

Relationship between Community and nature in the Egyptian villages

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The relationship between man and nature since the dawn of history embodied in the first agricultural community in the valley of the Nile in Egypt, which is one of the early societies that were formed and connected to nature. This community has been affected and influenced this nature to form one of the great civilizations over history. This relationship has continued in this valley to evolve towns, villages, countries and different communities and the key factors of these communities were water and greenery .

In recent times as a result of social, cultural and urban changes, this distinctive relationship face a set of challenges and problems that may affect the natural environment where it began migration from rural to urban areas and the collapse of the traditional concept of farming so that the urban population in Egypt could reach from 40% in 2010 to 60% in 2030, threatening the agricultural environment. Facing main reasons like the cultures of social change to rural communities in Egypt and the lack of scientific development environment may help these communities to survive and extent.

Egyptian lakes have social and environmental mixture which mixing between farmers, fishers and Bedouins. These various societies and different cultures live together surrounding Egyptian lakes that give these sites very special character. Villages surrounding lakes are contorted with number of problems such as accommodations, rapidly growing populations, unemployment, lack of education and lack of environmental awareness.

The research presents the problem of these communities surrounding Egyptian lakes and the development of methods and environmental performance of these urban communities in line with the challenges of recent time.

The aim of this paper is to formulate a conceptual framework to achieve the harmony between Urban, community and surrounding nature in Egyptian villages. Through an interdisciplinary literature review the concepts of green and social infrastructure. Finally, based on a synthesis of the literature a conceptual framework is presented.

Keywords: Village, lake, social infrastructure, nature, green

1. Introduction:

The relationship between human, culture and environment has taken the attention of many studies in different fields, including social science, behavioral science and geographical science. Most of Egyptian villages are closely linked to surrounding land and that may refer to the age these villages located on the Egyptian Nile Valley which is about 6000 years. In the past, the Egyptian village was responsible for all the needs of Egyptian town from food without fair indemnity and their contribution to national production and to strengthen its forces (Esam 2006).ⁱ However, disturbance of natural systems due to intensive agricultural production, alteration of cultural landscapes and land abandonment highlight problematic trajectories for rural environmental sustainability and social functioning. The prevention of these developments has become increasingly linked to effective management of human and natural resources at local scales. (Derek B.2012)ⁱⁱ

2. Egyptian village between the past and the present:

“History is the shadow of man on earth; Geography is the shadow of the earth on the time”, Jamal Hemdan. For thousands of years and with the settlement of the ancient Egyptian on the banks of the River Nile for the need of water and food, the Egyptian communities relayed on agriculture as a basic profession, with this stability was the first settlements of the ancient Egyptians where they established villages and ancient cities (kahled2007)ⁱⁱⁱ. Values of Egyptian village were derived from two sources: first, the agricultural style of the village life on rivers and what it imposes of social participation and cooperation, second: a very deep sense of religious conscience is settled in the villager since the beginning of the life of stability in the valley and the Nile Delta (Esaam, 2006).

Rural communities are the mainstay of the Egyptian society, it is the main source of food for urban and rural Alike, and inhabited by about 60% of the total population in Egypt, however, rural communities suffer from many Urban, economic and social problems (Abdul Rahman,2005).

Egyptian village system consists of three correlated and overlapping systems which are environmental system, urban system and socioeconomic system. In the last 20 years, there are many changes in Egyptian village main systems.

2.1. Environmental system:

Green area: The total land area of Egypt is about one million square kilometers of which only about 3.5% is cultivated, principally in the densely populated Nile Valley and Delta (CIA, 2008). Although there is an increase in cultivated area but over population led to decrease of share per person. Despite cultivated land area increased from 7.59 million Feddan to 8.15 million Feddan in 2002 , Average share per person decreased from 0.23 to 0.12 and that due to the rapid population growth, which doubled one and a half folds over the last 40 years and is expected to reach in early 2025 about 103 million. Such increase has placed pressure on natural resources due to the expansion in industrial, agricultural and tourism activities in order to achieve the economic development that fulfills the requirements of such increase in population (EEAA,2004).

