

Ecologding as an Answer for Sustainable Development and Successful Resource Management: The Case of North West Coast in Alexandria

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Abstract—The continued growth of tourism in the future relies on maintaining a clean environment by achieving sustainable development. The erosion and degradation of beaches, the deterioration of coastal water quality, visual pollution of coastlines by massive developments, all this has contributed heavily to the loss of the natural attractiveness for tourism. In light of this, promoting the concept of sustainable coastal development is becoming a central goal for governments and private sector. An ecolodge is a small hotel or guesthouse that incorporates local architectural, cultural and natural characteristics, promotes environmental conservation through minimizing the use of waste and energy and produces social and economic benefits for local communities. Egypt has some scattered attempts in some areas like Sinai in the field of ecolodging. This research tends to investigate the potentials of the North West Coast (NWC) in Alexandria as a new candidate for ecolodging investments. The area is full of primitive natural and man-made resources. These, if used in an environmental-friendly way could achieve cost reductions as a result of successful resource management for investors on the one hand, and coastal preservation on the other hand. In-depth interviews will be conducted with stakeholders in the tourism sector to examine their opinion about the potentials of the research area for ecolodging developments. The candidates will be also asked to rate the importance of the availability of certain environmental aspects in such establishments such as the uses of resources that originate from local communities, uses of natural power sources, uses of an environmental-friendly sewage disposal, forbidding the use of materials of endangered species and enhancing cultural heritage conservation. The results show that the area is full of potentials that could be effectively used for ecolodging investments. This if efficiently used could attract ecotourism as a supplementary type of tourism that could be promoted in Alexandria aside cultural, recreational and religious tourism.

Keywords—Alexandria, ecolodging, ecotourism, sustainability.

I. INTRODUCTION

TOURISM can be seen as a main source of income and an indispensable tool to achieve equilibrium in the economy of some underdeveloped countries. It is considered a main source of hard currency and an important generator of direct and indirect employment for the host community. Nevertheless, some tourism development attempts have had a destructive effect on the environment and had negatively affected the host community. The sustainability concept of tourism development as found in the literature consists of three main axes namely; generating economic benefits to host

communities and effective participation of the host community in the tourism development schemes, preservation of cultural heritage and the protection of environmental resources for latter generations. Many countries are nowadays incorporating sustainable tourism development principles in their development policies.

Tourism development in Egypt can be detected in three main regions, namely the Sinai region; the Red Sea region; and the Mediterranean coast region. The Mediterranean coast region is divided into three sub regions; the North East coast, the Delta coast, and the North West Coast (NWC).

The NWC extends on about 500 kilometers along the Mediterranean coastline from Alexandria to Al Salloum cities. This coastline can be divided into two main parts; the coastal strip, which includes a large number of tourist villages mainly privately owned by Egyptians and the backland which consists of some isolated Bedouin settlements.

The urge for responsible tourism and environmentally-friendly accommodation explains the importance of this research. Nowadays most travelers are becoming “Ecotravellers”. They are looking for a fulfilling and an enlightening experience. According to [1], in Europe 20%-30% of travelers are aware of needs & values of sustainable tourism and 10%-20% of travelers look for ‘green’ options. In addition to that, 5%-10% of travelers’ demand ‘green’ holidays and in Germany, 65% (39 million) of travelers expect environmental quality; 42% (25 million) “think that it is particularly important to find environmentally-friendly accommodation.” In a U.K. survey, 87% of travelers said their holiday should not damage the environment and 53% of American travelers say their travel experience is enhanced when they learn as much as possible about local customs and culture [37]. Egypt can be considered as a potential applicant for this type of tourism. It is regarded as a four-season natural tourism destination with biodiversity, long coastlines, spectacular desert ecosystems, beautiful scenery and abundant tourist attractions.

Utilizing a preliminary assessment checklist which was proposed by [2] for site selection of ecolodging, the area between El Alamein and Aguiba (between the 100th to the 300th km west of Alexandria) was chosen for the intended project. The assessment checklist consists of three parts. The first part included criteria focusing on *suitability* like accessibility, adjacent community, access to shorelines, on site natural and cultural resources, multi-activity potential, remoteness, seclusion, distance from airport and four season

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potential. The second part includes criteria addressing *capability* like expansion potential, overall response to market and financial sustainability. The last part incorporated criteria involving *environmental impacts* like irreversible loss, landscape alteration, disturbance of fauna and coastline degradation.

This research is divided into three parts. *The first part* is dedicated to conducting a thorough literature review of research areas like the tourism development policy in the NWC, the definition of Ecolodges and Ecolodges' best practices and resource management.

The *second part* covers the methodology that is comprised of a qualitative analysis and discussion of in-depth interviews with key persons in the tourism field. The research can be categorized as utilizing a deductive approach. This "top-down" approach began with specific observations in the literature followed by setting up a conceptual model of research questions which can be formulated as follows:

- Is it viable to invest in an ecolodge in the NWC?
- Will the region benefit from such an investment?
- Will the host community be benefiting from the ecolodge?

- Will the ecolodge be an opportunity for diversifying the tourism demand in Alexandria?

After formulating the research questions, the researcher began to detect patterns and regularities, and finally ended up developing some general conclusions.

The *third part* consists of a set of recommendations in the form of a framework with generic guidelines for the design of a successful ecolodge which meets the principles of sustainability, successful resource management which generates profits and also complies with the well-fare of the environment and host community.

II. REVIEW OF LITERATURE

A. The Potentials of the Study Area

The selected area is considered a suitable applicant for the suggested ecolodge due to the presence of the following features: beautiful coastlines, spectacular scenery, high quality of nature, desert environments, minimum pollution levels and the presence of historic attractions in the surrounding areas [3]. Fig. 1 shows the borders of the NWC, delineated study area and tourist attractions around the study area.



Fig. 1 Map of NWC, delineated study area and surrounding tourist attractions [38]

The study area is surrounded by a full range of tourist attractions, monuments, oases and protected areas. The governorate of Matruh, which was founded by Alexander the Great extends south to the oasis of Siwa. This oasis is considered one of the most famous tourist sites with its pharaonic temple of Amon in addition to its curative characteristics. Furthermore, Cleopatra's bath, a rock formation on the Mediterranean can be located in the surrounding area near Matruh. Also the headquarters cave of field Marshal Rommel of Germany of the most famous battle of World War II, as well as the Italian cemetery memorial park are located at El-Alamein [4].

