

**SIWA COMMUNITY DEVELOPMENT AND ENVIRONMENT
CONSERVATION (SCDEC):
A REVOLUTION OF DEVELOPMENT IN THE LOST OASIS,
SIWA, WESTERN DESERT, EGYPT**

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ABSTRACT

The objective of this research was to identify agricultural innovations for sustainable agriculture in Siwa Oasis, Egypt, and to study the characteristics of a specific innovation system, in order to learn lessons and to define recommendations for sustainable innovation systems development.

The research went through three phase, screening phase, mapping phase and reporting phase, three stories were identified and one social innovation was chosen under the title of "SCDEC (Siwa Community Development and Environment Conservation) and Dates Exporter group "A revolution of development in the lost oasis Siwa"

Field visits were done to the oasis with personal interviews with SCDEC managers and group discussions with the farmers in order to understand the innovation system and its main Stakeholders.

Some of SEAGA tools were used according to the field Study and the community special traditions

- Venn Diagram
- Pairwise analysis
- Importance and influence Matrix

The results showed that SCDEC was a local NGO established to develop the siwan community and through exporting dates process its financial capital increased in a way that helped in achieving so many activities.

SCDEC became the main partner for most of the international projects in the Oasis.

Even though SDCEC is facing a problem of not having a packaging unit of its own, it is recommended to fasten this building in order to increase their income, to be able to export all over the year and to have a face to face relation with farmers to achieve more transparency.

Keywords: Agricultural innovation, Sustainable Agriculture, Stakeholders

Background concepts

The following concepts had guided my assessment and my research through the field work.

I have to indicate that the reference of all those concepts was the lecturers given by IAMB staff in the advanced specialized course of "Sustainable Agriculture" 2010-2011

Sustainable Agriculture:

It is the system of policies, institutions and communities that provide food and fibers conserving natural resources and environments aiming to provide

- Food security
- Poverty eradication
- Developing national and local communities.
- Cultural heritage.

Sustainable Development

It is the Development that meets the needs of the present, without compromising the ability of future generations to meet their own needs. (Iamb Staff lectures (WCED – 1987)”

Innovations:

It is the process of putting into use knowledge and inputs to achieve desired outcomes and create development impact.

NGOs :

It is a non governmental agency operating outside the commercial sector and work on one or more special issues

Agriculture Innovation System:

They are the number of actors, including organizations, institutions, private sectors, local groups, farmers and individuals through formal and informal networks, influence the way smallholders innovate their farms system

Agriculture:

It is the production of food and goods from crops and animals through farming, forestry, breeding, fishing....els.

Objectives

The objective of this research was to identify agricultural innovations for sustainable agriculture and to study the characteristics of a specific innovation system, in order to learn lessons and to define recommendations for sustainable innovation systems development

That was managed through three phases:

Screening phase:

It aimed to identify three significant stories and they were:

- The city of Tangier and the oasis of Siwa: Pilot actions to protect and promote their historical heritage.
- SEAP "Siwa Environmental Amelioration Project
- SCDEC (Siwa Community Development and Environment Conservation) and Dates Exporter group, a revolution of development in the lost oasis Siwa

Mapping phase:

SCDEC (Siwa Community Development and Environment Conservation) and Dates Exporter group, A revolution of development in the lost oasis Siwa" was chosen as the social innovation to be studied by the researcher.

The objective of this phase was:

- To identify the stakeholders for this Exporting Process.
- Analyze what are the linkages between the stakeholders
- Search if this innovation was sustainable and lead to other developing activities in the Oasis.
- How farmers were benefited from the exporting process activities
- Applying the most suitable SEAGA tools that could be used in the field study.

Reporting Phase:

This phase aimed to finalize the field work and the data collected in the final shape.

The Study Problem and Territorial description

According to the Egyptian definition, Siwa Oasis is considered to be the City and District of Siwa. Located in the western desert 800 km from Cairo the capital and 300 Km from Matrouh governorate which it administratively follows, Siwa Oasis was isolated for a very long time since there was no direct road to drive you there.

