

Nasr City: Land Use Transformations

Prof. Dr. Yohansin Yehya Eid, PhD
Prof. Dr. Mohamed Tamer El Khorazaty, PhD
Dr. Rowaida Mohamed Omar Rashed
Eng. Walied Mohamed Mohamed Sadek, M.Sc.

Department of Urban Planning
Faculty of Engineering
Ain Shams University
Cairo, Egypt.

1. ABSTRACT:

Metropolitan Cairo has been considered for decades, one of the most famous and important cities in Africa and Middle East.

Historically and politically, Cairo as the Capital of Egypt played an important role influenced the path of events in that region of the world.

Locally Cairo contains the highest concentration of activities and services in the whole country; this has led to a rapid growth in its population and an increase in its urbanization and accordingly its problems.

Due to some national and regional circumstances, earlier in the last century an internal immigration started from upper Egypt and Delta area towards Cairo, and urbanization had been extended westward and thousands feddans of well cultivated land had been taken out for construction purposes.

Considering all these factors, soon after 1952 revolution some decisions had been taken by the new Egyptian government to prohibit the expansion on the cultivated land. One of those decisions was taken by the Egyptian president “Nasser” in 1959 to execute a new district called “Nasr City” or “ the city of victory” located on the desert land east side of old Cairo urban space.

1.1 PROBLEM DEFINITION:

Nasr City original master plan has been prepared based on the concept of neighbourhoods with central nucleus contain the services and activities, but during built up stage this principle changed gradually and a kind of land use transformation started to take place towards a different approach which is the mixed use specially across the main arterial roads.

1.2 HYPOTHESIS :

Nasr City Land use transformation process has started to take place during the built up stage as a result of intangible forces which give Nasr City its preferential land use pattern and affect on its land use future trend.

1.3 OBJECTIVE:

This paper aims to prove that the land use transformation of Nasr City started to take place during the built up stage. In addition, there are set of intangible forces, such as history, culture, socio-economics, politics and technology gave Nasr City its shape, and based on that to find the land use future trend of Nasr City.

2. INTRODUCTION:

2.1. ORIGIN OF NASR CITY :

Nasr City master plan prepared by Dr. Sayed Koriem based on the grid pattern planning type to keep up with the prevailing politics at that time which were directed towards Socialism. The master plan developed based on the concept of neighborhoods with central nucleus contain the services and activities; it was not long time until this principle started to change and a kind of land use transformation has been observed which will be discussed and analyzed in this paper and conclude The future trend of land uses.

It is very important to highlight that all discussions, analysis and conclusions in this paper including planning concept, existing land use conditions and land use transformations will be discussed and examined in two levels of scale. The larger is Nasr City level as a whole district and the smaller is the zone level (the first zone of Nasr City) which is a part of the district and consists of some neighbourhoods.

2.2. THE THEORETICAL BASIS OF LAND USE TRANSFORMATIONS :

Transformative Processes could be defined as sets of interacting, complex actions, which evolve inevitably in a dynamic socio-cultural context, and bring about marked changes to the physical environment of an operating urban settlement ⁽¹⁾ .

Thus, they result in urban transformation in general. Land use transformation is a part of the generic urban transformation, which may include many layers of physical environment / structure such as; street pattern, block pattern, plot pattern, mass plan pattern, shapes of masses, appearances of masses and certainly land use pattern.

Land use transformation is a process which gives the urban settlement its shape as a result of intangible forces, which are brought about by the surrounding natural environment with its direct potentials and constraints, and by the prevailing operating ideologies, such as history, culture, socio-economics, politics, as well as science and technology – see figure 1 ⁽²⁾ .

1 Rashed, Rowaida (2007). A Framework of Urban Morphological Analysis: The Physical Transformations of Three Districts in Cairo City – P. 40

2 Rashed, Rowaida (2007). A Framework of Urban Morphological Analysis: The Physical Transformations of Three Districts in Cairo City – P. 37

