

# Agricultural Sustainability through Agritourism in Oman and Potentials for Adoption

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## AGRICULTURAL SUSTAINABILITY THROUGH AGRITOURISM IN OMAN AND POTENTIALS FOR ADOPTION

**Abstract:** Most Middle Eastern countries are geographically located in arid or semi-arid climatic conditions. Agricultural practices have not been impressive in achieving sustainability in these countries. With the changing geopolitical undercurrents, these countries with the GCC countries as part of the Middle East are facing fluctuating economies as the oil price has become fragile and unstable. Oman's economy is heavily depending on hydrocarbons, and looking at other contribution sectors is necessary. The contribution from the agricultural sector is comparatively insignificant, but it explicitly diversified arid cropping systems and unique to the country. The agricultural production activities are often done with unique cultural practices, and this sector can be attractive to tourists. The tourism industry is considered a potential sector for boosting the economy that is aligned with Oman Vision 2040 strategy. This paper aims to investigate the potential of agritourism in different regions in Oman for adoption as a new venture. Different agricultural sites and products for promoting agritourism are selected for the study. The farm characteristic and activities at different agricultural sites are identified. The prediction number of agritourists and the farm income are calculated. The results of this study show that the selected agricultural sites in this study indicated highly potential for agritourism. Salalah is the best agritourism destination with predicated annual agritourists 188,000 and US\$5 m of farm income. Agritourism would assist in achieving agricultural sustainability through product value-addition, which would open access to global markets and improve the livelihood of farmers

**Keywords:** Agritourism; arid-climate; economic diversification; farm-characteristics, sustainability; value addition

### Introduction

Most Middle Eastern countries are geographically located in arid or semi-arid climatic conditions (Baumer, 1983; Djuma *et al.*, 2016; Mizyed, 2013). Agricultural practices have not been impressive in achieving sustainability and enhancing food security in these countries (Brief, 2010). With the changing geopolitical undercurrents, these countries are facing fluctuating economies as the oil price has become fragile and unstable. The Gulf Corporation Council (GCC), which is part of the Middle East countries are heavily depending on oil as the first income for the country that leads to a lack of economic diversification (Alqattan & Alhayky, 2016) which calls for looking at other sustainable sectors that contribute to raising the country's economy

Oman is one of the GCC countries that are heavily dependent on hydrocarbons (oil and gas) that contributed to approximately 90% of the government revenues in 2020 (CBO, 2017). However, the country's economy has been affected by the fluctuation of oil prices (Kitous *et al.*, 2016). Therefore, the country looks to other non-hydrocarbon sectors that might contribute to economic growth, such as trade, industry, tourism, and agriculture (SARADS, 2016). Oman vision 2040 stated that agricultural and rural development through tourism is playing an important role in economic diversification which makes this diversification, not an option but necessary (Oman Vision 2040, 2020; SARADS, 2016)

Agritourism is a concept consisting of agriculture and tourism sectors, which contributes to their development and enhances the benefits for both. It is also called farm tourism, which may accelerate its growth in the future (Arroyo *et al.*, 2013; Kumar & Dubey, 2016). Among the goals that agritourism achieves is to increase the number of tourists and improve the income of many farms through improving various agricultural activities. In different areas of the world, agritourism is considered a dynamic business sector (Sznajder, 2009).

The agritourism concept is very primitive, and weak in Oman, perhaps the agriculture and tourism sector are in continuous upward development. Zekri (2011) mentioned that visiting tourists to farms had raised the farm's profits from 6 to 21%, and there could be an additional 10% increase in the transportation cost. Therefore, this paper aims to investigate the potential of agritourism in different regions in Oman for adoption as a new venture.

## Literature Review

### *Tourism in Oman*

Abdul-Ghani, (2006) predicted that by the end of 2020, tourism in Oman was expected to contribute about 3% of the GDP, which would increase tourism revenues by ten times (about US\$ 338 million). Oman vision 2040 aims to develop the tourism sector and its participation in the economic diversification and financial sustainability of the country by increasing the contribution to the GDP from 6-10% by 2040 (AlMaimani & Johari, 2014; Oman Vision 2040, 2020). The statistical indicators of tourism growth in Oman from 2011-2017 are shown in Table 1, and the tourism development plan of the Oman vision 2040 is shown in Table 2.

Table 1: Growth rate of the statistical indicators of tourism in Oman from 2011-2017.

