World Applied Sciences Journal 6 (7): 861-867, 2009 ISSN 1818-4952 © IDOSI Publications, 2009

## A Geographic Assessment of Public Libraries in Egypt

Scot E. Smith and Hesham Monsef Rasol

School of Forest Resources and Conservation, University of Florida, Gainesville, FL 32611 Documents Section, University of Florida Libraries, University of Florida, Gainesville, FL 32611

**Abstract:** This study conducted a survey of all public libraries in Egypt. It found that a there were 1,834 institutions that were libraries. The study did a geographic and demographic analysis for the libraries to calculate such variable as number of libraries per capita for an area, distance to libraries, proximity to various gender and age groups, condition of the library and nature of the collection. It was found that the number of libraries per capita in Egypt was about half that in the United States and that the libraries were unevenly distributed throughout the country. Library collections were also uneven in terms of number of books in the collection and types of books. There is not an ongoing effort to digitize the collections in Egyptian public libraries and there is not a program to increase the number of libraries or to improve the quality of existing libraries in the country.

**Key words:** Geographic Information System • Inventory • Collections

### INTRODUCTION

In 1952, when Abdel Nasser took power in Egypt in a military coup, one of the first new government decrees was that at least one public library be established in each and every city and village in the country [1]. This amounted to thousands libraries that had to be established [2].

Many of the sites selected for creation of a library were abandoned Turkish palaces which were built during the occupation of Egypt in the Ottoman Empire between 1520 and 1800 [3]. Later, France occupied Egypt and took control of these buildings. For the most part, they have been unoccupied for several decades and had not been kept-up. However, they were large, centrally located and could be converted to a library set-up.

Smaller cities and villages that did not have a palace designated empty buildings as a public library or they sometimes constructed one [4]. In the case of the palaces, many contained libraries themselves and so had a collection from the start. Others had to build a collection with relatively small budgets.

In the 56 years since the Egyptian revolution, some of the public libraries have thrived and are an integral part of the community [5]. Others have perished through fire or some other catastrophic event. Most, however, have simply slowly declined through neglect. They suffer from poor physical condition, a small and out-of-date collection and limited funding.

As a part of the U.S. State Department's effort to spread democracy, the American Embassy in Cairo commissioned a study to do an inventory of all public libraries in Egypt and create a geographic information system which would enable the user to query spatial relationships such as distance of libraries with collections dealing with political science to relatively young literate populations. The premise of the project was that democratic ideas could be fostered and spread though well-placed public libraries.

### MATERIALS AND METHODS

Data Collection and Processing: Data on the location, physical condition, material (books and journals) collection, number of employees and telephone number of public libraries throughout Egypt was collected. There was no attempt to collect data on school libraries, private libraries such as social, sporting or military clubs, mobile libraries or collections in Ministries not accessible to the public. The objective of the inventory was to record all libraries that offered unrestricted access to the public.

### The Resulting Data Indicated That:

Nearly all of the collections are in a hard copy form.
 Almost no collections have begun a digitization process.

- There are format and content inconsistencies between the data sets. Different descriptive fields for a library in the different data sets.
- Overlap exists between the different data sets. i.e. duplication of libraries.
- Information was in Arabic.

# Based on These Findings, the Following Steps Were Performed:

- A generic data base design was developed to accommodate and integrate the information available in the different data sets. This resulted in nearly 2000 libraries of different types and in the different governorates.
- All collected data sets were converted into digital form in Access format.
- Duplications of libraries were eliminated
- Missing descriptive data fields were identified

# A Few Roadblocks Were Encountered During the Field Survey, Such As:

- Difficulty in obtaining information from library staff without an official letter from a governmental agency requesting the information.
- Some libraries were found to have closed permanently.
- Some of the libraries were found not functioning due to renovations.

Despite these problems, we were able to collect data on approximately 2,000 libraries and we feel that these libraries represent all of the major libraries in Egypt.

**Demographic Data:** The following demographic information was collected:

## **Spatial:**

- The three administrative levels used in Egypt:
- Rural Regions: (1) Governorate, (2) Markaz) and (3) Village
- Urban Regions: (1) Governorate, (2) City and (3) Sheiakha

### **Descriptive:**

 Census data published by the Egyptian Central Agency for Public Mobilization and Census at the Village and the Sheikha levels was collected by this study.

