could not render positive outcomes in Indian setting where one can find diversity in all respects such as physical, economic, socio, cultural, historical and so on.

The widening developmental gap between rural and urban areas in India is raising many challenges in front of planners,

policy makers and executors. The skewed developmental regime has been resulted in many problems especially in rural areas like unemployment, rural to urban migration due to push factor operating at rural areas, poor infrastructural facilities and human resource development avenues, lowering the pace of transformation, sluggish economic development, mounting dependency on direct state assistance and many more. In this situation there is a need for reviewing our regional planning strategies designed for the rural development.

Here, the main thrust is on evaluation of Provision of Urban Amenities in Rural Areas (PURA) Scheme for rural development and to find out the strategies for the development of rural Jhalawar based on local needs and strengths as well.

There is an attempt to focus on the evaluation of strength of local resource base in rural areas of Jhalawar such as agricultural potential, horticulture development, possibilities for irrigation facilities, mining and industrialization, handicraft, food processing, tourism and associated services etc. and formulating a developmental plan accordingly. The applicability of Perroux's growth pole model is also important here for designing the growth centers. This is being discussed in the later part of this paper. The developmental potential of

local region provides us specific avenues for development in a precise manner.

Study Area

Jhalawar district is located between 23°45'20" North to 24°52'17" North latitudes and 75°27'35" East to 76°56'48" East longitudes. The geographical area of Jhalawar district

is 6219 sq. km. and about 20% land of this district is under forest cover. This region is known for richness in forests and possesses great wealth of exotic flora and fauna. Teak (Sagwan) trees are abundant in the forest area of Aklera and Manoharthana tehsils. It is a heaven for numerous species of birds which can be spotted along the road sides as one drives along the lush-green tracts.

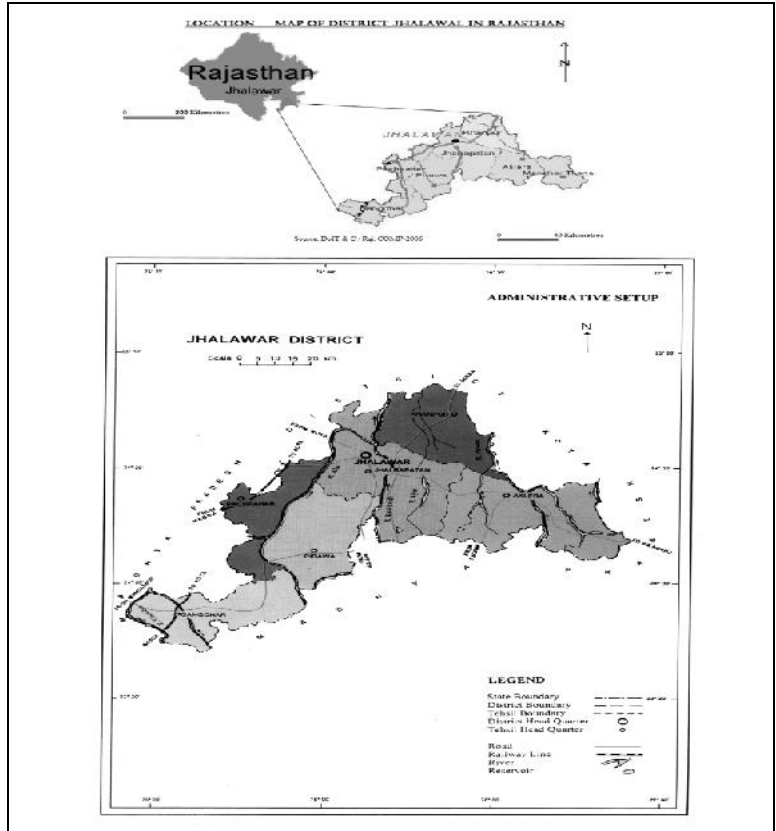


Figure No. 1: Location map of Jhalawar

Jhalawar district is situated in the south-eastern part of Rajasthan at 1053 feet average height from mean sea level. This plateau region is popularly known as Hadauti Plateau in Rajasthan. It is encircled by the Mukandra Hill Ranges on the extended part of Malwa Plateau. The off shots of

Deccan Lava Plateau are found in the southern and south-eastern part of Jhalawar. The northern part of Jhalawar is covered by the Vindhyan escarpment. Fertile alluvial plains are found around the river channels.

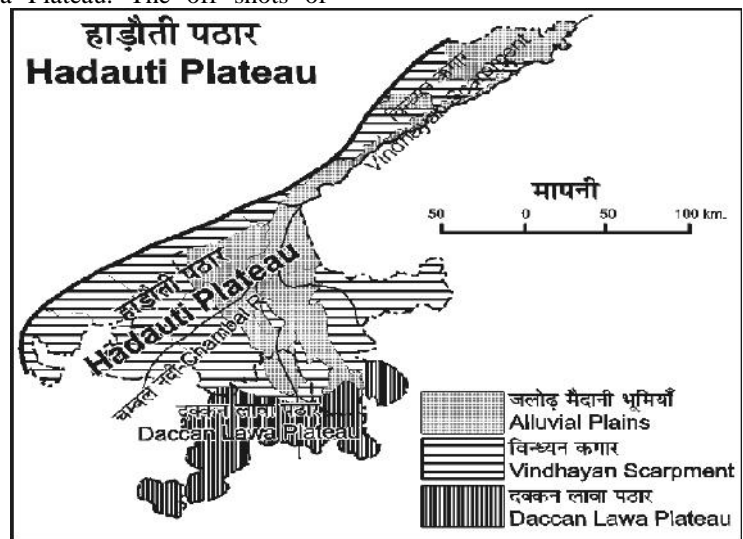


Figure No. 2: Hadauti Plateau Region

This district is watered by about 20 important rivers, giving it a verdant look. These rivers have their origin in Malwa Plateau region of Madhya Pradesh and most of these are seasonal in nature. The river Kali Sindh, an important tributary of river Chambal, flows northward from the center of this district. Other important rivers are Ujaad, Ahu, Parvan, Chavli, Chandrabhaga, Chapi, Naivaj, Chotikalisindh etc. The length of all these rivers in Jhalawar is 358 kms. There are four important man-made lakes (Mansorovar, Goumtisagar, Krishnsagar and Kadila) and 39 natural ponds out of which 28 are fit for irrigation and fishing purpose. Here, the underground water level is ranging from 2-18 meters deep.

