



Mansoura University
Faculty of Tourism and Hotels

POTENTIALS OF AGRICULTURAL HERITAGE
SYSTEMS TOURISM (AHST): A CASE STUDY OF
DATE PALM USES IN GASTRONOMY, SIWA OASIS
– EGYPT

By

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Potentials of Agricultural Heritage Systems

**Tourism (AHST): A case study of date palm uses in
gastronomy, Siwa Oasis – Egypt**

Potentials of Agricultural Heritage Systems Tourism (AHST): A case study of date palm uses in gastronomy, Siwa Oasis – Egypt

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Abstract:

The main objective of the current study is to develop a strategy for the Agricultural Heritage Systems Tourism (AHST) pattern. The strategy aims to maintain sustainability of The Globally Important Agricultural Heritage System of Siwa through date palm uses in tourism and hospitality. The strategy is incorporating the triangular relationship between cuisine, product and territory. The current study employed a semi-structured interview in order to obtain the most accurate results through two samples; the first is purposeful and the second is convenient. The study indicated that (AHST) will support preservation of (GIAHS). The results also indicated that (AHST) will enhance the livelihood of the local community of Siwa as well as most of the sustainable development goals (SDGs). The results also showed that the uses of date palm in tourism and hospitality are limited, whether on or off farm. It is only used for drinks and desserts, and farms do not have sufficient facilities to receive tourists. The proposed strategy will enhance cooperation among stakeholders in order to enrich gastronomy tourism experience and to achieve (AHST) through the uses of date palm in food menu items and in other tourism and hospitality activities.

Key words Globally Important Agricultural Heritage systems (GIAHS), Agricultural Heritage Systems Tourism (AHST), Date Palm uses, Gastronomy, Siwa.

Introduction

The initiative of The Globally Important Agricultural Heritage Systems (GIAHS) was launched by Food and agriculture organization (FAO) in order to safeguard the remarkable agricultural heritage sites through many long-term programs and support such systems in order to enhance sustainable development. Under the adoption of the 2030 Agenda for Sustainable Development, there are seventeen Sustainable Development Goals (SDGs), and tourism has potentials to contribute to all the goals (UNWTO,2018; FAO,2018; UNDP,2018). The designation goes beyond merely identifying (GIHAS) and transforming them into many attractive tourist destinations with great economic, socio-cultural and environmental impacts (Sun,Y.H. et.al.,2013; Mi et.al., 2014; Tian et.al,2016). The World Tourism Day 2020 affirmed the role of tourism in the recovery of the rural areas from the impacts of the COVID-19 breakdown. So that FAO and UNWTO work together to promote agri-tourism at (GIAHS) sites; where tourists can experience the natural landscapes, the agricultural practices and cultural heritage (UNWTO,2020a; FAO,2020a). In general, Agri-tourism is an alternative source of revenues and heritage preservation in rural areas where agricultural activities and tourist come together. It includes various farm activities and accommodation at the rural surroundings with the local cuisine. (Sullins, Moxon, and McFadden, 2010; Srivastava,2016; tompkinscountyny,2016; Khangarot and Sahu,2019).Either organic or prepared food can be incorporated in agri-tourism in order to enhance sustainable practices of tourism and agri-food sector through the gastronomic experience (Sidali, Spiller and Schulze 2011;sun et.al.,2011). Using creative Agricultural food products provides tourists with an authentic sense of place, links them to the farms life community and revives agricultural heritage of the destination (Coelho, Coelho and egerer,2018; Ammirato et.al.,2020). Since 2005, FAO has designated sixty two agricultural heritage systems in twenty two countries and Siwa oasis was designated in 2015 (FAO). The economic entanglement between agriculture and tourism sectors is limited as well as the economic benefits for the local community that is the key stakeholder in sustainable tourism development by sharing

their heritage with visitors. (Tian,2016; Su et.al, 2018). Furthermore, local executive chefs of siwa have a low level of culinary skills, due to the low educational level and lack of training programs which can threaten the creativity of the culinary art. Consequently; agri-tourism will provide economic, educational, and social benefits to all stakeholders; date palm producers, chefs, tourists, communities as well as incentives for producers to remain in agriculture. (Abdel Rassoul and Fathy, 2019; FAO,2020). In other words, promoting farm tours and creative recipes in restaurants are challenging matters both for the hoteliers or the owners of date palm farms in Siwa. The objective of the current study is to investigate the potentials of (AHST) in these unique sites. This could be achieved through the creative uses of date palm in tourism and hospitality such as farm activities, food menus, furnishing and decorations of restaurants. The questions of the study are as follows; First; What are the current uses of date palm in tourism and hospitality in Siwa? Second; what are the impacts of the creative uses of date palm in tourism and hospitality on sustainability of Siwa as one of (GIAHS) and what is the appropriate strategy? In the literature of tourism there has been no comprehensive assessment of the role of tourism in sustainable development of (GIAHS) in comparison to the World Heritage Sites (WHSs); so that the current study provides theoretical and practical implications for promoting Siwa as (AHST) destination and maximizing the macroeconomic impacts for the owners of the date palm farms and other tourism providers.