Year	The Cultivated Area (Million)	Cropping ⁵ Land Area (Million)	Population (Million)	Average share per person	
				The Cultivated Area	Cropping Land Area
1960	5.65	10.38	26.10	0.22	0.40
1970	5.80	10.90	33.10	0.18	0.33
1976	5.87	11.29	36.60	0.16	0.31
1986	6.06	11.35	48.20	0.13	0.24
1996	7.59	13.71	59.30	0.13	0.23
2002	8.15	14.35	68.80	0.12	0.21

Fig.1 Cultivated area in the Egyptian village

Water resources:

Egypt water resources haven't been changed so the amount of water is constant due to its fixed share of Nile water. That in addition to over population leads to drop in water share per person which may causes water poverty.

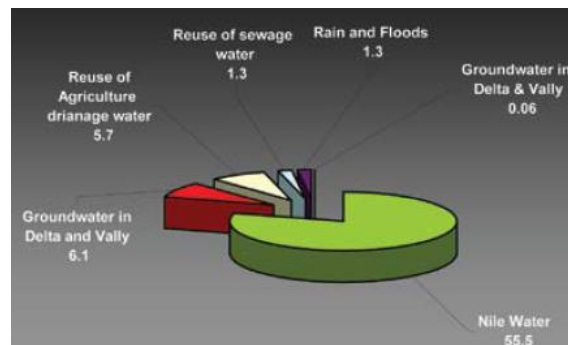


Fig.2. Egypt water resources

2.2. Socio-economic System:

There are some positive changes happened in the socioeconomic system, such as increase of education percentage and development of new economic activities. That led to search for different life styles and leave the old life style of farmers or fisher men. Searching for new professions that match with new qualifications Caused negative impact on farming profession and number of farmers.

Population in Rural areas decreased comparing with population in urban areas due to Migration from village to city (Esam 2006)^{iv}.

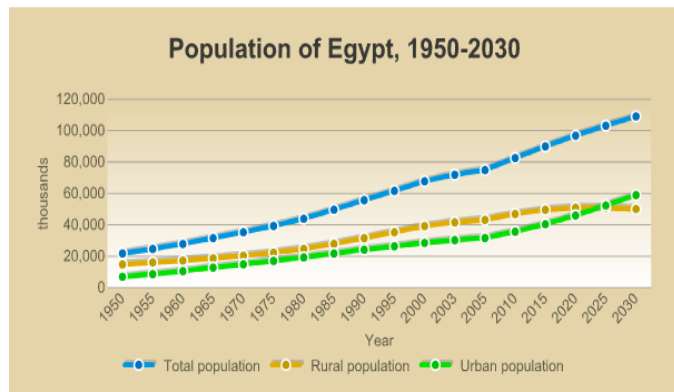


Fig.3. Egypt population

2.3. Urban system:

Village urban structure has been changed; that the village land area has been increased, new types of construction have been found, roads have been paved and most villages covered by electricity network (Mekawi, 2005)^v.

3. Urban and social life in the village:

Public spaces play an important role in social life in the Egyptian village:

- Annual celebrations
- Religious ceremony
- Wedding celebrations
- Memorabilia and funerals



Fig.4. Examples of urban character of villages



Fig.5. Roads network and social life

4. Challenges and problems facing Egyptian village:

Egyptian village is facing a group of challenges which leads to decrease of its economic and social role. These challenges can be concluded in Urban challenges (Urban structure – building conditions – planning – infrastructure - services), Environmental challenges (cultivated area – desertification – water pollution) and Socioeconomic challenges (over population – low income – Some professions and crafts disappeared – Education problem).