Jhalawar district is among the highest rainfall receiving districts of Rajasthan state. It receives average annual rainfall of 39 inches (952 mm normal) per year which maintain the humidity level of this region for growth of lush green forest. Average annual relative humidity is recorded 72.7% here.

Objectives:

1. To evaluate the developmental scenario of Rural Jhalawar.
2. To identify the strength areas for economic development and assess the developmental potential of the Rural Jhalawar.
3. To suggest a pragmatic strategy for integrated rural development planning for the Rural Jhalawar.

Materials and Methods

For this paper data and other relevant information have been collected from various secondary sources, mainly government publications. These data were tabulated and processed for further analysis. Here analysis is primarily based on percentage and ratio methods. For the better expression of existing situation and to present analytical outcomes statistical diagrams are used.

PURA (Provision of Urban Amenities in Rural Areas):

This approach of rural development was conceptualized and modified with course of time. Presently, the goal of PURA is-

"Holistic and accelerated development of compact areas around a potential growth centre (perroux's approach) in a gram panchayat (or a group of gram panchayats) through public private partnership (ppp) framework for providing livelihood opportunities and urban amenities to improve the quality of life in rural areas."

The Ministry of Rural Development (MoRD), Government of India has re-launched this scheme as "Provision of urban amenities in rural areas" (PURA 2.0) as a central sector scheme which is to be implemented through public private partnership (PPP) approach. For implementation of this scheme the Central government, State government, Gram

panchayat (s) and the private sector will work in partnership to achieve the goals of PURA. The rollout of this scheme and executing various projects it is supported by Planning Commission (now Neeti Aayog), Department of Economic Affairs and Asian Development Bank.

The redesigned PURA 2.0 is a unique blend of infrastructure provisioning, economic activities, skill development and livelihood generation. It is an effort to provide a different framework for the implementation of rural infrastructure development schemes and harness private sector efficiencies in the management of assets and delivery of services.

Provisions under PURA:

There are various provisions under this scheme which can bring vital changes in the rural areas. These provisions are also designed in such a manner where the regional difference can be addressed while framing the developmental plan for any rural region. These provisions are-

1. Water and Sewerage
2. Construction and maintenance of Village Streets
3. Drainage
4. Solid Waste Management
5. Skill Development
6. Development of Economic Activities
7. Village Street Lighting
8. Telecom
9. Electricity generation
10. Village based tourism
11. Integrated Rural Hub, Rural Market.
12. Agri-Common Services Centre and Warehousing
13. Any other rural- economy based project

For the integrated rural development strategy if linkages are established between wage and self-employment programmes with 'PURA' than it can provide pragmatic solutions for many socio-economic challenges such as rural - urban migration, rural unemployment, deficit of basic amenities in rural areas, gender inequality, disrespectful attitude towards the only asset of rural poor i.e. labour, fragile social environment, poor awareness, bridging digital divide etc.

Perroux's Growth Center:

Francois Perroux has introduced the term 'growth pole' in the economic literature in 1949. According to Perroux the aspect of dominance is important for any growth poles. He argues that a large firm/industry that has a high degree of interaction with others firms/industries and is playing dominant role in that interaction is said to be propulsive. The entire process of development of a propulsive firm/industry is defined as polarization.

Perroux and others scholars who worked on idea of growth pole tried to explain the concept on the basis of the notions

of external economies, agglomeration and linkages. An external economy exists if a change in the output of one firm/industry has its impact on other firms. Agglomeration is a process where there is concentration of many economic activities, service providers and facilitating environment develop an attraction for newer firms/industries, with reduction in cost of production. Linkage is a concept of regional economics. Linkages may be forward (like firm to market) or backward (input supplying areas to the firm).

The growth pole concept has usually taken with emphasizing on geographic location in the United States. These locations are termed as Growth Centers here. Though, Perroux was disagreeing with the notion that growth poles are geographic locations.

Growth centers are also related to the concept of agglomeration and linkages. The American work on growth centers is independent of Perroux and the French literature on growth poles in many ways.

Planning strategy:

The planning for integrated rural development includes the following-

- Selection of Growth Centers in accordance to Perroux’s growth pole model
- Bottom to top approach is necessary to adopt for the selection of growth centers at various levels in the rural areas.
- Assessment of specific avenues for development of a particular region in a precise manner.

To adopt this approach rigorous evaluation of the regional resource base and other potential areas have to be done for the selection of growth centers at different levels and also for designing a pragmatic developmental plan for these particular centers on the line of decentralized planning policy. For this exercise there is need for establishment of vibrant planning units at district level with their sub-units at tehsil level.

For the success of this planning strategy it must include the following-

- Optimum use of locally available resources: to ensure sustainability and viability
- Interlinking of wage oriented and self-employment programmes with provisions of PURA scheme Effectively ensure local participation
- Better co-ordination between national, state and local executing agencies
- Strong monitoring

Potentials and possibilities of economic development in Rural Jhalawar:

Jhalawar district is backward in terms of overall socio-economic development of the people and the demographic indicators of 2011 census are depicting this scenario. The decadal population growth rate of Jhalawar for last decade (2001-11) was 19.57% which is higher than the national average though it is lower than the state average.