- Gender
- Male and female age groups from 1 to 65 divided into 11 cohorts
- Marital status (male and female)
- Employment status (male and female) in 12 categories
- Employment field (male and female) for 15 categories (agriculture, fishing, mining, construction, transportation, hotels and restaurants, education, health)
- Education level and literacy rate
- Field of activity for males and females and for 15 categories including agriculture, fishing, mining, construction, transportation, hotels and restaurants, education and health.
- Education status for males and females and in 9 categories.

Library Data Collection: Data on the location, physical condition, material (books and journals) collection, number of employees and telephone number of public libraries throughout Egypt was collected. There was no attempt to collect data on school libraries, private libraries such as social, sporting or military clubs, mobile libraries or collections in Ministries not accessible to the public. The objective of the inventory was to record all libraries that offered unrestricted access to the public.

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# A Few Logistical Problems Were Encountered During the Field Survey, Such As:

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#### RESULTS AND DISCUSSION

Libraries are located throughout Egypt, including remote regions in Upper Egypt and Sinai. As expected, most of the libraries are located in greater Cairo and Alexandria. Nasser's dream of a library in every village, regardless of size, has not been achieved.

The physical condition of the library structure ranged from "excellent" to "poor". This was a qualitative assessment, but in general "excellent" was assigned to libraries with a clean environment, sound building, good quality furniture and some electronic capability. "Poor" libraries were those in need of repair and/or significantly lacking in supplies.

We attempted to make an inventory of the number of books of a political nature (political science, civics, democracy, governing) for each library. When possible we did this, but since we did not have an official letter of introduction from the government, it was not always possible to carry out this task. In those cases, the file of "Political Books" was listed as "NA".

It can be seen that the per capita number of libraries in Egypt is uneven with respect to county or governorate (Table 1). The governorate with the lowest number of people/library is Suez (3,440 people per library) and the lowest village is Sohaj (118,149 people per library). A number of governorates— all in Upper Egypt — stand out with the fewest libraries per capita. They are Nani Sweif, Qena, Behaira and Sohaj.

The average per capita library figure in the United States is approximately 17,000. This means that there are about twice as many libraries per capita in the U.S. compared to Egypt.

The rate of new library construction lags population growth in Egypt (Table 2). The project population growth in Egypt in 1.71% (source: CIA Source Book) compared

Table 1: Libraries per Capita

	Male	Female	Total	No of	Persons
Governorates	population	Population	Population	Libraries	/Library
Al Wadi Al Gaded	86743	83139	169896	42	4045
Alexandria	2089889	1997777	4087682	73	55996
Assuit	1505587	1447965	2953561	124	23819
Aswan	594841	593114	1187943	33	35998
Beni Sweif	1128414	1124646	2253076	26	86657
Behaira	2382918	2293480	4676382	78	59954
Cairo	3984517	3789626	7774143	308	25241
Dakahleya	2462002	2368505	4830513	256	18869
Domiat	548197	526751	1074948	64	16796
Fayoum	1266483	1174851	2441333	44	55485
Gharbya	1990991	1949075	3940061	59	66781
Giza	3394595	3168334	6562923	176	37289
Ismailia	425959	406357	832315	41	20300
Kafr Al Shikh	1294976	1281809	2576792	43	59925
Luxor	225863	214251	440110	10	44011
Marsa Matrouh	110779	101443	212219	8	26527
Menia	1478527	1417065	2895597	36	80433
Menofia	2028018	1913801	3941818	56	70390
North Sinai	231440	411559	300502	22	13659
Port Said	192291	192291	384571	40	9614
Qalyoubya	2156076	2019590	4175659	111	37619
Qena	1476169	1461923	2938079	32	91815
Red Sea	129891	96046	225937	10	22594
Sharkeya	2730794	2577045	5307846	71	74758
Sohaj	1870015	1792604	3662619	31	118149
South Sinai	73156	107913	116379	10	11638
Suez	53756	49722	103478	30	3449
Total	35912887	34560682	70066382	2 1834	38204

Table 2: Library Construction versus Population growth rate between 1985 and 2005

