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EVALUATION OF THE EFFECTS OF ORGANIC AGRICULTURE APPLICATIONS ON ECO-TOURISM AND ENVIRONMENT AT THE SCOPE OF ÇANDIR ECOLOGICAL VILLAGE PROJECT BY TOURISM OPERATORS

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Abstract

Rapid increase in the world population and the developments in the industrialization gave birth to many problems relating human health and the environment. One of the core reasons is the intensive use of chemical inputs in agriculture in order to increase production dramatically. Organic farming is a form of agriculture in which chemical inputs are strictly excluded. Eco-villages are models of sustainable settlements in cultural, ecological and economic context. Çandır was preferred for the case study because of its rich natural, historical and cultural resources which were seen as main parts of eco-tourism supply. The aim of the study should be noted this study methodology includes literature search and questionnaires with tourism manager. Besides, inquiry papers (survey) has been applied to the tourism operators. Findings indicate that residents' attitudes about the economic, social and environmental impacts of rural tourism are in general favorable and that they want to participate in rural tourism activity
Keywords: Organic Farming, Ecotourism, Environmental, Ecological Village

ÇANDIR EKOLOJİK KÖYÜ PROJESİ KAPSAMINDA ORGANİK TARIM UYGULAMALARININ ÇEVREYE VE EKOTURİZME ETKİLERİNİN TURİZM İŞLETMECİLERİ TARAFINDAN DEĞERLENDİRİLMESİ

Özet

Dünya nüfusundaki hızlı artış ve sanayileşmede yaşanan gelişmeler çevre ve insan sağlığı konularında pek çok sorunu da beraberinde getirmiştir. Sorunların başında tarımda üretim artışı sağlamak için yoğun olarak kimyasal girdi kullanılması gelmektedir. Organik tarım insana ve çevreye dost bir üretim şeklidir. . Eko-köyler, ekolojik, ekonomik ve sosyo-kültürel anlamda sürdürülebilir yerleşim modelleridir. Çandır, eko-turizm arzının temel parçalarını oluşturan zengin doğal yapısı, tarihi ve kültürel kaynakları nedeniyle örnek çalışma alanı olarak seçilmiştir. Çalışma kapsamında, alanla ilgili kaynakça taraması, turizm işletmeleri yetkilileri ile yüz yüze görüşmeler yapılmıştır. Bunun yanında, sorgulama kâğıdı (anket) hazırlanmış, turizm işletmecilerine uygulanmıştır. Araştırmada bulgular, yerel işletmecilerin genel olarak kırsal turizmin gelişiminin ekonomik sosyal ve çevresel açıdan olumlu sonuçlar yaratacağı görüşünde olduğunu ve katılmak istediğini göstermektedir.
Anahtar Kelimeler: Organik tarım, Eko-turizm, Çevre, Ekolojik köy

1 Introduction

Like in most developed countries the uncontrolled synthetic production inputs are being used in Turkey. On the other hand, without thinking the results constituted by the processing techniques and technologies, intensive farming techniques are being used. At the present times, these kind of applications, which are characterise by negative effects on both damaging the natural balance and causing a vital danger by infecting not only human-beings but also all living organisms through food linkage, are become more prominent. Therefore, using the technics (methods) that have not lost its naturalness become a necessity, in sustainable agriculture. In this aspect, by avoiding the use of unnatural inputs like chemicals or synthetical fertilizers; preferring the organic agriculture technics (methods) for quality, health and environmental standards will be foundation factor [14]. Agricultural soils play a major role in reducing the climate change impact [1]. Organic agricultural practices are underpinned by soil biological processes that are influential in the supply of nutrients to plants as well as to the creation of beneficial soil structural conditions for plant growth [4]. Although, Turkey has convenient ecological conditions and export potential for organic production, the slice of Turkish organic products in the world market is low [7]. Corruption of environmental resources has the potential for being more highly destructive of productive assets in developing countries. Consequently, agriculture, environment and economy has to be evaluated as comlementary issues [9].

Responsive travel to natural areas which protect the environment and improves the level of prosperity the local people is known as Ecotourism [12]. Expressly with the impact of global warming, in the search for alternative tourism sea, sand and entertainment concept pushed people to mountain, lake, and rafting tourism [5]. Ecotourism supports environmental protection as well as generating economic

opportunities. This also emphasizes benefits to the local community and suggests that the involvement of the residents is also important for the effective management of tourism [18].