Table No. 1: Population and Decadal Population Growth Rates of Jhalawar and Rajasthan

	Total Popu.- 2011	Decadal Growth						
		1971-81	1981-91	Difference	1991-01	Difference	2001-11	Difference
Jhalawar	1411129	25.85	21.91	-3.94	23.34	1.43	19.6	-3.74
Rajasthan	68548437	32.97	28.44	-4.53	28.41	-0.03	21.3	-7.11

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS AND STATISTICS, GoR, JAIPUR

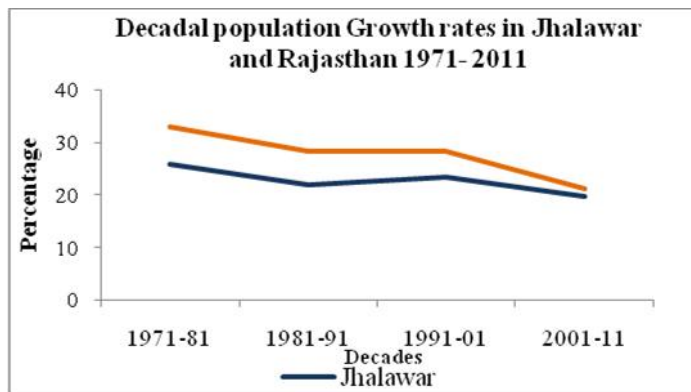


Figure No. 3: Trends of decadal population growth rates in Jhalawar and Rajasthan

This table no. 1 and figure no 1 clearly reveals that the decadal population growth rates of Jhalawar remained always low in comparison to the state average. Generally this is considered good indicator for development of any

region. But here in case of Jhalawar when one examine the differences in decadal growth in last few decades than it gives a negative sign. For getting better insight in this it is necessary to inspect fertility and mortality scenario

Table No. 2: Population Characters – CBR, CDR and IMR

	Annual health survey, 2011-12		
	CBR	CDR	IMR
Jhalawar	24.8	7.6	63
Rajasthan	24.4	6.4	57

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS AND STATISTICS, GoR, JAIPUR

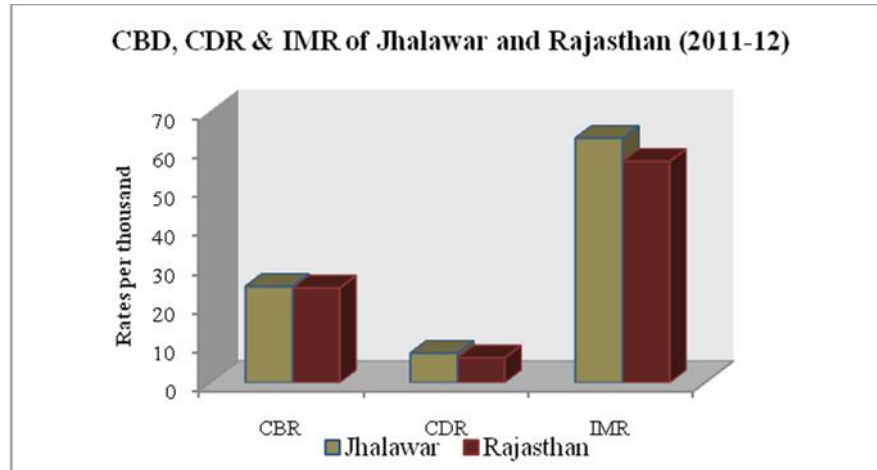


Figure No. 4: CBR, CDR AND IMR of Jhalawar and Rajasthan

Here, this table no. 2 and figure no. 4 are depicting that Crude Birth Rate (CBR) is higher in Jhalawar in comparison to the state where the decadal growth is low. This duality can be understood when mortality scenario is analyzed. It is so because death rates are higher in Jhalawar than the state average. Crude Death Rate (CDR) and Infant Mortality Rate (IMR) both are high in case of Jhalawar. This shows that Jhalawar is still in the low stationary stage of demographic transition model where one find high birth and death rates

and consequently low natural increase. This situation is more vulnerable in rural areas than the urban part.

On the other side literacy rate of Jhalawar district for year 2011 was 62.13% which is lower than the state average and also remarkably low than the national average. Again the literacy status of female population is significantly low. On the other side rural areas are also not performing well in terms of literacy status. This is portraying the poor social status of the rural population (see table no. 3).

Table No. 3: Population Characters – Literacy Level

	Literacy Rate				
	Persons	Males	Females	Rural	Urban
Jhalawar	61.5	75.8	46.5	57.63	81.09
Rajasthan	66.1	79.2	52.1	61.44	79.68

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

Jhalawar district is home of many tribes, including Meenas and Bhils. According to 2011 census, the proportion of scheduled tribe and scheduled caste population in Jhalawar is 12.9% and 17.3% respectively. That is why the sex-ratio of Jhalawar district in year 2011 was 946 females per 1000 males which was quite higher than the national as well as

state average (see table no. 4). Because, tribal societies are more gender neutral and sex selective discrimination is hardly observed among them. These tribal groups are still socially and economically backward in comparison to main stream population.

Table No. 4: Population Characters – SC, ST and Sex Ratio

	% of S.T. Population	% of S.C. Population	Sex-ratio	Child Sex-ratio
Jhalawar	12.9	17.3	946	912
Rajasthan	13.5	17.8	928	888

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The following table no. 5 clearly illustrates that proportion of rural population is very high in case of Jhalawar district which is much higher than the national average and even considerably high than the state level. Because Jhalawar is predominantly a rural region so the development of this part

only will contribute substantially in the overall development of the district. That is why PURA with integration to wage and self-employment programmes can transform the developmental status of this district.

Table No. 5: Population Characters – Rural, Urban and Population Density

	% of Rural Population	% of Urban Population	Population Density
Jhalawar	83.8	16.2	227
Rajasthan	75.1	24.9	200

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The work force participation rates of Jhalawar district are slightly higher to the state average (see table no. 6). The main difference is due to the higher workforce participation

rates in the rural Jhalawar. The population base and work force participation rates in Jhalawar district are showing good availability of man power resource in this region.

Table No. 6: Population Characters- Work force participation rate

	Total	Rural	Urban
Jhalawar	48.6	51.8	32.4
Rajasthan	43.6	47.3	32.3

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

Table No. 7: Population Characters – Main and Marginal Workers

	% of Main workers to total workers			% of Marginal workers to total workers		
	Total	Rural	Urban	Total	Rural	Urban
Jhalawar	69.3	67.3	86.4	30.7	32.7	13.6
Rajasthan	70.5	66.3	88.8	29.5	33.7	11.2

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The category wise work force classification of total workers demonstrates that 78.5 % of the total workers of Jhalawar are engaged in the agricultural sector where the state average is 62.1 %. Very poor proportion of working population in Jhalawar is engaged in secondary and tertiary sector activities. In case of rural Jhalawar the proportion of total workers in agricultural sector is 86.5 % (see table no.

9). As per the Human Development Report- Jhalawar (2009) also “the workforce structure appears to lack diversification. The district needs far more opportunities in the non-farm sector to provide sustainable livelihoods to its people. There is a large potential for such diversification”. The following table shows category wise work force classification of total workers.

