

## Characteristics of the agricultural sector in the states of southwestern Algeria (Bechar State Case Study)

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#### Abstract:

The state of Bechar is one of the states of Algeria located in its south-west. It has important agricultural capabilities, but it is not exploited enough, due to the problems that the agricultural sector suffers from. Studying the state of Bechar from the historical, natural and human aspect makes us count a number of possibilities that are distinguished. The state has several problems that limit the increase in the yield of agricultural production in it, and all this is what we aimed at in this study, and the latter concluded with a set of solutions and measures to confront the problems of agriculture in the state, in order to achieve the established agricultural horizons.

Key Words: Agriculture; Desert agriculture; Bechar State; Competitive.

#### **JEL Classification**: Q15, Q18

#### **Introduction:**

The state of Bechar is located in the southwest of the country, and it is characterized by agricultural peculiarities, and it is known that in all countries agriculture constitutes an economic sector characterized by special restrictions. Agricultural capabilities are represented in: soil, agricultural land, terrain, climate, water resources, human resources and equipment. The state also suffers from many problems that impede agricultural activity because the area is located in a dry climate and contains agricultural lands that need reclamation, and despite the All this outlined future agricultural prospects by the Directorate of Agricultural Interests. Through what was mentioned previously, and to address the issue, we raise the following problem: What is the reality of agriculture in the state of Bechar?

**Hypothesis of the study:**Bechar city has agricultural potential, and at the same time suffers from a number of problems.

The objective: This study aims to know the reality and possibilities of agriculture available in the state of Bechar and what are the problems that hinder them, and to search for ways and solutions to address this issue.

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**Material and Method:** In order to capture the aspects of the subject of this study, the descriptive approach was relied upon, in order to build the content.

**Study sources:** In our study, we relied on scientific papers in particular. As well as documents and data for data collection.

#### I. The concept of farming and advantages of desert farming:

It can be defined as: "the sum of the activities related to agricultural and animal production that are directed to feeding and manufacturing, and they are either subsistence or marketing". (Fahfouhi, 2012)

The state of Bechar is characterized by a very short climate, cold winters and hot summers,) room(in addition to strong winds that carry sand with them, ,1998) P (08which cause losses and affect the farmer's yield negatively, and does not allow him to develop and settle in his work, which is why the state has long sought to achieve development projects This is in order to reach self-sufficiency. Therefore, it was necessary for the state to move towards a policy of reclamation in desert lands, to try to develop the level of agricultural production through traditional agriculture, which is concentrated in oases and near valleys where groundwater is available and animal husbandry. Of course, the agricultural production is not sufficient for the needs of the inhabitants of the desert, who depend for their food on the north or on the outside, due to the weak productive capacity, and this is due to:

- Extensive migration from cities.
- Sand creep towards agricultural lands.
- Soil salinization due to excessive irrigation.
- The spread of agricultural pests and the lack of water in some oases.
- Urban expansion in some agricultural areas.

In order to reduce the phenomenon of migration, the state has adopted a new policy represented in creating productive opportunities in the southern areas. Immediately after the implementation of these measures, the area of reclamation began to expand by farmers who were financially able to do so, which enabled them to dig wells in the reclamation areas, but most of them were exposed to several problems, including:

- Lack of basic structures (electricity, agricultural machinery, etc.).
- Accumulation of sand on agricultural areas due to the absence of realistic barriers.
- The complete absence of agricultural extension services.

Poor soil fertility, meaning a lack of soil nutrients necessary for the growth of the crop. These problems were reflected in the production in the desert areas, especially those related to vegetable cultivation. It must be linked to the general policy of the project so that the farmers can benefit from the possibility of agricultural extension. (Georgian, ,2005 P 03).



