

Dates Incubator: Mechanism to support innovation for date derivatives industries, Biskra Oasis case

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Abstract:

The process of searching for authentic and innovative ways to activate and stimulate the ecosystem in a balanced and sustainable way, cannot be launched by ignoring its distinctive resources; considering the oasis as an ecosystem is essentially based on palm groves in its economic, social and environmental aspects ,then the process of developing these oasis territorial , must be through the structuring and valuation of the palm wealth. The development of the oasis leads us to the palm-derived industries. Considering that Biskra oases, which possesses the elements represented in palm cultivation, date production, and derivative industries, the development of these ingredients requires an economic mechanism that allows the generation of an advantage on the one hand, and ensures the sustainability of the Biskra oases on the other hand.

Keywords: Biskra oasis. Business incubator. Dates derivative industries. Territorial green innovation.

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Introduction:

The economic intervention that ecosystem needs, requires a scientific and systematic understanding of the economic process in its territorial, because the ecosystems are characterized by the ability to achieve a self-balance between its inputs and outputs without affecting its main characteristics.

Hence, the process of searching for authentic and innovative ways to activate and stimulate the ecosystem in a balanced and sustainable way, cannot be launched in a way that is far from its distinctive characteristics; and considering the oasis as an ecosystem that depends on the palm wealth in its economic, social and environmental aspects, the process of developing these oasis territorial, must be through the structuring and valuation of the palm wealth with all its consequences, and that with interventions and mechanisms that exist in the content, but were not employed and applied in the field, and therefore create an integrated dynamic for the development of the territorial, which is known as territorial green innovation .

By applying this approach to the Biskra region, which is one of the most important oases of Algeria producing dates, and by analyzing its ingredients in the field of palm derivative industries, work is being done to activate an economic mechanism that allows the encouragement and the appraisal of all ideas concerning the field of palm derivatives industries.

This work aims mainly , to allow the creation of a economic dynamic in the palm derivative industries field, and the development of new ideas that serve the date derivatives sector as a distinctive element of the region and paving the way for sustainable development in Biskra oases.

Materials and Methods:

The descriptive survey method is used to extend the concepts around which the study is structured.

The content analysis approach is used in the process of examining and analyzing a set of data, then installing and formulating the nature of solutions that correspond to the required goals.

I. THE OASIS POTENTIAL

The oasis is represented as an economic, social and ecological potential ensuring an equitable exchange between these various components, this ecosystem appears as an authentic model of sustainable development.

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I.1 The Oasis Ecosystem

The 'oasis' ecosystems are man-made spaces, with intricately intensive production systems that maintain the balance of this ecosystem.

The oasis is known for its following features:

- Densely cultivated area on 3 layers:

Trees layer: the summit in the sun and roots in the water, the palm rises from 15-30 m.

Shrub layer: Consists of vines, fruit such as apples, oranges, peaches, pomegranates and finally henna.

Herb Layer: Includes many varieties, aromatic plants, medicinal plant surfaces and feed important to sheep feed, and helps maintain soil fertility.

- The palm foundation and structure of the oasis, protects and provides through its shadow, life for each oasis.

- Oasis effect: It is an internal climate, which arises under the influence of filtering sunlight, moisture, heat and light through the palm leaves. It is a very suitable climate for agriculture and animal husbandry.

- Life in the oasis is built around water management which is a scarce resource which makes the fragile balance for the social, environmental and economic systems.

Agricultural activity asserts itself as a locomotive of local development in the oasis , it is more and more diversified, even if phoeniculture remains predominant with a an impotent heritage of date palms, with a very popular phoenicultural potential. The close relationship between the water, the palm grove and the habitat, base of the oasis ecosystem.(*Soumia Bouzaher Lalouani.2015.P161-162*)

I.2The Palm Plantation An Ecological, Economic And Social Balance.

Determining the role and the value of the palm tree in the Cohesion and the balance of the oases ecosystem, enables us to choose the economic process that supports this resource and exploits it sustainably.

I.2.1The economic value of the palm: Date derivative industries .