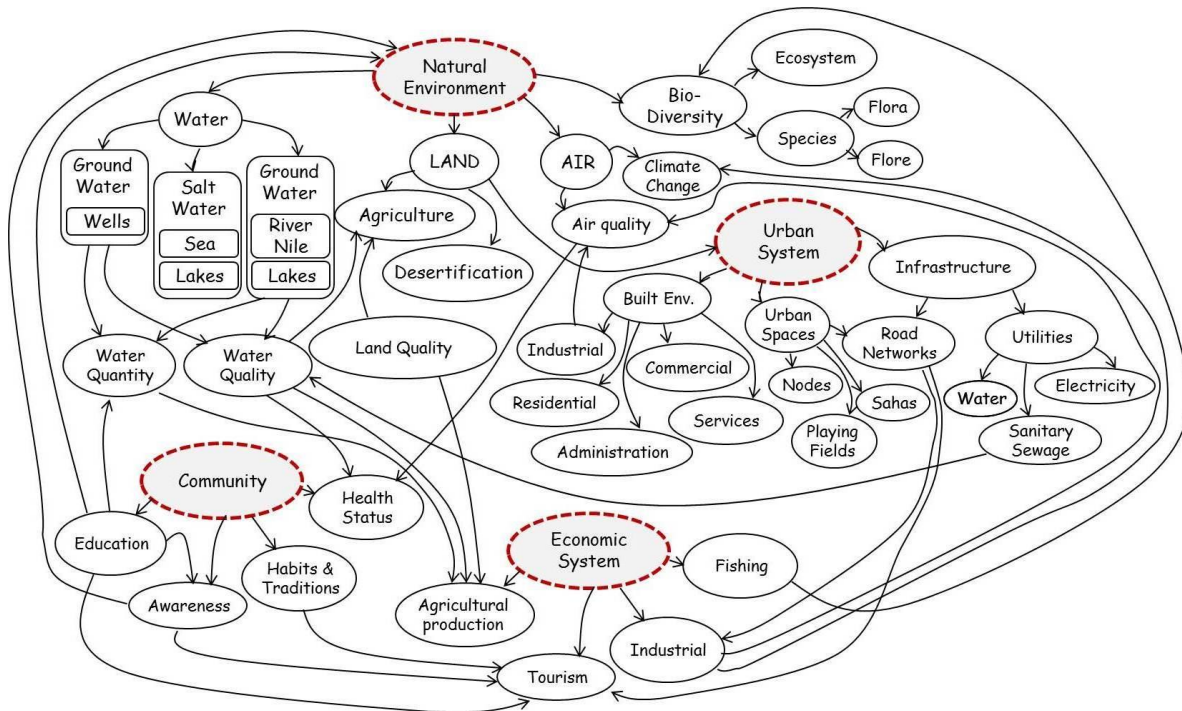


Fig.6. Relation between village systems

5. Egyptian lakes various environments and special communities

"A lake is a landscape's most beautiful and expressive feature. It is earth's eye; looking into which the beholder measures the depth of his own nature."(Someswara2007)^{vi}

Lakes are extremely sensitive environments, whose status represents the equilibrium among climatic conditions, hydrological setting and human pressure. This equilibrium is particularly fragile in arid environments. Aquatic and wetland ecosystems are among the most productive systems in the world (Daily 1997). They provide services of habitat and water quality improvement as well as goods in the form of fish and fiber. Currently they are also considered important for their recreational and aesthetic values. Continued production of these values is compromised by the loss of ecological resilience. Ecological resilience in aquatic and wetland systems is defined as the amount of disturbance that the system can absorb without a change in structure and composition (Lance H.2006)

Egypt has a large number of inland lakes; the largest of the freshwater is Lake Nasser and the saline Lake Qarun. Egyptian Lakes have social and environmental mixture which mixing between farmers, fishers and Bedouins. These various societies and different cultures live together surrounding Egyptian lakes that give these sites very special character (Haron2011).

6. Methods:

Applied study is based on analytical and theoretical study and **field study of two villages surround lakes reflect various and different cases of Egyptian villages surrounding lakes.** This diversity of urban and community in the two cases appear in the location, urban configuration, the demographics and economic activities as well as cultural and ethnic differences.