Through all that period of time (800 years according to different studies) Siwan people were managing their land and their underground water source within the 10 tribes through a social contract and a special tribes council that arrange most of their life issues socially and economically.

So we can imagine that Siwa is located in Matrouh governorate but it would had take you 18 hours to reach it from Matrouh and almost one day from Cairo.

UNDP (United Nations Development Program) and Egyptian Italian Cooperation Office were the first international organizations that started to apply projects to develop the Siwan community.

Methodology

A longer field visit was prepared from 23rd March till 5th of April with a second 3 days visit from 27th April-2nd of May.

Key informants use in collecting data:

- Elmahdi Ibrahim National Coo-manger of SEAP
- Abdulah Aeed : used to be the Project officer of SEAP, and now he is the coordinator of (The city of Tangier and the oasis of Siwa: Pilot actions to protect and promote their historical heritage)
- Anwar Sarhan the director of SCDE
- Shiekh Sayed The head of the trips council and the head of SCDEC Association.

A daily visits were done to the association for the interviews or reading some documents.

Personal interviews were done with the director Mr. Anwar Sarhan of SCDEC and the head of the association council Shiek Sayed.

A question list was prepared including

- The main reason why the association was established
- The legal frame work of the Association
- The training given to the association members
- The social impact of this association on the people in the Oasis
- The exporting and the marketing process.

200 farmers are participating in the exporting process, so a sample of 20 farmers which represent 10% was chosen to discuss with them the innovation process

Small group discussions were done with the farmers (4-5 people) since it is not the date season and most of them were in the field for the date

pollination so some field visits were done (10) for the farmers to discuss with them:

- How they joined the Association
- The exportation process
- Their problems
- How they share the exportation benefits.

In the early 80's a road was structured by the petrol companies to connect Siwa oasis with Matrouh governorate. By that time this road was the innovation that connected Siwa to the world through different medical and technical services that became easy to be delivered. Since that time tourism started to be the basic source of income for the Siwan community, it even gave the chance to Siwan youth to learn and continue for universities degrees.



Fig. 1: Siwa Location

Agriculture production depend especially on olives and dates (special historical varieties) Siwi and Frehe variety.

Siwa has 10 tribes and 3 villages used to be managed by tribe council but now there is the chairman of the city and the vise chairman who usually hired by the Egyptian government.

No doubt that many international organizations were interested to study and help to develop this isolated community in order to improve those people's life and help developing their sustainable resources management. This was managed through many projects which

considered being technical or social innovations in the oasis, and here comes the importance of this research in order to identify the sustainability of this innovations.

Some of SEAGA tools were used according to the field Study and the community special traditions

- Venn Diagram
- Paired analysis
- Importance and influence Matrix

A Venn diagram was prepared with SCDEC management unit in order to know the linkages between the actors involved in the Exporting process, on the other hand a pairwise analysis was done twice, first with the SCDEC management and second with the farmers as a way to identify the main problems facing both actors and how they see the exportation process obstacles from their different point of view.

RESULTS

UNDP (United Nation Development Program) with the cooperation of EIECP "Egyptian Italian Environmental Cooperation Program" started in 1998 applying SEAP (Siwa Environmental Amelioration Project) first Phase. This project aimed at developing Siwan community through giving micro credits to each Sheikh of a tribe who was responsible for recycling the loans inside his tribe among the farmers, but by the end of the project a big dilemma started to arise since most of the loans were not given back.

SEAP project discussed with the tribes the idea of establishing an association responsible for recycling those loans, as a way to solve the problems of not paying back the loans.

The association was established in 2001 by 31 members with a management council of 13 members representing the 10 tribes (one member from each tribe) and three villages (one member from each village). The council management members change every six years.