Date processing industries are the industries that convert date fruits into new products that can be used as direct food such as date paste, date molasses, date juices, jams, dates chips, baby food, extrusion technology products, date sweets and date vinegar. High purity fructose and glucose liquids incorporated in the soft drink industry, preserving canned fruits, diabetic foods and many food products.

The use of date molasses in dairy products and ice cream, the use of dry dates powders high monosaccharides and natural dates fiber in many food products such as baby food and cake production powders, and the use of citric acid as a preservative and functional in many applications of the food industry, and the use of bread yeast in the industry Bread and other bakery products.

Transforming date products that can be used in non-food industries include ethanol, which can be used as biofuels or converted into natural dates vinegar in addition to its many industrial and medical uses, production of activated carbon, oil extraction and many effective products from date nuclei, in addition to the use of dates nuclei and residues. Manufacturing other dates in the production of animal feed. The production lines and integrated manufacturing processes required to produce manufacturing products for industrial dates vary in their complexity levels depending on the quality of the manufacturing product (Dr. Bakri Hussein Hassan In Arabic..2012. www.iraq-datepalms.net).

I.2.2The social value of the palm tree.

Palm tree works to achieve a sustainable livelihood system in areas that depend on agricultural production of dates, and thus play an important social role in strengthening the living base of a broad group of people by helping them to live in rural areas instead of migrating to urban centers and cities, where many depend Families on palm trees provide the largest part of income, especially since a large number of owners of palm groves and landowners in various areas of cultivation are middle-income, and the service of date palm provides seasonal employment for many people in the field of pollination and pruning and And provide special employment opportunities for rural women.

I.2.3The ecological value of the palm tree.

- The Palm is a clean tree that leaves no dirt around, an integrated food system. Palm preserves the ecological balance and combat the

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encroachment of the desert because of its ability to adapt to these environments Through the following features:

- Planting palm trees as windbreaks on the edges of farms, and it is one of the means of combating desertification , because it provides protection for trees and plants that are grown with or under it. The palm grove can be exploited with intercropped crops such as field crops, vegetables and fruit trees. They provide the shade and protection necessary for the growth of fruit trees, and for the various crops grown with them, and represent the factor of environmental, economic and social balance of the population of deserts. (*Ibrahim,Abed el basat. 2013 . P514. In arabic.*)

- Planting palm trees has several benefits in addition to reducing carbon dioxide caused by climate change, where palm trees absorb carbon dioxide, which is one of the most important greenhouse gases, accounting for about 60% of all these gases, and increase oxygen in the atmosphere .(*Ibrahim,Abed el basat. 2013 . P514 In arabic.*)

- The environmental and financial value of the tree by tempering the atmosphere through transpiration, improving the climate and reducing temperatures in the summer, and the aesthetic value of improving the quality of life of the people who move to it in search of comfort and enjoy the landscape and this is worth \$ 60 per year. (*Ibrahim,Abed el basat .2013 . P517 In arabic.*)

- The Palm holds an average of 60 g / m² of dust suspended in the air and 40-80%.(*Soumia Bouzaher Lalouani.2017.P118*)

- The palm sector will gradually emerge as a strategic sector for energy-producing countries to prepare for the post-oil era and will be a source of human and animal food security as an agricultural crop with economic, nutritional and drought-resistant benefits.

It is clear from the elements mentioned above, that the palm plays a fundamental role in the cohesion and continuity of the oasis, through its economic capabilities to generate industries, features that improve and support the environmental benefits of the oasis, and its ability to breathe a growing social life.