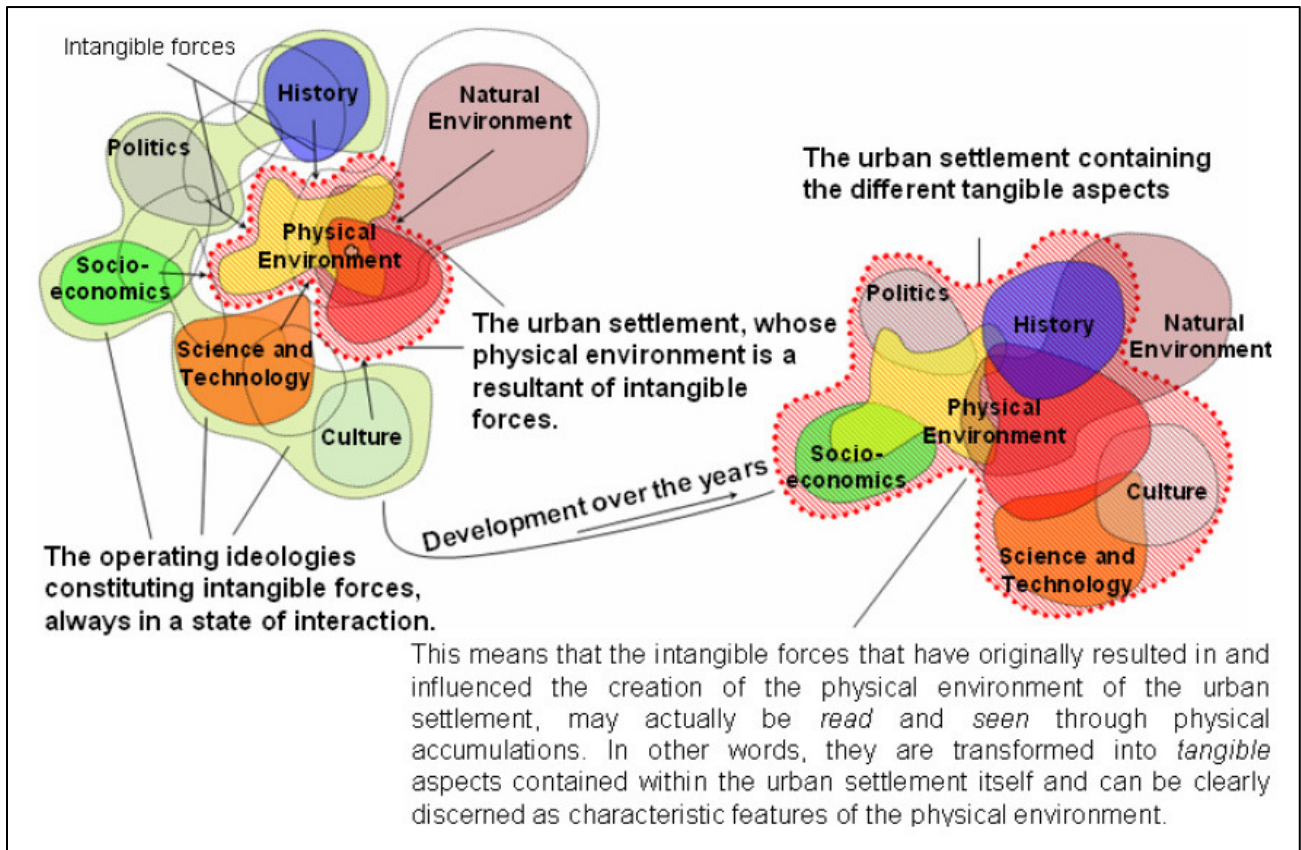


Figure 1, Theoretical Basis of Land Use Transformations

3. NASR CITY LAND USE – PLANNING CONCEPT & EXISTING CONDITION:

This section discusses mainly two aspects, the first one is how Nasr City district and the first zone originated, highlighting the starting conditions, as well as the planning vision; secondly is how the land use distributions appear nowadays.

3.1 HISTORICAL BACKGROUND :

The Egyptian president decree no. 815 (1959) belongs to Nasr city execution was issued proposing the establishment of a general administration under the name of Nasr City Company for Housing and Reconstruction; it was responsible for urbanization of Nasr city, which located in a desert area between Heliopolis and Abbassia with an initial area equivalent to 2646 hectares. In 1971, a presidential decree issued to expand Nasr city urban space eastward and to increase its area to be equivalent to the present area, which is 4500 hectares – see figure 2, showing the current Nasr City location in greater Cairo⁽¹⁾.

1 <http://earth.google.com>

Currently Nasr city bounded by El Khalifah El Mamoun street and El Golf area in the North, the ring road in the East, vacant land owned by Cairo government and investment authority and industrial zone in the south, Abbassia and El Ghafir cemeteries and Manshiet Naser slum Area in the west⁽¹⁾

The first zone along with the second zone was the beginnings of Nasr City. The first zone bounded by El-Nasr road in the north, Abbas Al-akkad street in the east, Ali Amin street (extension of Moustafa El-Nahas street) in the south, and El-Tayaran street in the west – see figure 3, which showing the original and current Nasr City urban space and the location of the first zone.