A major cultural heritage site, that of the ancient Marina, known as "Leokathbes" port of El Alamein, which is still in the process of excavation, is also situated there. It is also worth to mention that the world heritage site of Abu Mena, a historic site east of Matrouh, and the site of Zawiat Al-Agdab near Saloum, west of Matrouh are located there.

The protected area of *El Omayed* in Matruh includes more than 120 species of higher plants, around 70 bird species, 30 species of reptiles and amphibians. Diverse species of insects and mammals which include Dorcas gazelle, the Eastern Mediterranean endemic mole rat, Gerbils, Fennec, Red fox and the North African endemic and threatened rat [5]. This

biosphere reserve can play a major role in attracting ecotourists to the project.

It is worth to mention that the government is planning to develop an eco-city in Alalamein as an attempt to incorporate sustainability as a guiding principle for future projects. Renewable resources, desalinization plant and solar energy will be integrated. This plan intends to generate economic growth, improve social and living conditions for local communities in the area of the NWC, increase infrastructure, and provide housing and job opportunities [6].

B. Plan for Development of the NWC

Before 1980, the Awqaf and the Organization for Reconstruction and Agricultural possessed most of the coast between Alex-Matruh. Little development took place in this area at that time. In 1980, a planning scheme started from km 34 to km 104 with the aim of a complete development of the area including the coast and the related hinterland [3]. This plan was further developed to include a greater area in the region. The authority which was assigned to plan the NWC set some aims which can be summarized in the following [7]: “

1. Developing tourism attractions that residents as well as domestic and international tourists can use
2. Improving the general income level and economic and social welfare of people in the region, and encouraging the distribution of economic benefits of tourism as widely as possible throughout the society
3. Encouraging foreign tourism in order to increase the country's foreign exchange
4. The development of the backward area to attract the population from densely populated cities and regions
5. Elevate the social and educational level of the Bedouins
6. Utilizing existing infrastructure for tourism to the extent possible and developing new infrastructure that is multipurpose for both general and tourism use
7. Promoting conservation of the natural environment and minimizing negative environmental impacts”.

The policy of development of NWC focused on the physical, socio-cultural and environmental resources of the region. It also highlighted the integration of the local population in the development schemes and gave them priority in job opportunities in order to guarantee their support. It also focused on the preservation of local traditions, indigenous architectural lifestyles and heritage.

The development scheme also proposed establishing carrying capacity standards as well as building and planning regulations to preserve the environment.

Consideration was also given to the elimination of industries that would have a corruptive effect on the environment [3]. However, the development has taken a different track from that previously designed. Huge cement establishments have been placed along the coastal strip causing visual pollution and degradation of the coastal shores. The desertification problem continues to be unresolved. The policy succeeded in integrating the Bedouins more or less in the community but it also negatively affected to a certain extent their traditions because of their exposure to visitors from outside their closed community.

Despite the government's good intentions at the beginning, the profit achieved from tourist villages for residents made sustainability objectives take second place in the government's agenda [3]. It is a type of real estate development and not a tourism development that is bound to collapse due to disregard of environmental issues. The tourism development was realized in isolation from other development sectors (i.e. industrial, agricultural). The plan also failed in attracting international tourists and developing a tourism product that can compete with other regions on the Mediterranean Sea. Therefore, several practitioners recommended that great consideration should be given in the future for tourism development that is compatible with environmental and socio-cultural preservation issues.

C. What is an Ecolodge?

A part of the development of ecotourism is the growth of ecolodges. Ecolodges adopt an environmental friendly approach. They constitute a package of concepts, ethics, and programs that guide planners how to fit man-made settlements within sensitive areas in a rational way.

The main concept of ecolodges relies on educating tourists and the locals about the environment (i.e. responsible travel), and on the conservation of cultural heritage.

Ecolodges are usually small scale facilities with less than 15 rooms and with prices ranging from \$15 to \$500 per night [8]. These facilities should blend with the surrounding environments and provide the tourists with an authentic experience. They are usually owned by residents but a few are part of chains.

In [9], an ecolodge is defined as “a nature dependent lodge that meets the philosophy and principles of ecotourism”. Reference [10] explains that ecolodges must incorporate three main components: “conservation of neighboring lands, benefits to local communities, and interpretation to both local populations and guests”.

Some attributes typically characterize ecolodges. Ecolodges are often located in a natural area, or in an area in a short distance to a natural area. Their design must be in harmony with the surrounding environment using natural local resources when constructing the establishment. It also involves avoiding the use of nonrenewable resources as much as possible and employing energy saving methods. The concept of ecolodges involves the use of recycled materials and employing a non-polluting sewage disposal system. It should utilize methods that protect the environment from pollution and degradation. It employs people who are environment savvy persons, who are familiar with the surrounding area and habitat. It possibly provides materials like books, posters, photographs, orientation talks or other ways to inform visitors about the ecology of the area. In addition to that, the concept of an Ecolodge involves informing visitors of the value of a healthy ecosystem and how to best enjoy nature without impacting it [11]. The community must be involved at all stages of the project starting from the construction phase, along to the operation and management. As mentioned in [12], it is these characteristics that differentiate an ecolodge from traditional

resorts. "Ecolodges differentiate themselves from traditional resorts in the design (integrated with the natural environment versus developed as an enclave), food (good-and-hearty versus gourmet), and activities (nature education-based versus relaxation and facility-based), and other dimensions".

Reference [13] identified the key satisfying experiential dimensions of ecolodge visitors and recommended strategies to enhance the experience and service quality for ecolodge visitors.

As stated in [14], the environmental footprints of hotels are larger than any other facility the same size due to the excessive utilization of resources such as water and energy. Therefore, researchers and practitioners believe that the next era in accommodation facilities will be the era of green hotels and ecolodges, with the focus on the conservation of natural resources as their main objective. Such ventures (i.e. ecolodges) should have an impact on the lives of people living in the surrounding areas. From a sustainable development perspective, ecolodges should only be considered successful if local communities share fairly in the profits emerging from such projects. Therefore, a thorough analysis of the social, economic, environmental impacts of ecotourism and associated ecolodges on local communities should be conducted [15]. This involves conducting progressive feasibility studies every step the way starting with a pre-feasibility with environmental assessments before launching the project, assessments during construction phases and after-operation evaluations. At all stages stakeholders must be effectively engaged in decision making.