I.3 The Fragility Of The Oasis Ecosystem

Oasis ecosystems are exposed to a number of problems that increase their fragility, and affect their balance, and some of them can be mentioned:

- The traditional oasis ecosystem has endured for centuries thanks to sustainable management of the water resource. This system is today subject to various pressures, bearing the full brunt of the vagaries of climate change, the decrease in groundwater levels.
- The progressive loss of cultural heritage linked to knowledge of traditional water management techniques.
- The demographic pressure, especially in northern oases.
 - The use of motor pumps and boreholes, the introduction of new sprinkler or localized irrigation techniques, have allowed a considerable increase in the surpluses occupied by other agricultural crops, particularly cereals, arboriculture and vegetable. (<http://www.fao.org/3/a-az741f.pdf>.20/11/2019)
 - Low Economic profitability: The trade of the date in the oasis is organized in the informal sector, which opens the way to speculation. This situation is probably due to the absence of a real equitable development policy and to bad strategic choices. This institutional positioning is felt by the inhabitants as a social injustice, at least a lack of consideration that has caused a breach of trust. Small producers, possessing know-how but under the pressure of unfair competition, quickly found themselves unable to cope with it. Abandon the ancestral palm plantation with heritage and economic value becomes inevitable. (*El Aoufi. 2009.p63*)

And from it, it is necessary to search for new mechanisms in the form of economic mechanics, which contribute in a practical and continuous way to re-broadcasting the environmental value of the oasis and improving the level of social life in it in order to ensure its continuity.

II. THE OASIS, IN NEED OF TERRITORIAL GREEN INNOVATION

The negative impact of random intervention on fragile natural resources poses the problem of sustainable development of oasis territorial and the need to bring a balance between the preservation of the palm grove traditional management system, and the integration of oases in a market economy.

II.1 Green Innovation

Eco-innovations (or green innovations or environmental innovations) refer to innovations with a purpose of sustainable development and reorientation of economic performance and introduced into the economy by various institutions (companies, public actors, associations). In other words, these are innovations that translate into lower environmental impact. Environmental innovations are therefore all products, services, processes, methods, etc. to reduce the impact of general or specific activity on the environment (reduction of greenhouse gas pollution, waste generation and waste of natural resources, preservation of biodiversity and strengthening of safety energy). (Jean-Marie Cardebat.2012.p09)

The innovations appear more easily when they are inscribed in strong interrelations of proximity: geographical, cognitive, organizational, productive, financial, market. The "territory" is destined to become the mechanics of realization and diffusion of environmental innovations.

II.2 Territorial Green Innovation

The territory, as an area of knowledge and socio-economic recognition facilitates the initiative and the constitution of networks whose objective is the "valorisation" and the preservation of the environment: creation of many innovative start-ups in the field of the management of water and waste, new jobs, urban modes and services, the emergence of industrial ecology or short agro-food circuits. The field of sustainable development is indeed at the origin of new forms of industrial organization that transcend traditional sectoral boundaries in favor of territorial logics.

The launch of new methods, goods or services integrating environmental issues is supported by the experiences of everyday life at the local level: formal and informal institutions of innovation (R & D laboratories, universities, associations, engineering services and, before all companies and entrepreneurs) interact with each other and with the economic, spatial and sociocultural fabric of the territory, through a relationship of intense and varied proximities, with the aim of generating a systemic and open innovation dynamic in technological sectors or sectors. services. The challenge is to create, on these intense and attractive spaces from the point of view of

activities with high content in innovations, knowledge and new businesses, the physical conditions of a greater relational capacity between heterogeneous actors. For example, green innovations are fueled by abundant risk capital, cutting-edge scientific research, local programs of "environmentalization" of economic activity, and state industrial policy specifically geared to innovation. green. On the other hand, poor policy choices, the lack of financial structures and the lack of adequate entrepreneurial structures hinder goodwill.(*OECD.2009.* <https://www.oecd.org/sti/ind/eco-innovationinindustryenablinggreengrowth.htm>).

Proceeding from this concept, the process of reactivating the distinctiveness of oases and integrating them into the economic system locally and nationally from there internationally, it is necessary to work in accordance with the regional green innovation to ensure sustainability on the one hand and achieve excellence on the other hand.

III SUPPORTING TERITORIAL INNOVATION IN PALM DERIVATIVES, IN THE OASIS REGION OF BISKRA

The aim of this part is to diagnose the reality of the Biskra region with regard to the development of: palm cultivation, the size of date production, associated industries and initiatives taken to improve the sector's performance

III.1 The Definition Of Biskra Oases

The oasis of Biskra is one of the leading region in the field of agriculture located southeast of Algeria.