		Last		
	Constructed	Construction	Construction	Population
Governorate	Libraries	Year	Growth Rate	Growth Rate
Al Wadi Al Gaded	No Data	No Data	No Data	3.59
Alexandria	15	2003	0.75	1.99
Assuit	45	2005	2.25	2.67
Aswan	15	2005	0.75	1.98
Beni Sweif	10	2001	0.5	1.76
Behaira	26	2005	1.3	1.63
Cairo	66	2004	3.3	1.99
Dakahleya	199	2004	9.95	2.19
Domiat	13	2001	0.65	2.22
Fayoum	14	1998	0.7	2.12
Gharbya	13	2002	0.65	3.43
Giza	67	2005	3.35	2.4
Ismailia	14	2004	0.7	4.68
Kafr Al Shikh	16	2003	0.8	1.74
Luxor	3	1997	0.15	2.3
Marsa Matrouh	No Data	No Data	No Data	6.05
Menia	18	2005	0.9	3.74
Menofia	14	2001	0.7	3.45
North Sinai	9	2003	0.45	3.73
Port Said	13	2004	0.65	5.38
Qalyoubya	33	2004	1.65	2.4
Qena	13	2004	0.65	1.91
Red Sea	No Data	No Data	No Data	4.91
Sharkeya	28	2002	1.4	2.34
Sohaj	9	2000	0.45	1.96
South Sinai	No Data	No Data	No Data	4.96
Suez	6	2004	0.3	1.59

Table 3: Libraries and Young Population

		<u> </u>	Pop	Pop	Total	
	No. of	No. of	Male	Female	Pop	Person
EGOVR	libraries	SEATS	15-30	15-30	15-30	/seats
Al Wadi Al Gaded	42	No data	50092	45317	95409	
Alexandria	73	2945	279759	271554	551313	187
Assuit	124	7075	228460	217019	445479	63
Aswan	33	674	419206	411541	830747	1233
Beni Sweif	26	553	338933	324091	663024	1199
Behaira	78	2074	507997	489291	997288	481
Cairo	308	15828	2502370	1980826	4483196	283
Dakahleya	256	6455	1099325	851374	1950699	302
Domiat	64	1785	245388	254842	500230	280
Fayoum	44	1274	1365152	1252856	2618008	2055
Gharbya	59	2471	127257	124187	251444	102
Giza	176	9172	2340447	2082892	4423339	482
Ismailia	41	1081	446282	456648	902930	835
Kafr Al Shikh	43	1128	123837	124916	248753	221
Luxor	10	185	31450	31466	62916	340
Marsa Matrouh	8	No data	62486	62969	125455	!
Menia	36	947	419710	399316	819026	865
Menofia	56	2651	1035581	993863	2029444	766
North Sinai	22	413	1098350	1110978	2209328	5349
Port Said	40	1237	199082	215618	414700	335
Qalyoubya	111	2881	1027611	1002227	2029838	705
Qena	32	281	152216	154408	306624	1091
Red Sea	10	No data	5790	4845	10635	
Sharkeya	71	2227	310203	301318	611521	275
Sohaj	31	1532	157279	160761	318040	208
South Sinai	10	31	120784	70712	191496	6177
Suez	30	145	257160	449940	707100	4877

with new construction for libraries at less than 0.90%. The rate of new library construction should be increased, especially in places such as the Fayoum that have not had a new library in built in nearly 10 years and have a rapidly growing population.

Regions with a relatively young population (Aswan, Beni Sweif, the Fayoum, Sinai, Qena and Suez) have relatively fewer library seats per capita (i.e. the libraries are more crowded) (Table 3). Obviously, this is a target population group in terms of people that might be more likely to be interested in learning about the democratic process.

It was beyond the scope of this study to examine the content of the materials held by Egyptian libraries; however it was noted that the majority of collections are dominated by fictional books such as novels (Table 4). Generally non-fictional literature is not found and reference material is also not available in many libraries. Periodicals, with the exception of newspapers, are rare as is electronic media such as tapes and DVD's.

The literacy rate tracks the number of library space or seats, i.e. the higher the number of library accommodation, the higher the rate of literacy (Table 5). It is impossible to prove that libraries increase literacy, but these statistics would indicate that it does.

Table 4: Library Categories

EGOVR	Academic	Culture Libra	ries Kids Library	Public	Specialize	Not specified	Grand Total
Al Wadi Al Gaded	0	0	0	0	0	42	42
Alexandria	18	5	0	8	25	17	73
Assuit	38	8	1	64	8	5	124
Aswan	4	13	2	3	6	4	32
Beni Sweif	1	3	0	19	3	0	26
Behaira	5	14	1	53	4	1	78
Cairo	70	17	1	48	149	22	308
Dakahleya	19	15	1	213	8	0	256
Domiat	5	8	0	48	3	0	64
Fayoum	9	3	0	21	9	2	44
Gharbya	15	14	2	21	6	0	58
Giza	32	22	1	50	63	8	176
Ismailia	5	3	1	27	2	3	41
Kafr Al Shikh	4	12	2	21	1	3	43
Luxor	0	2	1	7	0	0	10
Marsa Matrouh	0	1	0	0	0	7	8
Menia	1	12	0	21	2	0	36
Menofia	15	3	0	29	6	3	56
North Sainai	2	4	0	12	2	0	22
Port Said	6	6	1	10	8	9	40
Qalyoubya	6	20	1	72	12	0	111
Qena	0	11	1	6	5	9	32
Red Sea	0	0	0	0	0	10	10
Sharkeya	7	6	1	49	5	3	71
Sohaj	6	3	2	14	5	1	31
South Sainai	0	0	0	2	0	8	10
Suez	1	5	0	6	1	17	30
Grand Total	269	210	19	824	333	174	