6.1. Manzala Lake(Shat Al Kayta Village):

Manzala Lake is a Salt water lake in northeastern Egypt located in the Nile Delta near Port Said, Damietta, Dakahlyia and Sharqyia governorates. (Zeinab2012)^{vii}

Shat Al Kayta village is located between the river Nile in the south and Manzala Lake in the east and Damietta city in the north in the governorate of Damietta.



Fig.7. Shat Al Kayat village

Shat Al Kayta village is considered as one of attractive villages because of it has employment chances. Village economic system depends on two main professions; furniture industry and agriculture.

6.1.1. Urban system:

- Village Urban mass area is 76.6 Feddan and percentage of built area is 75%, residential buildings 30.1% , residential and craftsmanship 44.07% , services 7.09%, commercial and roads 19.14%.
- Buildings condition: Buildings in good condition not more than 38.2% , medium condition buildings 56% and bad condition buildings are 5.8%. Road network
- Road networks:Village roads are unpaved and roads widths are 6m : 8m
- Sanitary drainage system: Some parts of the villages are deprived of sanitary drainage which leads to drainage in Ezbet El Borg waterway and pollution.

6.1.2. Environmental system:

Village Cultivated land area reaches to 1290 Feddan but this area is decreasing because of Urban sprawl. This village is suffering from environmental problem due to sanitary drainage absence in some areas, lack of recycling and water pollution.

6.1.3. Socio-Economic system:

Population of Shat Al Kayat village according to 2012 counting is 22110 person. Village economic system depends on furniture manufacturing and agriculture; 19% are working in agriculture and 58% working in furniture manufacturing. Village has a problem in marketing of agricultural and industrial products and lack of integrated economic framework.

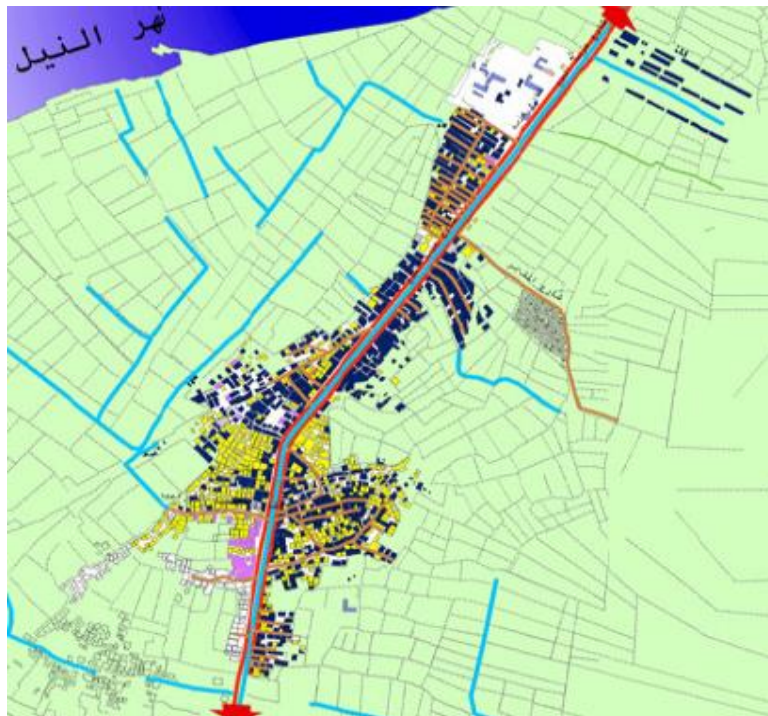


Fig.8. "Strategic plan of Shat Al Kayta village"GOPP 2010

6.2. Lake Qarun (Shakshouk village)

Lake Qarun is part of a Ramsar wetland sites and a specially protected area, under the Barcelona convention, where it has various economic resources (agriculture, industrial and tourism), and the site is considered to be a world heritage site by UNESCO because of the splendors of some of the world's best fossils recently designated in 2005. Mixing between farmer's, fisher's and Bedouin's life made various societies. Different cultures live together surrounding this lake giving this site special character(Haron2011).