The total agricultural area is estimated at 1.652,751 hectares, which is approximately 77% of the total area of the region. It is estimated that the arable area is 185473 hectares, or 11% of the agricultural area, of which 98478 hectares are irrigated land and represent 53.10% of the arable agricultural area. The watering process depends mainly on groundwater and requires high costs.

It's main agricultural wealth is the Palm ,The region of Biskra is the first of the 16 states in Algeria leading in the production of dates, most of them are located in the western Zab region (Tolga, Fogala, Orlal).

The average yield per palm in Biskra is 67.7 kg. In 2017, the productivity of Dagleat Noor is estimated at 86.3 kg / palm; The yield of dried dates is estimated at 51.6 kg / palm, while wet dates and soft

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dates yield was 58.2 kg / palm. (<https://www.djazairress.com/akhbarelyoum/250383>. 12/11/2019)

III.2 Evolution Of The Date Legacy In Biskra

The region possesses an important wealth of palm trees (produced and unproductive), as this resource experienced deterioration during the nineties, but since the beginning of the new millennium it embodied the strategy of renewing the planting of palm trees and rebuilding this resource through the annual planting of a significant percentage of the number of palm trees produced with Taking into account that every year there is a percentage that is destroyed due to fires and other reasons.

Dates production is closely related to the number of palm trees produced, and the region has achieved increasing yields in terms of date production (Table1).

We note also from table1, that the number of fruit trees represents 92.5 percent of the total palm trees, the annual average rate of growth of date production in Biskra (table1) is estimated at 5 percent, which is an acceptable ratio that requires improvement.

III.3 Manufacturing Industries of Dates In Biskra.

the value of date production in Algeria increased from 77.5 billion dinars in 2010 to 364 billion dinars in 2015,(Neïla Benrahal <https://sudhorizons.dz/>). In the Biskra region, date production accounts for 41.2% of total national production. But the export represents only 3.5% of the date production which is described as insignificant compared to the existing potential.

In terms of date processing, in 2015, there were registered about 20 companies activating in the transformation of the date and this number has increased significantly; It has grown to more than 80 companies in 2017 in different regions of Algeria, to obtain products derived from dates such as: date sugar, honey, filled dates, date vinegar, date flour, date coffee. These investments are a revealing element of the trends of date processing in Algeria. The global demand for Algerian dates witnessed a noticeable increase, and the returns of dates in 2018 amounted to \$ 50 million, while it was \$ 24 million in 2017.(Chamber of Commerce and Agriculture Biskra. 2019)

the legal characteristic of most of the producers in the field of palm derivatives, is a form of craft, which performs activities such as Manufacture of palm leaves, therefore, their number is large when compared to the companies form that are active in the same field.

For the palm derivative industries in Biskra, they are shown by (Table2)

From Table 2, it is estimated that the number of craftsmen in the field of date palm derivatives is 165, out of a total of 788 in all fields, which is approximately 30%.

And most of the craftsmen are concentrated in the dates derivative industries, especially ,honey dates, date flour, dates vinegar and date paste.

III.4 The initiative of structuring the dates sector in the biskra region" Date Cluster".

Starting from a strategic diagnosis of the sector through the identification of strengths and weaknesses, an initiative was proposed to establish an industrial cluster for dates, and its main objective was to organize the export process rather than develop the palm derivatives sector.

As for the strengths of the dates industry and its derivatives, it is the sum of the qualitative gains that would contribute to the development of the field if the necessary conditions are met, and we mention the diversity in the types of dates (360 cultivars and 12 main varieties that can be exported), the relative knowledge that the region distinguishes in The field of date industry, it depends on the date industry since ancient times, which generated an accumulation of knowledge and stimulated a group of specialists in the field, the presence of private investors and export units, which today number approximately 35, 27 of which are in Biskra, and the presence of a professional organization through the contribution of a group of specialized public departments in the field. (Chamber of Commerce and Agriculture Biskra. 2019)

The weaknesses of the dates industry, which is evident through the poor financial returns, especially in exports, due to the absence of performance standards, and this leads to poor quality and consequently poor marketing among customers in the same field.

