



IMPROVING INFORMAL AREAS IN GREATER CAIRO

The cases of Ezzbet Al Nasr & Dayer El Nahia

Editors

Beltrán del Río García Luis
Chrysan Arasty Altami
El Mouelhi Hassan
Félix Carlos Ana Laura
Fokdal Josefine
Momen Karima
Rabe Claus
Ruiz Remolina Ana Isabel
Sandoval-Henriquez Vicente
Santos Rui
Soares Barbizan Thiago
Vanderhuck Carolina
Zehner Carsten

Photography

Ihsan Abdulsamad Kurdo
Queiroz e Souza Paula Vianna
Ruiz Remolina Ana Isabel
Sandoval-Henriquez Vicente
Vanderhuck Carolina
Zehner Carsten

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Authors

Beltrán del Río García Luis
Brown Abakisi Lincoln
Chrysan Arasty Altami
El Mouelhi Hassan
Félix Carlos Ana Laura
Fokdal Josefine
Hossain Mohammad Ishtiuq
Hyun Kim Soo
Ihsan Abdulsamad Kurdo
Momen Karima
Queiroz e Souza Paula Vianna
Rabe Claus
Ruiz Remolina Ana Isabel
Sandoval-Henriquez Vicente
Santos Rui
Soares Barbizan Thiago
Suryaningrum Febyana
Torres Izabel
Vanderhuck Carolina
Zehner Carsten

Urban Management

Studies

Technische Universität Berlin /
Berlin University of Technology
Faculty VI Planning Building Environment

Sekt. A 53 Habitat Unit

Strasse des 17. Juni 152

10623 Berlin

Federal Republic of Germany

Phone: + 49-30-314-21468

Fax: + 49-30-314-21907

E-mail: a53(at)tu-berlin.de

Internet: www.urban-management.de

Participatory

Development

Programme in

Urban Areas

Deutsche Gesellschaft für Technische
Zusammenarbeit (GTZ) GmbH /
German Technical Cooperation
GTZ Office Cairo

4d, El Gezira Street, 3rd Floor

11211 Zamalek

Cairo, Egypt

T +20 2 2735-9750

F +20 2 2738-2981

E-mail: gtz-aegypten(at)gtz.de

Internet: www.gtz.de

www.egypt-urban.net

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TABLE OF CONTENTS

LIST OF MAPS	7
LIST OF FIGURES	7
LIST OF TABLES	9
PREFACE	10
1. THEORETICAL BACKGROUND	13
1.1 Informality	13
1.1.1 Different approaches to understand informality	13
1.2 Dealing with informal areas	13
1.3 Participation - Objectives and mechanisms	14
2. CONTEXT	17
2.1 Introduction to Greater Cairo Metropolitan Region (GCMR), Egypt	17
2.1.1 Geographical Aspect	17
2.1.2 Political Context	17
2.1.3 Economic Context	17
2.2 Urbanisation in GCMR and the development of Informal Areas	18
2.2.1 Emergence of the Informal Areas in GCMR	18
2.2.2 Definitions, Perceptions and Typologies of the Informal Areas in GCMR	21
2.3 PDP - Participatory Development Programme in Urban Areas	24
2.3.1 PDP - Objectives and Approach	24
2.3.2 PDP Framework of Categorisation and Intervention	24
2.3.3 Proposal for Qualitative Complementation	26
3. CASE STUDIES	28
3.1 CAIRO: Ezzbet Al Nasr	28
3.1.1 Context	28
3.1.2 Fieldwork Methodology	29
3.1.3 Situation Analysis	31
3.1.4 Synthesis of Findings	36
3.1.5 Intervention Strategy	37
3.2 GIZA: Dayer El Nahia	50
3.2.1 Context	50
3.2.2 Field Work Methodology	50
3.2.3 Situation Analysis	52

3.2.4 Intervention Strategies	54
3.2.5 Spatial Application of Proposals	71
3.2.6 Summary Dayer El Nahia	72
4. GENERAL CONCLUSION	76
UNDERSTANDING CULTURE IN CAIRO'S INFORMAL AREAS	77
PROFESSIONAL PROFILES	80
REFERENCES	83

LIST OF MAPS

Map 1 Greater Cairo Metropolitan Region (GCMR)	17
Map 2 Urbanisation Process in GCMR	20
Map 3 Ezzbet El Nasr Localisation	28
Map 4 Ezzbet El Nasr area of intervention	28
Map 5 Priority Areas	32
Map 6 Economic Integration	33
Map 7 Provision of waste and sanitation services	35
Map 8 Proposal of street lighting	40
Map 9 Proposal of paving, pedestrian access and greening	41
Map 10 Proposal of Land Development	44
Map 11 Dayer El Nahia Localisation	50
Map 12 Dayer El Nahia	50
Map 13: Actual Situation	51
Map 14 Location of Interviews	51
Map 15 Areas to be further studied for building conditions	57
Map 16 Governorate's Urban Planning Department Street Grid Proposal	61
Map 17 Alternative Proposal Street Grid	62
Map 18 Traffic Concept	62
Map 19 Open spaces and Public Services	63
Map 20 Urban Structure	64
Map 21 Design proposal	73

LIST OF FIGURES

Fig. 1 Eight rungs on the ladder of citizen participation	15
Fig. 2 Income Inequality	18
Fig. 3 Annual Population Growth	18
Fig. 4 Classification of the informal areas	21
Fig. 5 Qualitative Complementation of Categorisation	25
Fig. 6 Adapted Livelihood Assets	26
Fig. 7 Conceptualising Process	29
Fig. 8 Proto Analysis	30
Fig. 9 SWOT Analysis Ezzbet Al Nasr	36
Fig. 10 Diagnostic Model	37
Fig. 11 Intervention Framework	38
Fig. 12 Intervention Diagram	38
Fig. 13 Street lighting for narrow streets	40
Fig. 14 Street lighting for wide streets	40
Fig. 15 Framework for proposal	55
Fig. 16 Land Pooling	58
Fig. 17 Multi-Stakeholders Cost and Benefit Sharing	58
Fig. 18 Urban Furniture	64
Fig. 19 Street Lightening	64
Fig. 20 Partial Relocation	68
Fig. 21 Internal Clustering	68