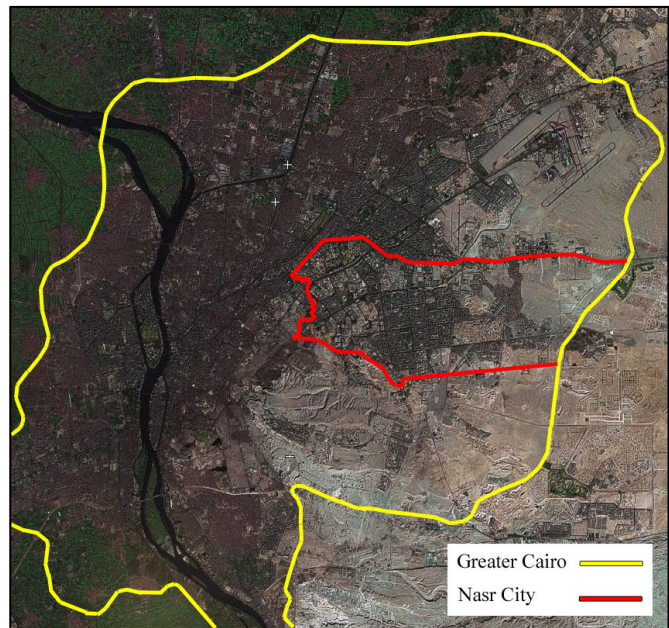


Figure 2, Current Nasr City location in greater Cairo

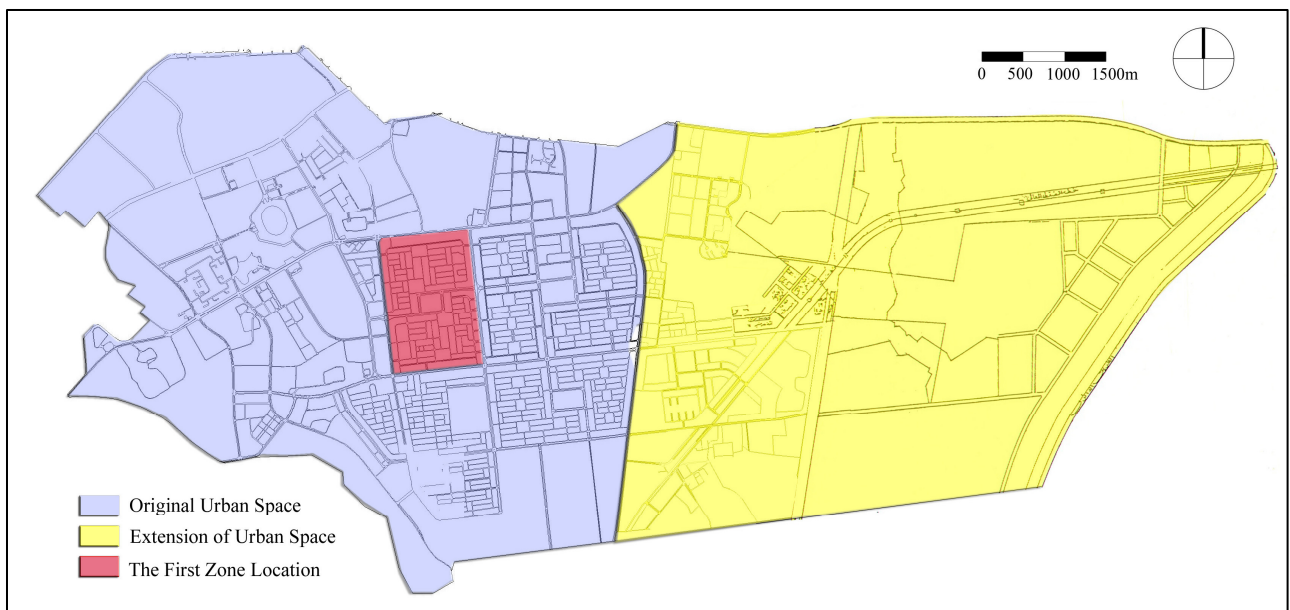


Figure 3, Original and Current Nasr City Urban Space and First Zone Location

Nasr City Company had an independent budget whose resources would come from the construction investment in the area and from governmental contributions, aids, grants and loans. These revenues were to be spent on the construction of the infrastructure needed for developing Nasr city, and paying the compensations for removing military barracks from the

¹ Nasr City Master Plan Map, Nasr City Company for Housing and Reconstruction, Cairo, Egypt.

area as well as the repayment of borrowed loans ⁽¹⁾. Hereafter In the end of 1970s, Nasr City Company approach had changed gradually first by starting build houses and selling them to those who afford to pay then selling vacant plot lands to private investors and individuals to build their own buildings. This coincided with the so called “open door era” and the emergence of a trend towards selling rather than renting. This approach was one of the most important factors influenced on the land use transformation in Nasr City as what will be proven later in this paper.

Main Objectives stated by Nasr City Company explain the purpose of Nasr City development as follows ⁽²⁾:

- 1- Reducing housing problem by establishing a self-sufficient residential community.
- 2- Based on Socialism, it provides lands with infrastructure for developing low income, average and above average housing to be executed by the public sector companies and Nasr City Company.
- 3- Transferring governmental and public buildings from Cairo’s downtown in order to relief pressure on it.
- 4- Providing lands for executing national projects.
- 5- Prohibiting the development expansion on cultivated land.
- 6- Providing lands with infrastructure in reasonable prices for the private sector to contribute in solving housing problem.

Generally Nasr City was built jointly by the Ministry of Housing and the Ministry of Defence (MOD), the latter involved because much of the site had belonged initially to the army.

3.2 ORIGINAL PLANNING VISION OF NASR CITY DISTRICT:

The Grid-pattern planning type was chosen by Dr. Sayed Koriem in Nasr City planning concept design, which consists of main intersecting roads, each is 50 m wide. These roads acted as dividers dividing different zones. Four development zones as a first stage were planned with a total area of 617.4 hectares distributed as (191.6 – 39 - 67.2 - 319.6 hectares) ⁽³⁾.

Nasr City is characterized by a regular movement network with straight routes, which serve geometrical land plots, where each zone was planned to contain services of higher levels in its centre, serving the neighbourhoods into which the zone is further subdivided. Moreover, each neighbourhood, in turn, contained its own smaller service centres, also situated in the heart of the neighbourhood unit ⁽⁴⁾.

1 Sobhi, Noha Gamal (2002). Designing Public Spaces: Towards a Sustainable Urban Form – P. 307

2 Nasr City Company Manual, Nasr City Company for Housing and Reconstruction, Cairo, Egypt – P. 3

3 Allam, Ahmed Khalid and Othman, Yehia and Al Mahdy, Majed (1997). Urban Renewal – P. 264

4 Rashed, Rowaida (2007). A Framework of Urban Morphological Analysis: The Physical Transformations of Three Districts in Cairo City – P. 85

The fundamental target from this type of planning, was to direct the habitants' movement towards the inner centres where all the basic services and activities are located and to decrease this movement towards the outer arterials, in other words to segregate the main pedestrian movement routes and the high-speed vehicular movement roads.

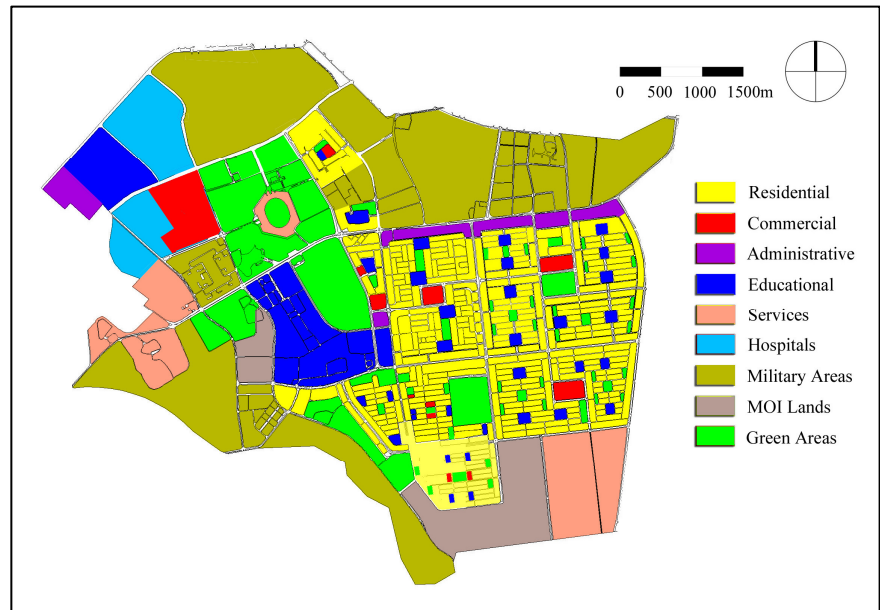


Figure 4, Original Nasr City Master Plan

The original planning as stated in the Nasr City company objectives

contains in addition of residential / commercial uses some major regional land uses located in the outer zones of Nasr City and across the main arterial roads, which they are ⁽¹⁾ :

- Olympic city and international stadium (sporting zone) in the heart of Nasr City and which all main roads lead to, with area of 201.6 hectares.
- International fair zone and amusement centre located west side of sporting zone, with area of 73.5 hectares.
- Ain Shams university extension zone (South side of El Khalifah El Mamoun street, which contains faculty of commerce and Ain Shams University Hospital), with area of 46.6 hectares.
- El Azhar university (south side of sporting zone), with area of 126 hectares.
- Governmental building zone across Salah Salem road (which contains ministry of planning, the central agency for public mobilization and statistics and the central auditing organization), with area of 52.5 hectares.
- Military show plaza and military podium space.