Therefore, the necessity in establishing a cluster of dates was to exploit and develop the strengths because the concept of the industrial

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cluster is a group of dealers active in one place and they offer one product to achieve a common goal.

We distinguish between two basic phases in the process of establishing a cluster of dates in the Biskra region, where the first stage started beginning in 2011 and in a short period made great strides, but it was not completed so that the program stopped in the field for a period of time and be resumed again in the period between late 2012 until the year 2015 will stop again for today. (*Small and Medium Enterprises Facilitation Center in Biskra. 2015*).

And according to personal investigation in the field, the main reason for the failure of the dates cluster in Biskra is the lack of trust between the dealers to exchange information and support some of them in commercial deals, especially international ones.

It is clear from the diagnosis that there are opportunities that allow the development of a variety of business in the palm-derived industries, taking into account the need to innovation with the logic of twist from the shortcomings in building excellence.

IV. Dates Incubator : A Local Innovative Economic Mechanism.

Achieving sustainable development at the local level requires searching for the activities that are inherent in the territorial under study, working on its structure and developing its economic and social dimensions that would positively affect its the environmental dimension, which is the main gateway to territorial green innovation.

From this standpoint, it is worth searching for economic mechanisms that generate a kind of creativity consistent with the fundamentals of the region, and considering that the Biskra region is one of the richest oases in Algeria with palm trees, then valuing this resource and preserving its continuity and thus the continuation of the oasis ecosystem itself.

From the point of view of this work, the approach should not be through increasing the exports of local dates, but must work to generate value as an addition and export of materials derived from dates or palm in general, to benefit from the resource in a smart way and develop local knowledge in order to offer local products capable of international competition.

And the development of these products will increase the demand for dates of all kinds, which motivates farmers in the field to increase palm planting, which supports vegetation and raises the environmental value of the oasis.

As innovative technique, at the local level, developing the date and palm derivatives sector in Biskra territorial, would be by the process of establishing a business incubator for the date-derivative industries, an economic mechanism that can push the sector towards a higher level of activity.

IV.1 Definition of Business Incubator

According to the Algerian legislation, and according to the Executive Decree No. 03-78 of 25 February 2003, the Basic Law of the Nurseries of Institutions includes "public institutions of an industrial and commercial nature, with moral personality and financial independence."

The nursery and the legislator may take several forms, including the incubator, and it is a support structure that guarantees the support of project owners by providing a set of services; that is, it is a public body to support and receive, localize, accompaniment to create institutions that allow passage from the idea to the embodiment. (*Saoudi Abed Essamad.2017.p106. In arabic*)

The date's incubator aims to bridge the gap between scientific research (where creative ideas are initially developed) and commercial markets where products are sold to consumers. Currently, researchers in national universities, are developing innovative food products and packaging designs to enhance the demand for dates. There are many examples of new products and innovative technologies for preserving and manufacturing dates and exploiting palm and date waste. It is not marketed in the local market, due to the lack of a partnership between scientific research institutions and entrepreneurs and the public sector.

IV.2 The Objectives of Date's Incubator

There are several objectives for establishing a date's incubator for the manufacture of dates and the exploitation of palm and dates waste, which are:

- Promote the development of the national date industry
- Paying attention to the technologies and mechanisms of serving and developing the palm tree, and the techniques of manufacturing the rest of the palm trees.

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- Conducting advanced research to develop new products, manufacturing techniques and modern packaging.
- Promote the transfer of advanced technology to the date industry.
 - Helping businessmen to identify and evaluate appropriate manufacturing methods.
 - Conducting economic, financial and technical feasibility studies.
 - Finding employment opportunities.
- Helping incubator projects owners through training and other support programs.
 - Identify funding sources and help manage development risks.