LIST OF TABLES

Table 1 Typology of Informal Areas in Cairo	23
Table 2 PDP - Program Levels	25
Table 3 Dimensions of Livelihood	30
Table 4 Externalities of Light Industries	34
Table 5 Proposal of street lighting	39
Table 6 Proposal of paving	41
Table 7 Proposal of pedestrian access	42
Table 8 Proposal of tree planting	42
Table 9 Land Development	43
Table 10 Proposal of solid waste management	46
Table 11 Proposal of composting plant	47
Table 12 Proposal of sewage system	47
Table 13 Proposal of construction waste management	48
Table 14 Priorities / Phases for Interventions	49
Table 15 Topics in the interviews	52
Table 16 SWOT Analysis Dayer el Nahia	53
Table 17 Physical Structures	56
Table 18 Land Pooling Contribution and Benefits	59
Table 19 Land Pooling	59
Table 20 Best Practices Physical Structures	60
Table 21 Best practice Open Space	64
Table 22 Categorisation of economic activities according to the environmental law	65
Table 23 The positive and negative aspects of the activities	66
Table 24 Economic Strategy	67
Table 25 Best Practices Economic Livelihood	68
Table 26 Current situation and recommended actions	70
Table 27 Best Practices Social Organisation	71

PREFACE

The growth of informal settlements is a major concern in many cities of the Global South. Therefore, one of the most challenging tasks of urban planners is to gain a comprehensive understanding of the complex characteristics of informal growth and livelihoods in informal areas in order to develop integrated and sustainable solutions.

In this regard, the Greater Cairo Metropolitan Region is an extreme showcase with an estimation of almost half of the build-up area being informal. Providing shelter for the growing urban population, informal areas have grown for decades as a consequence of the chronic lack of affordable housing. At the same time, informal areas in Greater Cairo hold complex problems: e.g. loss of valuable agricultural land, illegal tenure, unsafe building conditions, poverty and a lack of public infrastructure and services. However, it is important to recognize that informal areas also provide valuable livelihoods for their residents as an essential basis for income generation, social networks and community life.

Political decision makers and urban planners are highly under pressure to deal with informal areas in a sustainable way in order to integrate them in the city. Finding the right balance between addressing problems while strengthening potentials in an integrated, efficient and sensitive manner is obviously most challenging. An important precondition to develop appropriate approaches is the efficient collaboration between public institutions at all levels combined with intense participation of civil society.

The Participatory Development Programme in Urban Areas (PDP), an Egyptian-German development project implemented by the Egyptian Ministry of Economic Development (MoED) as the lead executing agency in cooperation with the German Technical Cooperation (Deutsche Gesellschaft für Technische Zusammenarbeit GmbH, GTZ) and the German Development Bank (KfW Entwicklungsbank), with financial assistance by the German Federal Ministry for Economic Cooperation and Development (BMZ), aims at strengthening capacities of all involved stakeholders and to equip them with the necessary tools and means for successful intervention in informal areas. In order to achieve this, GTZ works on three levels (national, regional and local) to provide support for policy reform, strategy formulation as well as implementation.

Within the framework of the PDP, seventeen international participants of the post-graduate Urban Management Master Program (class 2009/2010) of the Technical University of Berlin (TU Berlin) were invited by GTZ to Cairo from April 27 - May 6, 2010 and given the outstanding opportunity to work as young expert consultants. Collectively, the students possess multidisciplinary professional backgrounds (e.g. university degrees in

architecture, urban planning, environmental management, the social sciences, etc.) with substantial work experience in public and private sector institutions (including GTZ) in their home countries in Asia, Latin America, Africa and Europe. The interdisciplinary expertise provided by the young experts and their supervising teaching assistants offers a valuable basis for critical reflections and inputs on the current discussion about informal areas in Greater Cairo and especially the activities of the PDP in the urban sector.

The task, set up in the Terms of Reference, was twofold. On a conceptual level, the categorisation approach developed by GTZ - linking different types of informal areas to respective strategies for intervention –was to be critically reflected. On a more practical level, two informal areas (Dayer El Nahia in the Governorate of Giza / Ezzbet Al Nasr in the Governorate of Cairo) were selected for field research and for the development of concrete intervention measures with practical solutions.

Prior to the stay in Cairo, an intense preparation phase was held in Berlin. The different sessions comprised research, literature review and critical discussion of current scientific debates regarding informality and intervention strategies. Furthermore, the urbanisation processes and mechanisms affecting informality in Egypt and Cairo were studied and debated followed by a critical assessment of the already existing tools of categorisation and intervention activities.

During the first part of the stay in Cairo, the group of young experts studied the variety of different types of informal areas in the Governorates of Cairo and Giza. The findings led to a critical reflection of the categorisation approach and respective recommendations. During the second part, the group was divided to be able to conduct fieldwork in the two selected areas. Based on the findings of action research, applying various qualitative methods, strategies for intervention including concrete measures for implementation were elaborated. The outcome of this work was successfully presented to and discussed with the Governor of Giza and the Vice Governor of Cairo, PDP staff members as well as local partners in a final event on May 6, 2010.

As experience has shown, –when compared to long-term experienced senior advisers– the involvement of young experts in challenging contexts such as Greater Cairo provides several windows of opportunity to discuss issues in a more open manner. Perceptions and acceptance tend to differ in these working contexts providing for unconventional thinking and innovative action. The benefit of this opportunity has been developed throughout the long standing cooperation between GTZ and the postgraduate Urban Management Master Program at the Berlin University of Technology dating back to 2003. In the past, fieldwork has included a case study on informal settlements in Aleppo, Syria with the GTZ, its counterparts from the municipi-

pality of Aleppo and the University of Aleppo in 2007, a study and strategic concept-building visit on sustainable regional tourism in Montenegro in 2008 upon the invitation of GTZ in collaboration with the University of Podgorica, as well as a study and consultancy on good urban governance in four secondary cities in Bangladesh with GTZ in 2009. These experiences have shown that practical field training combined with intense on-site project work enables a vivid exchange of ideas and appropriate strategies between students and local project partners – a win-win situation on both sides.