Several studies addressed important aspects of ecolodges. A study [12] surveyed several ecolodge owners in order to examine how they evaluate their performance. The results showed that there were no clear standards of how to evaluate the success of an ecolodge.

Reference [16] studied design issues, such as waste management of ecolodges. The International Finance Corporation studied the sustainability and feasibility of ecolodges around the world [10].

Ecolodges have a triple effect. They affect with their design and practices the surrounding environment, their employment and purchasing patterns affect the host community and the way they disseminate awareness about environmental issues affect ecotourists [12].

Some studies have tried to put standards to determine whether an ecolodge can be categorized as a sustainable accommodation or not. These criteria were based on the principles of sustainable development, namely economic benefits to host community, conservation of the environment and last but not least preservation of local cultures. Forty five ecolodges in Costa Rica fulfilled these criteria and were published in Blake and Becher's tourist guidebook, "The New Key to Costa Rica in 1994. This list was extended in 2003 to include 52 Costa Rican lodges [12].

Another study [17] was based on the results of a survey of 121 ecolodges located in both developed and developing countries. The results showed that the typical ecolodge is quite small, averaging less than 15 rooms. The cost for the

ecolodges averaged \$US 1 million for new construction and \$3 million for replacement value. It also showed that ecolodges face financing problems because the capital needed is too large for most individuals, but too small for most institutional investors. The study also demonstrated that almost two thirds of the financing comes from owner's own equity both in developing and developed countries (57%). Investors did not rely on commercial bank loans in the developing countries (11%) nevertheless bank loans played a significant role in developing countries (21%). Governments have been almost non-significant players in ecolodge financing (3%). Looking at the profitability of these ecolodges, it showed that 45% of the sample in developed countries were operating at a loss. On the other hand, an average of 17% of ecolodges in developing or developed countries were making profits of over 20%. The findings also showed that less than 20% of the ecolodges were primarily built at one time, with almost 60% built incrementally over time. It became clear that the most important barrier facing the owners of such ecolodges was lack of finance to expand, followed by lack of finance for marketing. Some of the minor barriers included difficulty of attracting tourists and extreme seasonality.

Reference [10] chose 15 enterprises, which manage a total of 73 individual ecolodges, because they were reputable, profitable businesses and innovative as research candidates. The research tried to find key factors for the success of an ecolodge. One of these factors addressed the destination where the ecolodge is located. The location must be attractive concerning ecology and wildlife, with good government policies supporting such projects and covering some costs of preserving the environment. Also media coverage plays a major role in marketing such an establishment.

The second success factor involved being different from competitors and offering best value for money. Another success factor was related to disseminating awareness about wildlife and nature with professional guides and environmentally-aware employees. Being easily accessible is one of the factors that could increase the opportunity to promote ecolodges. Other success factors of ecolodges involve the location of the ecolodge to other attractions, highly qualified management employees, creativity, professionalism and the ability to market such a project with small marketing budgets is essential for its success.

Ecolodging evolved in the last decades from being an entrepreneurial initiative to investments with distinctive business models. Developing a facility that involves having realistic return on investments and small debt service payments appear to be a common feature of a successful ecolodge. Being linked with other ecotourism ventures can make the development of an ecolodge more financially viable. This is because of economies of scale, synergies, knowledge transfer and relationships to markets [17].

D. Best Practices in Ecolodges as a Successful Resource Management

This part addresses several ecolodge best practices worldwide. Ecolodges perform some best practices that can be considered a source of reduction of some operational costs. "It has been well documented in several studies that economic benefits can be gained through implementing environmental initiatives" [18].

One thing that can be noticed by several studies is that green hotels have a lower employee turnover if compared to other accommodation facilities. This is because employees 'loyalty increases in environmentally conscious hotels [18].

With efficient *Energy Management Systems*, like low-energy consumption appliances, wind turbines and other hybrid power sources, ecolodges can cut costs. Solar systems and wind energy are an indispensable component of ecolodges. Hotels can generate up to 25% of their energy uses by using solar energy. Ecolodges can also use natural gas instead of electricity for the laundry and catering services, reducing the hotel's environmental impact. Natural lighting through proper placement of windows and natural ventilation and shading can also decrease energy consumption. Decreasing water consumption is one of the most important best practices used in ecolodges. Water can be recycled to be used in irrigation. Grey water recycling systems that reuse wash water have also been shown to decrease approximately 23 percent of total water consumption of some hotels [19].

The use of environmentally-friendly waste management systems is mostly essential in ecolodges. Hotels can use recycling (paper, cardboard, glass, plastic, cans, metal) and composting practices that can reduce some of their operational costs and sooth the negative impacts on the environment [19].

Using local construction materials (supplied by local contractors), oil lamps and solar-powered fans can save power and give the ecolodge a sense of place. It is favorable that all furnishings and fixtures be made locally. Food and beverages should be local, fresh and organic. Unused food waste can be picked up daily by villages to feed the animals [2].

Last but not least, using online marketing campaigns and reducing the use of paper brochures and mailing letters or when necessary the use of recycled paper for brochures, can reduce waste.

The above-mentioned best practices are used in the most successful ecolodges around the world. These ecolodges succeeded to reduce some operational costs using water and energy consumption practices and waste management applications.

Some examples which were mentioned in the manual of [2] include *Alila Ubud and Alila Manggis Eco-resorts in Bali* which achieved good results. These eco-resorts were certified for their commitment to operating at the highest environmental standard level in waste recycling with its on-site organic composting and recycling of 80% of its water consumption.

The *Lapa Rios Ecolodge in Costa Rica* also received the State's Award for Corporate Excellence for its exemplary business practices. These practices included: Exemplary

employment practices, responsible environmental practices and the contribution to the overall growth and development of the local economy. It also developed a comprehensive, environmental management system, including: Solar-heated water panels, a recycling program that includes bio-gas fuel generation from food scraps and a water and electricity conservation program.