Literature Review

The Globally Agricultural Heritage System (GIAHS) and Agricultural Heritage System Tourism (AHST)

The Globally Important Agricultural Heritage Systems (GIAHS) initiative was established by the Food and Agriculture Organization of the United Nations (FAO) in Johannesburg 2002 during the World Summit on Sustainable Development (WSSD) aiming to conserve these systems. The designation of sixty- two sites in twenty two countries was based on five criteria; Food and Livelihood Security, Cultures, Value systems and Social Organizations, Landscapes and Seascapes Features Local and accumulated traditional knowledge systems and Agro-biodiversity (FAO; Koohafkan, 2009; Vafadari,2013; Tian,et. al 2016; FAO,2017; UN). The concept of (GIAHS) is more complex than the common concept of heritage sites. It connects the living active agricultural systems with cultural heritage which is related to the territory usages, methods and production through the role of agriculture. In other words, when agriculture is practiced in a sustainable way, it can preserve and integrate both the environment and the livelihoods of the local communities especially small-scale family farmers who practice the agriculture based on traditional knowledge in line with (SDGs).(Altieri and Koohafkan,2003; Daugstad, Rønningen and Skar,2006; FAO;UN; orldagriculturalheritage; griculturalheritage;ouik).Consequently, FAO will empower these communities to use their local assets for income-generating by implementing action plans focusing on benefiting the local people through sustainable agri-tourism. In other words, Agricultural tourism is one of the most important means of achieving this goal ([Clintonfoundation](#); Fuller et.al,2015).In 2020, Covid-19 impacted these systems because of the decrease of demand for agricultural products as a result of recession of tourism and hospitality industry as an alternative source of income in hotels and restaurants, which led to increased unemployment, lower income, and lower prices of agricultural products in supply chains either on or off- farm levels. (FAO 2020a; Morales et.al.,2020; ouik). The World Tourism Day 2020 highlighted the important role that tourism can play in

preserving and promoting agricultural heritage around the world (UNWTO,2020 b). The FAO-UNWTO Partnership have been made in order to promote agri-tourism in FAO's (GIAHS) sites through combining traditions and innovation in using agricultural products related to the farms, food products and handicrafts (FAO,2020b). Kunisaki peninsula, Japan, the traditional rice-fish system at Qingtian in Zhejiang province of China, and Xuanhua Grape Garden, Hebei Province of China demonstrated the impacts of tourism on increasing the price of agricultural products and enhancing the recognition of the value of traditional agricultural systems. Consequently, conservation of the traditional agricultural systems could have a share of rural, eco, cultural tourism and food tourism market. As a result , it is vital for sustainable tourism development and heritage preservation (Fuller,et.al.,2015 Tian,2016; Ruoss, 2017; su,2018; worldagriculturalheritage). In the circumstances of the COVID-19 pandemic, agri-tourism areas will be more effective in sector's recovery because that tourists look for the natural, less crowded, eco-destinations and open-air trips in a sustainable manner environmentally, socially and with fair economic benefits especially for women empowerment and gender equality and greener approach in all travel stages (UNWTO,2021).

Tourism in the agricultural heritage systems can be classified as (AHST). The focus of AHST is heritage and preservation of biodiversity and indigenous lifestyle of agricultural heritage sites through tourism. In other words it is an integrated relationship among tourism, community and their culture and heritage (Tian, et.al 2016; Chauhan,2020). The Ifugao Rice Terraces, Philippines, is an example of harmonized humankind and environmental sites; it is one of (GIAHS) and a World Heritage Site with a history of more than 2000 years ago. There are many other examples for (AHST) applications such as **Satoyama and Satoumi, Japan, Soave Valley vineyards, Italy, Chiloé Agriculture, Chile and Rice Terraces in Southern Mountainous and Hilly areas, China** and Longxian village, situated in Zhejiang Province, southern China (worldagriculturalheritage; **Sun et.al., 2011; FAO; Hong et.al.,2013; Vafadari, 2014; Tian, et.al 2016; FAO,2020b**).In June,2021, FAO and International Council on Monuments and Sites (ICOMOS) and the International Union for Conservation of Nature (IUCN) issued a report about the Connecting

Practice Project which aims to the conservation and raising awareness with the interrelationship of natural and cultural dimensions of three of the world heritage sites and (GIHAS); Al Ain and Liwa Historical Date Palm Oases, United Arab Emirates and Hani Rice Terraces, China (FAO,2021). (AHST) is a tool for sustainability, it can create jobs, enrich local culture, human resources, and physical accommodations, roads, car parks, restaurants and public utilities (Valdivia and Barbieri,2014). In Qingtian County, China, tourism income and the reduced price of rice contribute for eliminating poverty (SDG1) and zero hunger (SDG2) and job creation achieving SDG 8 (FAO). This tourism pattern has the ability to link between agricultural system and ethnic groups, archaeological and religious buildings, social practices, oral traditions and performing arts and festival events. It could also establish cultural awareness, maintain the identity of the destination, sense of place and the livelihood patterns. (Tian, et.al., 2016).

Gastronomy and sustainable tourism development

Gastronomy tourism can become an activity supporting destinations and a determinant element of sustainable development of places. Gastronomy tourism also increases destinations' attractiveness and competitiveness by either trying local dishes of an area or observing production (Sormaz, et.al., 2016; Rinaldi,2017). Gastronomy tourism broadens the view through presenting gastronomical heritage, either regional food or organic food. (Sidali, Spiller and Schulze,2011; UNWTO,2017). Gastronomy is the primary prerequisite for the development of authentic agri- tourist experience; consequently, GIAHS are one of the most important places where gastronomy tourists can experience local food and beverages. Thus, the inclusion of agricultural producers, markets, craftsmen construct the identity and authenticity of the place and enrich value of the destination. (Grigorova, Shopova, and Timareva,2016; UNWTO,2017; Sorcaru, 2019; Testa et.al., 2019).