However, the fruitful cooperation between GTZ and TU Berlin goes well beyond field work. The Masters program in urban management benefits from the regular involvement of GTZ staff members in teaching courses and from the nomination of a GTZ senior expert, Prof. Günter Meinert as honorary professor especially assigned to the program. Furthermore, over the years, numerous short-term training courses on different topics in the field of urban management have been conducted for staff members of GTZ projects and experts from their local counterparts. These included short courses in 2003 and 2004 on 'Eco city management', 'Hazardous waste management' and 'Sustainable urban conservation' for experts from China as well as training programs in 2004 and 2008 on 'Sustainable urban conservation' and 'Sustainable urban planning' for experts from Syria. In 2009, a summer school for government and administration officials from Bangladesh in the field of 'Good urban governance' was realized. GTZ's intense involvement in the Urban Management Program has resulted in the successful recruitment of graduates as high-profile staff members and interns on GTZ projects and at CIM posts worldwide. The track record is impressive. To date, UM graduates are active as: urban planner working with CIM in Ethiopia, eco-sanitation consultant working for GTZ India, advisor on Urban Governance with GTZ Bangladesh, head of the Governmental Urban Management Training Unit in Kuala Lumpur/Malaysia and member of the GTZ-team in Palestine/Jordan. Furthermore, the GTZ has made an irreversible impact on all those who returned to work as experts in urban development in their home country.

In this publication we are presenting the results of the two week Field trip in Cairo. The first chapter outlines the current academic discourse on the most relevant topics for this task: Informality, Intervention and Participation. The second chapter introduces Greater Cairo and the mechanisms affecting informal areas as well as government responses. Furthermore, the context of the PDP is analysed followed by a reflection on the categorisation approach and the proposal of qualitative complementation. The third chapter documents the two case studies and provides findings from field work as well as the intervention proposals. This report aims for extensive dissemination and integration in follow-up activities through the PDP contributing to awareness-raising on relevant issues and enhancing public

awareness for the project. We are looking forward to continue discussing our ideas and to go on with the interesting debates we had with the partners from GTZ and their counterparts in the Governorates of Cairo and Giza. A great deal of thanks is owed to Marion Fischer, Regina Kipper, Dr. Khaled M. Abdelhalim, Khalil F. Shaat, Amr Lashin and the entire GTZ staff for the time and efforts they put into making this project a success. Furthermore, we would like to express our thanks to the Governor of Cairo, Prof. Dr. Abdel-Azim Morsi Wazir and the Governor of Giza, General Engineer Sayed Abdel-Aziz Shehata and their staff at the Urban Upgrading Units for their cooperation and reflections. Further thanks go to our cultural translator Hassan El Mouelhi for his great support and guidance throughout the whole process. A special thanks goes to the residents of the two informal areas Dayer El Nahia and Ezzbet Al Nasr who received us with so much hospitality and openness – we hope to contribute with our ideas to an improvement of your communities.

Josefine Fokdal and Carsten Zehner



THEORETICAL BACKGROUND

1. THEORETICAL BACKGROUND

1.1 Informality

1.1.1 Different approaches to understand informality

“The informality discourse is large, vibrant and expanding fast. But there is a certain conceptual incoherence to the literature. New definitions compete with old definitions leading to a plethora of alternative conceptualisations” (Kanbur 2009, p. 9)

The lack of consensus on the definition of informality is evident in the contemporary discourse. It is incumbent upon development practitioners to recognize the contradictions inherent in this subject, and to approach intervention in a manner which is appropriately pragmatic and flexible. This section briefly introduces the contrasting perspectives on informality.

Informality from a political perspective

Political decisions depend on the nature and interest of the state and its social and economic objectives. As a result it reflects the distribution of power. Soliman (2004) argues that the major consequence of the global restructuring in developing countries brought about integration/ disintegration, social exclusion and informality are closely linked to the aspect of power. According to Kanbur (2009) informality is a matter of enforcement or non-enforcement by the state by means of regulations. He argues that a single definition distinguishing between the formal and the informal obscures the existence of varying levels of informality: the intensity of the enforcement has to do with the permeability of informal actions. Hence, he proposes four levels of informality (Kanbur 2009:5):

- Stay within the ambit of the regulation and comply.
- Stay within the ambit of the regulation but not comply.
- Adjust activity to move out of the ambit of the regulation.
- Outside the ambit of the regulation in the first place, so no need to adjust.

Kanbur (2009) further argues that formality and informality cannot be approached or defined without taking into account the relations to economical activity in the presence of regulations.

Informality from an economic perspective

Altwater (2004) argues that the informal economic sector is a consequence of economic policies. Linking the process of industrial revolution to technical evolution and transfer of capital he argues that the trend of industrialisation has been accelerated in the last two decades by the emergence of ICT's - Information and Communication Technologies – that allow financial capital to globally flow on real-time, forcing enormous changes in the worldwide production system – delocalisation – and an incontestable instability in national and local economies (Altwater, 2004). Specifically, the local labor markets are influenced and become more unpredictable and insecure, eventually compelling economic agents to slide into the informal economy (or sector), and therefore accentuating the dynamic of socio-economic inclusion and exclusion - social polarisation. Thus, he establishes a connection between the phenomenon of informality and aspects of globalisation and urbanisation.

Informality as a way of life

The connection between urbanisation, globalisation (liberalisation) and informality is further defined by Roy and Alsayyad (2004). By decoupling the definition of informality from the economic sector, they take the argument one step further than Altwater, arguing that informality is a ‘new way of life’ -a mode of urban existence. Recognizing that informality can be an option to survive in the cities, they argue that in many cases it is a personal decision to adopt behaviours associated with informality. The production of informal space is also an expression of power; the informal economy is deregulated rather than unregulated. Thus, informality can be seen as a different and sometimes organized way of living.