See figure 4, showing the original Nasr City master plan.

3.3 ORIGINAL PLANNING VISION OF NASR CITY FIRST ZONE :

The first zone was planned to be one of the major residential zones in the district with the area of 191.6 hectares equivalent to 7.2% from the initial area of whole Nasr city ⁽²⁾.

Within the original planning concept, the first zone designed to include the services area in its central kernel that contains commercial uses, big mosque, hospital and green area.

1 Allam, Ahmed Khalid and Othman, Yehia and Al Mahdy, Majed (1997). Urban Renewal – P. 263

2 Nasr City Company Manual, Nasr City Company for Housing and Reconstruction, Cairo, Egypt – P. 10

This central kernel surrounded by purely residential neighbourhoods with small commercial / recreational nucleus for each neighbourhood. Four locations have been dedicated for schools. – see figure 5, showing the original first zone master plan.

3.4 CURRENT LAND USE SITUATION IN NASR CITY DISTRICT :

After almost fifty years many factors in several fields politically, socio-economically, culturally caused the current land use situation in Nasr City district, which is very far away from what the original planning proposed.

Currently Nasr City occupies 4500 hectares, distributed as a percentage of the total district area as follows ⁽¹⁾ - See figure 6:

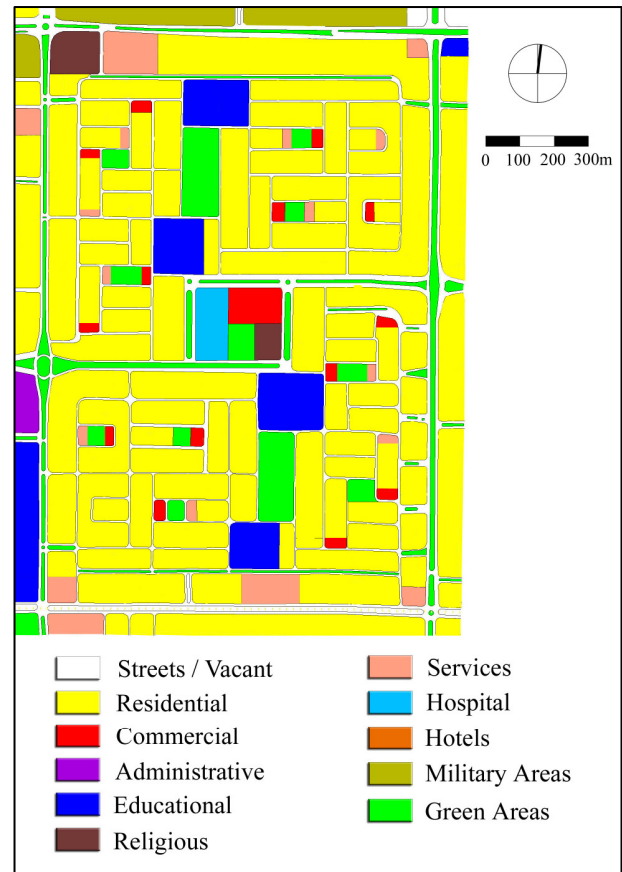


Figure 5, Original First Zone Master Plan

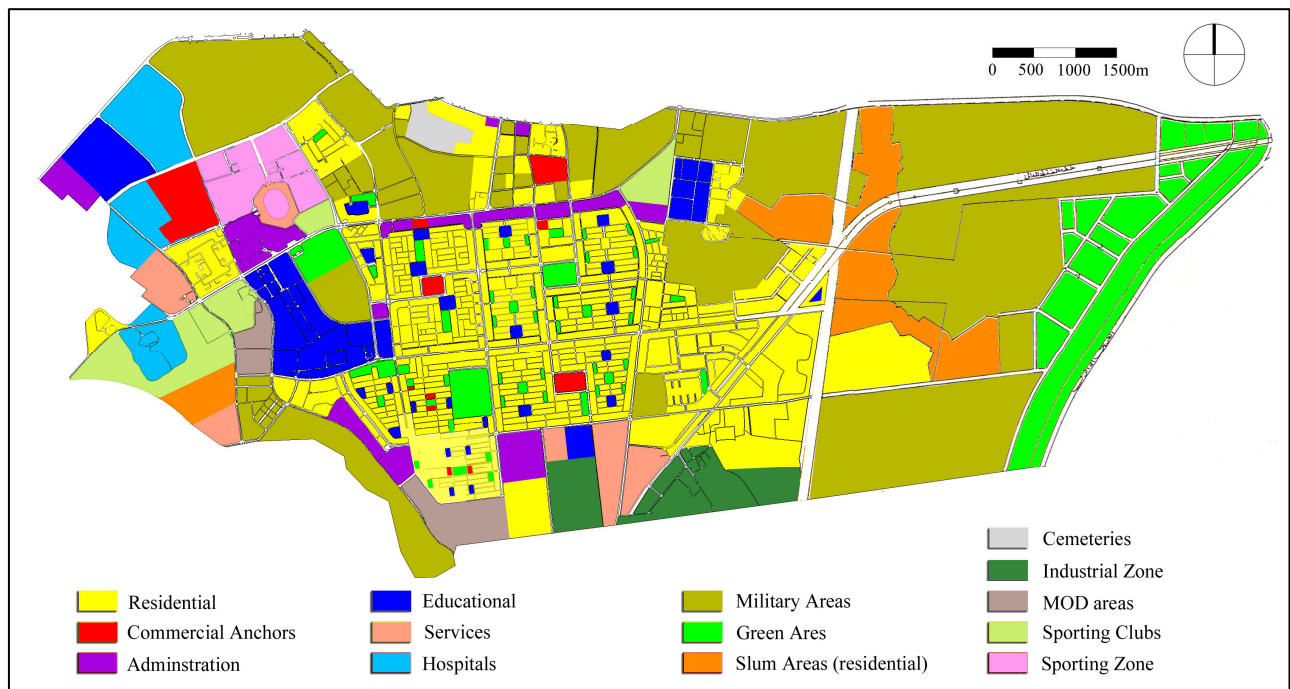


Figure 6, Current Land Use Plan of Nasr City

1 Sabry, Mohamed Halim (1998). Growth Management: The Role of Counties through national policy growth – case study: Nasr city – P. 125