The collaboration between GIAHS Program and Slow Food Foundation promotes the agricultural systems and their products. As a part of this collaboration, the producers from Guinea-Bissau, Mali, Senegal and Sierra Leone presented their products at Slow Food's International Salone del Gusto/Terra Madre event in Turin, Italy, in October 2012. There have been overall increases in the production

volume, income, and market opportunities. In other words, promoting traditional food products linked to the origin stimulates the startups in hospitality and food industries (FAO) Consequently, Gastronomy tourism not only contributes to the conservation of biodiversity and landscapes of rural areas, but also supports the continuity of its population and preserves tangible and intangible heritage and the recovery of culinary memory. Thus, Gastronomic experience of tourist in Siwa could empower all parties of the gastronomic value chain, especially local community and producers of date palm. It will support the sustainability of (GIHAS) and the related tourist activities, diversify their economies and create new demand for their agricultural products (Harvey,2012; Vafadari,2013; UNWTO,2017; FAO,2019; FAO,2020b).

Siwa oasis as an Agricultural Heritage Systems tourist destination

Siwa oasis is located in Matrouh governorate, northwestern of the Egyptian Desert, 80 km from the Egyptian borders with Libya and 300 km south of the Mediterranean with a total area of 1372 km². It is situated in an extremely arid desert climate. It is inhabited with 28,300 persons and the primary income source is agriculture of date palm and olive and related Industries (Fig.1). Siwa Oasis is surrounded with unique geomorphologic features, flora and fauna, so that it has been declared Siwa Protected Area. It maintained both the uniqueness of the environmental and cultural value system and the assets of the traditional society such Siwi language, craft production, mud-salt brick architecture and rich heritage performances inside the tribes (Fig.2) (FAO,2016; EL Hadad and Ibrahim,2017; FAO; FAO,2018). As stated, Siwa has a variety in tourist attractions; so that it could be considered as an archeological, ethnic, cultural/heritage, curative, and Eco and safari destination (Amara,2007; Abd Elghani,2012; Egyptian tourism Authority; www.eeaa.gov.eg; Halawa,2016; UNESCO, 2019). In October 2016, and during the Egyptian Date Palm Festival Siwa was designated as one of (GIAHS) (ideassonline; FAO,2016).(GIAHS) designation has the potential to attract tourists and the sustainability of the rural development through agri-tourism (Yotsumoto and Vafadari, 2020).

The criteria were fulfilled as follows; First, food and livelihood security, means that agriculture is the most important economic activity generating jobs, nutrition and local income. There are more than 280,000 date palm generating about 25,000 tons of date yearly, as 2% of Egypt's total date production. Siwa is also a national olive producer; both of them are representing 93.4 % of the cultivated area. Second, Biodiversity and ecological functions, and this indicates that Siwa has a variety of vegetables, fruits and varied species of high quality date palm, olive and other crops, birds animals and livestock (Fig.3). Third, Knowledge systems and adapted technologies mean that Siwan farmers have a very rich knowledge regarding the harvest, postharvest products and the maintenance of the date palm trees (Samy,2014; Abdul Ghafar,2014; laboasis) (Fig.4). The fourth criterion is related to

Cultures, value systems and social organizations, it means that they have a unique intangible cultural heritage and special characteristics of cultural manifestations such as dancing, date palm festival (called "Al-Seiaha") which occurs in October (Fig5.). There are also many creative industries such as the architecture of mud brick and the historic craft production like silver jewelry, knitting and needle works, basketry woven items from palm frond (Fig.6). "Qabila" or tribe is the asset of the traditional society of Siwa and the majority of Siwans are Berber with unique customs and traditions. Their language is Siwi and it borrows some Arabic words. (siwa-oasis.it; Abul Hawa, et.al., 2007; Nofal,2011; Saleh; 2017; FAO,2016; Asham,2019). Finally, remarkable landscapes, land and water resources management, indicate that the oasis looks like surrounding desert, including few patches of many sparse natural species of plants relying only on the natural springs (Fig.7). The irrigation method in Siwa is the simple traditional surface irrigation by the gravity in the small basins, it is described as a low energy method. Closing and opening of water to the plots of the individual farmers are precisely timed schedules by the leaders of the society (FAO,2016; Hasan, 2016; Moghazy and Kaluarachchi, 2020). Consequently, Siwa could be an Agricultural Heritage Systems Tourist destination depending on the living heritage of date palm on- farm and off-farm.

Methodology

The objective of this study is to explore the current and the potential uses of date palm in tourism and hospitality in Siwa. The two sample groups, owners of date palm farms and executive chefs, have a vital role in enriching the economic entanglement between agriculture and tourism sectors through innovative uses of date palm in tourism and hospitality which may contribute to the sustainability of Siwa as one of (GIAHS). The researchers used the qualitative approach due to the limited studies in this research area. The study used the semi-structured interview in order to gain reliable and beneficial qualitative data that can be used for the deep understating of threats and opportunities of Agricultural Heritage Systems Tourism (AHST) in Siwa. Initially, the current study recruited a pilot study conducting five in-depth semi-structured interviews for each sample in order to avoid misleading and unnecessary questions and keeping the questions short and specific. The pilot study was conducted in

February 2020 before the first wave of the spread of Corona Virus in Egypt. The final version of the interview questions was launched and after the interviewees permission, the researchers recorded all face to face and phone calls in order to apply the precautionary measures of social distancing during the circumstances of Covid-19, and then transcribed verbatim. The interviews were conducted using clear and easy to understand closed and open-ended questions but not leading to bias. The interview included four parts, First, the warm-up part explained the study objectives whereas the second was for the demographics. Third part, was about the current uses of date palm in hospitality and tourism on farm and off- farm. Finally, the last part included the potential innovative uses of date palm in tourism and hospitality. The interviewers affirm the confidentiality of the responses and the fidelity of using them in scientific purposes then they thanked the participants for their time. Several factors were taken into consideration during the interview, such as postures, gestures, voice tone and eye contact in order to get the demanded information. The researchers were careful not to interrupt the interviewees or writing notes during the interview so as not to worry them as well as to stick to time.