Table No. 8: Population Characters-Category wise work force classification of total workers

	Cultivators			Agricultural labourers			Household industry workers			Other workers		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Jhalawar	47.9	53.1	5.5	30.6	33.4	7.7	1.6	1.3	4.2	19.9	12.2	82.6
Rajasthan	45.6	54.8	4.7	16.5	19.4	3.7	2.4	1.8	5.1	35.5	24	86.5

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

Table No. 9: Population Characters- Agricultural and Non-Agricultural work force

	Agricultural work force			Non-agricultural work force		
	Total	Rural	Urban	Total	Rural	Urban
Jhalawar	78.5	86.5	13.2	21.5	13.5	86.8
Rajasthan	62.1	74.2	8.4	37.9	25.8	91.6

SOURCE: SOME FACTS ABOUT RAJASTHAN (2013), DEPARTMENT OF PLANNING, DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The above interpretation clearly shows that the Jhalawar district is primarily depending on agricultural sector and having low levels of socio-economic status.

The Ministry of Panchayati Raj named Jhalawar one of the country's 250 most backward districts (out of total 640 districts). The Backward Regions Grant Fund Programme (BRGF) of Ministry of Panchayati Raj, GoI, was launched by the Prime Minister on 19th February 2006, signifies a new approach for addressing persistent regional imbalances in development. The BRGF programme covers 250 districts in 27 states, of which Jhalawar is also one. According to the District Human Development Report - 2009 prepared by Institute of Development Studies (Jaipur) Jhalawar district is falling at the middle of 32 districts in terms of composite index of human development. In case of individual components, the district ranks 15th, 19th and 17th for the health, income and education development index respectively.

The Jhalawar district is having enormous resources and potentials for development but the obsolete developmental strategies could not yield good results here. If these resources are used in proper manner and pragmatic

developmental strategy is followed than this region can show very good progress in the following areas.

Agriculture:

More than four fifth population of Jhalawar is living in rural areas and 78.5 % work force population is engaged in agricultural activities. This remote plateau region is an important agricultural production centre due to wide spread of black soil and adequate rainfall. The economy of this region is predominantly depending on agricultural sector (according to classification of land utilization in Jhalawar district net area sown (NAS) was reported 51.87% in the year 2010-11).

The following table is showing that inspite of the part of plateau region Jhalawar is covering about 2.19 % Gross Cropped Area (GCA) of the total GCA of the state though the proportion of Net Sown Area (NSA) is only 1.79 %. This is so because the proportion of Double Cropped Area is 3.16 % of the total Double Cropped Area of the state (see table no. 10). This is a good sign indicating better irrigation facilities here.

Table No. 10: Agriculture Area of Jhalawar in comparison to Rajasthan (2010-11)

	GCA of Jhalawar as % of total GCA of Rajasthan	Double Cropped Area of Jhalawar as % of Rajasthan	NSA of Jhalawar as % of total NSA of Rajasthan
Jhalawar	2.19	3.16	1.79

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The relative situation of these indicators in Jhalawar and of Rajasthan State is given in the tables below. In these tables it is clear that the NSA in Jhalawar is 51.87 % which is lesser than the state average but due to high proportion of NSA is under double and multiple cropping the GCA in

Jhalawar is 90.09 % which is quite higher than the state average (see table no. 11 and figure no. 5). This is because of higher proportion of net irrigated area to NSA in Jhalawar in comparison to State figure.

Table No. 11: Multiple Use of Agriculture Area of Jhalawar in comparison to Rajasthan (2010-11)

	% of Net Area Sown to Reporting Area	% of Double Cropped Area to NSA	% Area Sown more than once	% of Gross Cropped Area to Reporting Area
Jhalawar	51.87	73.68	38.22	90.09
Rajasthan	53.54	41.71	22.33	75.87

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

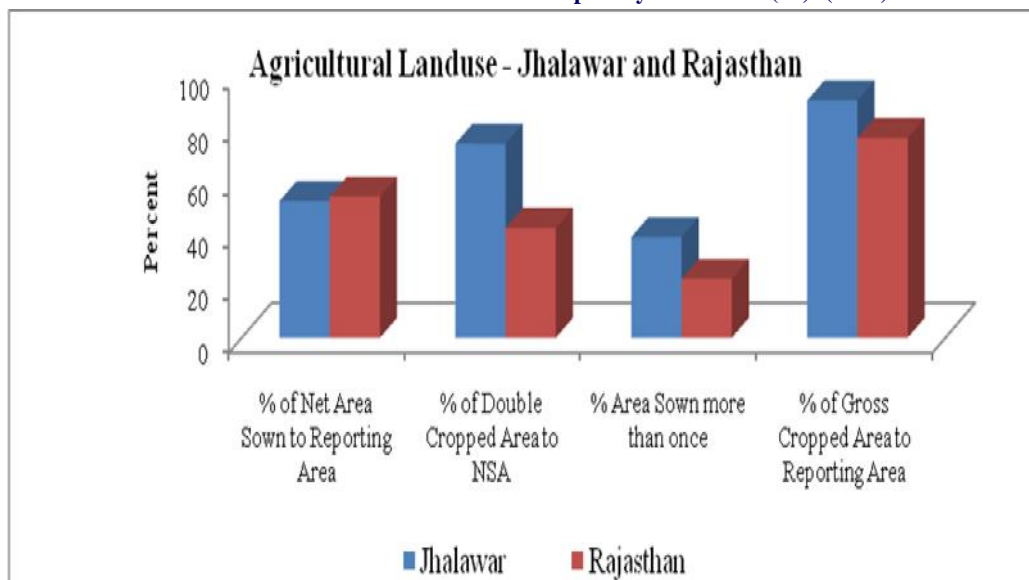


Figure No. 5: Agricultural Land-use in Jhalawar and Rajasthan (2010-11)

Table No. 12: Irrigated Area of Jhalawar in comparison to Rajasthan (2010-11)

	% of Gross Irrigated Area to GCA	% of Net Irrigated Area to NSA
Jhalawar	38.47	63.44
Rajasthan	32	36.3

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The soil of this district is very rich in terms of nutrients and possessing good clay factor. The black soil is found in about 2,87,099 hectare area of Khanpur, Pidava and Bakani panchyats amities. 1,17,115 hectare area of Jhalrapatan panchyats amiti is also covered by medium black soil. Red loamy soil is found in 28,119 hectare of Dug and Manoharthana panchyats amities.