Indicator	2011	2012	2013	2014	2105	2016	2017	Growth rate (%)
Direct added value of the sector (million US\$)	1353	1593	1697	1792	1903	1858	1893	5.7
GDP Contribution (%)	1.9	2.0	2.1	2.1	2.7	2.8	2.6	5.4
Number of incoming tourists (million)	1.4	1.7	1.9	2.2	2.6	3.2	3.3	15.2

Source: (Abdul-Ghani, 2006; Al-Badi *et al.*, 2017; UNWTO, 2019)

Table 2: Plan of Oman vision 2040 of tourism development

Objective	Plan
Increase the employment opportunity of the tourism sector	More than ½ million
Increase the investment volume	US\$ 49 billion
Increase the contribution to the GDP	From 6 to 9%
Improve the small and medium institutions	1100 institutions

Source: (Abdul-Ghani, 2006; Al-Badi *et al.*, 2017; UNWTO, 2019).

**Nature Tourism Destinations in Oman**

The natural, heritage and cultural diversity of tourism sites in the Sultanate of Oman distinguished them from many of the neighbouring GCC countries. A variety of terrains extend from the Musandam Governorate in the north, known as the Gulf Gate ending, to the Dhofar Governorate in the south, which is famous for the autumn monsoon winds. Many natural tourism sites in Oman, as shown in Table 3, are located in areas of agricultural activities, which may contribute to creating opportunities for agritourism within the respective regions.

Table 3: Nature tourist destinations in Oman

Category	Description
<b>Castle and Forts</b>	
Bahla Castle	An archaeological sites listed on the UNESCO World List
Nizwa Castle	Built in the year 1668 AD, circular shape
Nakhal Castle	A large castle with hot springs and surrounded by high mountains
<b>Hot Springs</b>	
Al-Kasfah Hot Spring	Spring of natural water, fixed temperature 45°C. Natural treatment of rheumatism and skin diseases
Al-Thowarah Hot Spring	Warm water flows from the valley for a distance of 300 meters
<b>Beaches</b>	
Beach of Musandam Peninsula	Diving and swimming sites, and the small fish village
Gulf Coast of Oman	The famous historical district
Coast of Dhofar	Long sandy beaches with coconut trees & rare birds
<b>Mountains</b>	
Mount Grand Canyon	Highest mountains in Oman, 3005 m
Al-Jabal Al-Akhdar	Villages and farms on the edge of the slopes, steep valleys, and winding roads

Source: (Al-Sheriani, 2014; Anon, 2018, 2019; Nasser, 2017).

**Agriculture in Oman**

Agriculture is one of the main sources of life in Omani history, which is considered one of the most important sectors to achieve food security. The contribution of the agricultural sector to the national income is around US\$ 1560 million annually. The total cultivated area is more than 60 thousand hectares with various crops, including fruits, vegetables, fodder, and field crops, as shown in Table 4 (FAO, 2008, 2019; MOI, 2015). Most of the cultivated area is practised in the north-eastern coastal belt of Oman (Al-Ismaili *et al.*, 2017; Jayasuriya *et al.*, 2017).

Table 4: Total area cultivated by different crops

Crop	Area (ha)	Total area (%)
Fruit	39926	58.03
Vegetables	5154	8.10
Fodder	15956	25.08
Field crops	5596	8.79
Total	63632	100

Source: (FAO, 2008, 2019; MOI, 2015).

### Methodology

At the beginning of the research, the most important agricultural sites in Oman and the crops available in those sites that can be selected for promoting agritourism were identified, as shown in Table 5.

Table 5: Selected agricultural sites and products for promoting Agritourism.

Agricultural site	Product
Al-Sharkhiya	Date fruits, traditional crafts (textiles, gold and silver jewellery, leather tanning, shoemaking) (Omaninfo, 2021)
Al-Batinah	Wheatfields, Bee's honey, dates, mango, lemon, and others (Suhar-Omania, 2017)
Salalah	Coconut and banana, camel milk and meat, beef and cow milk, and frankincense (Luban) (Atheer-Omania, 2017)
Nizwa	Gold and silver industry, Cooper industry, sugarcane industry, Omani Halwa industry (Al-Salmi, 2018)
Bahla	Date palm products (handcraft), dates fruit, sugar cane, pottery (Al-Kharosi, 2017)
Al-Jabal Al-Akhdar	Pomegranate, peach, apple, walnut, roses, orchids (Al-Kalbani <i>et al.</i> , 2016)
Muscat	Omani Halwa, Fruits and vegetables (Al-Kharosi, 2017)

After that, the farm characteristics of the selected agricultural sites in Table 5 were identified, and the possibility of practicing various agritourism activities in these farms for tourists is shown in Table 6.

Table 6: Farm characteristics of different selected regions for applying different agritourism practices.

Agricultural site Governorate (region)	Farm characteristic	Possible agritourism activities in farms
Al-Sharkhiya (Bidyah)	Date fruit	Participating in harvesting, stripping, and cooking processes, selling date products
Al-Batinah (Barka, Nakhal)	Tomato, cucumber, and banana	Participating in farm activities and processes (smelling, touching, picking), selling fresh and other value-added products (sauces, pickles, etc.)
	Date fruit	Participating in date processing activities and selling date products
Dhofar (Salalah)	Coconut and banana	Participating in farm activities (smelling, touching, picking, tasting), selling fresh banana and coconut, and other coconut value-added products (water, oil, etc.)