The questions were developed from tourism literature and the pilot study that suggested new questions not mentioned in literature. The researchers sent the interview to some academics. All the interviews were conducted in Arabic and the duration of each interview ranged between 30 and 50 minutes. Purposeful sampling was used for the owners of date palm farms (n=35). The interview was conducted during and immediately after the harvest season in October and November 2020 (Fig.8). This sample was designed according to the potential of farms to benefit from tourism and hospitality activities which is interpreted in the age of the farm which is not less than 15 years, the farm space of not less than five acres and bio- diversity inside farms. As for executive chefs, who are responsible for planning and design menus; Convenience sampling was conducted in Siwa hospitality sector. Selection was about what are close at hand and easy to get access to them (n=45). Those types of improbability samples are suitable for such a qualitative study for the identification and selection of information-rich case. (Palinkas et.al.,2013; Patton, 2015; Elmusharaf,2016).

Results and discussion

The owners of date palm farms perceptions of the impacts of Agricultural Heritage Systems Tourism (AHST)

All the owners of date palm farms have a great knowledge about Siwa as one of (GIAHS). They grow date palm organically and irrigate naturally and they are also using advanced techniques to serve date palm. They indicated that agriculture is the vital economic activity with regard to date palm and olive. There are varieties of fruits beside date and olives such as pomegranate, oranges, figs, guavas, grapes and lemons, which enhance biodiversity. All of owners of the farms believe that tourism can sustain the agricultural heritage system, create jobs and increase their income. These results indicated to the high awareness among the interviewees about siwa as one of (GIAHS). This can be implemented for the development of Siwa as an AHST destination and for gastronomy tourism especially for the food items that made of date palm. This can also be implemented by launching many tourist activities such as "The Harvest Week" and " The Rural Days". They indicated that food security and economic entanglement between tourism and agriculture can be achieved by reviving the traditional food items that made of date palm as well as the innovative. Consequently, they also recognized that date palm could be a brand for Siwa as (AHST) destination. It could also make it a distinctive tourist destination for gastronomy tourism. It can also help to achieve the agricultural identity of Siwa as a tourist destination. Most of the owners of the farms asserted that tourism can be a propulsive force for agriculture; through buying fertilizers or using the advanced techniques to serve the palm. These results confirms that gastronomic experience can achieve many of (SDGs) in Siwa as one of (GIAHS).

The on-Farm current uses of date palm

Most of the owners of date palm farms indicated that their farms haven't many of the required facilities to receive tourists and as Mr. Yousef Addoul, one of the owners of the farms, he said " Visits are limited to scientific purposes of agricultural researchers and this is the first time to receive tourist and hospitality researchers". He added "I wish to receive tourists in my farm in order to taste the varied species of date I cultivate but it needs more facilities such as accommodation, restaurant

and gift shop". There is a limited number of farms that have tourist facilities such as camps which contains lodging, restaurant, café, gift shops, hot springs and Folkloric concerts such as the camp of Ali Khaled.

The potentials of tourist uses of date palm

The owners of the farms of date palm agree to operate their farms partially to be for tourist visits and they expressed their need to make deals with travel agents to organize day trips or overnights. They stated that farms should be equipped with palm leaves and stalks, free parking, and hot springs (Fig.9), free Wi-Fi and a gift shop for selling raw and processed date and souvenirs. One of them wishes to organize cooking workshops for traditional food and another one also wishes to participate more in palm date events as he said "I never participated in date palm festival." Mr. Youssef Adoul, an iconic owner of a date palm farm, indicated that he is the recipient of the prize of the best farms Nakheel owns multiple varieties of date palm, numbering up to 35 species and that was on the second session of the Egyptian Date Festival. The prize was presented by the Khalifa International Award for Date Palm and Agricultural Innovation for the year 2016. During this period Siwa was celebrated for its designation as one of (GIAHS). He also participated in preparing Atlas of Egyptian date with FAO. He prefers to organize rural days for visitors to the farm in order to taste his varieties. Among the most important types of his production of date are the "Aquarium" "Al Barhi" "Deglanor" "Al "Majdool" "Dushk Jbeil" "Sawabi Al Arousa" "Zawag Ablann" (EL Sharabasy and Rizq,2019) (Fig.10). Another farm owner wishes to have an eco- lodge rooms in his farm, and other one wants to make tourist competitions in siwan local food. Based on above, the potential uses of date palm depend on two basic elements, the amenities of the farms and the on-farm tourist activities.

The executive chefs perception of AHST impacts

Fortunately, the executive chefs perceive that sustainability of Siwa as one of GIAHS will be achieved through reviving traditional and modern recipes made of date palm in hotels and restaurants. They stated that date can promote gastronomy tourism in Siwa in addition to affirming the agricultural identity of Siwa as a tourist destination, which enables date palm to be a brand for marketing restaurants, hotels, or the destination of Siwa. They agreed that uses of date palm in tourism and hospitality will achieve

sustainability through the food security, biodiversity, job opportunities and increasing income at micro and macro levels.