Jhalawar district receives average annual rainfall of 39 inches (952 mm normal) per year which is highest in the state. The average annual relative humidity of this region is 72.7% which is suitable for growth of lush green forest.

This district is having great potential of surface water flow though the rivers of this region are seasonal in nature. Jhalawar is served by about 20 important rivers covering almost every part of the region. These rivers are originating from Malwa Plateau region of Madhya Pradesh. The length of all these rivers in Jhalawar is 358 kms which is quite high in comparison to the other district of Rajasthan. Other than rivers the second most important source of surface water bodies are lakes and ponds. There are four important man-made lakes and 39 natural ponds. 28 of them are fit for irrigation and fishing purpose. Due to these water bodies recharge of underground water is also good and the underground water level is ranging from 2-18 meters deep in Jhalawar district.

These above stated conditions like soil quality, rainfall and humidity, availability of surface water, underground water level and climatic conditions are making this region favourable for the cultivation of Cotton, Jowar, Soyabean, Maize and Ground nut crops in Kharif season and Wheat, Mustard, Coriander, Gram and Opium crops in Rabi season.

Irrigation Scenario:

The Jhalawar district is having better irrigation facilities than the state average where 63.44 % area is falling in the Net Area Irrigated to the NSA. The state average is only 36.3%. The main source of irrigation in Jhalawar district is well irrigation like in Rajasthan. But in Jhalawar proportion of well irrigated area to the total irrigated area is 95.6 % and the state average is 73.53 %. Most of the well irrigation is done by open well in Jhalawar because underground water level is not very deep. Canal irrigated area in Jhalawar is only 3.14 % where the state level proportion is 24.45 % (see table no. 13 and figure no. 6). In Jhalawar, there is great possibility to increase area under canal irrigation due to availability of good length and number of river channels. In spite of plateau region the proportion of tank irrigated area is only 0.1 % in Jhalawar which can be increased up to some extent. This table given below shows the percentage of net irrigated area by the different sources in Jhalawar and in Rajasthan.

Table No. 13: Net Area Irrigated (in %) by different sources - (2010-11)

	% of Net Area Irrigated to NSA	% of Canal Irrigated Area	% of Tanks Irrigated Area	Wells			% of Irrigated Area by other sources
				% of Tube Well Irrigated Area	% of Open Well Irrigated Area	Total % of Well Irrigated Area	
Jhalawar	63.44	3.14	0.1	24.93	70.67	95.6	1.15
Rajasthan	36.3	24.45	0.84	41.91	31.62	73.53	1.18

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

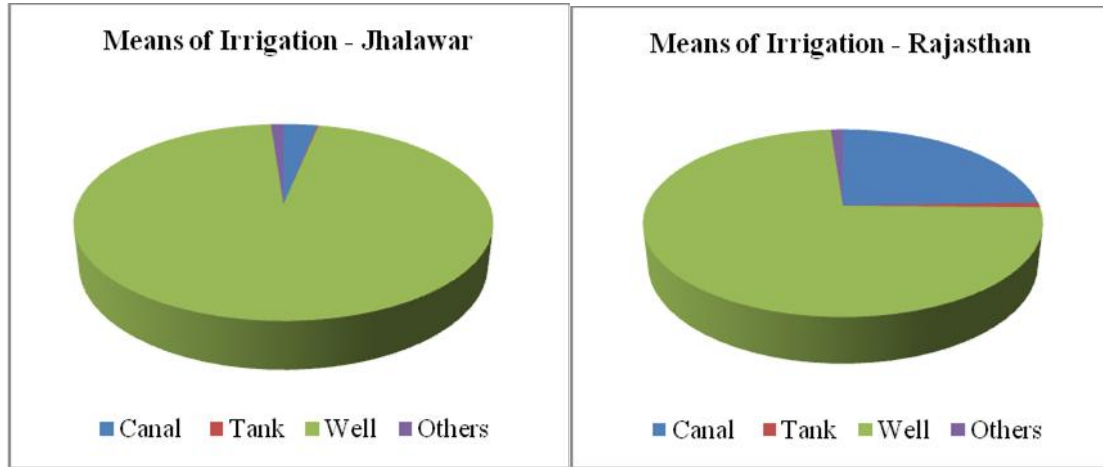


Figure No. 6: Net Area Irrigated by different sources – Jhalawar & Rajasthan (2010-11)

According to Human Development Report- Jhalawar (2009) drought proofing must be an important policy initiative to save at least one crop and also to ensure sufficient drinking water. The fluctuations in the crop production in a place with abundant rainwater indicate the need for an appropriate water management strategy. There is dire need to optimize irrigation potential both through groundwater recharge and surface reservoirs of this region for ensuring consistency in agricultural production. Development of watershed, farm bunds and small/medium irrigation plans are needed to use this water for the district.

Principal crops and their production:

Wheat and maize are the important cereal crops of Jhalawar covering highest percentage area of GCA. These cereals are of staple food basket for population in this region. The percentage area of GCA under cereals and small millets is only 20.62 % in Jhalawar where for Rajasthan this figure is 41.95 % (see table no. 14). The production and area under pulses production is also very less in Jhalawar in comparison to state average. Gram is the only pulse grown in the sizable area in Jhalawar. The table given below is showing the performance of Jhalawar in terms of area under principal food crops.