A successful example in the Middle East involves the *Feyen Ecolodge in Jordan (Dana Reserve)*. At the 2003 World Summit, Dana was chosen as one of the four best sustainable ecological projects in the world. It uses some environment-friendly practices like solar powered energy and natural ventilation systems. Bedouin staff cook vegetarian cuisine from local desert vegetation and food is stored traditionally without the use of electricity [2].

This was a review of some studies which approached some important topics of ecolodging. The following part will include the field research which examined closely the opinions and suggestions of experts in the tourism industry about the potentials of the NWC to host the establishment of an ecolodge.

III. RESEARCH METHODOLOGY

This research can be categorized as an exploratory research. It provides insights into a particular problem and uncovers trends in certain opinions and motivations. In order to acquire a comprehensive answer to the research question, a qualitative method of data gathering was used [20].

Qualitative data collection methods vary between using unstructured or semi-structured techniques. This research used semi-structured in-depth interviews as a research method of data collection to gather information about experts' opinions regarding research questions which can be summarized in the following: The viability of the area of research in the NWC for the establishment of an ecolodge and the guidelines needed for this establishment to meet the triadic principles of a sustainable development.

Purposive sampling, which was used as a sampling method, is one of the most common sampling strategies that can be used to cluster participants according to preselected criteria related to a particular research question [20]. Sample size was determined when information and theoretical insights reached saturation, which constitutes of hearing the same information reported without anything new being added.

The interview was designed using a series of semi-structured questions with key actors in the tourism industry. Two hotel managers, one travel agencies' manager, one member of the tourism board and five academics in the faculty of tourism and hotels were interviewed to examine their opinions concerning research questions. Qualitative research was most suitable to generate a deeper understanding of complicated behavior and it also provided insights into how the key persons think and feel and reasons for those thoughts and feelings.

All of the interview candidates agreed to participate, seeing the research as both motivating and worthwhile. All respondents were informed in advance of the confidentiality of

their identities, and the academic purpose of the project was clarified. Responses were then analyzed using qualitative analysis techniques. The responses have been sorted in a set of comprehensive categories and themes for each question and have been assembled in relation to another category or variable. Some of the data were displayed in the form of charts in order to spot connections and interrelationships.

A. Data Analysis, Discussion and Findings

The first part of the interview included questions about gender, job title and educational level. A total of nine respondents were interviewed, 22.2% were male and 77.8% were female. Most of the respondents had a high-school level of education (44.44%) and about 55.56% of the respondents were PhD holders.

The questions were divided into sections. The first set of questions addressed the opinion of the interviewees about the development policy of the NWC in general, the characteristics of the NWC that could stimulate such a project (i.e. ecolodge) and how the existing establishments (projects) in the North West Coast could contribute vertically and horizontally to the project. The respondents agreed that the development policy of the NWC was promising; nevertheless, the implementation faced major difficulties. They noted that many policy decisions were not translated into actions and many policy objectives were not achieved. This confirms with the results of the study [3], which explained that the main problem that faced the development of the NWC was that the actors involved did not share common objectives. Nevertheless, they had different motives that resulted in a conflict of interest and affected the implementation process.

There was a general agreement among respondents that the plan was characterized by inconsistency and lack of an overall strategy for the development of the region, especially the desert-back. One of them explained:

"It's catastrophic. Only few rich people own or rent establishments along the coast three months a year and the rest of the year it is completely abandoned. Accordingly, others can't enjoy god's natural resources. NWC has some slums and living gatherings with very poor infrastructure, especially sewage."

The development plan did not consider any sustainability at all. It is based on achieving maximum profit margins by selling establishments for private ownership which is used for less than quarter of the year. It cannot be considered as a tourism development, only a sort of second home for residents in addition to some luxurious hotels as separate units with no connection with the surrounding environment or local people. The local people were not involved sufficiently in the development plan, and were mostly shut out and ignored. However, these findings accord with the views of [3].

One of the respondents explained that one of the main objectives of the development policy of the NWC involved a balanced sustainable development in the region. Nevertheless, the reality involved the construction of huge cement establishments, which were built without any consideration of any environmental issues. Coastal degradation and pollution

were generated as a result of the chaotic development process. He also noted that the projects that were built were intended as second homes for Egyptian residents with no intention to support international tourism. These houses were working only for three months and closed the rest of the year which could be considered as a waste of investment.

Some of the interviewees suggested that although on the one hand there were some errors in the implementation of the plan, on the other hand there were some success factors that should be highlighted. These factors involved the provision of the NWC with accommodation establishments and investments, soothing to a certain extent the isolation of the local people and providing employment opportunities.

When asked about their opinion about the characteristics of the NWC that could stimulate the intended project in the research area, the respondents noted that the NWC was full of natural and cultural resources that can be effectively used as a means of diversification of the tourism product in Alexandria. These resources can be effectively used to provide the ecotourist with a complete experience.

One of the respondents highlighted the appropriateness of the NWC for the establishment of an ecolodge, as ecolodges mostly involve the establishment of environmental units in remote locations near unspoiled natural places. Getting in touch with ethnic groups to observe their unique traditions and cultural heritage was also highlighted as an added value of the NWC.

Asking the experts how they perceive the resources of the NWC, descriptions like "healthy dry climate", beautiful scenery", "sand and sea", "unspoiled environments and biodiversity" clearly reflect how they value the place. One of the respondents noted:

"Activities in the area include hiking and backpacking, bird watching, safaris, visits to tribal villages, camel trekking, wildlife viewing and interpretation and flora and fauna research."

One of the interviewees highlighted the availability of infrastructure such as roads, water and electricity in large parts along the coast. Factors such as accessibility and the residential hinterland that can be a good supplier for materials for the project, were also highlighted. All these aspects are considered as a good basis for new investments and makes the NWC a good applicant for ecotourism projects. This is also supported by [21].

The existing establishments (i.e. hotels) in the North West Coast could contribute in a way vertically and horizontally to the ecolodge. The ecolodge can depend on some facilities of the existing accommodations or use some of the tours organized by these hotels or resorts at least at its earlier stages. As shown in [10], ecolodges can benefit from economies of scale and knowledge transfer by collaborating with surrounding projects.

One of the respondents disagreed and noted that the ecolodge should self-sustain itself and should not depend on other facilities in order to keep the uniqueness of the natural experience untouched and unspoiled.