#### II. Agricultural capabilities:

The Bechar city has a total agricultural area estimated at: 1329571,32 hectares, while the exploited agricultural area is estimated at: 24,537.07 hectares, of which 12499.25 hectares is irrigated, and the pastoral areas are estimated at 1247435 hectares. In addition to this is the agricultural space (other than the oases), which is formed from the areas of worship and agricultural lands that were created in the framework of obtaining agricultural land ownership. The agricultural resources, linked to the presence of water, are mainly located along the main valleys that cross the state. (Directorate of Agriculture in Bechar, 2021)

Table 1 : «Agricultural potential in Bechar State for the year 2020»

Unit: hectare

municipalities	Exploited agricultural area	Irrigated agricultural area	pastoral areas	Unused land	The total agricultural area	Exploited agricultural area / total agricultural area
Bechar	8965,50	3442,5	183000	10320	205728	0,04
Beni Ounif	919,80	828,75	566170	4100	572018,55	0,001
Lahmar	1514,00	1090	48240	3100	53944	0,02
Mougheul	598,90	366	56907	3030	60901,9	0,009
Boukais	1002,65	368,75	79000	2500	82871,4	0,01
Kenadsa	3571,00	1660	20000	2850	28081	0,12
Meridja	948,00	224,5	56280	3700	61152,5	0,01
Taghit	2360,45	1622,75	79098	3500	86581,2	0,02
Abadla	813,98	593,5	38000	4400	43807,48	0,01
Erg-Ferradj	2612,42	1549	75850	3500	83511,42	0,03
Mechraa H.B	1230,37	753,5	44890	4100	50973,87	0,02
Total	24537,07	12499,25	1247435	45100	1329571,32	0,01

**Source :** (Directorate of Agriculture in Bechar, 2021)

We note from the above table that the agricultural area is distributed across the entire municipalities of the Bechar city, where the largest agricultural area is located in the municipality of Beni-Oneif.

#### 1. Soil:

In general, the lands of the state have sandy and calcareous soil, light in texture, highly porous, and weak in terms of containing organic matter. The soil of the Al-Abadla plain is also of good quality, estimated at 5,400 hectares. As for the oases soil, it is of good quality and its number is estimated at: 56 oases, and it is suitable for cultivation.

For example, Al-Abadla Plain, which is located along Wadi Qir, and geographically it is located in a desert area, with a climate characterized by high



temperature and a decrease in the amount and percentage of precipitation (rain) less than 100 mm, and this low amount is recorded in the period between September and March. (Agricultural Chamber, Bechar, 2012)

Al-Abadla Plain is one of the areas where, through the studies conducted (study of soil science), a differentiation is recorded in the construction and lists of the soils that make up this plain. Most of the area of the region lacks the presence of organic materials, the ratio of which ranges between 0.92% to 1.2%, which is a small percentage. Salinity in varying degrees affected the components of the soil, for example:

- Soils that contain a high percentage of Na + 50% affected the quality and quality of the soil in addition to the presence of a high amount of chlorine Cl-.
- Medium saline soil, which contains a low percentage of Na + and chlorine Cl and a high percentage of Mg + and Ca +, and accordingly the soil in this case is characterized by a low pH between 5.7 to 5.8 Poorly saline soils are characterized by large soils with good permeability (sandy soils).

The effect of soil salinity as a percentage can be taken as follows:

- Soils with weak salinity 3%.
- Soil medium salinity 14%.
- Soil highly saline 28%.
- The most saline soil (very high) 55%.

The reasons for the increase in salinity are due to:

- Irrigation water that contains a high percentage of sulfur and chlorine, which is added from C3 S2 grade, which is not suitable for direct irrigation except after treatment.
- The nature of irrigation used by random farmers, in which the amount of water for irrigation is not taken into account.
- Lack of agricultural guidance regarding modern methods and modern technical means to improve soil texture.
- The presence of the area in a desert environment led to the destruction of the drainage and irrigation network, and the plain was exposed to drought for a long time, which led to a lot of evaporation. (Agricultural Chamber, Bechar, 2021)

Table 2: «The number of oases in by each municipality»

municipalities	number of oases
Bechar	12
Beni Ounif	11
Lahmar	15
Mougheul	01
Boukais	01
Kenadsa	08
Meridja	02
Taghit	06
Total	56

**Source :** (Directorate of Agriculture in Bechar, 2021)



Through the previous table, we see that the municipality of Lahmar is the one that has the largest number of oases in the state.