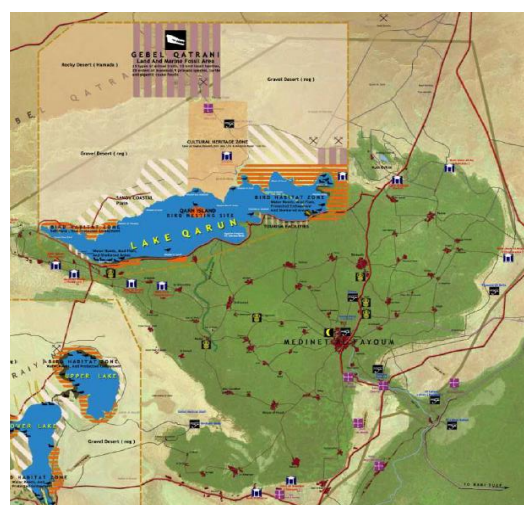


Fig.9. Lake Qarun

Villages surrounding lake are confronted with the problem of accommodating the rapidly growing populations, Its direct vicinity are mostly rural communities inhabiting 17 villages along Lake Qarun's shorelines People in these areas are mainly occupied with agriculture, except for the Southern part ("Shakshouk" village) who is engaged with both: agriculture and fishing. Ethnically, most of the inhabitants are originally Bedouins (john2002)

6.2.1. Urban system:

Shakshouk village is suffering from unplanned growth and random extension which causes narrow paths insufficient to traffic and ventilation.

6.2.2. Environmental system:

Shakshouk village is one of the villages surrounding the biggest lake in Egypt but it has many problems; such as water pollution from drainage on lake, shortage in drinking water network and absence of environmental planning. Fishing is threatened with pollution of lake water.

6.2.3. Socio-economic system:

Village economic system depends on agriculture, Fishing and tourism. Percentage of poverty reaches to 80%.

7. Sustainable Development Frame work:

The frame work of sustainable plans in villages depends on the main idea of linking between design system and information system with decision-making in one framework.

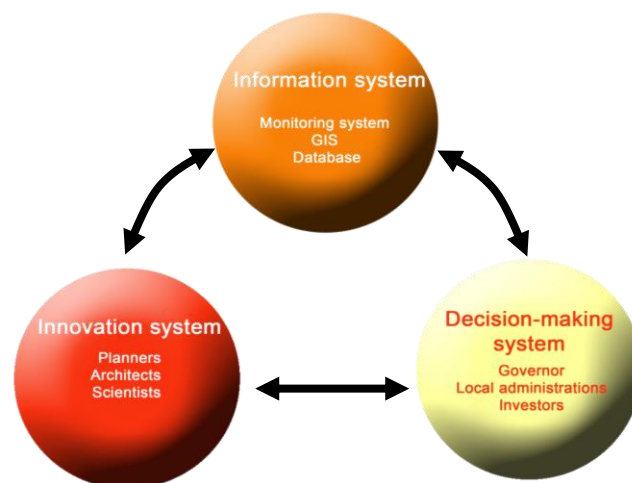


Fig.10. The idea of sustainable plans in villages

The Development Frame work depends on:

- Development of local communities around the lake to participate in the development process
- Developing the administrative system of the lake to avoid the conflict between responsible authorities and contributing association.