The second set of questions addressed the issue of marketing, target markets, market researches and marketing strategies.

There was a general agreement that the target market are highly educated people with high level of environmental awareness, “special affiliation and respect to nature” and of moderate to high income. However, there was no agreement about the age range of the target segment. Some noted that marketers should focus on younger people who are involved in volunteering activities. This entails a facility with a large number of rooms and with a high range of activities. These travelers could be adventure travelers seeking connection with nature via thrilling activities or eco adventurer who are seeking authentic nature experience with mild activities [22].

Another study by [23] differentiated between three types of ecotourists as follows: ‘Harder’ ecotourists who are younger tourists, highly educated and eager to learn about nature in a wild challenging remote destination. They prefer backpacker accommodations and camping vehicles. ‘Softer’ ecotourists are less committed to the environment, enjoy beach resorts and prefer accommodations with high quality services. They usually travel with their family, are highly educated and are usually from a high-income bracket. The third segment as mentioned in the study are ‘Structured’ ecotourists who constitute a mingle of harder and softer Ecotourists. They are committed to the environment and yet expect high level of services. They are usually older travelers who are within the high-income bracket.

Other interviewees explained that marketers should focus on senior citizens. This involves a kind of “boutique hotel” with a small number of rooms offering soft activities. This kind of a luxurious establishment guarantees a quick return on investment. One of them stated:

“Both niche market with the intention to spend a holiday in a quiet place with wonderful nature and green environment as well as young people who respect the environment and will keep it clean while enjoying water sports on beaches to hard activities like safaris and enjoy their holiday”.

These results accord with several studies which addressed the socio-demographic characteristics of Ecotourists. The studies [24] and [25] indicated a positive correlation between level of education and environmental concern. These studies found that the more educated an individual is, the higher their level of environmental concern becomes. The study [26] illustrated that people are willing to pay up to five percent more for green accommodations. In addition to that, [27] found that consumers were willing to pay at least six percent more for green accommodations. The study [28] noted that the higher a consumer’s annual income is, the more prepared they were willing to stay at a green hotel.

During the interviews, respondents stated that the most important factors that affect an ecotourist’s decision when choosing a holiday are: “conservation interests” and “destination”. Nevertheless, factors like “referrals” and “popularity” were not considered as important as the other factors.

The direct competitors for this project are some scattered attempts of ecolodging facilities in the red sea and some ecolodges in Siwa.

Adrere Amellal, an Eco Village in Siwa (Prince Charles stayed at this facility) is a kind of a boutique hotel. This accommodation facility charged 461\$ as average room rate per night in July 2016 for two adults [38]. This village has no phones nor electricity and it depends on food cultivated internally. In order to compete, appropriate pricing strategies for the intended project must be considered as noted by the respondents. Indirect competitors are famous ecolodges in the Mediterranean Sea, in Morocco and Jordan.

The interviewees noted that the main strategies to attract ecotourists are “diversification strategies” by employing multi resources (cultural, recreational, curative tourism) in addition to pricing strategies. One of the interviewees explained that effective marketing strategies that highlight the competitive advantages are most important to attract ecotourists.

Respondents emphasized the idea that being “green certified” would increase the chances to attract potential customers. Two of the respondents explained that being certified as “green” will help the ecolodge get discounts from international eco-communities, or decrease taxes thus reducing costs. Also being “green” certified gives an added value to the lodge and this may also be used as a competitive advantage to distinguish the facility from others. In addition to that, it can be also utilized to enhance image and expand marketing opportunities. This accords with the survey of business travelers by Deloitte Consulting [29]. The survey showed that 95% of the respondents agreed that lodging companies should be undertaking ‘green’ initiatives and 90% say they look “to green while away.”

There was an agreement among interviewees that the most important attractive attribute in an ecolodge for ecotourists are “nature and rural culture”, followed by “protected areas (e.g. Eloumayed)”, “unspoiled places, a “non-westernized” society” and the region being “a remote area but still within the reach of the provincial capital and airport within one hour driving” (Fig. 2).

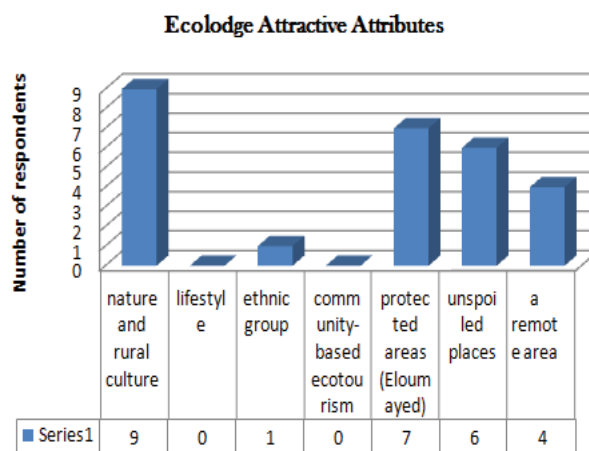


Fig. 2 Ecolodge Attractive Attributes

Marketing such a project must rely on both traditional and online marketing tools. Certain niche markets can be reached by traditional tools like international tour operators. It is very important to contact these operators and convince them to include the ecolodge as a new accommodation facility for a newly promoted type of tourism in Alexandria in their programs. This accords with [30] which noted that tour operators can play a major role in educating and raising awareness of tourists concerning environmental issues. With an average of 20 million consumers per year, they can have a remarkable effect. The study showed that the top 10 European tour operators are seeking ways to integrate sustainability in their programs. Some of the largest tour operators around the world (TUI, British Airways Holidays, TTG) gathered in a forum in 2000 titled “Tour Operators Initiative for Sustainable Tourism” to discuss strategies for sustainable tourism development and to highlight the importance of enhancing the sector’s awareness. Nevertheless, if the project was to rely on young to middle-aged visitors, online marketing would be most effective to attract them.

“Online promotion as well as international communication campaigns can be used to promote the project. Big tour operators will be effective with certain segments of niche markets”.