1.2 Dealing with informal areas

Informal areas¹ (IAs) can to a large extent be seen as a consequence of a lack of planning, especially in terms of service provision for low-income classes. During the 1970s, informal areas were recognized as a durable structural phenomenon that demanded appropriate strategies as for instance enabling policies, resettlement, self-help, and in-situ upgrading. This new approach was fostered by increased awareness at an international level of the right to housing and protection against negligence or forced eviction. Additionally, it is related to the definition of new national and local political agendas in a context of an emergent civil society, as well as processes of democratisation and decentralisation (UN-Habitat, 2003). In the following paragraphs the different strategies mentioned above will be described briefly (see UN-Habitat, 2003).

¹ Informal areas will be defined in the context of Cairo, Egypt in chapter 2.

Enabling policies are based on the principles of subsidies and involves the dwellers of IAs in the construction processes of improvement, and also in the design and decision making processes that establish priorities for action and support for implementation within an IA. The enabling policies approach was developed to coordinate community mobilisation and organisation, though communities are very complex and rarely united. Thus, while there are many examples of effective and successful enabling strategies, the process is time consuming and challenging.

Resettlement has been associated with virtually all types of approaches. It embraces a wide range of strategies, though all are based on perceptions of enhancing the use of the land and property upon which IAs are located. At best, relocation is undertaken with the agreement and cooperation of the slum households involved, but the housing conditions of the poor have not improved significantly. In most cases, the numbers of urban dwellers living in IAs remains stable or is increasing, except in countries that combine large-scale upgrading and tenure regularisation programmes with the production of serviced sites and low-cost housing programmes.

Self-help and **upgrading** consists of physical, social, economic, organisational and environmental improvements undertaken cooperatively and locally among citizens, community groups, businesses and local authorities. These improvements focus on three main areas of concern:

- Provision of basic urban services
- Provision of secure tenure for slum dwellers and the implementation of innovative practices regarding access to land
- Innovative accesses to credit, adapted to the economic profile, needs and requirements of IA dwellers and communities.

Applying this strategy in principal implies that the dwellers of a certain IA can stay in the same location during and after the upgrading process.

Facing several obstacles, one major challenge by applying intervention strategies is the overlapping of actors and roles resulting from a process of gathering partners without proper management. As a response to the lack of management, the most prominent concept by United Nations emphasizes the key aspect “good governance” to properly apply and operate the different approaches of improvement of IAs (UN, 2005 p.45). Further, it is argued that the causes of IA should be investigated and that actions providing sustainable interventions should be taken, for example by incorporating means of participation.

1.3 Participation – Objectives and mechanisms

Community participation is a central concept in frameworks for interventions in IAs. However, participation is a very broad concept with many dimensions. In the context of this work, the discussion of citizen participation in public policy formulation is approached from three different angles: **(a)** empowerment, **(b)** the relationship between community input and process efficiency and, finally, **(c)** individual motivations and variations of civic engagement. The literature exploring risks and limitations of participatory processes will also be taken into account at the end of this section.

The literature on community participation in policy formulation places a lot of emphasis on the first dimension (a) above. According to Chambers (Cited in Piffero 2009, p.129) the idea of participation is to involve the beneficiaries of development projects in the decision making process, putting them in the “position to influence and share control over the process, the strategic choices, and the allocation of resources associated in development projects and programs.”² With the community involved in the decision-making process, and its implementation, people not only feel the impacts of the project but they also feel like a “full-fledged citizen” (Abdelhalim 2009, p.125). Arnstein (1969, p.216) supports Abdelhalim by stating that citizen participation is an essential part of individual exercise of citizenship because it is a mechanism to include all those excluded from the political and economic structure in the decision making process. Expanding Chamber’s idea, Arnstein states that a participatory approach must enable citizens to influence the outcomes of the process, which includes:

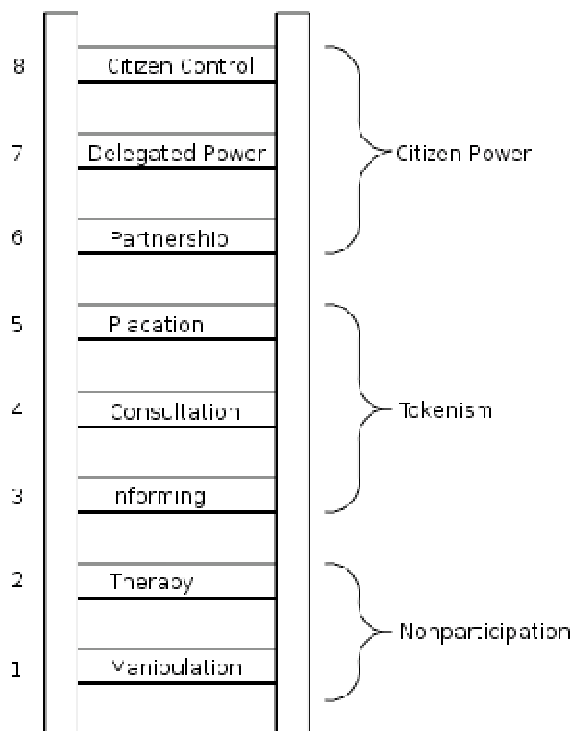
- How information is shared
- The goal definition
- Tax resources allocation
- The operation of programs
- The decision about other benefits, as for example, patronage and contracts.

In terms of planning, Arnstein, for instance, associates distinct levels of participation to different levels of citizen power. Based on a hierarchy of participation and non-participation types, Arnstein (1969, pp.217-223) proposes a typology of eight levels of participation arranged as a ladder. Each rung of

²For a comprehensive reading about PDP approach on participatory ideas and how they are applied in their different projects and programs, see Abdelhalim (2009).

the ladder corresponds to the extent of citizen's power in determining the end product. Although citizen's influence can increase or decrease during the project, there is empowerment only when they achieve the top-three rungs of the ladder, so-called Citizen Power Levels: Partnership, Delegated Power and Citizen Control.