- 34.3 % dedicated for the residential zones. Which lost most of their central kernels and all the commercial and economical activities intersect with the pure residential areas across the main roads.
- 42.2 % belongs to MOD, which constructed many lands initially to serve its officers by providing entertainment clubs, and residential towers like (Al-Obour, Al-Tawfek, Al-Nozha and Ramsis extension buildings); later on MOD has started to invest in its lands through inviting in public auctions and selling lands for private investors to construct their own investment projects. MOD did that although it got all those lands free of charge.
- 9.9 % dedicated for embassies area, Al-Nasr parks and other public gardens.
- 3.8 % dedicated for universities.
- 1 % occupied by sport clubs.
- 2.5 % occupied by regional projects and public buildings.
- 5.6 % occupied by slum areas (Ezbet El-Haganah area and Cairo government residential area).
- 0.7 % dedicated for ministry of interior (MOI).

3.5 CURRENT LAND USE SITUATION IN NASR CITY FIRST ZONE :

More or less, the first zone kept its central kernel as in the planning concept but with slight change. where the mosque constructed as what in the proposed design, the proposed public garden still vacant land, the area dedicated for commercial activities constructed and contains a big investment shopping mall (Genena Mall) acting as one of major anchors for all Nasr City habitants. The hospital did not constructed yet, and a part of its land occupies by residential building with big market (Metro market) in its ground floor. Nevertheless most of the neighbourhood's commercial nucleus taken out and replaced with residential tower buildings ⁽¹⁾ or originally did not never constructed.

The main outer arterial roads successively, Abbas Al-akkad street, El-Nasr road, El-Tayaran street and Ali Amin street attract all the commercial activities linearly either only

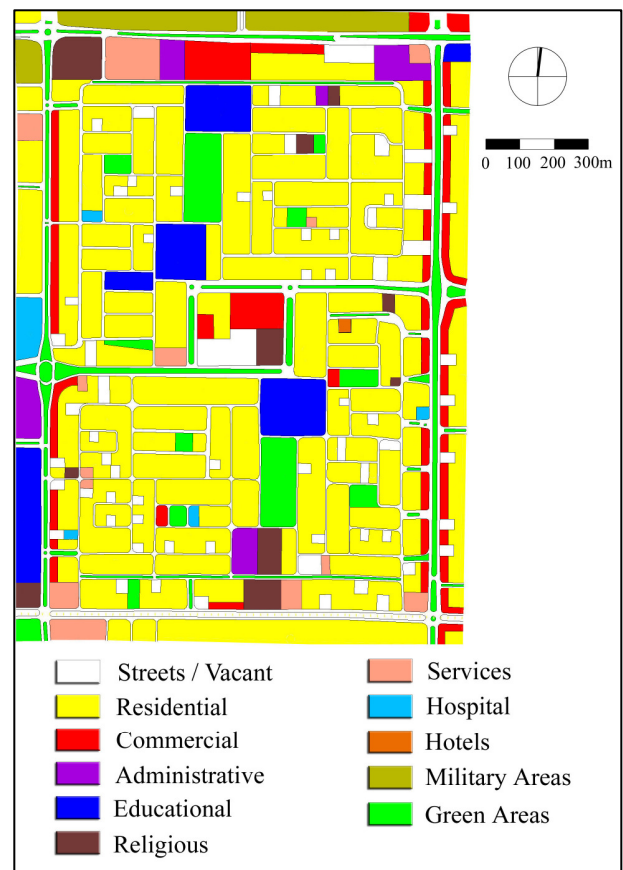


Figure 7, First Zone Current Land Use Plan

1 El Hosseiny, Omar and Abo El Fetouh, Marwa (2002). Comparative Analysis of The Elements of Sustainable Urban Design in Commercial / Residential Zones – Case Study: Heliopolis and Nasr City – P. 21

occupying the ground floor of residential buildings or represented as a separate buildings like “Tiba Mall” across El-Nasr road. Most of the proposed regional activities located west side of the First zone and across El-Tayaran Street are already constructed – see figure 7, showing the current land use situation in the first zone.

4 LAND USE TRANSFORMATION PROCESS OF NASR CITY:

This section discusses different aspects of land use transformation and analyzes their motives in Nasr City district and its first zone.

4.1 LAND USE TRANSFORMATION OF NASR CITY DISTRICT :

It is clear in the original planning vision all over the district that the land use pattern was not mixed, as well as, the land use pattern in the early development stages was not mixed where each zone and each block had been assigned a pure use.

Early 1980s, Some mixed uses have started to appear by reason of shifts in the political, economics, social and culture conditions as follows:

- 1- The Nasser’s socialist ideas which Nasr City planned and originated surrounded by them, were followed by Sadat’s open door era policies and then by the open market economies, accordingly, the Nasr City company policies have been changed where it started to sell lands to the investors ⁽¹⁾.
- 2- In 1982, presidential decree was issued provided land plots within Nasr City to the MOD, afterwards, MOD started to invest in lands by selling them to the investors for investment projects ⁽²⁾.
- 3- As a result of the two previous shifts and in addition to the social shift belongs to the high income of some Egyptians coming from Gulf countries, and according to supply and demand law, the lands and apartments prices have been raised. The residential building’s owners / investors - especially across the main roads - directed to provide their new residential buildings by some investment activities (mainly commercial) to increase benefits.
- 4- That was the point of change towards the mixed uses in Nasr City, Generally the land uses in Nasr City specially along the arterial roads transformed from pure residential uses to mixed uses (mainly residential / commercial), some residential land uses transformed to be shopping malls acting as commercial anchors, as well.