#### 2. Agricultural lands:

There are arable lands in the state of Bechar from the green valley to the plain of al-Abadla, in addition to the vastness of the pastoral areas, especially in the north of the state. (Bechar, 2021)

Table 3: «Agricultural lands in the state »

Nnumber	Circumscription	Area designated for cultivation
1	Bechar	El-Jadida - Ben Ziraq - Wakada - Nif Al-
		Rahha - Gerasa-Hasi Belhawari-Aouina
		Hamo Issa - Zuzfaneh-Al-Kenadsa Road-
		Wadi Taghlin-Al-Abadla Road.
2	Kenadsa	Al-Kenadsa Road - Ain Al-Sheikh - Al-
		Mareijah - Al-Nabka - Qalb Al-Awda -
		Shukir.
3	Taghit	Taghit - upper corner - lower corner - Barika
		- Bakhti - Owaina - Zuzfaneh.
4	Abadla	Mechraa H.B - Wadi Guloum - Ksikso -
		Wadi Hassoun - El Kaam - Erg Farraj -
		Okla.
5	Beni Ounif	Al-Wad Al-Akhdar - Beni Ounif - Jinan Al-
		Dar.
6	Lahmar	Mougheul - Sfisifa - Lahmar - Boukais.

**Source :** (Abdul Khaleq)

The table shows us the area allocated to agriculture in each of the districts of Bechar Province.

#### 3. Climate:

The climate of the state of Bechar is considered a desert climate characterized by dryness, hot in summer (45°) and cold in winter (02 to 03°C), and rainfall is less than 90 mm/year, while the wind blows during a long period and is laden with dust (from February to September). It is strong in March and April, in summer it is hot from the south and is called the "Siriko wind". The climate is often characterized by: weak precipitation, great lighting, great evaporation and great heat, as this affects the agricultural aspect of the region and that The plants are not adapted to the harsh climate. (Abd Elkhalek, 1998-1999, p. 12)

#### 4. Water resources:

Water is a collective and economic property, and it is a vital resource, of interest to the public authorities, which has increased the sensitivity of the sector and raised the issue of managing water resources to the point of establishing a full ministerial department to supervise the sector. (Investment guide in Algeria, ,2006 P25)

Agricultural irrigation is also considered the most important pillar on which agricultural activity is based and depends on the water resources owned by the Bechar city. These types are as follows:



#### 4.1.Dams: They are:

- **a. Jurf Al-Turba Dam:** The dam is located in the sub-Saharan region. It entered the stage of actual exploitation in 1969, as Wadi Qir is one of its water sources, as the capacity of the dam is estimated at 360 million m³, (Rahmani & Mekkaoui, 2009-2010, p. 81) and since 1985 the water network has been connected to both Al-Qanadsah and Bechar. (Coyne & Bellier, 1985, p. 06) The current reservation capacity of it is estimated at: 260 million m³, and the main destination of the Jurf Al-Turba dam is to provide drinking water to the state and to irrigate the Al-Abadla plain. The size allocated for agriculture is between 40 and 50 hectares, and it is supervised by the National Dams Agency.
- **b.** The return dam in Al-Abadla: its size is 2 million hectares, which is used for drinking and irrigation.( Agricultural Services Directorate, 2012)This irrigation network covers 5,400 hectares of surfaces: it consists of primary, secondary and tertiary canals (saqia and sub-surface channels), and these primary and secondary networks have the form of Trapezoidal. (Direction des Services Agricoles, rapport tsurle périmètre agricole, 1997, p. 01)

The public office for irrigation in Al-Abadla (2,500 hectares is irrigated out of 5,400 equipped hectares). It is obligatory to purify and prepare the upper part of the main channel (1, 19 km), in addition to the water collection channels, and to replace 200 valves of the Californian type to increase the irrigated area by: 1,000 hectares, which leads to improving the productivity of the Al-Abadla plain, (Rome, 1993, p. 42) where it touched the dam (the irrigation network Damages, including: the breakdown of electricity and water devices, in addition to the dam's mudding with sand. (Direction des Services Agricoles, problématique du développement agricole de la wilaya de Bechar, 1998, p. 30)