Table No. 14: Position of Principal Crops of Jhalawar - (2010-11)

	Percentage (%) Area of GCA by Principal Food Crops - Cereals				
	Wheat	Maize	Rice	Other Cereals & Small Millets	Total Cereals & Small Millets
Jhalawar	12.38	7.12	0.4	0.72	20.62
Rajasthan	11.68	4.41	0.5	20.86	41.95
	Percentage (%) Area of GCA by Principal Food Crops – Pulses				
	Gram	Urad	Masoor	Other Pulses	Total Pulses
Jhalawar	6.4	1.88	0.82	0.23	9.31
Rajasthan	6.86	4.91	0.17	6.33	18.27

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS AND STATISTICS, GoR, JAIPUR

About half of the total GCA of Jhalawar is under oil seed crops where state average is only 21.22 %. Soyabean is not only the principal oil seed crop of Jhalawar rather this is the most important crop of this district covering 42.15 % of GCA alone where the state proportion is only 2.94 %. Other important oil seed crops of this district are rape and mustard (see table no. 15). In case of spices Jhalawar is known for coriander production. About 15 % of GCA is used for the production of coriander in Jhalawar where proportion at state level is only 0.76 %. Garlic also an important crop of Jhalawar. Overall area under spices and condiments is 16.44

% and 2.77 % of total GCA in Jhalawar and Rajasthan respectively (see table no. 16). In case of area under production of fruits, Jhalawar is dominated with orange crop. It is the second largest orange producing district after Nagpur. Out of total 1.58 % area of GCA under production of fruits in Jhalawar more than 99% is under production of oranges only. The area under vegetable production is very low in Jhalawar even below the state average. Tables below are showing the relative position of Jhalawar and Rajasthan in above discussed areas.

Table No. 15: Position of Principal Oil seeds in Jhalawar - (2010-11)

	Percentage (%) Area of GCA by Principal Non-Food Crops - Oil seeds			
	Soyabean	Rape & Mustard	Other Oil seeds	Total Oil seeds
Jhalawar	42.15	5.73	2.92	50.8
Rajasthan	2.94	9.58	8.7	21.22

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

Table No. 16: Position of Principal Condiments and Spices in Jhalawar - (2010-11)

	Percentage (%) Area of GCA by Principal Food Crops - Condiments & Spices			
	Coriander	Garlic	Other	Total
Jhalawar	15.06	0.8	0.58	16.44
Rajasthan	0.76	0.12	1.89	2.77

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

Table No. 17: Position of Principal Fruit and Vegetable Crops in Jhalawar - (2010-11)

	Percentage (%) Area of GCA by Principal Food Crops - Fruits & Vegetables		
	Orange	Total Fruits	Total Vegetables
Jhalawar	1.57	1.58	0.4
Rajasthan	0.03	0.12	0.55

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The production of various crops in Jhalawar as proportion of total production in Rajasthan it is leading in case of Coriander and Soyabean production and also having good share in the production of Garlic, Urad and Masoor. Overall production of condiments, spices and oil seeds is good but in case of total cereals and pulses production this district is lagging behind. Though the soil quality and water

availability both are above state average but still the crop productivity level is poor. The table no. 18 given below is clearly showing that Jhalawar is a leading producer of Coriander and Soyabean but productivity level is very poor and even it is below than the state average. Productivity level of other crops is also not satisfactory.

Table No. 18: Production & Productivity of various crops (2010-11)

Crops	Production in Jhalawar as % of total production in Rajasthan	Productivity in Jhalawar Kg./Hectare	Productivity in Rajasthan Kg./Hectare
Wheat	2.13	3153	3433
Maize	4.11	2089	1797
Rice	2.2	2554	2025
Total Cereals	1.57	NA	NA
Gram	1.77	777	898
Urad	9.98	879	737
Masoor	7.98	654	872
Total Pulses	1.29	NA	NA
Coriander	31.81	812	1106
Garlic	11.02	NA	NA
Total	13.89	NA	NA
Orange	NA	NA	NA
Total Fruits	NA	NA	NA
Total Vegetables	NA	NA	NA
Soyabean	28.33	1319	1461
Rape & Mustard	0.99	1180	1560
Total Oil seeds	5.48	NA	NA

SOURCE: DIRECTORATE OF AGRICULTURE, GOVERNMENT OF RAJASTHAN, JAIPUR

The table no. 19 given below are also depicting that the use of hybrid/ HYVP seeds is for very limited crops in Jhalawar and also in very low proportion. The consumption level for

various fertilizers is also not impressive(see table no. 20). This is also a reason for low productivity of crops in this region.

Table No. 19: Distribution of Hybrid/HYVP Seeds in Jhalawar as % of total distribution in Rajasthan - 2010-11

	Maize	Wheat	Total
Percentage Distribution	1.97	1.21	1.15

SOURCE: DIRECTORATE OF AGRICULTURE, GOVERNMENT OF RAJASTHAN, JAIPUR

Table No. 20: Consumption of Fertilizers in Jhalawar as % of total fertilizer consumption in Rajasthan (in terms of nutrients) - 2010-11

	Nitrogenous	Phosphatic	Potassic	Total
Percentage Consumption	2.89	4.4	4.56	3.41

SOURCE: AGRICULTURAL STATISTICS OF RAJASTHAN (2010-11), DIRECTORATE OF ECONOMICS & STATISTICS, GoR, JAIPUR

The area under cash crops like fiber crops, ground nut, mustard, opium etc. is negligible in this region where the conditions are quite suitable for these crops. The area under fiber crops is only 13 hectare (in 2010-11) in Jhalawar. So, there has to be thrust on the promotion of these crops for diversifying agriculture and raising the benefits for farmers. Along with this there must be increase in irrigation facilities. This region is possessing good scope of canal irrigation with the help of development of lift canal system

because water channels are deep here. There must be focus on modernization of agriculture, raising awareness levels of the farmers and credit support to enhance the agricultural productivity in this region. Along with these, both agricultural extension activities and marketing of local produce need to be strengthened. There is great scope of agro-based industries especially agro-processing units in this region.

Livestock:

Along with agriculture there is good possibility of livestock sector development in this district. Availability of widespread forest cover, quality soil, availability of water

and agricultural by products is providing suitable conditions for livestock rearing here. The table no. 21 is clearly indicating that there is sizable livestock population in Jhalawar.