IV.3 The Functions Of The Date Incubator In Biskra

The strategic task is to coordinate between a group of competent authorities in the field in order to value new ideas and implement them, Including the Chamber of Commerce and Industry, The association of date producers in Biskra, the research center in dry and semi- dry regions in Biskra, the University of Muhammad Khidr (College of Agriculture, College Biological Sciences, College of Economics, and the Contracting House), Directorate of Traditional Industries, Biskra vocational training center, Directorate of Agriculture, and various support funds (ANSEIJ-ANGEM-CNAC ...). The legal nature of this coordination is the existence of a book of conditions stating the commitment of each entity with the business incubator for dates and vice versa.

This is for:

- Encourage the emergence of innovative projects.
 - Providing support to new founders in the palm derivatives sector.
 - Developing synergy in the institutional environment in the dates sector.
 - Encouraging and improving the administrative performance of institutions in the sector through training sessions.
 - Developing human resources with the aim of encouraging citizens working in the date sector by providing vocational training programs for university and artisans.

IV.4 Work Mechanisms of the date incubator in Biskra

The projects attached to the incubator specialized in the dates sector, are sponsored and monitored during the different stages of the life of

these projects as follows: .(*Saoudi Abed Essamad.2017.p104.In arabic.*)

- Preliminary discussion and planning: At this stage, through personal interviews, between the incubator administration and the applicants for their projects, it is ensured that:

- The seriousness of the idea or project, and the applicability of the criteria for selection to the beneficiaries and their projects;
- The ability of the proposed team to manage the project;
- The quality and nature of the services required, the project from the incubator, and the ability of the incubator to provide it;
- Future plans for the project expansion.

- The stage of preparing the project plan: In light of the results reached in the first stage during the preparation of a feasibility study for the project economically, technically and in marketing, the beneficiary will prepare a plan for the project.

- The stage of joining the incubator and starting the activity: At this stage, the project is contracted, and a suitable place is assigned to it according to his plan.

- The stage of growth and development of the project: during which the performance of the institution working inside the incubator and its assistance is monitored, to achieve high growth rates through assistance and consultations from specialized technical assisting agencies in the incubator's administration, in addition to participating in seminars, workshops and training courses that take place inside the incubator in cooperation with the institution concerned.

- Graduation phase of the incubator: It is the final stage for projects inside the incubator, usually after a period ranging between two and three years after entering the project in the incubator, according to the exit criteria, where the project is expected to have achieved, a measure of success and growth and is able to start its activity Out of the incubator with larger business volume.

IV. The Sustainable Impact Of The Date Incubator in Biskra

Economic, technical , technological, social and socio-cultural and environmental benefits are Criteria for estimating the sustainable impact of the date incubator in Biskra.

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the economic impact the economic benefits are direct and indirect: - direct: wealth creation, development of local production (available and inexpensive), contribution to improving living standards; - indirect: achieving revenue in hard currency by exporting derivatives instead of dates that are recycled abroad and benefiting from them at the expense of the national economy. create an international brand for national dates and their derivatives, by identifying them and their distinctive characteristics.

the technical and technological impact date heritage management, whatever their nature, has repercussions in terms of mastering techniques and organizing the sector by promoting our ancestral know-how in the field. developing a local production technology, that takes advantage of local energy sources (wind and solar energy), in order to develop a sustainable local technology.

Social and socio-cultural impact-social: job creation, especially in the most remote oases in the country.

-Sociocultural: rehabilitation of the culture of recovery, which in the past, allowed Algerian phoenicultural oases to almost be self-sufficient in plant and livestock products by applying Lavoisier's principle "nothing is lost, nothing is created, everything transforms ".

Environmental or ecological impact

The promotion of a date industry will stimulate an extension in the local and national palm heritage. The materials from the date palm (lifs, dry palms, discarded pedicels and date waste, etc.) represent an important deposit to be exploited and exploited in oasis areas. They avoid us negative effects on the oasis system.

The combination of these impacts, will allow the continuity of Biskra oases ecosystem, through preserving palm trees, and achieving an industrial economic advantage that stems from local knowledge, to achieve benefits that accrue to the ecosystem itself, in many ways.