- **c. Water barriers:** The Bechar city has a large number of water barriers, as there are ten water barriers at the level of Bechar State that have been completed, with an estimated total capacity of: 2,665 hectares 3, while those that are on the way to completion are 6. (Agricultural Services Directorate, 2012)
- **4.2.Surface water:** water basins in the state (water barriers or canals), in addition to the valleys that cross the state and which were an important water resource for local agriculture in the past. Most of the water sources are concentrated in the Al-Abadla area, as revealed by previous studies.
- **a. Valleys:** The Bechar city includes a network of valleys, the most important of which are: Wadi Qir, Wadi Zuzfanah, Wadi Al Namous, Wadi Bechar and Wadi Al-Saoura. The sources of these valleys are the Atlantic Mountains that are relatively saturated with rainwater. regular. (Kaddouri, wood, happy, 2005-2004, P 02)
- **b. Aquariums:** Old ponds need good restoration.( Agricultural Services Directorate, 2012)



Table 4 · "	Surface water	distribution acro	ss the Bechar city»
Table 4: «	Surface water	aistribution acro	ss the Bechar City»

Valleys	Capacity (m <sup>3</sup> )	basins	Capacity (m <sup>3</sup> )
Qir Valley	200 Million	Fendi Basin	150.000
Wadi Zuzfaneh	6 Million	Mougheul Basin	15.000
		(Suffers from sand	
		creep on him)	
		affordable basin	135.000
Valley of the Laws	5 Million		
Wadi Bechar	2 Million	Wakdabasin	400.000
Valley of the Saura	6 Million		

**Source :** (The annual state report for the Bechar city)

From the table it is clear that there are five valleys in the Bechar city with different capacities, and the Bechar city has basins of different capacities as well.

- **4.3.Groundwater:** Rain is an important source of groundwater, (Tim and others, ,1998P07) and the latter is represented in:
- **a. Excavations (deep wells):** There are 728 excavations, with a pumping capacity of 2 to 3 liters per second, and a depth of 40 to 100 meters.
- **b.** Agricultural wells counted at the state level: It is 1949 small wells, with a depth of between 01 and 25 meters.
- **c. Sources:** There are 29 sources in the state.

We note that the Bechar region has various sources of water, and compared to agricultural production, there is an irrational exploitation of these limited and strategic resources for the region. (Agricultural Services Directorate, 2020)

Table 5: « Groundwater in the Bechar city for the year 2020»

Tuble 5. " Ground water in the Beenar city for the year 2020"				
municipalities	Explorations (deep wells)	normal wells	sources	
Bechar	351	656	0	
Beni Ounif	37	191	2	
Lahmar	88	183	4	
Mougheul	21	62	1	
Boukais	22	72	1	
Kenadsa	61	311	13	
Meridja	34	66	1	
Taghit	11	348	7	
Abadla	100	54	0	
Erg-Ferradj	3	5	0	
Mechraa H.B	0	1	0	
Total	728	1949	29	

**Source :** (Agricultural Services Directorate, 2020)

Based on Table No. (05), we find that the Bechar city has excavations (deep wells), regular wells, in addition to wells.

#### 5. Human Resources:

The human element is the main driver of agricultural activity and the backbone of the production process, and this importance is not only related to the number of these resources, but also goes beyond that to include economic, cultural and



professional features, (Atiya Nassef and Hisham Building, 2007 P215) as The population of the state for the year 2020 is estimated at: 297,482 people / km², and 80% of its population is considered to be the youth group under the age of 40 years, and the number of local farmers is estimated at: 15,017 farmers.

#### 6. Gear:

There is a significant shortfall in covering the degree of mechanization, due to the lack of tractors available, resulting from the failure of the majority of farmers to acquire this equipment due to its high cost and the small size of most agricultural investments.

Table 6: « Agricultural equipment in the Bechar city for the year 2020»

municipalities	Tractors	agricultural bikes	combine harvesters
Bechar	47	/	/
Beni Ounif	10	/	/
Lahmar	07	/	01
Mougheul	05	/	/
Boukais	01	/	/
Kenadsa	05	/	/
Meridja	02	/	/
Taghit	10	/	/
Abadla	24	01	01
Erg-Ferradj	03	/	/
Mechraa H.B	05	/	
Total	119	01	02

**Source :** (Agricultural Services Directorate, 2020)

Based on the above table, we note that the Bechar city lacks the necessary agricultural equipment to promote desert agriculture.