4.2 LAND USE TRANSFORMATION OF NASR CITY FIRST ZONE :

1 Sobhi, Noha Gamal (2002). Designing Public Spaces: Towards a Sustainable Urban Form – P. 306

2 Sabry, Mohamed Halim (1998). Growth Management: The Role of Counties through national policy growth – case study: Nasr city – P. 117

Generally, the first zone could be divided into four residential sub-zones and central kernel; each sub-zone contains four neighbourhoods.

In 1980, and almost after 20 years from issuing Nasr city execution presidential decree, nothing constructed in the central kernel except the mosque. In all sub-zones; the neighbourhood's commercial service areas had been constructed, but not all the other services (kindergartens - green areas) had been constructed.

All the constructed residential areas had been developed as per the original planning ⁽¹⁾- see figure 8 ⁽²⁾.

In 1990, the central kernel remained as is. In the residential sub zones, three actions could be observed: first, belongs to the executed residential areas, where some of their ground floor land uses have been transformed to commercial uses and few of them to other investment uses (small private hospitals). Second, belongs to the vacant lands, which were dedicated for residential, where some of them have been transformed to be private schools / small hotels / bank branches. Third, belongs to the residential plots across the arterial roads, where some of their ground floor land uses have been transformed to commercial uses ⁽³⁾- see figure 9 .

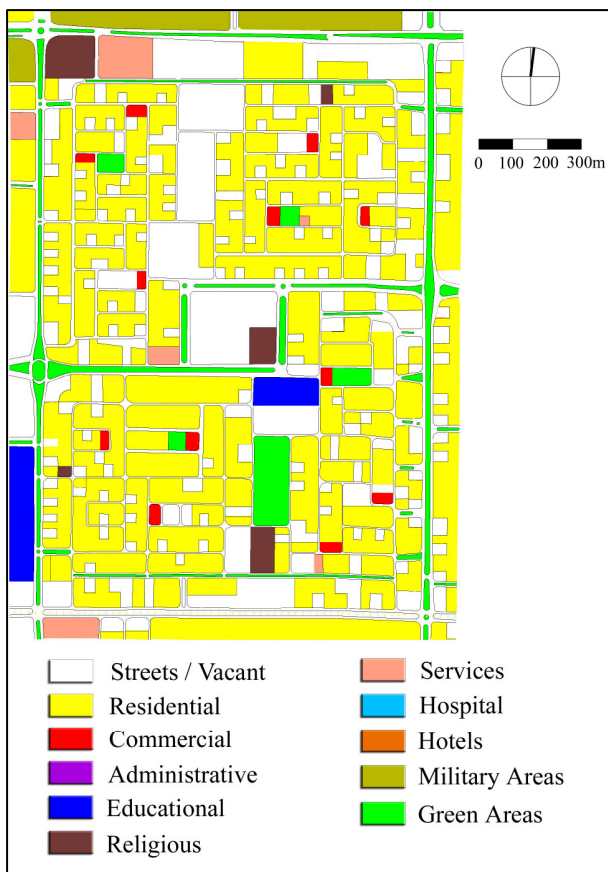


Figure 8, First zone land use plan (1980)

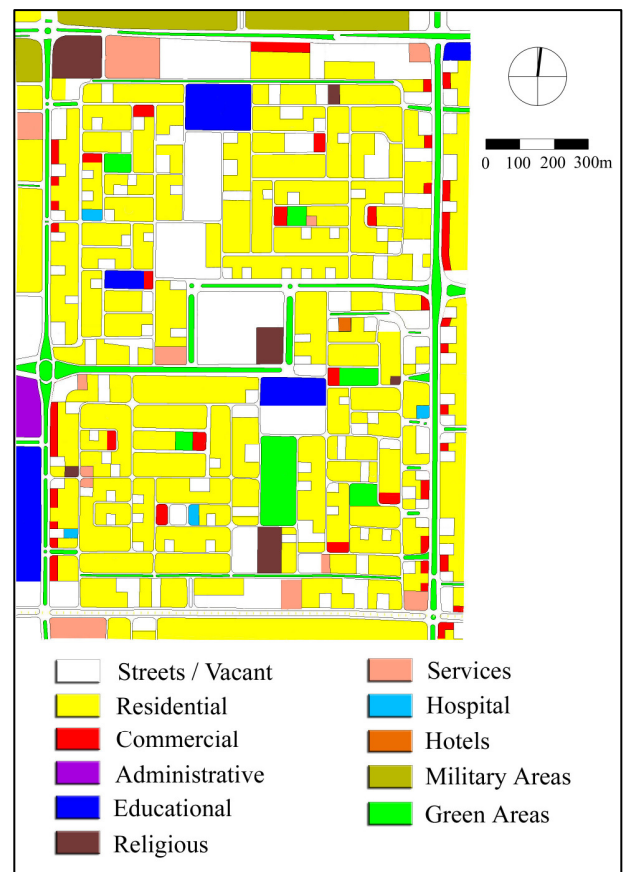


Figure 9, First zone land use plan (1990)

1 Rashed, Rowaida (2007). A Framework of Urban Morphological Analysis: The Physical Transformations of Three Districts in Cairo City – P. 86

2 Surveying Map (1984) - General Egyptian Authority for surveying, Cairo, Egypt

3 Surveying Map (1994) - General Egyptian Authority for surveying, Cairo, Egypt

In 2000& 2010, the central kernel developed to contain big commercial anchor (Genene mall), the planned public hospital did not executed and a part of its land transformed to be luxurious residential building with big market (Metro market) in its ground floor. In the residential sub zones, the same three actions continued in the same trend and most of the ground floor land uses across arterial roads have been transformed to be commercial ⁽¹⁾ - see figures 10, 11.