The off-farm Current uses of date palm in hospitality

All the executive chefs said that their restaurants offer items made from date and use date palm trunks and leaves in the furniture and décor of hotels (Fig.11) and restaurants. (Fig.12). They stated that food items are often limited to some drinks and desserts. The executive chefs stated that international tourists prefer to taste traditional food made of date palm but because of Covid-19 they are few. On the contrary, the domestic tourists prefer western desserts containing date. Most of the executive chefs are not educated in hospitality institutions and this could be a leading indication that the ability to design complete menus of innovative food items of date palm, such as appetizers, salads, soups meat items as a main dish, pastries, bakery, and fabricated date, depends on the high level of specialized education or talent of innovation. Most of them indicated that there is no special menu for traditional food items of Siwa in all restaurants and they have no role in designing the menus except for three of the executive chefs. Chef Mohamed Al Maghribi, Chef of Taziri Hotel, he is not hospitality-educated but he is very talented where he said, "I am the menu and I use date in many items". Chef Ahmed, one of the hospitality- educated chefs, The chef of Shahrazad Cafeteria has invented a number of items that are not only Desserts such as pizza, salad (tomatoes-onions-peppers- date+ mayonnaise and molasses), date tart, custard with date, and he indicated that the type of "Frehee" date can be used in non-sweet items such as pizza, while "Bashair" date is used in sweets (Fig.13). It is worth noting that talented executive chef of Thales Hotel is the owner and during the interview, she suggested that date could be added to rice instead of raisins. In addition, Omran, the owner of the farm of Fatnas presents date and milk juice and make craft products made of date palm leaves. He stated that he has also tried to present "Basis" and "Tegellantini" as authentic siwan food items three years ago but he stopped because of the limited demand (Fig.14).

The potential uses of date palm in hospitality

Only a minority of the executive chefs are aware of classifying Siwa as one of GHIAS and most of them indicated their willingness to attend culinary art workshops about the uses of date

palm. The main challenge of using date in cooking is their perception that the date using is limited for desserts not for salads or meat dishes. This result confirms that they need more training for using date in cooking. These results mean that some of the chefs are enthusiastic to be creative in food menus by using date. UNWTO Secretary-General said "Innovation is a means to promote better tourism products, generate opportunities, create jobs and foster sustainability through gastronomy tourism" (UNWTO,2019).

The implications of the study

In the frame work of promoting (AHST) as a promising tourist pattern in a sustainable manner; the current study developed a strategy for maximizing the uses of date palm in tourism and hospitality activities as follows:

Vision Achieving sustainable development of Siwa as one of (GIAHS).

Mission Representing the identity of Siwa as an (AHST) destination through creating a unique/authentic tourist product by raising the readiness of the partners for linking tourist activities with date palm agricultural products.

goals-Setting tourism as propulsive force for the agricultural sector in Siwa.

-Maintaining heritage, culture and lifestyle based on date palm.

Objectives

- Diversification of the existing tourist product of Siwa.
- Expanding the international and domestic Siwan tourist markets.
- Promoting date palm food items in tourism and hospitality sector.
- Pumping new sources of income for farmers' income with a new stream through tourism industry.

The targeted tourism markets

- Rural/agri- tourism market includes (recreation like hiking, palm date picking, food source watching such as palm, trees or livestock–gastronomy of the varied types of date or dishes of date -industrial tourism such as handicrafts and food industries).
- Heritage tourism market (tangible/intangible agricultural heritage - Nostalgia for domestic tourists' roots).
- Educational tourism market (The agriculture science- The cultivation methods).

The organizational structure

Establishing an independent body called "The Date Palm Uses Development Authority" in order to co-ordinate all efforts of the partners in the mainstream of implementing the proposed programs in a way that strengthens the economic entanglement between tourism and agriculture sectors without private sector monopolistic practices or the negative environmental, cultural or economic impacts.

The partners

The governmental Organizations

Matrouh Governorate /Ministry of agriculture/ Ministry of Tourism and antiquities/ Regional Authority for the Promotion of Tourism/ The Federation of Egyptian Industries.

The national/Regional and International Research centers and technical support

- Matrouh University (faculty of tourism and hotels/ faculty of desert and environmental agriculture)
- Arab Organization for Agricultural Development/ (FAO)/ Agricultural co-operatives of siwa.

The financial organizations

Agricultural Finance Institutions in Egypt (Bank for Development and Agricultural Credit)

The producers and service providers (Private sector)(the owners of date palm farms/local restaurants/souks and factory owners).
The Egyptian Tourism Federation (Egyptian Travel Agents Association(E.T.A.A)/ Egyptian Hotel Association (E.H.A).

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The marketing Partners and event's organizers

Egyptian Authority for Tourism promotion/ State Information Service (SIS)/The Egyptian Executive chefs Association/ Cooking channels such as CBC Sofra.

The duration:

From one year to five years.

Table.1 Assessment of the current situation (SWOT analysis)

Strengths	Weaknesses
<ul style="list-style-type: none"> -Location (Easily accessible). -Rich Natural assets of date palm. -Rich cultural / heritage and religious assets of date palm. -Variety in tourism attractions. -High Awareness of owners of the date palm farms of the designations of Siwa as a (GIAHS). -Willingness of owners of the date palm farms to diversify farm tourist activities. -chefs readiness for creativity in food items using date palm. -Initiatives of creativity of palm dates food items. -Local/authentic food items from date palm. 	<ul style="list-style-type: none"> - Poor infrastructure. - Power imbalances between government and local community. - No Engaged, collaborative stakeholders. - No syndicate for date palm producers. - Very limited tourist and hospitality facilities in farms. - Limited contact of owners of the date palm farms with travel agents. - Chefs perceptions of limited usage of date palm in food items (only sweets and drinks). - Low Awareness of chefs of the designations of Siwa as a (GIAHS). - Lack of culinary education among siwan chefs. - Lack of agricultural education among siwan owners of the date palm farms .
Opportunities	Threats
<ul style="list-style-type: none"> -The designations of Siwa as a (GIAHS) 2015. -The inclusion of 'The Palm: Knowledge, Skills, Traditions and Practices' in the UNESCO Representative List of the Intangible Cultural Heritage of Humanity 2019. -FAO's Strategy for the 	<ul style="list-style-type: none"> - Decline of tourist demand after covid-19. - An inadequate legislative framework.