In addition to other possibilities are as follows:

- The presence of a variety of medicinal and fodder herbs.
- There is a good animal production that needs development and diversification, especially the breeding of camels.
- The presence of various varieties of dates that need promotion, development and transformation.
- The strategic location of the state, which can greatly contribute to a wide and comprehensive development in the southwest region.
- The existence of agricultural complexes such as Sahel Al-Abadla in particular, which contains 258 farms, and there is one model farm dedicated to experiments and learning. (Agricultural Chamber, Bechar, 2021)
- The state is distinguished by its wide grazing areas that allow for an increase in cattle and sheep and camels.



#### III. Farming problems:

Bechar Wilayat, due to its geographical location, suffers from problems mainly related to many factors, including the following:

#### 1. The farmer:

Agriculture has become a precise science so that the world has mastered all the details of agriculture in genes, animals, artificial insemination, ... etc. Rather, it has become a science at a high level with many specializations, and the problem is that the farmer at the state level lacks agricultural culture and training.

And in order for Bechar's state to keep pace like the other states, there must be a correct professional base. This can only be achieved if we use the university, institutes, and vocational training centers located at the level of each department. There must be trainings for young people and those who desire to be formed in the agricultural framework, similar to other professions, where training in the framework of desert agriculture is easy for us. Progress in agricultural and livestock production.

#### 2. Agricultural Guidance:

There are many agricultural discoveries, on the other hand, the lack of technical cadres and technicians, and consequently the lack of agricultural guidance and awareness, so it is necessary to conduct trainings for those involved in agricultural guidance in order to develop production at the state level and reduce and confront agricultural obstacles.

### 3. An obstacle to communication between the agricultural guide and the farmer:

The simple peasant is sometimes transformed by the illiteracy of the peasant culture, as it is considered an obstacle between the technical guide and the peasant, and the means for the peasant's reception are weak; That is why it is necessary to have a correct professional base so that the technical advisor can pass all the messages about agricultural development easily. Also, one of the reasons for the failure in production is the inability of the farmer to understand, his ignorance and his scientific level of agricultural culture.

#### 4. The problem of desertification:

Desertification is considered a negative phenomenon on the exploited agricultural lands, as it results from the encroachment of sand resulting from the monsoon winds from the desert areas to the northern regions.

In addition to other problems are as follows: (Agricultural Chamber, Bechar)

- The region's climatic difficulty is characterized by cold winters and very hot summers, in addition to the abundance of seasonal sandstorms.
- The high level of salinity in the soil (Al-Abadla area).
- No windbreaks.
- After ground water and the absence of water dams for agriculture. The lack of agricultural equipment in addition to the lack of agricultural support from the state.
- Not using greenhouses due to the lack of financial resources on the one hand and the lack of experience in using them on the other hand.



- The reluctance of agricultural tires to invest in the agricultural sector and to go to the public office.
- The distance of arable areas from residential areas (difficulty of movement).
- The lack of electricity in some agricultural areas.
- The spread of bophora, eggs and palm diseases, and the absence of effective medicine against these diseases.
- Poor management of livestock herds (camels sheep), which led to the shrinkage of the herds in the state.
- The complex legal nature of land ownership, peculiar to oases, and the spread of administrative bureaucracy.
- Lack of means of communication and financial and human follow-up to the concerned interests related to the rural world, and a lack of the quality of framing and the number of frames.

#### IV. Solutions and measures taken for agriculture:

There are solutions and measures taken in the agricultural sector as follows:

#### 1. Solutions for the advancement of the agricultural sector:

The solutions are as follows:

- Expanding the cultivated areas and combating overgrazing in order not to harm the cultivated areas.
- Preserving the ocean with its animals, trees and insects, because all of these are related to each other.
- Protecting trees in the area, such as acacia trees, and intensifying their planting in the Bechar, by means of the state's intervention to build a green dam from local trees to prevent sand encroachment and to resist storms and heat. It is also used as food for camels and is used to produce pharmaceuticals and change the climate. ..etc. (Agricultural Chamber, Bechar, 2012)
- Adding organic fertilizers and improvers to reclaim and exploit the desert soil in the area. Perhaps the first and most important action of these organic fertilizers and improvers is to multiply the organic matter content of virgin soil several times over relatively short periods of time(Al-Sedrawi, Misak Raafat, ,2006 P163)
- Recruiting water to expand the cultivated areas.
- Providing individual training, guidance and counseling for farmers.
- Providing electrical and solar energy.
- Granting financial support (financing) and accompanying it.
- Elimination of bureaucracy.