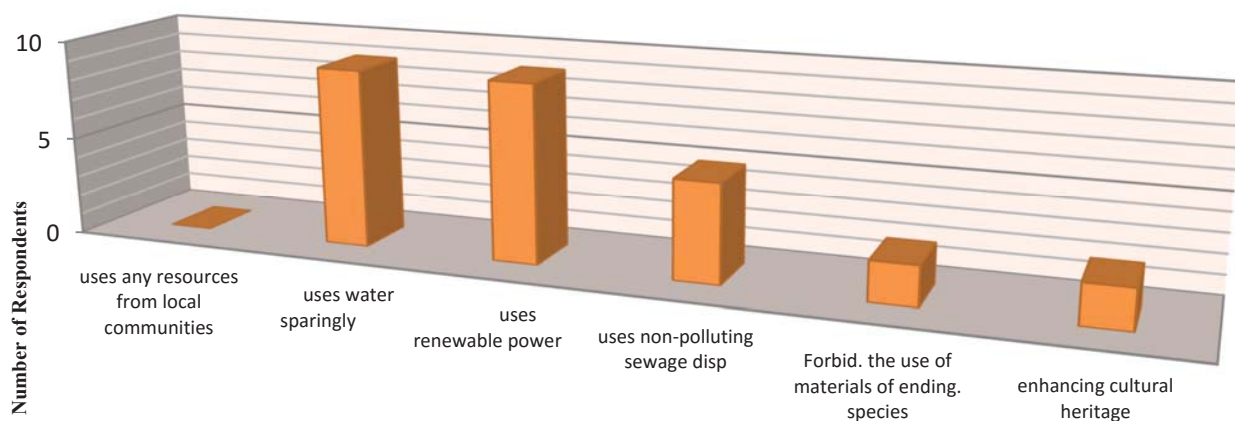
Respondents highlighted that hotel and destination choice are influenced by the support the hotel gives to the local community and the environment. This accords with a survey by Nielsen Wire in 2012 which states that 66% of consumers around the world prefer to buy products and services from companies that have implemented programs to give back to society [31].

The respondents explained that there were some important best practices that have to be available at an ecolodge and are

mostly valued by ecotourists. The “use of water sparingly” was considered as most important, followed by “the use of natural sources of power like solar system”, “enhancing cultural heritage conservation” and “using natural resources that originate from the local communities” (Fig. 3). This complies with several studies addressing best practices in ecolodging like [18], [19] which were approached previously in the review of literature.

The real motives of the host community to involve in ecotourism as stated by the respondents is that it “will contribute to the alleviation of poverty”, “preservation and protection of the environment and culture” and last but not least “the pride in their cultural identity”. This accords with [32] which emphasized that local community will only support such projects if they feel they were effectively involved. This involvement might incorporate employing local people, buying local goods and services and using the profits to develop more community-based tourism activities benefiting the local economy.

When the informants were asked to mention what part of tourism development/maintenance do they think residents should take part in, five respondents were of the opinion that they should be involved in the decision making process, the implementation process and the operation. Respondents differed concerning the percentage of their involvement at every stage. Some of the informants thought that they should take the major part at the implementation phase and approximately 20% at the operation phase. Likewise, these findings are supported by several studies; for example, [32] illustrated that the local community was willing to participate in tourism management and development.



Best Practices in Ecolodges
 Fig. 3 Best Practices in Ecolodges

The study also showed that many residents were willing to participate in "environment conservation activities" (21.9%), "development and operation of tourism programs for tourists" (18.8%), "determination on tourism development direction and scale" (16.9%) and "implementation of tourism development projects" (15.6%).

All respondents strongly agreed that there was a good opportunity to initiate such a project due to an increasing demand for sustainable tourism worldwide. Eco-conscious consumers travel more frequently than the average consumer. According to [33], during 2009, nearly 76% took at least two vacations away from home and 22% took five to eight vacations during that time.

Respondents also believed that Alexandria could achieve the objective of "diversification" by ecotourism development. Tourism authorities in Alexandria focus in general on cultural tourism for international travelers who mainly visit the country for a quick one-day trip or recreational tourism of sand-and sea for internal tourism. This new type of tourism will add new dimensions of supply in Alexandria.

Respondents revealed that going through with promoting new types of tourism in Alexandria will add new segments to Alexandria's tourism demand and would increase economic benefits in the area. The project can also benefit from being the inaugurator of a new type of accommodation in the area. If this project was well-developed, it could make some profits and it would take the product some time till it reaches saturation. The saturation phase of the product life cycle, in this case the ecolodge would start if only new projects of the same type start being developed in the region.

Interviewees differ in the opinion of whether this project can sustain itself or not. The majority of the respondents agreed that it could sustain itself with little cooperation with the projects in the surrounding area. Nevertheless, some informants explained that it needs some time until awareness about ecotourism is spread to attract the target markets.

This new type of ecotourism in the region will need strong support from all stakeholders, namely the government, investors and host community. This triad needs strong collaboration in order to initiate this new type of tourism and corresponding facility (i.e. ecolodge). Strong support from the authorities to facilitate construction licenses and environmental permits is needed.

Only environmentally aware investors should take the lead in such projects. They should have strong and sincere beliefs concerning the well-being of the environment and the crucial need for conservation. This will require patience from their part regarding return on investment.

The third axis of the triad of stakeholders is the host community which must support the project and help at all stages.

In order to start initiating this project, respondents rated "train and form a good staff which is vital for the existence of a lodge" as being most important followed by "create a reputation amongst customers and business partners",

followed by establishing logistical and marketing links. Accordingly, this needs highly trained and specialized staff who believe in the importance of environmental conservation and are aware of the ecology of the area. Strong beliefs about sustainability principles will facilitate their mission to disseminate awareness and convince ecotourists engage in best practices programs. They should be also trained to deal with the special needs of ecotourists.

The answers of the respondents varied concerning the scale and size of employment from the local community in the project. Some informants believed that investors should use 70%-85% of the employees in the construction phase, about 20%-30% in the operation and same percentage in management.

Interviewees agreed that natural resource protection and tourism can be compatible. This confirms with [34] which stated that "there are enough evidence that show that tourism could enhance the scenic beauty, preserve the existing archeological and historic areas, protect the socio-cultural heritage and contribute to achieve an environmentally sustainable development". Nevertheless, one respondent disagreed and explained that tourism is one of the major threats to the environment.

The majority also believed that protection of local heritage and tourism can be well-matched.