<p>Development of Palm Dates in Egypt with MALR, the Ministry of Trade and Industry, Khalifa International Award for Palm Dates and Agricultural Innovation and UNIDO.</p> <ul style="list-style-type: none">-Government adoption of Developing Siwa Oasis within a comprehensive framework value of the oasis, as well as a unique tourist destination 2020.-UNWTO declaration of world tourism day of tourism and rural development 2020.-The study of "The value chain of date palm", prepared by the Arab Organization for Agricultural Development in cooperation with (FAO).-Issuing of FAO Atlas of Egyptian Dates-The initiative of Egyptian President Abdel Fattah El Sisi to establish a very large date farm containing the finest types of dates.-An agreement was signed to finance the first Project to implement the Strategy that was translated into an Action Plan accompanied with a specific Time Table, according to which the Date Palm sector will be developed to improve and increase the export competitiveness of Egyptian Dates which will eventually increase export rates from 38 thousand tons to 120 thousand tons annually over the next 5 years.-A promotional campaign	
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<p>between Egyptian ministry of agriculture and FAO for a digital application entitled "Beneficial in Food and Agriculture", with the aim of strengthening the extension services provided to farmers and rural women.</p> <p>-Development of the new Egyptian countryside (east of siwa).</p>	
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Source: Adapted from the literature and the field study.

Table.2 Action plan

Programs	Tactics	Implementation mechanisms	Partnership	Outputs
program of capacity building and investment	Raising awareness of chefs, owners of the farms and craftsmen and women about the economic, tourist and heritage importance of date palm.	<ul style="list-style-type: none"> • Informative/educative workshops/educational seminars in a training center • Conferences about date palm uses in tourism and creative economy. • development of agri-tourism researches. 	<ul style="list-style-type: none"> • Chamber of Food Industries. • Egyptian Tourism Federation. • Matrouh University (faculty of tourism and hotels/ faculty of desert and environmental agriculture) 	Readiness for creativity in uses of date palm in tourism hospitality and creative industries
	training farmers, chefs and women in uses of date palm (souvenir production - incorporating date palm in recipes)	<ul style="list-style-type: none"> • Farmers/chefs /craftsmen and women networks. • Preparing a guide for the appropriate uses of different types of dates 	<ul style="list-style-type: none"> • Egyptian Executive chefs Association. • Egyptian Tourism Federation. • Matrouh University (faculty of tourism and hotels/ faculty of desert and environmental agriculture) 	Empowerment of human resources
	Farms, Hotels and restaurants financing opportunity with tax exemption for one three years	Fund for date palm uses in infrastructure and refrigerators	<ul style="list-style-type: none"> • Arab Organization for Agricultural Development. • FAO • Agricultural co-operatives. • Matrouh Governorate 	Increasing productivity of small investors and startups
program of uses of date palm in tourism and hospitality	Developing pattern of AHST (on farm-off farm)	<p>Agri-gastronomy activities - Date palm creative menus (traditional /new items see table 3).</p> <ul style="list-style-type: none"> • Festival of Siwa lanterns in Ramadan (health lectures / date selling exhibitions) • Festival "tasting siwa "Cuisine competitions/cooking education). <p>Agri-relaxation/sports /recreation activities</p> <ul style="list-style-type: none"> • Date palm oases route. • Rural day and date palm picking (Fig.15). • Harvest week. • competitions of palm climbing. <p>Creative industries activities</p> <ul style="list-style-type: none"> • Date palm crafts competition and fairs. • Reviving the 	<ul style="list-style-type: none"> • Egyptian Tourism Federation • Egyptian Authority for Tourism promotion(E.T.A.A) • State Information Service (SIS) • The Egyptian Executive chefs Association • Cooking channels such as CBC Sofra. • Ministry of Tourism and Antiquities. • Matrouh Governorate. • Ministry of agriculture. • Ministry of environment • Regional Authority for the Promotion of Tourism. • Egyptian Tourism Federation. • Crafts and agricultural co-operatives of siwa 	Branding local cuisine with date palm. Promoting creative industries of date palm. reviving of Date palm cultural heritage. Promoting educational tourism. Re- positioning and Branding siwa as AHST

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		permanent exhibition of productive families Siwa. • Schools and university trips to factories and workshops		
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Source : The researchers

The expected impacts

The economic impacts

- Enhancing the entanglement of tourism and agriculture sectors by reducing imports and increasing the added value of date palm in both sectors.
- Increasing family income especially for women.
- job creation (local guide at farms, sellers of palm-made souvenirs).
- Food security
- Poverty alleviation
- Sustainability of date palm cultivation .
- fair in the distribution of income without monopolistic practices.
- Increasing hospitality facilities.
- enhancing rural development.

The socio/cultural impacts

- Maintaining the unique identity of the destination of Siwa as (AHST) destination.
- ensuring authentic and rich tourist experience.
- enhancing traditional collective and individual knowledge systems of the indigenous farmers in Siwa.

The environmental impacts

- Encouraging sustainability of Siwa as one of (GIHAS).