#### 2. Measures taken:

The measures taken to promote the agricultural sector are as follows: (Agricultural Chamber, Bechar)

- Encouraging afforestation within the framework of the national agricultural development plan. To put natural barriers in order to prevent the encroachment of sand.
- Facilitating agricultural land reclamation procedures by accelerating administrative transactions.



- Reconsidering the old irrigation methods and techniques by re-digging and restoring mud wells and basins.
- Encouraging the specialized cadres and technicians to enter into the national agricultural development plan as a solution to the problem of unemployment.

The state carried out agricultural reforms by issuing laws, including the following:

- Law 83/18 Concerning Acquisition of Agricultural Real Estate Through Land Reclamation, dated 09/13/1983.
- Law No. 87/19 on public agricultural lands dated June 10, 1987. These lands were divided among the farmers who used to work in the state, where they were divided as farms, collective investors 258 and individual investors 495, applied in Sahl al-Abadla.
- The concession land reclamation program related to Resolution 108/2011 includes land reclamation through concession, where the state prepares agricultural oceans and provides electricity and may even dig wells and then divide these The oceans are given according to priority, so they are given in the first place to agricultural executives such as engineers and technicians, then in the second place they are given to the sons of farmers, then in the third place they are granted to those who have experience, then in the last place they are given to the residents of the area.

#### V. Agriculture prospects:

In order to enrich a sustainable agricultural strategy with the active participation of the rural community, workshops have been formed at the state level, as there are promising agricultural prospects if the will is available and the available means are mobilized, including the following:

# 1. Modernizing and rehabilitating agricultural women investors and implementing an approach to the productive branches, their status and their effects on rural development:

It should be noted here that the process of modernizing agricultural women investors has been launched since 2001, which has resulted in the benefit of more than 5,000 women investors with a total amount of support exceeding 700,000 DA per investor. the following:

- Constructing roads and roads and establishing a transportation network between rural areas to enable the residents of these areas to communicate with each other.
- Strengthening the rural world with mechanisms appropriate to its nature and that take into account the fragility and sensitivity of this environment. (Agricultural Services Directorate, Annual outcome of development programs, 2011, p. 21)
- Generalizing the benefit of rural electricity in villages and agricultural investments, and studying the possibility of using solar energy.
- Ensuring agricultural guidance and specialized training for the rural world.
- Providing neighborhood social, educational, health, cultural and sports facilities. Reconsidering the palm oases.



- Protecting the current agricultural oceans from the encroachment of sand by creating a forest belt with varieties appropriate to the nature of the region.
- Dissemination and encouragement of aquaculture.
- Exploitation of the vast areas of lands that can be reclaimed by concession.
- Providing the appropriate conditions to enable the farmer and the investor to establish small units to transform the agricultural product.
- Establishment of a regional laboratory for veterinary analysis.
- Establishing a regional center for the development and strengthening of camel breeding.
- Observe the legislation and regulation of agricultural real estate.

#### 2. Forest policy and sustainable rural development:

The forest space is considered an important space in terms of environmental diversity through the plants and animals found in it, especially in rural areas, by following the following methods:

- Sensitizing society to the fragility of the environment and how to preserve it with the participation of professional associations and unions.
- Establishing natural reserves for plants and animals.
- Identifying plant communities such as the acacia tree in the south and the Atlantic pistachio tree in the north, and the like, in order to protect and develop them.
- Counting the existing animal species and establishing monitoring patrols to protect them.
- Preparing realistic studies to confront desertification and sand encroachment.
- Protection of residential communities and agricultural surroundings from soil erosion.
- Establishing seed banks and developing existing species.
- The rural man's contribution to laying the appropriate windbreaks for the region.
- Establishing specialized local nurseries and botanical gardens with the contribution of farmers.
- Encouraging farmers to plant adapted fruit trees.
- Assisting farmers in the framework of training, guidance and agricultural guidance.
- Protecting pastoral areas and regulating the grazing process.