Fig. 1 Eight rungs on the ladder of citizen participation
Source: Arnstein 1969



According to Arnstein, in the *Partnership* level, the development of plans and responsibilities are shared among all stakeholders, represented in committees. Its effectiveness increases as long as the community has an organized power-base, financial resources to pay its leaders and financial resources to hire its own technical staff. The next rung - *Delegated Power* - occurs when citizens have dominant decision-making authority. In this stage of the participatory ladder, community organisations are accountable for the project's budget and the bargaining process starts from the traditional power holders, rather than from the citizens. The highest rung is *Citizen Control*, where citizens are in charge of project management and policy formulation.

The second dimension poses the dilemma between levels of participation and efficiency. Goethert and Hamdi (1997, p.14) point to different levels of participation, which range from "None participation, Indirect, Consultative, Share Control to Full Control" and how they affect policy-making processes. The authors argue that there is a trade-off between participation and efficiency, and

for this reason, they do not consider the adoption of extreme levels of participation as being convenient. Less participation entails faster and simpler development projects but decreasing community input while more participation represents less efficiency but higher levels of community input. For that reason, Goethert and Hamdi (1997) suggest that community participation should vary according to the phase of the project. For example, in a policy-orientated phase of the project, high community participation is welcome; in a stage with a more technical-orientation approach, less participation may be beneficial.

The third dimension, civic engagement and individual motivations, involves participation in distinct types of social organisations and forms of collective action. Renno (2003, pp.72-73) lists a number of structures for citizen engagement: first there are *National Level Associations*, as for example, political parties and syndicates; second, participation in *local social groups*, also called "mediating structures", which include families, churches, voluntary associations, among others. The third mode is engagement in the so-called *new social movements*, such as environmental movements, which differ from the traditional social movements in the following aspects: recruitment forms, members' profile, strategies and resources availability. A fourth form of collective action is political protest, such as participation in protest marches and the occupation of public and private properties. Renno shows evidences that both the political-institutional framework as well as the stock of social capital in society affect the degree of engagement with the aforementioned organisations.

Finally, despite the wide literature regarding the benefits of participatory methodologies, some authors point out the participatory process' risks. Piffero (2009), for example, refers to a kind of "obsession" with the local approach in the micro-level which could result in a tendency to ignore the macro-level dynamics like clashes-of-power and political approaches, among others. Likewise, Goethert (2005, p.15) argues that there is a risk of stigmatizing low-income social classes to the concept of inclusion and participation. In words of the author, "if perceived as only involving the poor, [participation] limits the power and potentially marginalizes the concept."



CONTEXT

2. CONTEXT

2.1 Introduction to Greater Cairo Metropolitan Region (GCMR), Egypt

To gain a better understanding of the actual context of Egypt, specifically Cairo, this chapter briefly introduces the relevant geographical, political and economical aspects, followed by an in-depth description of the evolution of the informal areas in GCMR and the different definition and typologies. Finally, some reflections of the existing categorisation framework will be presented.

2.1.1 Geographical Aspects

Greater Cairo Metropolitan Region (GCMR) is located in northern Egypt (known as Lower Egypt), 165 kilometers (100mi) South of the Mediterranean Sea, 120 kilometers (75mi) west of the Suez Canal, South of the Delta in the Nile basin (Wolframalpha 2010). It covers an area of 1709 square kilometers (Demographia 2009). The region is characterized by the Moqattam hills to the east and south east and the desert areas extending to the west and east (Robaa 2002, p.159).

Until 2008, GCMR consisted of 3 governorates; Cairo, Qaliubeiya in the North, and the Giza governorate (Attia 1999, p.45-46). Since 17 April 2008, Helwan and the Sixth of October became separated governorates by a presidential decree to ease the burden placed on Cairo and Giza, especially in terms of density and administration (Leila 2008).

2.1.2 Political Context

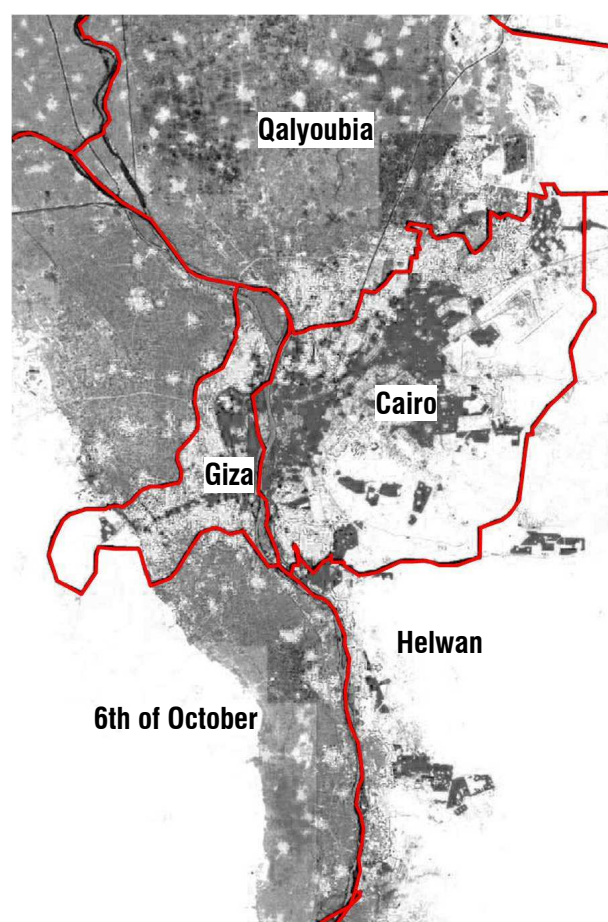
The political regime has been described by some scholars as a 'democracy from above' (Ferrie, 2003). Although nominally classified as a representative democracy, governance is characterized by highly centralized and personalized decision-making (Fischer and Kipper, 2009). Meaningful political participation is stifled by a constitutional design which has guaranteed single-candidate elections for over 50 years, thus ensuring near-absolute control by the ruling National Democratic Party. Widespread skepticism towards elections and democracy resulted in relatively low participation levels. National political dynamics have been driven by Hosni Mubarak (Owen, 2003), who has reigned as president since 1981.