Results and Discussion:

Through this paper, we can present the following results

- The requirements for developing ecosystems correspond to the so-called territorial green innovation in order to develop it in an authentic and sustainable way.

- The development of the palm-derived industries sector requires new economic mechanisms.
- The creative ideas for establishing projects in the field of palm derivatives represent a development opportunity for the Biskra oasis, and the best way to preserve the palm wealth is to enable sustainable investment in the field.
- An incubator company specialized in the dates and palm derivatives in Biskra territorial, can play a strategic role in developing startups in the field.

Conclusions:

The oasis territorial including Biskra region represents an ecosystem that has a set of economic and social ingredients, structured around palm wealth and its derivatives. Therefore, the development and modernization of this ecosystem may be linked by building a fabric of institutions that value the palm resource and develop products based on it.

It is through this work that a suggestion of the date's incubator is made to bridge the gap between scientific research (where creative ideas are initially developed) and commercial markets, where products are sold, to establish imaging institutions in the field of palm-derived industries. This is with a strategic goal of improving economic indicators in the region, supporting the social dimension of the local community, and, moreover, fixing farmers in the field of agriculture, especially dates, and expanding the palm resource to take advantage of its environmental advantages.

TABLES

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Table 1. The evolution of the number of palm trees and the production of dates in the wilaya of Biskra 2015-2019

years	2014	2015	2016	2017	2018	2019
Number of palms (Million)	4.14	4.2	4.31	4.37	4.39	4.43
Volume of date production (Million tons)	3.82	4.07	4.28	4.38	4.7	4.8

Source: Biskra State Chamber of Commerce and Agriculture. 2019

Table 2. The number of craftsmen in the field of palm products in the Biskra region 2019.

Crafts related to palm products	The number of craftsmen in palm products
Dates products	132
preserving fruits(date)	22
Baskets industry	08
Manufacture of palm leaves	02
Sculpting on palm wood	01
Total	165

Source : The directorate of traditional industries of the state of Biskra. Statistics department. 2019

REFERENCES

- 1- Chamber of Commerce and Agriculture Biskra. 2019
- 2- El Aoufi nourdine, Théorie de la régulation : la perspective oubliée du développement, .0 de la régulation, Maison des sciences de l'homme paris nord. 6 | 2e semestre, pp.58-71 / Autumn 2009

- 3- <https://www.djazairess.com/akhbarelyoum/250383>.
12/11/2019
- 4- Jean-Marie Cardebat and Dimitri Uzunidis, Introduction générale Innovation verte et durabilité des territoires, Marché et organisations, N° 16, pp09-20, 2012.
- 5- Small and Medium Enterprises Facilitation Center in Biskra . Report on the Date Breeding Workshop “Cluster dates” 2015.
- 6- Soumia Bouzaher Lalouani. « Un aménagement durable par un projet écotouristique, Cas des ksour de la micro région des Ziban. Le redressement d’un circuit écotouristique. ». Doctorat en sciences .Université Mohamed Khider – Biskra. 2015.
- 7- The directorate of traditional industries of Biskra. Statistics department. 2019.
- 8- The FAO website, <http://www.fao.org/3/a-z741f.pdf>. 20/11/2019
- 9- The OECD website, <https://www.oecd.org/sti/ind/eco-innovationinindustryenablinggreengrowth.htm> .
- 10 -Ibrahim, Abdul Basit Odeh, Palm cultivation and date production in the Arab world: the current reality/obstacles/prospects for development, first edition: Juma Al Majid Center for Culture and Heritage, Dubai, 2013 (In Arabic)
- 11-Dr. Bakri Hussain Hasan, “The Future of Dates Processing Industries”, Seminar Book: The Palm, Life and Civilization, Isa Cultural Center, Bahrain, November 2009. www.iraq-datepalms.net (.2019/11/17In Arabic)
- 12-Saudi Abdel-Samad and Hijab Issa, Assessing the role of business incubators in establishing and supporting entrepreneurial projects in Algeria, Batna Institutions - incubator nursery case study, Journal of Business and Financial Economics JFBE. Issue 2, p. 99, 119, 2017. In Arabic.