#### 3. Water and Rural Development Policy:

Water is the basic element of life and the first factor for the concentration of residential communities, and in order to rationally and tightly exploit this rare wealth, it is necessary:

- Completion of an in-depth hydrogeological study to reveal the water sources and levels in rural and pastoral areas. (Agricultural Services Directorat, Annual outcome of development programs ,2011 , P 22-23)



- Re-purifying the exploited water for further exploitation in the field of irrigation to reduce the phenomenon of pollution of oases and valleys and work to combat the phenomenon of salinity within the agricultural lands.
- Preserving and repairing the "vertebrae" with the active participation of its users.
- Exploiting the waters of the Jurf Al-Turba Dam for farming in the areas of Wadi Al-Saoura in a regular manner and constructing water barriers.
- Studying the possibility of constructing a median dam between the erosion of the soil and the agricultural plain of Abadla.

#### 4. Rural Finance:

The countryside is witnessing a new dynamic in the provision of agricultural wealth, but this important transformation requires financial and technical support to embody ambitions on the ground. Proceeding from this situation, rural finance must be centered on a system that is accessible to farmers in order to ensure acceptance and a positive reaction. For this endeavour, it must: (Agricultural Services Directorate, Annual outcome of development programs ,2011, PP 24-26)

- -Thinking about adding the interest-free loan formula within the current financing system in order to ensure greater participation of farmers, who often evade interest-bearing loans.
- Enabling individual and collective agricultural investors to obtain the means of work, without which it is not possible to develop productive activities and facilitate transactional procedures in obtaining loans.

Through these horizons, the mandate aims to achieve the following (Ministry of Agriculture and Rural Development, ,2011 P48)

- Maintaining and expanding the production base efforts, and contributing to local cooperation efforts to develop the sector.
- Intensification of agricultural production and the integration of food and industrial agriculture.
- Strengthening mechanisms to protect local production, and continuing to enhance human capabilities and technical support.
- Intensifying work and valuing natural resources and launching major workshops for rural development.

#### **Conclusion:**

The agricultural sector is no less important than the rest of the other sectors, that is why Algeria is working hard to revive and develop agriculture in order to advance it. to be processed.

#### Recommendations:

- The agricultural activity must be reconsidered, considering that the farmer is an economic aid, and that the agricultural product has a financial and strategic value.
- The necessity of developing the agricultural sector, using modern farming methods, and contributing to raising awareness and guiding farmers, as well as introducing mechanization and improving seeds...etc.



 The necessity of producing and providing products that can be produced in the Bechar city and that are compatible with the prevailing climate in a way that meets all the needs of the state, and some other states.

#### **Bibliographic References:**

- AbdElkhalek Omar, (1998-1999), contribution to the study of sheep farming systems and monitoring of some herds in Saharan areas "case of the Bechar region", end-of-study dissertation for obtaining the state engineer diploma in agronomy specialty: "animal production", University of Mostaganem, p: 12.
- Al-Sedrawi Maneh, Misak Raafat Fahmy, (2006) Soil Formation Factors and their Effects on Soil Performance of its Production and Environmental Functions, The Arab Encyclopedia of Knowledge for Sustainable Development, First Edition, Lebanon: Arab House of Science, p.: 163.
- Attia Nassif Eman, Hisham Mohamed Building, (2007) Economics of Environmental Resources, Egypt: Modern University Office, p. 215.
- Chamber of Agriculture, Bechar, February 26, 2012.
- Directorate of Agricultural Services, (1997) agricultural hydraulics service, report on the agricultural perimeter, Bechar, p: 01.
- Fahafuhi Lubna,(2012) Population Activities: Agriculture.
- Food and Agriculture Organization of the United Nations Rome, (1993) investment center, fao/world bank cooperation programme, irrigation support project, preparatory report, no.67/93cp-alg 37, Algeria, p: 42.
- Georgy Naseem Maher, (2005) Fertility of Land and Fertilizers, Egypt: Facility of Knowledge, p. 03.
- Investment Guide in Algeria, (2006) KPMG, Algeria: Hasnawi Press, translated by Sabah Investors Service Office, p.: 25.
- Ministry of Agriculture and Rural Development, (2011) Parliament, Agricultural and Rural Renewal Policy, Bechar State, p. 48.
- The National Office of Agricultural Lands for the Wilayat of Bechar, O.N.T.A, Bechar, 12-04-2012.
- Tim Abdel-Jaber, Al-Khatib Ibrahim, and others, (1998) The Future of Development in the Arab World, Jordan: Dar Al-Yazuri for Publishing and Distribution, p. 07.