Last but not least respondents expressed confidence that the community would benefit from developing a sustainable tourism framework with its corresponding ecolodge.

B. Implications and Contributions

The research has addressed the possibilities of developing an ecolodge in the region of the NWC in Alexandria. The results from the interviews, substantiated by former studies, show that there was a great potential in this area to develop such a venture. The area is full of resources and potential market demand. The results of the interviews reflected some patterns and insights that answered research questions.

Despite the existence of a number of economic, social, cultural and environmental objectives within national and regional governments' tourism policies, economic objectives lie at the top of the policy agenda. Unfortunately, the effectiveness and success of tourism policy are invariably set according to the number of tourists that arrive at particular destinations (in the case of NWC, the number of houses sold) rather than the net benefit that tourism brings to the destination [3]. Nevertheless, the government is starting to give attention to sustainable development principles and is trying to implement these principles in certain areas. An example, is Aalamein eco-city, which is planned to be sustainable and eco-friendly with the aim to provide its residents with high quality of life. This can be considered promising for the intended ecolodge, as the authorities would be more flexible to support this kind of projects.

Table I is a SWOT analysis for the area of research to examine the feasibility of the development of the ecolodge:

TABLE I
 SWOT ANALYSIS

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. The location of the area near Europe 2. The area of research is near three international airports namely Marsa Matrouh Airport, Borg ElArab Airport and ElNozha Airport 3. Natural attractions: Long sandy green-blue beaches and mild climate 4. The presence of many tourist attractions, monuments and protected areas in the surrounding areas. 5. Availability of basic infrastructure and superstructure 6. Social elements of the environment: represents the residents of NWC with their traditions and culture. 7. Investment climate: there are incentives, facilities and temptations for investors to establish tourism projects. 8. The new governments 'trend in encouraging sustainable development and projects that support environmental conservation (i.e. Alalmein ecocity) 	<ol style="list-style-type: none"> 1. The exclusion of local residents from tourism product mix. 2. Deterioration of coastal natural resources which is the pivot for tourism development in the region 3. The lack of a database for the tourism product in the region (components, demand, supply, markets, competitors) which negatively affects the future planning of tourism development. 4. The presence of a number of intertwined barriers in several sectors that adversely affect the quality of the tourism product of North West Coast, including [35]: <ol style="list-style-type: none"> a. The presence of more than 22 million mines, which hinders development b. Sewage problems, contributing to high pollution levels. c. Shortages of qualified workers to work in the tourism sector. e. Drinking water problem, 6. The weakness of the administrative and organizational structure of the parties assigned to plan and develop tourism in the NWC
Opportunities	Threats
<ol style="list-style-type: none"> 1. The unique identity of the region. 2. The region hasn't reached the stage of saturation concerning investment opportunities, tourism demand and urban development 3. Being near Mediterranean tourist areas can generate demand for the project. Europe is considered the main tourist demand generator in the world [21]. 4. The new sustainability concepts followed by the government can drive it to offer incentives and facilitations to support this kind of projects 	<ol style="list-style-type: none"> 1. High competition from other Mediterranean countries which is intensified by a gap in the quality of tourism services. This requires focusing on distinct tourist patterns and highlighting the unique identity of the region 2. Price competition 3. The lack of a future and long term vision of planning to take advantage of the opportunities available in the NWC.

In view of the theoretical and practical outline of the study, a proposed framework (Fig. 4) for the intended ecolodge is presented. At the top of this framework lies the objectives which represent the foundation of the project. These objectives include concerns about nature conservation, social and cultural heritage preservation, economic benefits and community support. This triadic system, which reflects the principles of sustainability, is the starting point for any ecolodging facility. At the bottom of the framework lies the stakeholders. It can be noticed that there is a reciprocal relationship between these stakeholders. They all have to act together to ensure the success of the ecolodge. For example, on the one hand the investors grant the host community social, economic and environmental benefits. On the other hand, the host community supports the investors in educating the ecotourists. The ecotourists grant the investors and host community economic benefits and in turn the investors and the host community guarantee them a fulfilling and authentic experience. Fig. 4 shows the intertwined relationships of the stakeholders in light of the objectives.

IV. CONCLUSION

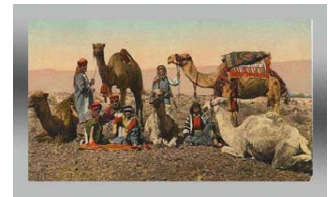
The success of an ecolodge in light of the literature, former experiences of ecolodges around the world and the results of the in-depth interviews depend on these generic principles:

The intended project must have environmental concerns as main objective. Environmental degradation must be avoided and environmental-friendly practices while operating the lodge has to be implemented (e.g. energy saving practices, recycling, waste management, decrease of water consumption). The operators of the lodge should monitor the use of water and energy as well as production of waste, in order to stay informed about current use, to see if conservation efforts are effective. Using natural construction and furnishing materials like wood reflecting the local heritage will guarantee

aesthetic looks and decrease damaging impacts on the environment.

Social and cultural heritage preservation must be taken into account through awareness programs were the host community should take part. Traditions and ethnic lifestyles can add an authentic experience to ecotourists.

Economic benefits must return back to the host community to elevate their living conditions. As an example of community outreach programs, are those programs carried out by *Banyan Tree Hotels and Resorts* in Singapore. They offer the community programs like operating a childcare center, providing medical services, hosting activities for senior and handicapped children or launching a handcraft project for women [36]. In addition to that, the host community must take an important part in every step from the phase of planning through implementation, operation and management. Inhabitants' participation should be systematically guaranteed in advance. 80% of money for all-inclusive package tours goes to airlines, hotels, and other international companies. Ecolodges hire and purchase locally, and sometimes put as much as 95% of money into the local economy [1]. Furthermore, a thorough feasibility study must be executed for a clear situation analysis. Environmental Impact assessments (EIA) are of top priority. These feasibility studies must include a thorough market research and competitor analysis to determine effective marketing strategies after identifying the target markets. The project can be promoted to ecotourists and also to tourists who are interested in an environmentally-friendly and authentic experience. The items of the product mix should be highlighted and appropriate pricing and promotional activities should be pinpointed. In this case "green marketing" principles will be taken into account.