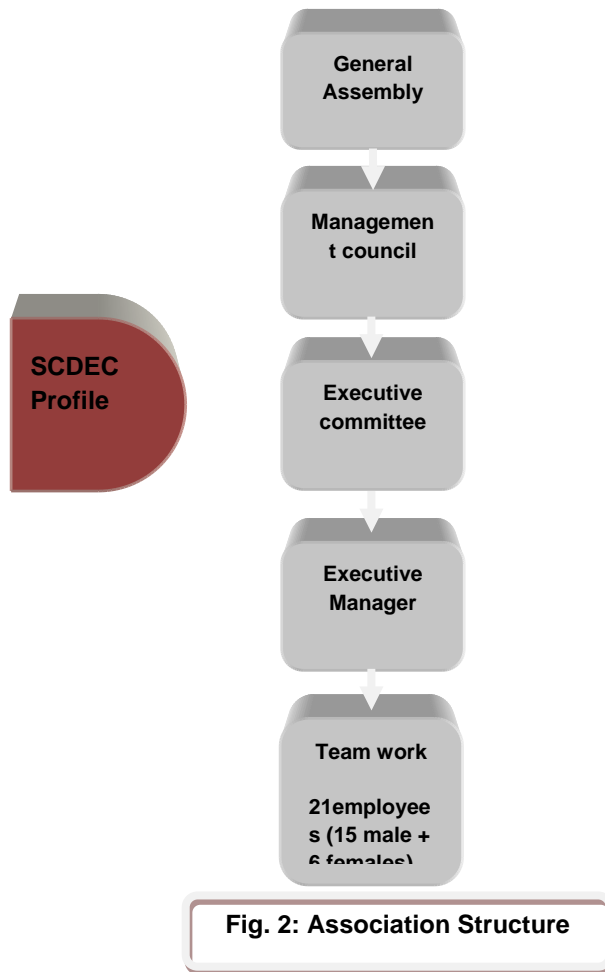
SEAP Supported SCDEC with 60000 Egyptian pounds (20000 \$) as a start, It helped making a linkage with Scampi (an Italian company used to import dates and handicraft) to start exporting dates, Now in 2011 SCDEC has 220 members

SEAP helped in making a linkage with Scampi "an Italian company used to import dates and handicraft" for start exporting dates, a very special varieties Siwi, Frehi and Azzawi, since they are only cultivated in Siwa Oasis Specially siwi variety.

After a visit from Scampi to the Oasis and due to the unavailability of packaging unit, a contract with done between SCDEC and "Nakhlteen Company" to be responsible of:

- Buying the dates from the farmers with high prices (from 1 to 5 Egyptian Pounds).
- Sorting and grading process to choose grade one to be exported.
- Packing dates in the packets designed by the association.

- Grade one sent to the association and grade two sold by the company in local markets.



On the other hand SCDEC is responsible for negotiating good prices and make sure that packaging is done in a good way. SCDEC Started exporting dates in 2002 under the name of Egypt Craft Center since they didn't had exportation license but this problem was solved in 2003 and they got their own license and were able to export under their name SCDEC

In 2006 and according the good name that SCDEC made in Italian Markets, they were able to make a new contract with Macondo Company which allow them to change the old company "Scamy" The money that SCDEC gain from exportation is not paid back to the farmers, they are recycled in many activities in order to serve the community.

SEAGA tools used to describe the innovation

The Venn diagram shown in fig. (3) was used to show us the linkage between different actors involved in the exporting process