Table No. 21: Livestock population in Jhalawar and Rajasthan - 2007 (p)

	Cattle	Buffalo	Sheep	Goat	Horse & Ponies	Mules	Donkey	Camel	Pigs	TOTAL
Jhalawar	434600	290732	14868	379062	991	3	2468	337	6575	1128826
Rajasthan	12119512	11091974	11189855	21502996	25438	866	142578	421836	208556	56663183

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

The livestock sector is playing an important role in Rajasthan as agriculture in this state is largely depending on monsoon and rain fed agriculture is having considerable share in total agriculture area of the state. The livestock economy is giving support for livelihood in the adverse conditions. In Jhalawar also there is great scope for the development of livestock sector and as per table no. 22 this region is showing higher livestock density(182 per sq.km.) than the state average (166 per sq.km.). Livestock-population ratio is very much similar to the state

average(see table no. 23). There is opportunity for development of dairy industry and other economic activities based on the products and byproducts of this sector. Selection of few growth centers on the line of PURA, for these activities can transform the socio-economic profile of those regions. A multiproduct Saras Dairy plant is functioning near Jhalrapatan. On the same pattern dairy based growth centers should be developed near Khanpur, Aklera and Bhawanimandi so that rural people could get good return of their milk.

Table No. 22: Livestock Density in Jhalawar and Rajasthan

	Area (2001)	Livestock census 2007 (p)	Livestock density
Jhalawar	6219 sq.km.	1128826	182 per sq.km.
Rajasthan	342239 sq.km.	5666183	166 per sq.km.

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

Table No. 23: Livestock-population Ratio in Jhalawar and Rajasthan

	Population (2011)	Livestock census 2007 (p)	Livestock ratio
Jhalawar	1411129	1128860	0.8
Rajasthan	68548437	5666183	0.83

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

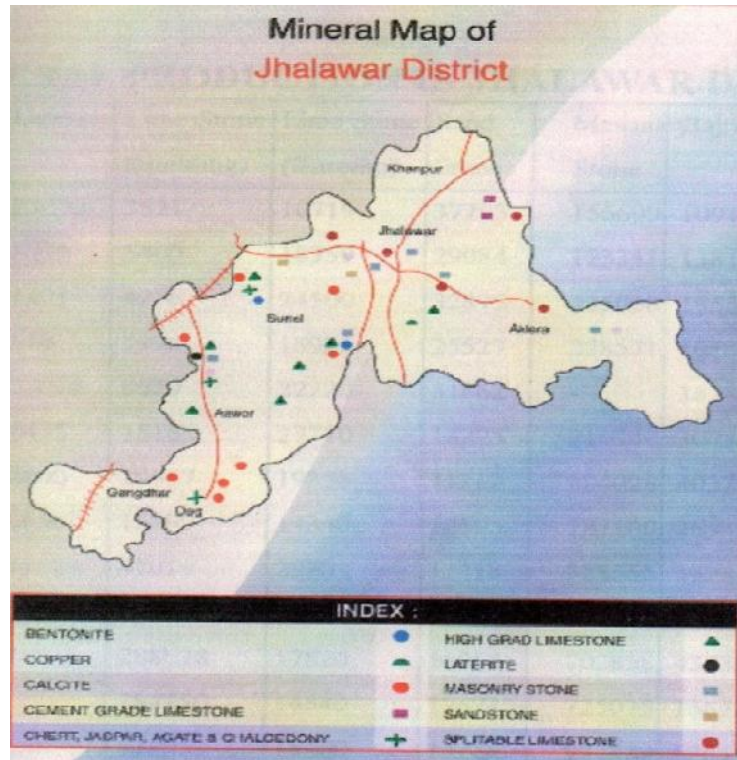
Mining:

Other than agriculture and its allied activities, second largest employment promising area is mining in this region. Good reserves of bentonite, sand stone and lime stone (popularly known as **Kota Stone**) are found in Manak Chowk, Bagdhar, Baksapura, Asnawar, Bhanwrasa, Bhalta, Lax mipura, Aarolia, Biriya khedi, Nandiyakheri, Rooppura, Jhijri, Pipliya and Mangal areas of Jhalawar district. Therefore, this mineral wealth can become the base of development for the district if mining is being done in a systematic and scientific way. Potential growth centers can be developed near Asnawar and Bhalta for sand stone processing and near Biriya khedi and Pipliya for lime stone processing because these sites are connected with metaled road and dominated by rural population. Further,

establishment of stone polishing units near mining sites will be more beneficial and environmentally viable because it reduces the transportation cost and breakage of stones.

Industry:

Despite, great opportunities available here in Jhalawar for industrial development and growth this region is showing poor picture of industrial activities. Among the big industrial units Ms. Rajasthan Textile Mill, Bhawanimandi is important to mention here. It produces cotton and synthetic yarn. Cotton yarn of this unit is exported. About 3500 workers are employed here. Recently foundation stone of yarn spinning industry has been laid near Jhalrapatan and will be functional very soon.



Source – Department of Mines, Jhalawar

Figure No. 7: Mineral Map of Jhalawar Source – Department of Mines, Jhalawar

Other than these mentioned above there are 8091 small and cottage industries (on 31st march 2013) registered in Jhalawar and only about 28500 workers are engaged in these units. These industries are mainly related to Kota stone, Handicraft, Textile, leather articles, Printing press, clay pots etc.

There is enormous scope of Agro processing and Forest based (Furniture, Medicine etc.) industries in Jhalawar along with stone carving, polishing and others. According to Human Development Report- Jhalawar (2009), Jhalawar is an industrially backward district of the state. Jhalawar is an important production center of soybean, orange and coriander still the agro-processing industry in the district has failed to pick up. This is so because the district lacks basic infrastructural facilities for the development of industries. The district has poor road and railway connectivity, cold storage facilities, skilled manpower, dairy cooperative and above all the administrative and political will.

Some suggestive growth centers in the areas of availability of raw material-

Orange based industrial complexes-

Jhalawar is the second largest mandi of oranges after Nagpur. Bhawanimandi, Junakheda, Sunel, Asnawar regions are important orange producing centers. Agro-processing units of orange juice, squash, pulp etc. can be established in those growth centers along with cosmetic units.

Soya based industrial complexes-

Soya Bean is an important oil seed for Jhalawar. The areas of soyabean cultivation can be transformed into soya complexes. In these areas many economic activities based on soyabean can be located such as edible oil plant, soya cake, soya biscuits, soyapapad and so on.

Coriander based industrial complex-

In the areas of coriander production there can be economic activities such as grinding, packaging etc.

Garlic based industrial complexes-

There are many important garlic producing centers in Jhalawar. In these areas there can be development of growth centers wide range of economic activities like Garlic paste, powder, pickle, medicine etc.

Forest produce based growth centers:

In Jhalawar district good spread of teak forests are found in Manoharthana and Aklera region. In these parts of Jhalawar there is good scope of development of furniture industry.