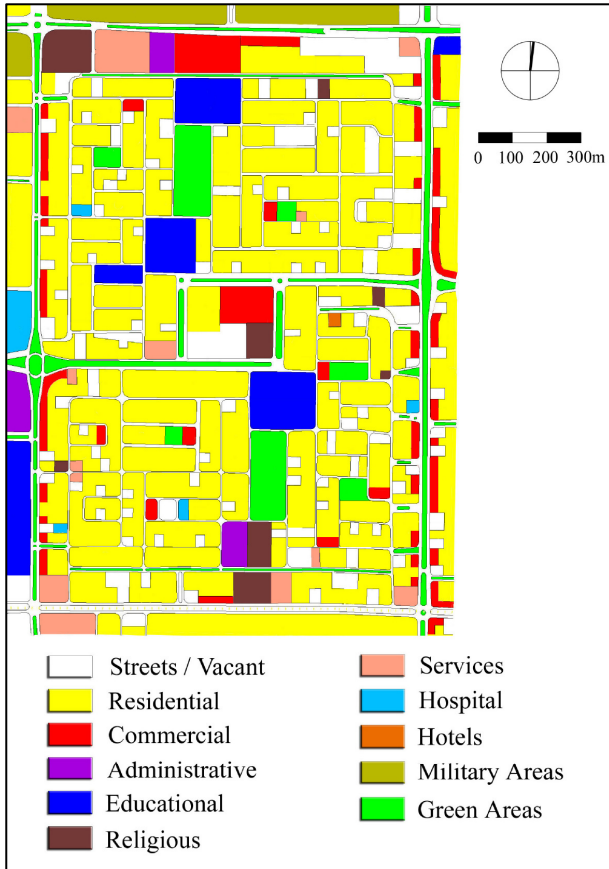


Figure 10, First zone land use plan (2000)

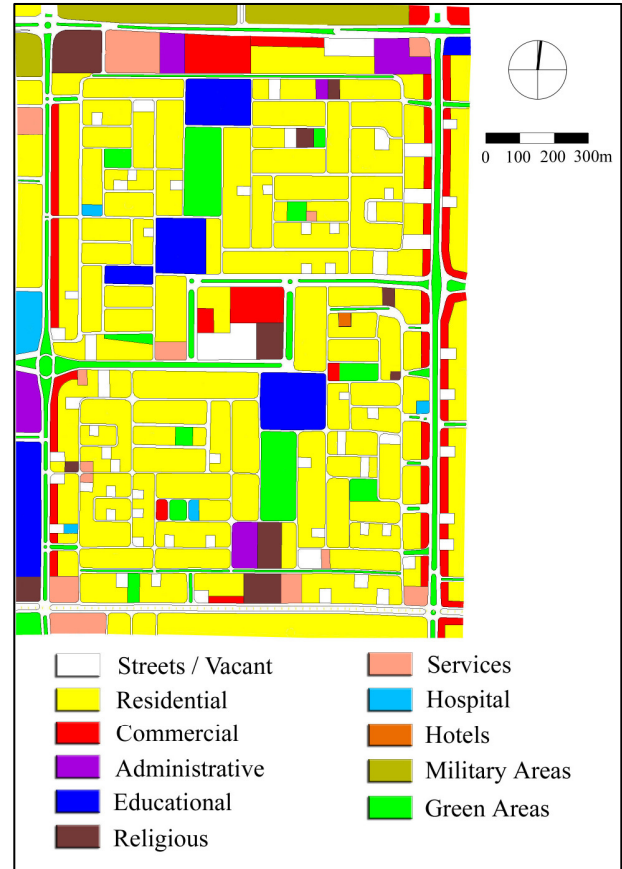


Figure 11, First zone land use plan (2010)

5. FUTURE TREND OF LAND USES IN NASR CITY :

Based on the discussions and analysis in the previous sections, this section concludes the future trend of land uses distribution in Nasr City district and the first zone.

5.1 FUTURE TREND OF LAND USES IN NASR CITY DISTRICT:

The land uses in Nasr City district tends to be mixed use instead of pure uses (against the original planning vision). The land uses across arterial roads tends to be mixed uses (residential / commercial). The MOD's lands tend to be developed as mixed uses across the main arterials or residential in the internal areas. The central kernels tend to disappear and

1 <http://earth.google.com> - and field visits

being replaced by some commercial anchors in privileged locations, which are meant to serve Cairo as a whole – see figure 12.