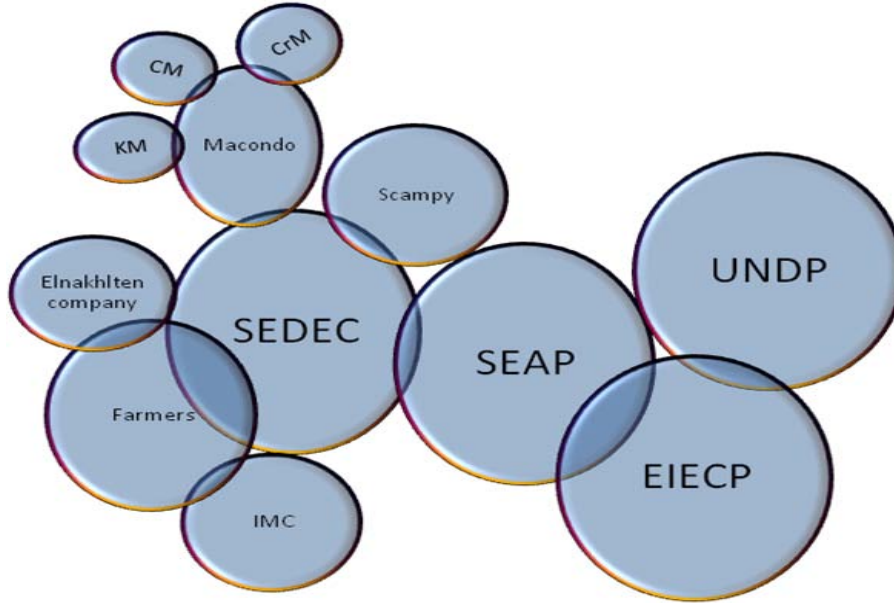


Fig.3 Venn diagram of Stakeholders

Key:

UNDP: United Nation Development Program

EIECP: Egyptian Italian Environmental cooperation Program

SEAP: Siwa Environmental Amelioration Project

SCDEC: Siwa Community Development and Environment Conservation

IMC: International Mediterranean certification

CM: Coop Market

CrM: Carrefour Market

KM: Konad Market

The size of the circle shows the degree of importance while the level of overlapping shows the degree of contact.

Pairwise ranking matrix in Fig. (4) and (5) was used to show the most important problems

This matrix (Fig:4) represent SDCEC board members point of view and was prepared through the personal interviews with the board members.

Pairwise Ranking Matrix according to the Association point of view					
Problems	exportation routine	packaging unit	governmental support	exporting competitors	limited exportation timing
exportation routine		packaging unit	governmental support	exporting competitors	limited exportation timing
packaging unit			packaging unit	packaging unit	packaging unit
governmental support				exporting competitors	limited exportation timing
exporting competitors					exporting competitors
limited exportation timing					

Problems	times preferred	Rank
exportation routine	0	5
packaging unit	4	1
governmental support	1	4
exporting competitors	3	2
limited exportation timing	2	3

Fig. 4: pairwise ranking matrix for SCDEC board management

It was clear from the discussions with the association management and the results in (Fig.4) that the most important problems are:

1. Packaging unit
2. exporting competitors
3. Limited exportation timing
4. Governmental support
5. Exportation routine.

Pairwise ranking Matrix from the farmers point of view This matrix was the result of farmers' group discussions and field visits.

Pairwise Ranking Matrix according to the Farmers point of view					
Problems	extension service	prices of dates	selling to the date company	organic certification	limited exportation timing
extension service		prices of dates	selling to the date company	organic certification	limited exportation timing
prices of dates			selling to the date company	selling to the date company	limited exportation timing
selling to the date company				organic certification	selling to the date company
organic certification					organic certification
limited exportation timing					

Problems	Times Preferred	Rank
extension service	0	5
prices of dates	1	4
selling to the date company	4	1
organic certification	3	2
limited exportation timing	2	3

Fig.5: pairwise ranking matrix for the farmers

It was clear from the group discussions, field visits, and with the pairwise ranking matrix that the most important problems from the farmers point of view is completely different:

1. Selling to the date company.
2. Organic certification.
3. Limited exportation timing.
4. Prices of dates.
5. Extension service.

Importance and influence matrix



Fig. 6: Stakeholders" Importance and influence Matrix

By applying this tool using semi structure interview with SCDEC management board, it was possible to divide the stack holders according to their importance and influence.