Tourism potential in Jhalawar district:

Jhalawar is important center of tourism potential. It is possessing wide range of tourist attraction sites having great potential to become important tourist destinations. Few areas are discussed here.

Historical and cultural tourism sites:-

Among the ancient architect there are Kolvi (these Hinyanstyle laterite Bodh-caves are of 7th century) and Vinayaka (rock cut Bodh-caves in Dug tehsil) caves of Buddha period. There is potential for developing specific tourist circuit here. Sun-temple in Jhalarapatan is of 10th century and having possibility to develop an important tourist cite.

There are many examples of medieval period architect and idol carving in this region. Gagron fort (example of water and forest fort), Gangdhar fort, Mahoharthana fort, Mau Borda palace, Kakuni temples and Chandrawati group of temples (temples of 6-10th century, River Chandrabhaga

flows from middle of these temples) are some of these which are having possibilities of development of tourism related activities at superior level.

The Sufi Saint Hasrat Mitheshahki Dargah of this period is also known for second largest Urse after Ajmer Shareef. Aadinath (Digamber) Jain Temple (17th century) at Chandkhedi (Khanpur) and Nageshwar Parshvnath Jain Temple at Chomella (Gangdhar) are attracting people from many parts of India. There is opportunity to develop jain tourism circuit in this region.

The medieval period paintings, art and literary heritage is preserved here in Jhalawar Museum, Bhawani Permanand Library and Garh-Palace.



Source - Department of Tourism Government of Rajasthan
Figure No. 8: Tourist Map of Jhalawar

Important religious and animal fairs- important for animal trading:-

ChandrabhagaKartic Fair and GomtisagarBaisakhi Fair of Jhalarapatanare organized by Department of Animal Husbandry, GoR. Other important fairs are Basant Panchmi Fair (BhawaniMandi) and Yashwant Navratri Fair (Gangdhar). These fairs can be associated with other tourist attractions and can be designed as important cultural events of this region.

Nature tourism sites:-

Jhalawar is an important centre for many nature tourists also. Mukandara hill forest area is possessing rich biodiversity. This region can be developed for nature tourism.

Gagron is an important bird watch site in this region. Gagron/Raiparrots are famous for mimicry.

The following table no. 24 shows that there is very poor tourist intake in Jhalawar in comparison to Rajasthan. The share of Jhalawar in total domestic tourists of the state is less than 0.004 % only and condition is more disgraceful in case of foreign tourist intake.

Table No. 24: Tourist intake 2010 & 2011

	Indian tourists	Foreign tourists	Indian tourists	Foreign tourists
	2010		2011	
Jhalawar	96012	215	88805	213
Rajasthan	25543877	1278523	27137323	1351974

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

The poor intake of foreign as well as domestic tourists is largely because of poor infrastructure, lack of publicity and poor management. The following tables highlight poor road connectivity, inadequate hotel and tourist reception centers.

These hotels have very less accommodation facilities. The grave concern is that the occupancy status is giving alarming situation where existing facilities are also not utilised.

Table No. 25: Road connectivity- (2010-11)

	Village connected with road	
	No.	%
Jhalawar	1173	67.5
Rajasthan	34078	81.97

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

Table No. 26: Hotel & tourist reception information center 2010-11

	Hotel	Tourist reception information center
Jhalawar	2	1
Rajasthan	39	46

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

Table No. 27: Number of Beds and Occupancy Status (2009-10 and 2010-11)

	Number of beds		Occupancy in the year (%)	
	2009-10	2010-11	2009-10	2010-11
GavariTalab–Jhalawar	36	36	8.08	0.35
Chandrawati–Jhalawar	18	18	26.82	20.55

Source: Basic Statistics (2012), Directorate of Economics and Statistics, GoR, Jaipur

The above description about the tourism potential of Jhalawar is clearly demonstrating that this region is having opportunities in the areas of development of religious tourism, historical, heritage and cultural tourism, nature tourism and so on. But further the tables are clearly presenting that this potential has not been harnessed properly. This sector is having potential to redesign the rural development scenario of this region on the line of PURA.

Concluding remarks and suggestions:

In this paper it is found that the rural Jhalawar is possessing great potential for the self-sustained development of this part. But the existing developmental strategies are based on top to bottom approach where specific needs for the development of this region are ignored. This paradigm could not render positive outcomes in Indian setting where

one can find diversity in many respects like physical, historical, social, cultural, economic and many more.

Here, it is envisioned that, the bottom to top approach is necessary to adopt for the selection of growth poles at various levels in the rural areas. To adopt this decentralized development planning, there is need for vibrant planning units at district level with establishment of their sub-units at tehsil/block level. The participation of local people has to be ensured at all levels of developmental planning right from evaluation of local resource base, plan formulation, execution of the plan and evaluation of the planning strategy. This strategy has immense potential for rural transformation with generation of employment and optimization of resource use at rural level along with the development of basic infrastructure. In a long run this can bridge the developmental gap between rural and urban areas in this region.

If the economic potential of agriculture and livestock sector, mining area, industrial development, tourism sector etc. is exploited on the line of PURA in the rural areas in Jhalawar, along with the development of urban centers than this region can become economically self-reliance and even have the potential to absorb man-power of surrounding areas too. The identification of growth centers and their development can render desired fruits in this direction. This reshaping of rural Jhalawar will address many socio-economic problems discussed earlier and will transform rural Jhalawar.

In this situation there is a need for reviewing our regional planning strategies, particularly those which are designed for the rural development. There is requirement for optimum use of natural resources and human resource development in accordance to the local requirements. A pragmatic planning strategy is needed for the integrated development of rural Jhalawar too.

Some innovative suggestions are pointed out here for qualitative expansion of this scheme by establishing inter-linkages with other developmental plans such as wage employment in public infrastructure development, providing urban amenities in rural areas (PURA), Training programmes and extension of scheme for rural semiskilled workforce. For better identification of beneficiaries and ensuring wider coverage, the convergence of other rural developmental schemes is also required. This will also check the leakages of developmental funds.

The rural development initiatives should be framed on the principle of capacity building by improving the existing schemes along with new initiatives on the line of innovation, expansion, collaboration, convergence and financial management..

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