Table 5: Libraries and Literacy Rate

Iterance M.Iterance F.Iterance No of Person % Libraries Governorate % /seats Al Wadi Al Gaded Alexandria Assuit Aswan Beni Sweif Behaira Cairo 2.1 Dakahleva Domiat Fayoum Gharbya Giza Ismailia Kafr Al Shikh Luxor Marsa Matrouh Menia Menofia North Sinai Port Said Qalyoubya Oena Red Sea Sharkeya Sohaj South Sinai Suez

Table 6: Structural Condition of Libraries

Governorate	Bad	Good	Middle	Not specified	Grand Total
Al Wadi Al Gaded				42	42
Alexandria				73	73
Assuit	3	59	55	7	124
Aswan	1	23	5	4	33
Beni Sweif	1	12	12	1	26
Behaira	3	22	51	2	78
Cairo		260	23	23	306
Dakahleya	2	65	186	3	256
Domiat	1	45	17	1	64
Fayoum	1	16	27		44
Gharbya		32	27		59
Giza		105	55	16	176
Ismailia	1	28	9	3	41
Kafr Al Shikh	2	18	19	4	43
Luxor		9	1		10
Marsa Matrouh	1			7	8
Menia	5	13	17	1	36
Menofia		33	19	4	56
North Sainai		13	9		22
Port Said	2	23	6	9	40
Qalyoubya	1	32	74	4	111
Qena	1	12	10	9	32
Red Sea				10	10
Sharkeya		21	45	4	70
Sohaj		14	16	1	31
South Sainai			2	8	10
Suez	1	1	11	17	30
Grand Total	26	856	696	253	1831

Table 7: Percent of Collection Devoted to Political Topics

	Political	Total	Political
Governorate	Collection	Collection	collection %
Al Wadi Al Gaded	0	0	0.00
Alexandria	0	0	0.00
Assuit	6283	477024	1.32
Aswan	5383	73300	7.34
Beni Sweif	809	48224	1.68
Behaira	1621	175769	0.92
Cairo	235260	3881364	6.06
Dakahleya	6146	338122	1.82
Domiat	1054	121084	0.87
Fayoum	968	104303	0.93
Gharbya	4818	433847	1.11
Giza	113897	2341971	4.86
Ismailia	760	68080	1.12
Kafr Al Shikh	130	81418	0.16
Luxor	1899	17258	11.00
Marsa Matrouh	0	0	0.00
Menia	505	66632	0.76
Menofia	9387	343688	2.73
North Sainai	498	12593	3.95
Port Said	522	23644610	0.00
Qalyoubya	461	151441	0.30
Qena	1265	17743	7.13
Red Sea	0	0	0.00
Sharkeya	2562	296372	0.86
Sohaj	833	183604	0.45
South Sainai	0	0	0.00
Suez	49	13203	0.37

Library (structure) condition varies widely in Egypt (Table 6). Some governorates such as Dakahleya, Qalyoubya and Shaekeya have a relatively large number of libraries in poor condition.

The percentage of books and other material in all Egyptian libraries is low (Table 7). In some governorates the figure is zero and the maximum is 11% (Luxor). This figure is quite low compared to public libraries in the United States where the average percentage of collections devoted to political topics is 19%.

The idea following of the tables determine the area of each governorates (by percentage) that required the person to walk a specific distance to library, for example in Alexandria 18% of the governorate need the person to walk only 4 km to the nearest library, although in 25.3% of the governorate the person has to walk 5 km to the nearest library (Table 8). This table helps to determine the number of libraries based on the governorate area and also give an indication about the important of locate the best site for building the new libraries and it should be well distributed among the governorates.