The Association achievements

No doubt that due to the date exportation SCDEC was able to enlarge the financial capital through all over those years, which helped SCDEC a lot in achieving so many activities to support the development in the Oasis. Those achievements could be shown as:

Achievements of SCDEC:

- SCDEC build a good name for exporting it special verities to Italy, and that helped in making a good linkage with slow food foundation for Biodiversity. SCDEC were invited to Terra Madre day 2010 to show their traditional old date varieties and handicraft, also a plan is going on for making agro-tourism in the Siwa oasis by Slow food with the help of SCDEC.
- SCDEC was apple to increase its employee from 4 persons in 2002 to 26 (15 male- 6 females) in 2010.

- According to the good name that SCDEC SCDEC is an essential partner of all the development projects done in the oasis with: United nation development program-Egyptian Italian Cooperation office.-COSPE – Cooperazione per lo Sviluppo dei Paesi Emergenti
- the association was rewarded by Microsoft in Egypt the impact award for serving the community in 2010
- SCDEC was rewarded NGO partner of the year 2007 for excellent partnership in their shared mission to bring technology access to the people of Egypt.

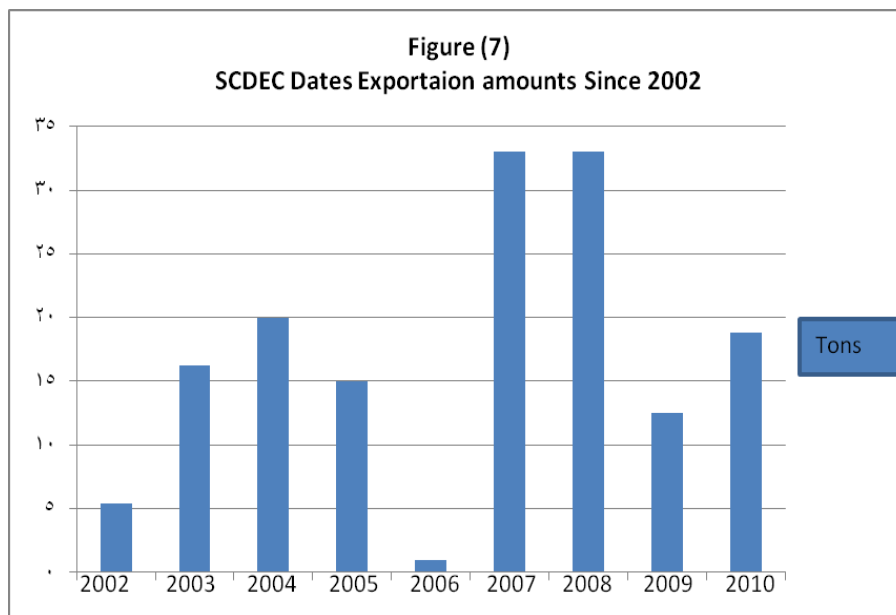
Achievements for the Siwan community

The exportation income allowed SCDEC to serve the community in so many

- Being a partner with ministry of communication and united nation development program to develop the intelligent school project in Siwa oasis
- Giving computer courses to the youth of Siwa with the help of micro soft.
- Training ladies on handicraft and help them in marketing their products.
- Loans were given to women to improve their life quality.

Achievements for the farmers

- 85 % of the farmers in the sample were able to enlarge their land from 1 hectare to 3 hectares in the last 7 years.
- 25 farmers were able to certify their date farmers as an organic farm from the certifier IMC “International Mediterranean certification” with total area 25 hectares.
- SCDEC created a group of farmers dates exporter in Siwa Oasis



DISCUSSION

SCDEC started dates exportation process successfully since 2002 till now, figure 14 shows how the level of dates exportation since 2002

According to pairwise ranking matrix it was clear that there are many problems faced by SCDEC in the exportation process which we will mention them according to their ranking:

1. Packaging unit
2. Exporting competitors
3. Limited exportation timing
4. Governmental support
5. Exporting routine

If we compare this results with figure (7) we will find that exportation was going so well for the first four years, in the fifth year suddenly their was a drop in the exportation amount to 1 ton since it was the year that SCDEC changed the contract from Scampy to Macondo company.