Table(3):A suggested creative menu of date palm items

Breakfast	Item
Ajwa dates with eggs	
Omelet with dates, olives and mint	
Porridge with dates	
Tiglantini	
Appetizer	Item
Spring rolls with dates and almonds	
Kiri and date squares	
Rolls of dates with cheese	

Dates stuffed with cream cheese



Date Canapé (Nutella Banana Sandwich / Date Molasses & Peanut Butter Sandwich)



Grilled chicken wings (date molasses)



Green Beans with Pecans and Date Syrup



Herby cheesy date



Dates stuffed with white cheese and sprinkled with pistachios and paprika



Dates stuffed with roomy cheese and olives and wrapped with lamb tinsels



Dates stuffed with roudi cheese and olives and wrapped with zucchini tinsel



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cheese stuffed dates with pomegranate



cheese stuffed dates with orange



Soups

Item

Chicken, Red Dates and Ginger Soup



Red Dates soup with Mint



Date cream soup



Vegetables lamb meat soup with Date



Date Tomato soup



Date soup



Salads	Item
Watercress and dates salad	
Watercress salad with pomegranate	
dates salad	
Roquefort, pear and date salad	
Quinoa salad with dates and oranges	
Spinach, cheese and dates salad	
Pumpkin salad and dates with cheese	

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Eggplant salad with tomatoes and dates
on the Tunisian way



Dates orange salad with mint



Feta Olive salad



Marinated olive and Tomatoes salad



**Main courses and side
dishes**

Item

Freekeh with dates



béchamel Pasta with dates



Baskets grilled steaks and dates on
basalt stone



Moroccan lamb Tagin With Dates



Desserts	Item
Brownies with date	
Date with nuts and caramel	
Puff pastry with date	
Dates with Chocolate	
Dates Cake	
Dates cake with chocolate	
Red Dates and orange steamed Cake	
Cake with yogurt ,dates and caramel sauce	

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Date cake with chocolate mousse



Date cake with coffee



Dates cheesecake



Dates Flora Pasta



Date balls with nuts



Dates balls with chocolate sauce



Date balls with coconut



Date balls with sesame



Date balls with pistachio



Biscuit Date Balls (Lotus Biscuit)



Cookies with dates and oats



Dates and chocolate cookies



Dates and Coconut Cookies



Date cupcakes



Dates and walnut cake



Dates millet cake



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Dates cake with toffee



Date cake with cinnamon and apple



Date cake with walnuts and chocolate chips



Date tart



Dates tart with caramel



Crepe with date molasses



Date pudding



Gratin dates



Tiramisu With Dates



Muffin with dates



English cake with dates



Oriental Dessert

Item

Albessis



Qatayef stuffed with dates



Qatayef Pastries



Tagin Qatayef stuffed with dates



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Kunafa with dates



Glash with dates



Galash with custard and dates



Knafeh with dates and walnuts



Dates pudding



Dates pudding with chocolate



Baklava with dates and nuts



Dates balls with oats



Basbousa dates



Dates maamoul



Date squares with nuts



Dates squeezed



Linza Damietta with dates



Oats with dates and milk



Bakery

Item

Croissant with dates



Pate with dates



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Dates bread



Date pastries



Dates beehive



Kaab El Ghazal with dates



Kores with Ajwa



Koras with curry cheese and Ajwa



Beverage

Item

Dates apple juice



Avocado drink with milk and dates



Milk juice with dates



Roman drink with dates



Dates milkshake



A milkshake with cardamom



Dates and banana cocktail



Iced dates with cinnamon and cream



Banana and date smoothie



Date smoothie with milk



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Date smoothie with cinnamon



Milk with dates, nuts and cream
Chantilly



Dates seed coffee



Ramadan drinks

Item

Date palm



Food processed

Item

Date jam



Date molasses



Tamarella (nutella with dates)(



Source: The researchers

The above menu was designed upon the following:

- Reliance on dates as an alternative to nuts and sugar in some varieties.

- Reliance on dates and their derivatives, such as date vinegar, date molasses, and date jam and in the menu items.
- Reliance on mint and lemon grass as a complete aromatic herb for most menu dishes and as a whole for most of the menu items.

Conclusion and future researches

In the frame work of promoting the Agricultural Heritage Systems Tourism (AHST) as a promising tourist pattern in order to boost the rural development; the current study developed a strategy for maximizing the date palm uses in cuisine, and other tourist activities. The study indicated that local community involvement is extremely important to achieve the sustainability of (GIAHS) through the development of agri- tourism. In spite of the limited current uses of date palm in, there can be future creative uses due to government initiatives for rural development in Siwa. Moreover, this will enrich tourist experience through using date palm in food menus as alternatives for sugar and nuts and derivatives such as date vinegar, date molasses and date jam. Also, relying on olive, mint and lemongrass as the complete aromatic herbs for most menu items. In other words, Siwa traditional food could be presented in innovative ways according to the modern gastronomy. In conclusion, it is important to emphasize that good tourism management practices in (GIHAS) require integrated strategies implemented by all the stakeholders such as restaurants, hotels, farms, travel agencies, the public and private sectors. Egyptian Authority for Tourism promotion should organize agri-package tours in Siwa. Culinary tourism campaigns are necessary to maintain the identity of date palm in the agricultural heritage of Siwa. Future researches should examine the role of the national and local government, local community in sustainable tourism development in Siwa. Other types of researches should emphasize on tourist motivations and satisfaction with each activity in siwa as an agricultural heritage system destination.

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Yotsumoto, Y. and Vafadari, K(2020)Comparing cultural world heritage sites and globally important agricultural heritage systems and their potential for tourism,Journal of Heritage tourism, Vol.16,Issue,1,pp.43-61.