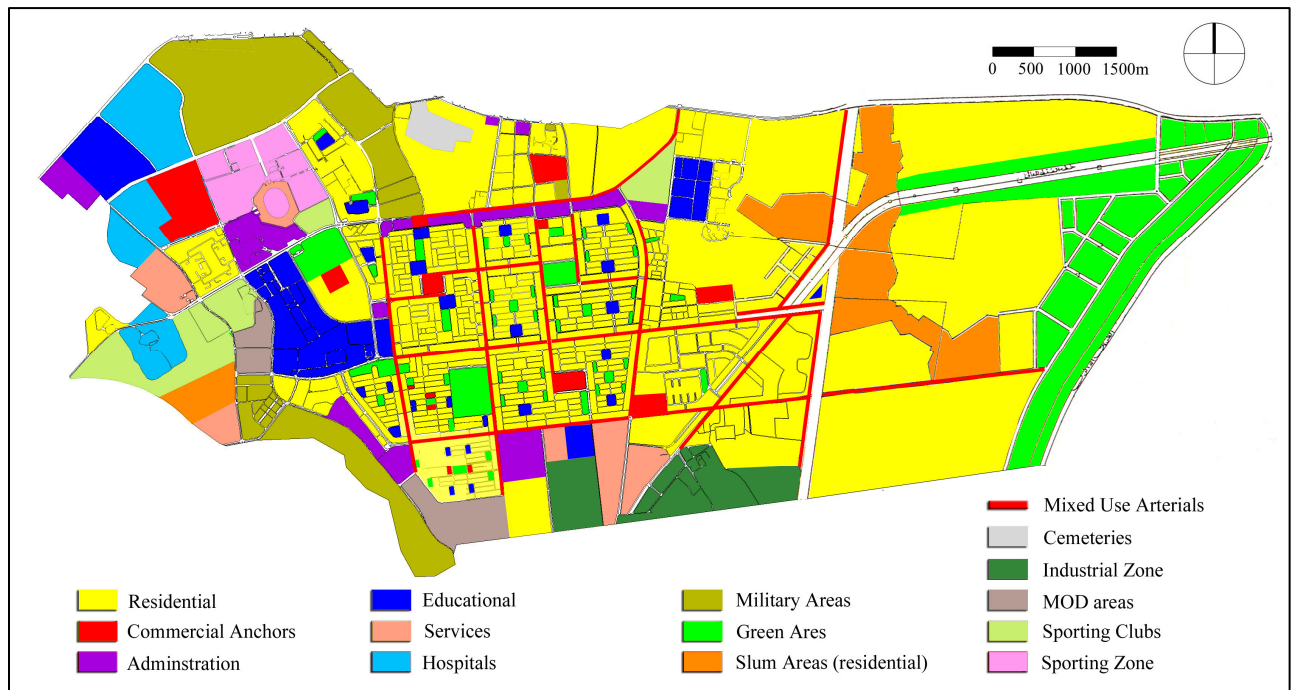


Figure 12, Future trend of land uses in Nasr City

5.2 FUTURE TREND OF LAND USES IN NASR CITY FIRST ZONE :

As a part of the district, Land uses in Nasr City first zone trends to be mixed use. The ground floor land use across the arterial roads trends to be commercial uses. All the small commercial uses in the internal zones tends to be transformed to residential buildings. The central kernel tends to be developed as a mixed use area serving the entire district not only the first zone - see figure 13.

6 CONCLUSIONS :

- 1- Nasr City planning vision had been developed as a direct result of Nasser’s socialist ideas; nevertheless, its planning had been affected by western planning ideas and by the paradigms that prevailed at the time of

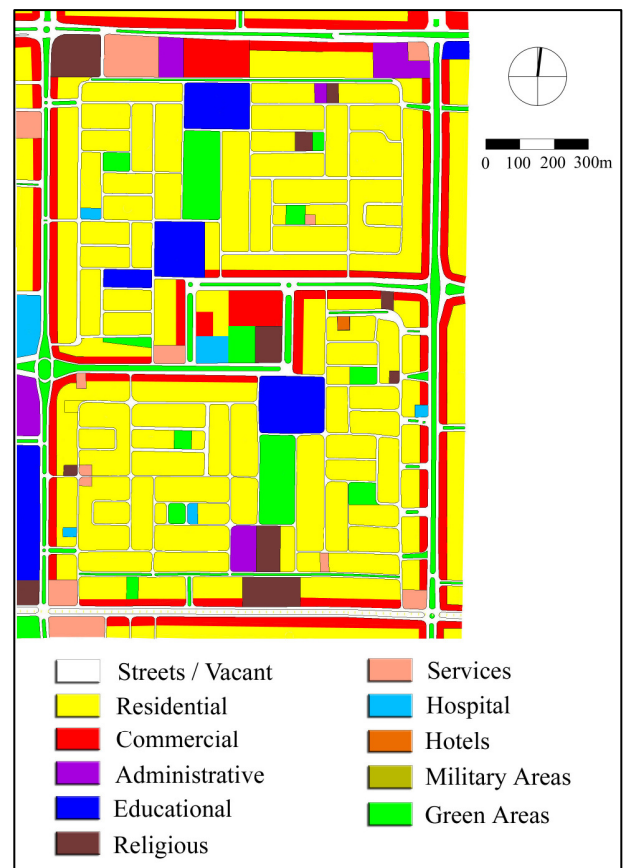


Figure 13, Future trend of first zone land use plan

- its origination, such as the concept of neighbourhood unit.
- 2- Land use transformations in Nasr City have started to take place during Nasr city build-up stage, i.e. before its completion stage.
 - 3- Land uses in Nasr City have changed in response to shifts in economic, social and political situations.
 - 4- Population changes within Nasr City, as regards to the number of people, as well as their culture / social background and life styles, have thus determined the direction of land use transformations.
 - 5- Land use pattern has tended, over the years, to become mixed-use one, where as the segregation land use pattern of Nasr City have proved that it is the most difficult to accommodate mixed – uses. It is thus true that a pattern of mixed uses is more adaptable over the years and is able to take in transformations without causing many physical changes.
 - 6- Land use transformations over time are inevitable and should be taken into consideration in the strategic planning processes; they should be given space to happen. The main idea is to understand the direction of development for the examined area, because this kind of understanding helps - when planning new areas - in determining the required amount of flexibility planned beforehand for inevitable transformations.

REFERENCES:

- 1- Allam, Ahmed Khalid and Othman, Yehia and Al Mahdy, Majed (1997). Urban Renewal. (Published Book, Egyptian Anglo Library, Cairo, Egypt).
- 2- El Hosseiny, Omar and Abo El Fetouh, Marwa (2002). Comparative Analysis of The Elements of Sustainable Urban Design in Commercial / Residential Zones – Case Study: Heliopolis and Nasr City. (Published Paper, Journal of the Egyptian Society of Engineers, No.2, 2002, Vol. 41, Cairo, Egypt).
- 3- General Egyptian Authority for Surveying, Cairo, Egypt.
- 4- <http://earth.google.com>
- 5- Nasr City Company Manual, Nasr City Company for Housing and Reconstruction, Cairo, Egypt.
- 6- Nasr City Master Plan Map, Nasr City Company for Housing and Reconstruction, Cairo, Egypt.
- 7- Rashed, Rowaida (2007). A Framework of Urban Morphological Analysis: The Physical Transformations of Three Districts in Cairo City. (Doctoral Dissertation, Institute of Urbanism, Graz university of Technology, Austria).
- 8- Sabry, Mohamed Halim (1998). Growth Management: The Role of Counties through national policy growth – case study: Nasr city. (M.Sc. thesis, urban planning department, Faculty of Engineering, Ain Shams University, Cairo, Egypt)
- 9- Sobhi, Noha Gamal (2002). Designing Public Spaces: Towards a Sustainable Urban Form. (M.Sc. thesis, urban planning department, Faculty of Engineering, Ain Shams University, Cairo, Egypt).