It was clear in the interviews that the packaging unit of Elnakhlteen company was helping SCDEC in the exportation process but that limited the association ability to export dates any time of the year since dates company in Siwa works 4 months a year starting August, that's why any orders asked to be delivered outside this short time is always canceled.

In Siwa there are 3 other date companies beside Elnakhlteen , since 2009 they started to enter the exportation markets strongly and that was directly reflected on the exportation amount as shown in Figure (7) in the last 2 years.

The income of exportation process was used wisely by SCDEC in developing the Siwan community but that resource is now in danger. That's why it was logically to come in first place in the pairwise ranking matrix.

On the other hand the pairwise ranking matrix for the farmers showed compatible results, since their problems were ranked as follow:

1. Selling their product to the date company (Elnakhlteen)
2. The organic certification
3. Limited exporting timing
4. Prices of dates
5. Extension services.

From the farmers group discussion it was clear that they complained about selling their products to the Date Company and not directly to the association.

Farmers are getting 5 Egyptian pounds for 1 kgm, even if some or most of their product was chosen to be exported or not, so it is a fixed number settled down by the date's company.

That's why farmers are convinced that selling directly to SCDEC will make them gain more money.

Government of Matrouh had built a big refrigerator that can help Siwan farmers to restore their products, even though Dates Company still works for 4 months only.

If SCDEC was able to have its own packaging unit the farmers group will be able to store their products and supply SCDEC with its needs all over the year and overlap the problem of limited exportation timing.

Organic certification arise to be a big problem from the farmers point of view since it takes a lot of time and needs a lot of support and that SCDEC is going through this process slowly.

We have to mention that SCDEC is doing this service with no costs paid by the farmer and with the help of IMC "International Mediterranean certification".

It was mentioned before how SCDEC was able to be a partner in all of the development projects and programs done by international organizations in the oasis.

As an evidence of that, it should be noted that now SCDEC is a main partner in a project "The city of Tangier and the oasis of Siwa: Pilot actions to protect and promote their historical heritage" with "COSPE – Cooperazione per lo Sviluppo dei Paesi Emergenti".

The objective of the action is to preserve and enhance the local cultural heritage in Morocco and Egypt and create effective management tools for sustainable safeguard of the tangible and intangible heritage of the city of Tangier and the Berber culture in the oasis of Siwa.

They Started 10 months ago and work are done in the oasis under the supervision and help of SCDEC.