Table 8: Proximity of Population to Libraries

Table 8: Proximity of Population to Libraries								
EGOVR	1-km	2-km	3-km	5-km				
Al Wadi Al Gaded	18.0	46.6	63.8	77.2				
Alexandria	4.0	9.2	14.0	25.3				
Assuit	11.1	33.2	57.4	86.4				
Aswan	6.2	19.4	35.4	64.9				
Beni Sweif	3.4	11.9	24.3	52.5				
Behaira	3.2	10.7	20.2	38.2				
Cairo	61.4	92.3	99.4	100.0				
Dakahleya	15.7	45.1	65.6	84.7				
Domiat	12.0	35.0	58.9	85.4				
Fayoum	3.2	10.9	21.4	44.1				
Gharbya	6.0	18.9	36.7	73.8				
Giza	13.4	32.6	49.4	71.0				
Ismailia	5.0	14.7	25.8	50.3				
Kafr Al Shikh	2.2	7.7	16.1	36.6				
Luxor	9.6	27.0	48.5	73.0				
Marsa Matrouh	7.2	19.9	29.7	40.8				
Menia	4.0	14.3	29.0	61.0				
Menofia	5.2	17.5	33.4	69.7				
North Sinai	0.1	0.3	0.6	1.5				
Port Said	3.9	7.7	12.4	24.4				
Qalyoubya	19.1	54.1	77.4	96.1				
Qena	4.4	16.5	32.9	67.5				
Red Sea	1.8	5.9	8.3	13.5				
Sharkeya	4.2	14.5	27.4	52.8				
Sohaj	3.3	12.0	25.4	57.7				
South Sinai	0.1	0.3	0.6	1.6				
Suez	14.0	32.1	48.1	68.5				

Table 9: Proximity to Nearest Library with a Political Science Collection

EGOVR	1-km	2-km	3-km	5-km
Al Wadi Al Gaded	12.0	30.7	44.5	61.9
Alexandria	0.2	0.9	1.7	3.9
Assuit	3.3	11.1	22.1	47.4
Aswan	3.9	12.7	25.4	54.8
Beni Sweif	2.0	7.0	14.0	32.5
Behaira	2.1	7.2	14.0	29.2
Cairo	42.6	78.2	94.1	100.0
Dakahleya	7.4	24.8	44.5	73.0
Domiat	5.0	17.1	32.0	56.0
Fayoum	1.6	5.3	10.5	24.6
Gharbya	3.1	10.6	21.7	50.2
Giza	8.5	23.3	38.2	61.4
Ismailia	2.5	7.5	14.1	29.4
Kafr Al Shikh	0.7	2.6	5.7	14.9
Luxor	5.1	18.0	33.9	59.3
Marsa Matrouh	1.3	4.2	7.5	15.8
Menia	1.9	7.4	15.9	38.5
Menofia	3.9	13.3	26.4	58.6
North Sinai	0.1	0.2	0.4	0.9
Port Said	2.4	5.0	8.1	13.0
Qalyoubya	9.5	31.2	54.0	85.4
Qena	2.4	9.1	18.4	40.3
Red Sea	0.0	0.0	0.0	0.0
Sharkeya	1.5	5.4	11.5	28.3
Sohaj	1.2	4.4	9.8	25.5
South Sinai	0.0	0.1	0.2	0.7
Suez	3.1	10.5	20.3	36.9

The following determines the distance the person has to walk to the nearest library that has a political collection with political science books, it means that most Egyptian are located a relatively long distance from one (Table 9). This is especially true in Upper Egypt.

GIS Query Examples: The GIS interface developed for this database allows the end user to perform queries involving a number of variables as a function of spatial location. The variables are age, gender, literacy, library condition, employment, marital status.

# Following Are Examples of Typical Queries and the Results for this Database and Gis Interface:

- For the age groups between 18 and 48 years, how many literate females live within 5 km of a library in "excellent" condition in the city of Qena?
- How many "excellent" or "good" libraries are within a 6 km radius of center Shubra?
- Display all libraries in "excellent" condition in Upper Egypt.
- How many people (male and female) live within 10 km of the National Library in Cairo?

This database and interface is available in the Reading Room of the American Embassy in Cairo and can be use by anyone. It does not require knowledge of GIS software nor does it require GIS software to be running on the system.

#### **CONCLUSIONS**

We concluded from this study and exercise that access to public libraries in Egypt is highly variable both in terms of quantity and quality. Not every village or city has a library and those that do might have a reasonably equipped one or it might be a library in name only.

A large number of private or semi-private libraries exist at universities, schools, social, sport and military clubs and in mobile libraries. These collections were not counted by this project, but should be considered when thinking of the overall access to libraries in Egypt.

A small percentage of Egyptian households have access to the internet making public libraries even more important for improving the general education of the public. It is unlikely, however, that there will be an appreciable number of libraries built of the existing ones refurbished in the foreseeable future.

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