The policy of negligence towards informal development processes has offered political benefits as well as perceived security challenges for the government (Alsayadd 1993, p.398). Despite the need to be represented at a local government level, the informal areas are reluctant to seek recognition given the illegal nature of these settlements (Alsayadd 1993, p.38).

Between 1993 and 2002, there were public efforts to upgrade the informal areas with investment of 2.3 billion EGP nationwide, and 1.2 billion EGP for the GCMR, but those were mainly focused on physical infrastructures, not including investments on human, economic, and cultural development (PDP, 2010d). Moreover, government's neoliberal policies and declining resource allocation to the informal areas have helped cultivate self-organisations and innovations at the local level.

Map 1 Greater Cairo Metropolitan Region (GCMR)

Source: UM TU Berlin, adapted from Sabry 2009



2.1.3 Economic Context

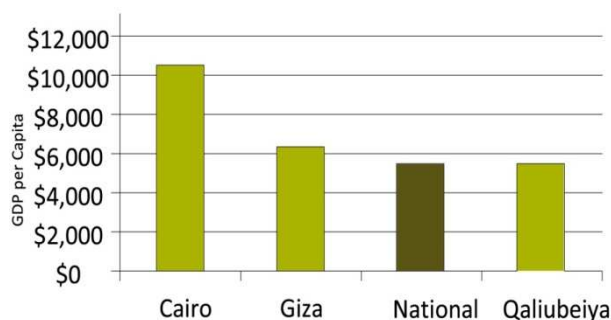
The Greater Cairo Metropolitan Region (GCMR) continues to benefit from high economic growth rates in its oil-rich neighbors through the provision of special services and skilled labor. As one of the most cosmopolitan cities in the Middle East,

GCMR is seen as a strategic connection between both the East and West, and the North and South (El Araby, 2002).

GCMR generates two-thirds of the country's GNP. Industrialisation revolved primarily around textiles and food processing, but also in iron and steel production. Today, the majority of Greater Cairo's work force is employed in the service sector (finance and commerce) as well as in the government. The informal sector absorbs over half of the city's labor force and informal employment is expanding faster than formal employment. Informal investment in residential real estate of the GCMR was valued at \$36 Billion in 2000, representing 39% of total (Sims, 2003). In the 1990s, after privatisation, economic reform and liberalisation of the market mechanisms, the region tracked the growth of the national economy, which expanded in real terms at average 6.2% between 1994 and 1997. The impressive growth rates and the fact that the GCMR produces 45% of the national GDP, has lead the IMF to recognized Egypt as a 'model' for other developing countries to follow (World Bank 2008).

Fig. 2 Income Inequality

Source: www.city-data.com



2.2 Urbanisation in GCMR and the development of IA

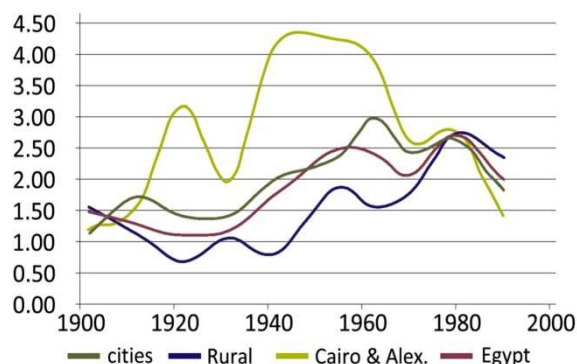
2.2.1 Emergence of the Informal Areas in GCMR

The GCMR experienced an intensive urbanisation process in the last part of the 20th century (Sims 2003; Stewart et al. 2004). According to Kamel (2004), the urbanisation process before the 1980s can be divided into three phases, including an 'Islamic' period (~ 1850), a 'European' period (1850 – 1950), and the contemporary period (1950 – 1980s) (Kamel cited in Stewart *et al.*, 2004). For the purpose of this report, the following is an elaboration of the urbanisation process during the contemporary period up till present time.

During the contemporary urbanisation period, new districts emerged as a consequence of the extreme population growth (rural to urban migration) that started in the 1960s, partly motivated by major political changes and partly as a consequence of the World War II (Sims 2003; El-Batran M. and Arandel C. 1998).

Fig. 3 Annual Population Growth

Source: SIMS 2003



Between 1947 and 1996, GC had a constant growth rate (Sims 2003; Sims & Séjourné 2000 in GTZ 2010), nevertheless the growth rate from 1986 to 1996 declined from 2.99% to 1.99%. As illustrated in Fig. 3, the growth rate of the population in 2003 was 1.9% while the growth rate of the labor force was about 3% (Sims, 2003). As a response to the constant population growth in the 1960's, the government manifested itself to two main aspects: establishing laws to control the rent, and the involvement of low cost public housing construction built in the outskirts of Cairo. However, the process of urban expansion was mainly led by private actors and developed mostly outside of, and without regard for state building laws. As a consequence, land subdivision practices appeared as a major activity, and informal areas such as Istabl Antar and Manshiet Nasser (one of the biggest informal areas in GC) were established (Abdelhalim, 2010).

The first Master Plan of the city was elaborated in 1965 creating industrial poles at Helwan in the south, Shubra Al Kheima in the north and Imbaba-Giza in the west of GC. All of these settlements attracted new inhabitants resulting in unexpected demographic growth (El-Batran & Arandel, 1998). In order to limit the physical growth of the city, in 1970, the second Master Plan for Cairo was generated, aiming to solve problems of transportation by creating a ring-road, to contain the city and control its future expansion. However, these plans did not reach the expected results. The uncontrolled urban development resulted in a lack of service provision, especially in terms of infrastructure systems³.