Agritourism activities comprise; accommodation in small cottages, pensions and camping areas, breakfast, picnic, fruit harvest, animal feeding, honey tasting, riding, fruit and production festivals, fishing, walking to nature. These activities could be realizable in family base or by tours, student groups and agricultural education and nature education groups [16].

The aim of the study is the evaulation of the effect of organic agriculture applications on ecotourism and envirnment at the scope of Çandır ecologic willage project by tourism operators.

2 Materials and Methods

Eco-villages are models of sustainable settlements in cultural, ecological and economic context. Çandır was preferred for the case study because of its rich natural, historical and cultural resources which were seen as main parts of eco-tourism supply. Because Çandır as natural values, a pristine environment, the feasibility climate of tourism, thermal springs, prosperous history, cultural heritage, the tourism possibilities in four seasons, the great potential of alternative tourism types, its increasing magnetism, and its accessibility easily present great advantages for the county's tourism development. To be able to pan out of targeted tourism development, one of the important factors are businesses with workers. Resident's attitudes toward tourism's development, activities, enterprises and tourists can produce positive or negative effects. Therefore resident's attitudes towards tourism development should be known and in the light of this information plans should be done. Within this study methodology includes literature review and questionnaires with tourism operators and managers in Dalyan at april 2015. Survey was prepared by the 5's Likert scale. Data was analysed by using the statistical program (SPSS 20 IBM) and, research findings and discussions were given in this part of the study. The result is increased reliability analysis Cronbach's Alpha 0.979. As a result of reliability analysis Cronbach 'Alpha value $0,80 \leq \alpha < 1,00$ that out of the range scale is highly reliable [10].

The survey questions were created from four sizes. These are environmental awareness scale [8], scale consumption of environmentally friendly products [11], the development of eco-tourism impact scale [15] and contribute content to the global marketing of open-ended questions [2] and all have been created by adapting the scale. The scale consists of 41 questions and 8 demographic questions. Total number of 47 tourism operators answered the questionary.

3 Results

This study includes 8 demographic questions which were answered by 47 participants.

Table 1. Frequency and percentage distributions of demographic questions.

Demographic Characteristics	Categories	Frequency	Percent
Gender	Women	14	30
	Men	33	70
Marital Status	Maried	31	66
	Single	16	34
Age	25 and smaller	2	4
	25-34	8	17
	35-44	12	26
	45-54	12	26
	55-64	9	20
	65 and older	4	9
Child	Yes	33	70
	No	14	30
How many kids	one child	9	19
	two child	22	47
	three child	2	3
Graduation status	Primary Education	6	13
	High School	21	45
	University	13	28
	Master	6	13
	PhD	-	-
Professional experience	0-3 year	2	4
	4-6 year	7	15
	7-9 year	4	9
	10-12 year	4	9
	13-15 year	3	6
	16 years and over	27	57
Annual revenue	Less than 10.000	10	21
	10.000-15.000	8	17
	15.000-20.000	6	13
	20.000-25.000	6	13
	30.000-35.000	2	4
	More than 35.000	8	17

According to the results of frequency analysis, 70% of participants were male, 30% female seems to be (Table 1). As shown in Table 1. most of the participants were married, has 2 children, graduated from high school, long professional experience and most of them have less than 10,000 ₺ annual revenue. Independent Samples t-test was used in this study to carry out the differences between variables [13]. P values of variables is greater than 0.05 in survey. Therefore the participants' marital status, gender did not affect the ecotourism perspective.

According to ANOVA test, education status of the participants, environmental perspectives ($0.041 < 0.05$) influence. It said that among the factors with other variables were significant

differences for the value of 0.05 to be large and there was no significant difference.

Take account of the independent or dependent variables to be used to determine the degree and direction of the relationship between them is called the correlation of statistical methods. According to above mentioned detail, below 0,50 weak correlation, the correlation between 0.50 and 0.70 medium and above 0.70 shows a strong correlation [13].

According to Table 2. There is no difference betwen variables and std. deviation is (0.763> 0.05), (0.382> 0.05), (0,499>0.05) respectively. According to Table 3. Variables effected the ecotourism because the values are greater than 0.05.