	Fragrance (Luban)	Participating in the extraction process of Luban from the tree trunk, selling Luban products
Al-Dhakliyah (Nizwa, Bahla, Al-Jabal Al-Akdar)	Date fruit	Participating in the harvesting process, an exhibition showing the traditional and handicrafts products, selling fresh and value-added products (paste, syrup, etc.)
	Sugarcane	Participating in the extraction process, touching and testing the products, selling value-added products
	Pomegranate and rose	Participating in the picking process, an exhibition showing the manufacturing process (rose water & oil), selling the fresh and value-added products

The potential farms' incomes are determined by the predicted number of agritourists visiting the agritourism farms, which is determined by assuming 25% of the total number of the annual tourists visiting the selected agricultural sites in this study. Then, the contribution amount of raising the farm income from each agritourist is estimated at US\$26. Therefore, the number of agritourists is multiplied by US\$26 to get the potential farm income. Zekri (2011) reported a 10% increase in farm income due to agritourism activities.

## Results

The selected agritourism farms at different agritourism sites have shown high potential for applying agritourism in Oman. The predicted number of agritourists and expected farm income of selected different agricultural sites (as examples) are shown in Table 7.

*Table 7: Predicted number of agritourists and expected farm income of the agritourism sites.*

Agritourism sites	Agritourism farm	Annual tourist visit/ year	Predicted number of Agritourists	Potential farm income (US\$)
Nizwa	Date fruit	101,000/ 2015	25,250	656,500
Bahla		47,000/ 2015	11,750	305,500
Bydiah		167,000/ 2015	41,750	1,085,500
Nakhal		20,662/ 2017	5,166	134,316
Bahla	Sugarcane	47,000/ 2015	11,750	305,500
Al-Jabal Al-Akhdar	Pomegranate and roses	226,487/ 2018	56,622	1,472,172
Barka	Tomato and cucumber	2,326/ 2017	582	15,132
Barka	Banana	2,326/ 2017	582	15,132
Salalah	Coconut and Luban	752,289/ 2018	188,072	4,889,872
Salalah		752,289/ 2018	188,072	4,889,872

*Source: (FAO, 2019; MoTO, 2016)*

## **Discussion**

Oman is rich in many potential sites of tourism, agriculture, and heritage that distinguish it from many neighbouring countries. Most of the tourist areas in Oman are surrounded by agricultural horizons, which can contribute to introducing the concept of agritourism in the country and increasing investments in this sector (Oman Vision 2040, 2020; Sokhalingam *et al.*, 2013). The selected agricultural sites in this study indicated highly potential for applying agritourism. The results showed that Salalah is the top agritourism destination with a predicated annual agritourist for about 188,000 tourists and about US\$5 million of the annual income of each agritourism farm. The other three top agritourism destinations in Oman are Al-Jabal Al-Akhdar with 57,000 agritourists and US\$1.5 m, Bidyyah 42,000 agritourists and US\$1.1 m, and Nizwa 25,000 agritourists and US\$700,000. Enhancement of sustainability in agriculture and farm income can be achieved through adding values to agricultural products and participation of the tourists in farm activities (Table 6) that will contribute to the promotion of many agricultural sites for agritourism.

Oman vision 2040 aimed to increase the % GDP by 6-9% through tourism. In addition to that, the contribution of the agricultural sector to the national economy is about US\$ 1.54 billion annually. Therefore, there are opportunities for agritourism to contribute to improving tourism and agricultural sectors by increasing the number of annual agritourists and the farm income. Agriculture and rural development through tourism are targeted to create economic diversification in the country, which makes agritourism an important sector to achieve this diversity. Moreover, the agriculture and tourism sectors simultaneously are expected to contribute significantly to raising the country's economy, creating job opportunities for young people as indicated by the Oman Vision 2040, and reaching food security and agricultural sustainability. This program initiative should be included with capacity building, and technology transfer components as these farms would need new technologies and training for those who involve in the sector.

## **Conclusions**

Oman is looking to find alternative economic options that are not dependent on oil, such as tourism and agriculture. Many of the tourism destinations in Oman are surrounded by agriculture, and there is a possibility of linking natural tourism sites with the surrounded agricultural areas to introduce the concept of agritourism in the country, increase the investments in this sector and make Oman prominent tourism. Agritourism may improve and raise food security and agricultural sustainability by increasing the productivities of many agricultural products through value addition, which will contribute to the participation of local products in the global markets and improve farmers' livelihood in the country.

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