In addition this period of time was marked by the war of 1967 and the war of 1973, when the public budget was directed

³90% of households receive electricity, while 70% benefit from sewerage services. Other issues include air pollution and irregular water supply, inadequate public space (Cairo has only around 0,4 meter square of open space per inhabitant), road maintenance and garbage collection.

to war actions, halting the formal urban development and resulting in the appearance of new informal settlements (Sims, 2003).

With the introduction of the INFITAH policy⁴ it became possible for Egyptian workers to migrate to the neighboring states in the Gulf area. The newly returned wealth was invested in land and housing in attractive urban regions in and around greater Cairo (Soliman, 2004). This made the subdivision of agricultural land for housing increasingly profitable (Sims, *ibid*). There is no reliable data about the areas lost during this period but estimates range from 8,000 ha per year (Parker and Colye, 1981) to 40,000 ha per year (World Bank, 1990). The most reliable figure perhaps is 16,000 to 20,000 ha annually (Hamdan, 1983 and Ghabour and Ayyad, 1990).

The government actions toward housing was exclusively aiming for low income groups while the private sector offered middle and upper class housing units that were not affordable for the majority (Soliman, 2004). According to the World Bank (1981) during 1966 and 1976, 77% of all constructed units were built informally (in El Batrán, 1998). This was caused by a lack of affordable housing units for the poor population, leaving them with the only alternative of informal settlements.

During the 1980's the government tried to redefine the urban strategy and invested in urban projects with only very limited success. However, this period is characterized by a massive urbanisation process that over-passed the capacity of the new satellite cities (El Batran & Arandel, *ibid*) marked by the apparition of professional sub-dividers of state land. New towns were planned but the houses were still unaffordable for the majority of the population.

A revision of the master plan was made in 1980 attempting to redirect and organize the growth of the city. To achieve this goal, a certain number of objectives were set: the protection of agricultural land, the improvement of transportation efficiency, the encouragement of the de-concentration of population in the GCMR and the organisation of the urban fabric to improve access to public services (El Batran & Arandel, *ibid*).

The 1990s was an imperative period for the Egyptians who significantly suffered from the earthquake in 1992. It turned out to be a conscious momentum of the vulnerable physical condition and caused the emergence of new temporary settlements to allocate the affected people on the periphery of Greater Cairo.

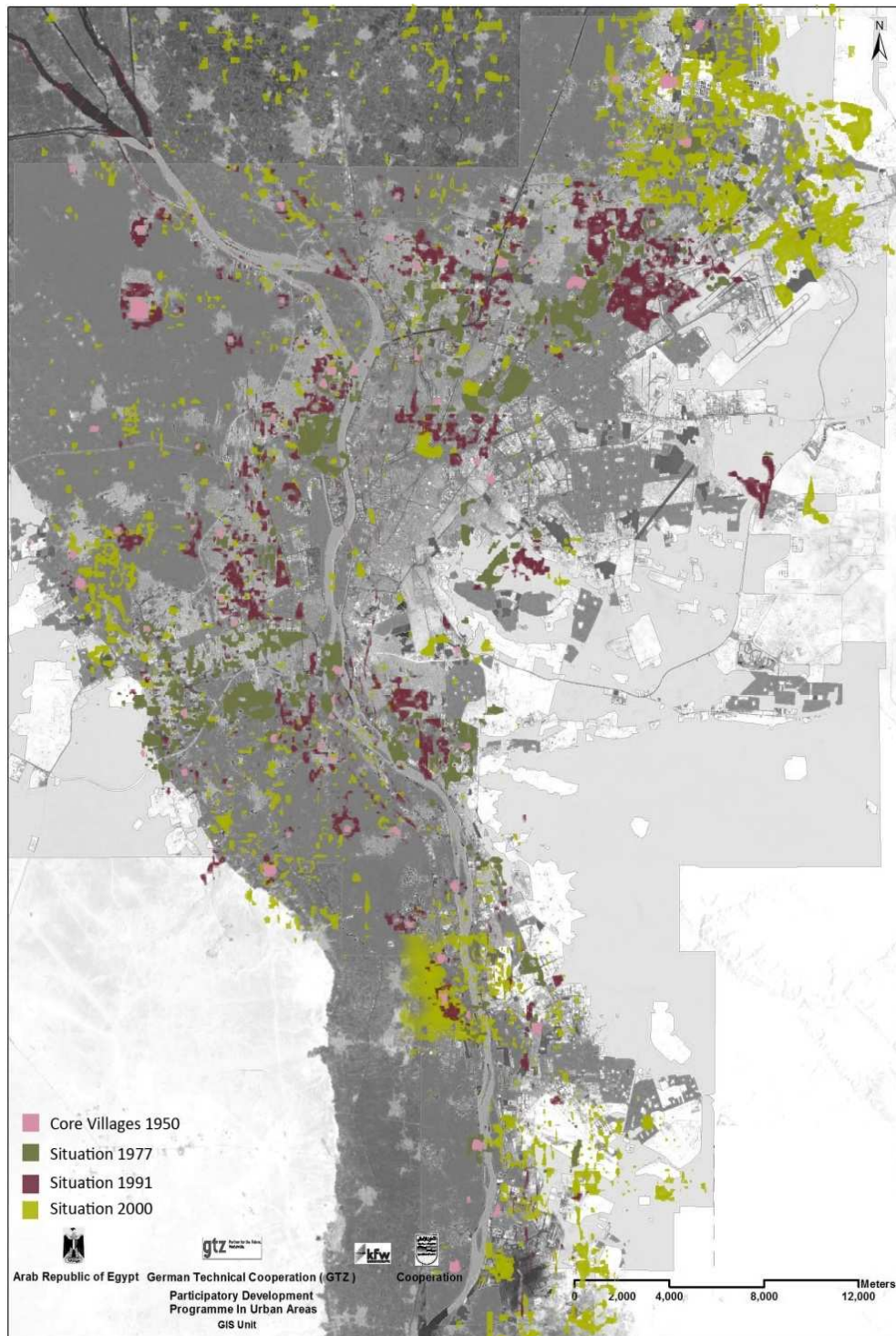
Those informal areas were not planned, but informally consolidated themselves as part of the city (El Batran & Arandel, *ibid*). It was just one year later in 1993, when the Massive Programme for Upgrading Settlements was initiated with a budget allocation of 106 million Egyptian pounds (Soliman, 2004).