Table 2. t-test results for organic farming

Factor	Variables	n	Mean	Std.Deviation	Sig. (2-tailed)
Organic Farming	Woman	14	4,10	,732	,763
	Men	27	4,17	,731	
	Maried	27	4,08	,782	,382
	Single	14	4,27	,598	
	Have children	28	4,10	,779	,499
	Haven't children	13	4,25	,601	

Table 3. t-test results for ecotourism

Factor	Variables	n	Mean	Std.Deviation	Sig. (2-tailed)
Ecotourism	Woman	14	4,27	,535	,982
	Men	32	4,27	,740	
	Married	30	4,19	,734	,193
	Single	16	4,44	,542	
	Have children	32	4,18	,708	,151
	Haven't children	14	4,48	,576	

Table 4. t-test results for environment

Factor	Variables	n	Mean	Std.Deviation	Sig. (2-tailed)
Ecotourism	Woman	11	4,54	1,002	,965
	Men	31	4,52	,755	
	Maried	29	4,41	,931	,060
	Single	13	4,79	,355	
	Have children	30	4,42	,923	,056
	Haven't children	12	4,80	,327	

According to Table 4. Variables effected the ecotourism because the values are greater than 0.05.

According to Table 5. between organic agriculture and eco-tourism (0.805> 0.70), there is a striking positive correlation. According to the results of correlation analysis between organic agriculture and the environment (0,825>0,70), It has a positive and striking relationship. The correlation between eco-tourism based on the findings of the environmental analysis between eco-tourism and environment (0,820> 0,70), It said to be that there are positive and striking relationship, too.

Eco-tourism; such as wetlands and rare species or areas where endangered species especially birds and other wildlife, natural areas, cliffs, caves, fossil sites, archaeological sites is tourism based on natural and archaeological resources [6]. This definition is consistent with the result. All correlation results as cited in the study, Organic farming is a production system which are friendly to people and the environment. Organic agriculture, has the very important advantage in terms of food safety. Organic agriculture protects the environment and human health, ecological systems and natural resources and also organic agriculture is not exploite, harm and pollute [3].

Table 5 Correlation tables **0,01 (2 Way) *0,05 (2 Way)

	Organic Farming		Ecotourism		Environment	
Dimensions	Pearson Correlation	Sig.2 tailed	Pearson Correlation	Sig.2 tailed	Pearson Correlation	Sig.2 tailed
Organic Farming	1		,805**	,000	,825**	,000
Eco-tourism	,805**	,000	1	,000	,820**	,000
Environment	,825**	,000	,820**	,000	1	

Regression analysis is an analysis method used to examine the relationship between a dependent variable with one or more independent variables. Regression analysis of the relationship is not functional. It is a statistical relationship. The most commonly used is confidence interval values of %95-%99 [17]. Organic farming is the independent variable in the study. The dependent variables ecotourism and environment. Regression analysis was performed by two measurements. These are;

1. The environmental impact of organic farming,
2. The ecotourism impact of organic farming

According to Table 6. organic farming, it appears to form part of the 65% of eco-tourism. 0.000 <0.05 for that may be called Organic farming effect to eco-tourism. Same way according to Table 7. organic farming, it appears to form part of the 65% of environmental. 0.000 <0.05 for that may be called Organic farming effect to environmental.

Table 6. Organic agriculture effect of ecotourism

Factors	R	R2	Adjusted R2	Standard deviation	Statistical variable		
					R2 Change	F Change	Sig.
Organic Farming		,649	,640	,412	,649	72,048	,000
independent variable a: Organic farming dependent variable: Ecotourism * p<0,05 the level of meaningful							

Table 7. Organic agriculture effect of environment

Factors	R	R2	Adjusted R2	Standard deviation	Statistical variable		
					R^2 Change	F Change	Sig.
Organic Farming	,825a	,680	,671	,500	,680	72,238	,000

4 Results and Discussion

Although the village is connected to Köyceğiz, The village is closer to Dalyan. As the Çandır village is an organic village in terms of eco-tourism it is more concerned to Dalyan tourism business. Therefore Dalyan tourism business survey work has done and assessment of the relevant operators were taken. According to the results obtained from the questionnaire;

- Most of the participants were married, has 2 children, graduated from high school, long professional experience and most of them have less than 10,000 ₺ annual revenue.
- The participants' marital status, and gender did not affect the ecotourism perspective.
- Operators considered that the organic farming is an environmental approach.
- They think, organic farming would benefit the development of ecotourism in the area.
- The environmental awareness of the operators is high and the educational level rices the environmental awareness.
- Operators think that organic farming would benefit the development of organic village, Çandır.
- Operators believe that organic agriculture would contribute the promotion of the village.
- Operators believe that the services provided by organic products will be preferred by the tourists. It is proposed to increase the existing tourism activities.

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