- Promoting investment opportunities in the field of eco-tourism and the development it me plans for the implementation of these projects
- Increased publicity and media awareness about the importance of environmental
- Develop a network of roads around the lake and the road linking the regional increase investment opportunities in the lake
- Use of GIS in the development of modern maps of the villages and to link these maps of environmental monitoring system
- Promotion of environmental industries that depend on the outcomes of the lake and surrounding villages

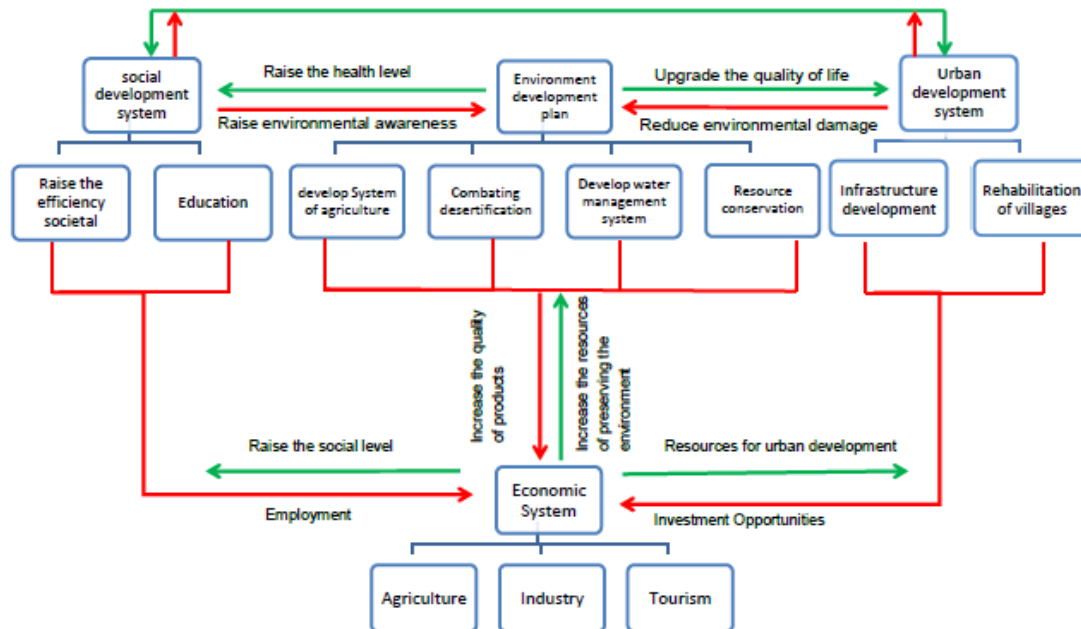


Fig.11. Suggested development Frame work

8. References:

1. Essam El-Din Muhammad. Egyptian village between reality and the future case study of villages in the province of Assiut. King Saud University Journal of Architecture and Planning 2006
2. Combining exploratory scenarios and participatory back casting: using an agent-based model in participatory
3. policy design for a multi-functional landscape.
4. العولمة عصر في المصري الريف تنمية مرتكزات كأحد المنتج التقليدي الريفي المسكن وتفعيل تأهيل إعادة
5. Essam El-Din Muhammad. Egyptian village between reality and the future case study of villages in the province of Assiut. King Saud University Journal of Architecture and Planning 2006
6. Mekawy, 2005, Development of urban framework of villages,
7. Implementing Sustainable Development in the Lake Kolleru, India, Roskilde University, Denmark 2007
8. Ecotourism towards sustainability Of Egyptian lakes, Zeinab Faisal
9. Strategic plan of the Egyptian villages”GOPP 2010

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10. "Horizon of the Development in the Fayoum Governorate" prepared by Cairo university, Fayoum branch and Fayoum Govenorate, 1998.
 11. "Ecotourism for sustainable development in the Fayoum Oasis" prepared by TDA and NSCE, 2000.
 12. "Preparatory phase for ecotourism in Fayoum ", prepared by NSCE, 2004.
 13. "The Preparatory Phase for Ecotourism in Fayoum". Prepared by Fayoum Governorate in cooperation with North South Consultants Exchange NSCE, 2004.
 14. "Tourism Development Plan for the Northern Coast of Lake Qarun", prepared by TDA, 2004
 15. Fayoum Ecotourism Development Plan 2005-20015, Fayoum Governorate (2006),
 16. Environmental Action Plans of every Government from 2004 till 2010