إمكانيات سياحة نظم التراث الزراعي : دراسة حالة لاستخدامات نخيل التمر في فن الطهو ، واحة سيوة – مصر

ملخص

الهدف الرئيس من الدراسة الحالية هو تقديم إستراتيجية لنمط سياحة أنظمة التراث الزراعي . تهدف الإستراتيجية إلى الحفاظ على نظام التراث الزراعي المستدام بسيوة من خلال استخدامات نخيل التمر في السياحة والضيافة. تدمج الإستراتيجية العلاقة الثلاثية بين المطبخ والمنتج والإقليم. استخدمت الدراسة الحالية مقابلة شبه منظمة من أجل الحصول على أدق النتائج من خلال عينتين. الأولى العينة القصدية (العمدية) والثانية العينة الملائمة. أشارت الدراسة إلى أن سياحة أنظمة التراث الزراعي ستدعم الحفاظ على نظم التراث الزراعي ذات الأهمية العالمية. كما أشارت النتائج إلى أن هذا النمط من السياحة سيعزز معيشة المجتمع المحلي في سيوة وكذلك معظم أهداف التنمية المستدامة . كما أظهرت النتائج أن استخدامات نخيل التمر في السياحة والضيافة محدودة سواء داخل المزرعة أو خارجها إذ تستخدم فقط للمشروبات والحلويات ، ولا يوجد في المزارع مرافق كافية لاستقبال السائحين. ستعمل الإستراتيجية المقترحة على تعزيز التعاون بين أصحاب المصلحة من أجل إثراء تجربة السياحة في فن الطهو وتحقيق سياحة أنظمة التراث الزراعي من خلال استخدامات نخيل التمر في عناصر قائمة الطعام وفي أنشطة السياحة والضيافة الأخرى.

الكلمات الدالة : نظم التراث الزراعي ذات الأهمية العالمية (GIAHS)، سياحة نظم التراث الزراعي (AHST) ، استخدامات نخيل التمر ، فن الطهو ، سيوة

Appendix



Fig. (1) Palm date and olive
Source: The researchers

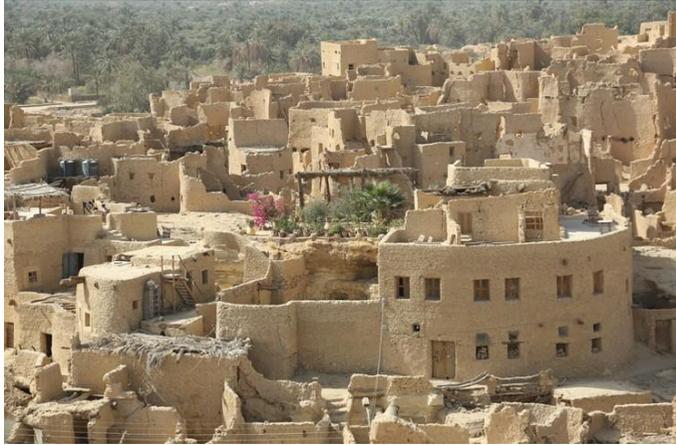


Fig. (2) Mud-salt brick architecture
Source: FAO

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Fig. (3) Biodiversity in Siwa
Source: The researchers and FAO



Fig. (4) Agricultural knowledge system
Source: The researchers and FAO



Fig. (5) Al-Seiaha festival
Source: youm7.com

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Fig. (6) handicrafts and creative industries
Source: The researchers and FAO



Fig. (7) Irrigation methods
Source: The researchers

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Fig. (8) Harvest season
Source: The researchers



Fig. (9) On -farm Current tourist capabilities
Source: The researchers and booking.com

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Fig. (10) Date varieties
Source: The researchers



Fig. (11) Using palm in hotels' decoration
Source: The researchers

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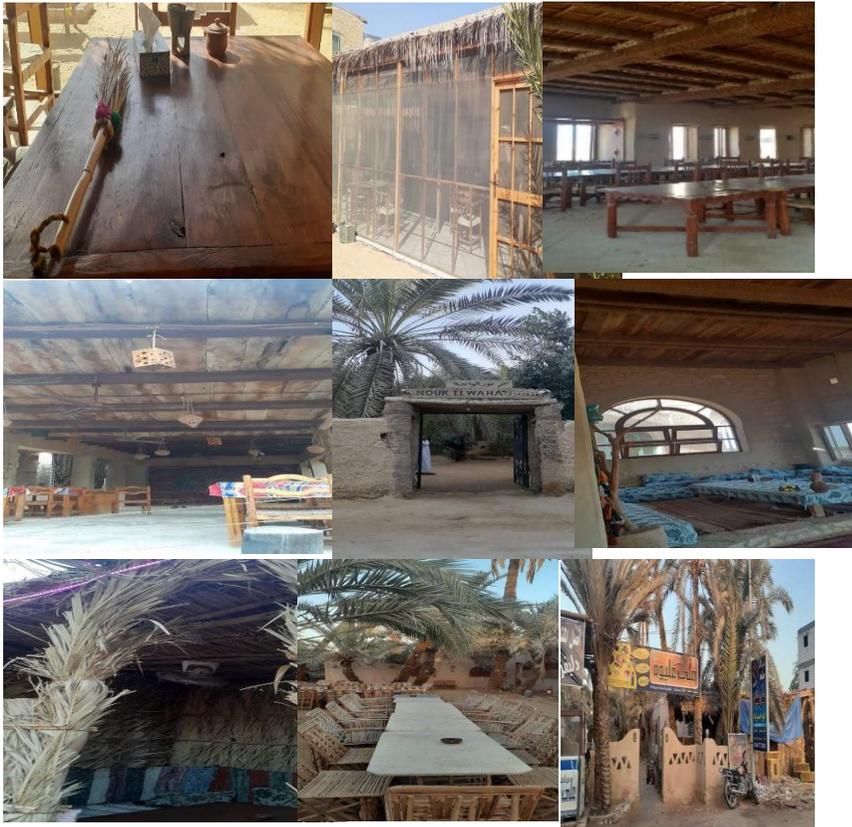


Fig. (12) Using palm in Restaurants' decoration
Source: The researchers



Fig. (13)

Source: The researchers and face book page of Shahrzad Cafe

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Fig. (14) owner of Fatnas farm and café and his craft products
Source: The researchers



Fig. (15) Fruit picking
Source: The researchers