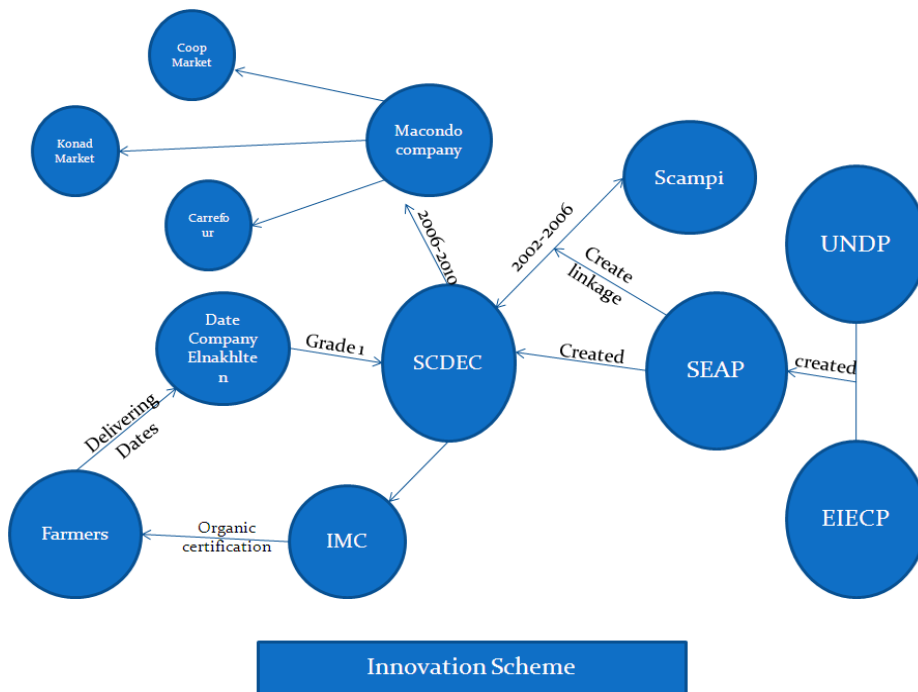


Fig. 8: Innovation Scheme

Conclusion

SCDEC is a local NGO created in 2001 with the help of SEAP (Siwa Environmental Amelioration Project).

SCDEC Association is considered to be a formal way of the tribes' council to be presented and take over the responsibilities to manage the Siwan resources and to support the projects that are applied in Siwa, since that the agreement of the Association management council means the agreements of the tribes

No doubt that SCDEC Association is considered to be a sustainable Social innovation in the Oasis with all its impact on the Farmer and Siwan community.

It was clear from the field visits and group discussion with farmers and the association board management that the packaging unit one of the major problems that they had to solve to guarantee the sustainable development done in the oasis for 9 years now.

Recommendations

- SCDEC should start managing to build their own packaging unit because it will help in solving many problems.
- Encouraging the organic certification for the farmers since that many farmers are interested.
- SCDEC should work on having better communication with the farmers to explain for them more and in details how the exportation process is going on and why Elnakhlteen Company is involved in this process that will help in achieving more and more transparency.

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تنمية المجتمع و الحفاظ على البيئة بواحة سيوه:
" ثورة فى التنمية لواحة سيوه "
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يستهدف البحث التعرف على المستحدثات الزراعية المستخدمة فى واحة سيوه ، مصر ، ودراسة الخصائص المميزة له من أجل استخلاص الدروس المستفادة، وتحديد التوصيات لتطوير وابتكار المستحدثات المستخدمة. تم انجاز البحث من خلال ثلاثة مراحل ، مرحلة الفرز ، ورسم الخرائط، و مرحلة التقارير النهائى ، وقد تم تحديد ثلاثة مستحدثات ، وقد تم اختبار جمعية سيوه لتنمية المجتمع والحفاظ على البيئة " SCDEC " ثورة فى التنمية ل واحة سيوه . وقد استخدمت الدراسة المقابلات البؤرية المتعمقة، والبحث بالمشاركة كأدوات لآتمام الزيارات الميدانية بالواحة ، حيث تم عقد المقابلات الشخصية مع مديري SCDEC ، والمناقشات الجماعية مع المزارعين من أجل فهم هيكل الجمعية وآليات العضوية و الجهات المشاركة و دور كلا منهم.

وقد استخدم منهج " SEAGA " للتحليل الكيفي من خلال :

• Venn Diagram

• تحليل Pairedwise

• Importance and influence Matrix

وأظهرت النتائج أن الجمعية كمنظمة غير حكومية قد أنشئت لتطوير المجتمع و من خلال عملية تصدير التمور، حيث تمكنت الجمعية من زيادة رأس المال والذي ساهم فى تحقيق العديد من الأنشطة ، ولذلك أصبحت الجمعية الشريك الرئيسي لمعظم المشاريع الدولية فى الواحة. وقد ساهمت الجمعية فى إحداث تغييرات اقتصادية واجتماعية واسعة النطاق والأثر على أعضائها، وان كانت تواجه مشكلة عدم وجود وحدة للتعبئة والتغليف الخاصة بها ، و لذلك ينصح بالإسراع من الانتهاء منها من أجل زيادة دخول أعضائها و لتكون قادرة على التصدير الي جميع أنحاء العالم.

كلمات مفتاحية : الابتكار الزراعي ، والزراعة المستخدمة ، وأصحاب المصلحة

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