Ecolodge Objectives

Nature conservation

- Water conservation
- Waste management, recycling and composting programs
- Renewable energy and reducing energy consumption
- Local construction materials and local furniture
- Emissions-free transportation like bicycles and animals
- promote environmental ethics
- Compatibility between buildings and nature
- Empowering wildlife and natural environment

Social-cultural heritage preservation

- Integration of ethnic lifestyle and heritage aspects into tours and accommodations
- Exposure of ceremonies and traditional practices
- Inclusion of local food in restaurants
- Enhancing sense of pride

Economic benefits and community support

- Use of locals as staff, tour guides and management support
- Promotion and training opportunities for locals
- Purchasing local products and handcrafts from local community
- supporting indigenous small scale projects

STAKEHOLDERS

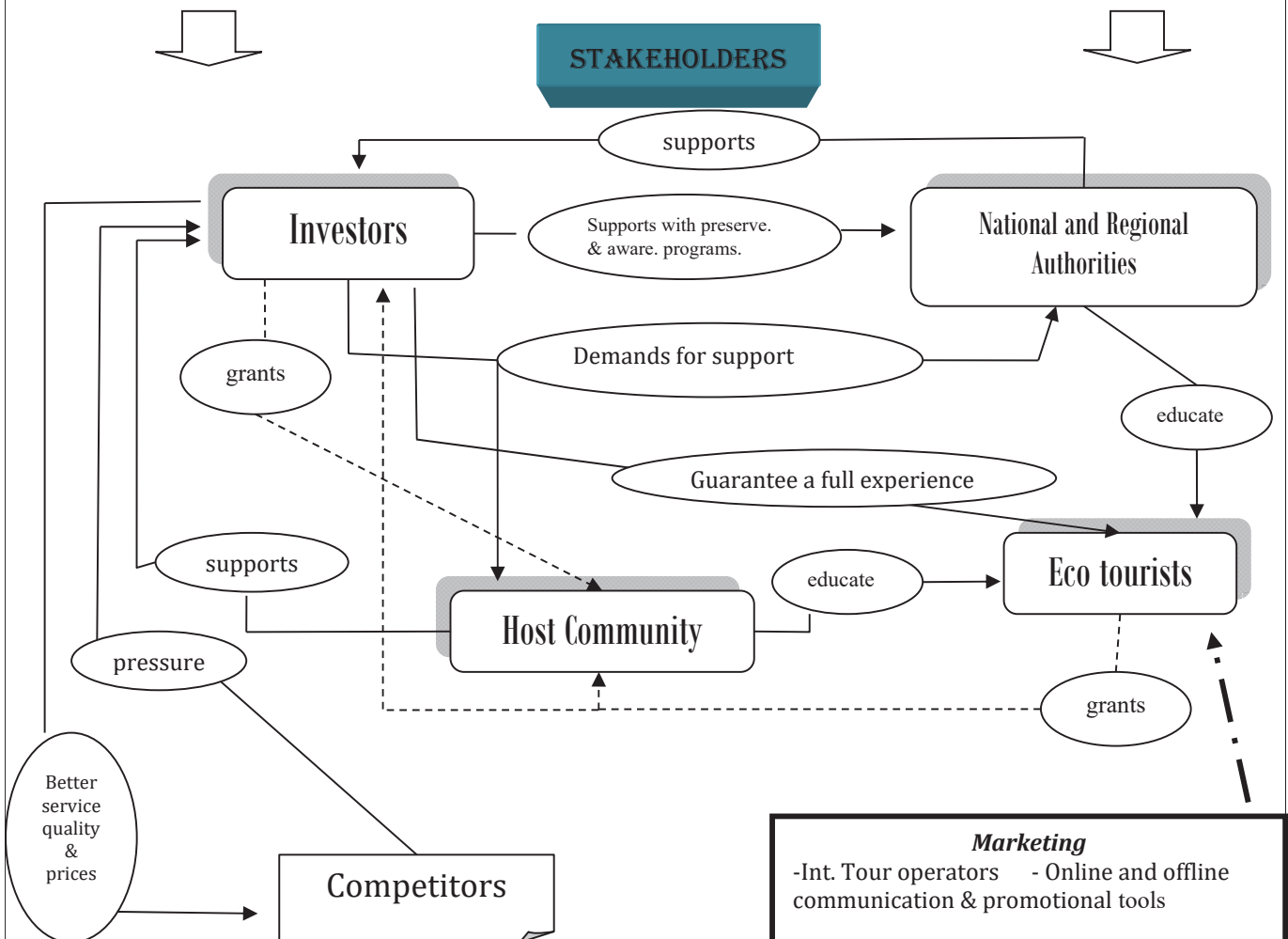


Fig. 4 A framework for a sustainable development of an Ecolodge through reciprocal relationships between stakeholders

An effective collaboration with the authorities is also essential. All decrees and laws concerning land use must be strictly taken into account. Financing issues should also be clarified, thus identifying whether investors will rely on their own equities or they will depend partly or entirely on bank loans. Also incentives offered by authorities for new investors must be carefully revised. The ecolodge should stay updated on news and research findings, as well as national policies, so to ensure that the development of the ecolodge is based on solid facts referring to changes in its external environment.

It is worth to mention that green certification presents several advantages. One of these advantages relies on the fact that environmentally-friendly establishments can be marketed more easily as this trend of green accommodation is the mainstream nowadays. In addition to that, the ecolodge should work to be a part of an international ecolodge network that emphasizes on joint sustainability and tourism causes on international levels.

Collaboration with other accommodation ventures in the area is essential to benefit from economies of scale, markets, and experience. It is also crucial to communicate with international tour operators to include the project in their programs.

The ecolodge can be also promoted as a part of a diversified product offered by Alexandria.

Training of the employees is most essential. Educating the employees about the principles of natural and cultural preservation can ensure their devotion and willingness to spread awareness.

The ecolodge can use employees from the local community to a great part during the construction phase. They can also utilize them in succeeding phases. Community involvement will ensure their support. The management should delegate some employees as employment coordinators because they are aware of the local community dynamics.

Last but not least, it is worth to mention that the real challenge of managing an ecolodge is to ensure that environmental management remains a productive force and a continuous source of innovation, rather than a burden on daily procedures. In addition to innovation, creativity is an important success factor for an ecolodge.

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