In summary, the emergence of the informal areas has been closely associated with the governmental policies and its limit of the coverage. As a consequence to the rapid urban expansion, high population growth rates, and the governmental ignorance of the housing demand, the informal areas appeared since the mid 1960's (Sims, 2003). In 2005 it was estimated that the informal areas were providing shelter for 6.2 million inhabitants in Egypt, and 59% of these are located in GCMR (Abdelhalim, 2010, p.3).

⁴ Starting in 1974, the Egyptian economy was progressively opened up (infatih) and Egyptians were allowed to travel freely, generating a lot of overseas working coincided with the oil price rise. It resulted in creating an unprecedented cash-based economic boom that accelerated informal settlements. (Source: Sims, 2003)

Map 2 Urbanisation Process in GCMR

Source: PDP Cairo



2.2.2 Definitions, Perceptions and Typologies of the Informal Areas in GCMR

Definitions of the Informal Areas in GCMR

The coexistence of many discourses to define informal areas in a global context has been addressed in the first chapter of the theoretical background. In order to formulate policies for intervention, clear definitions for identification and assessment of local characteristics of the informal areas in a specific context are needed. However, in the context of Greater Cairo there exist different definitions for the informal areas established by the various political institutions involved. Thus, this section examines the existing definitions from different perspectives.

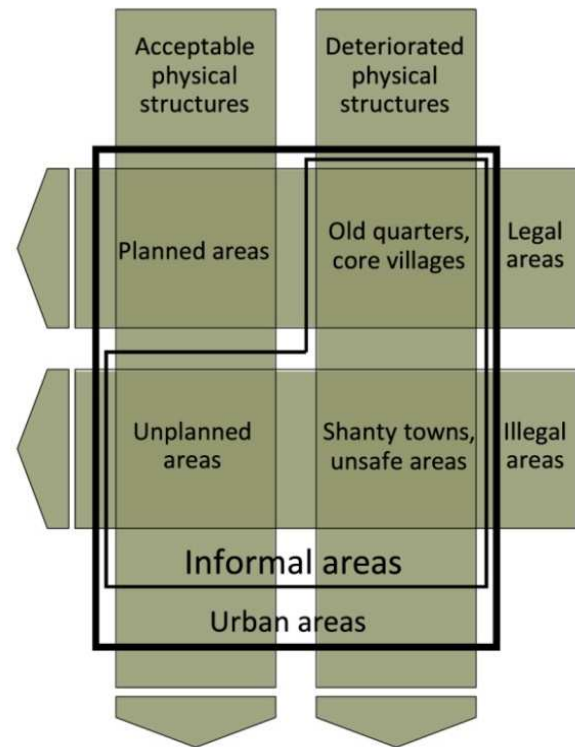
According to the reference from GOPP⁵, there are two main criteria defining the informal areas: legal status and level of deterioration. Regarding legal status, the area that has been developed on unplanned land is considered informal. Regarding deterioration, physical degradation is not the only key issue. Environmental and social aspects, lack of basic services and infrastructure are also taken into consideration. (GTZ, 2010)

According to the new law of building and planning (no. 119), however, there are two definitions on the informal areas, comprising only physical factors: unplanned areas and redevelopment areas. The former refers to the areas that were developed without detailed plan on privately-owned agricultural land, and are consolidated over time, fed with infrastructures and services. The latter refers to unsafe areas that need to be partially or completely redeveloped (GTZ, 2010).

In the context of the Participatory Development Programme (PDP), a compromising definition of informal areas has been established relating legal status with physical condition (Fig. 4). Three of the four categories are considered as informal areas: **1)** legal but deteriorated structures, such as old inner-city houses, **2)** structures that are illegally built but are in acceptable physical conditions; nevertheless somehow there is a lack of basic services and infrastructure and **3)** illegal and deteriorated structures considered unsafe (Abdelhalim, 2010).

Fig. 4 Classification of the informal areas

Source: Abdelhalim, 2010



Excuse on the Perceptions on the Informal Areas in GCMR

Taking on a citizens' perspective, there are two different point-of-views. There are unofficial local terms referring to the informal areas used by citizens living outside the informal areas. "*Shaabi*" describes the working-class neighbourhood and "*Baladi*" describes the poorer inhabitants who are mostly migrated from rural region of southern Egypt (Sims, 2003). These terms simply represent the clear distinction between the divisions of GC society, revealing the concept of "them and us" (Safey El Deen and El Mouelhi, 2009).

So far, little has been known about the perspective of the informal areas' residents. The interviews from local residents in Manshiet Nasser (Sims, 2003) reveal that what people need is more than just better housing conditions. Overall socio-environmental change is more important for them and becoming a member of the society through proper education, medical care and job opportunities is essential.

⁵ The General Organisation for Physical Planning (GOPP), "National Strategy for the informal areas Upgrading", 2006

Typologies of the Informal Areas in GCMR

In order to design appropriate intervention strategies for informal areas in GCMR, it is essential to clarify the different types of the existing informal areas in detail by formulating typologies. According to Sims (2003), there are three noteworthy parameters to formulate the typologies: **1) Where** are the informal areas, regarding their emplacements, urban patterns and plot dimensions. Informal settlements' locations are not applicable in this case because geographical location does not define how the informal areas are; **2) What** and **How** describe the informal areas in detail, regarding the material used in housing construction processes, infrastructure provided, etc.; and **3) Who** lives in the informal areas.

Sims (2003, pp.4-7) and Soliman (2004, pp.188-201) defined and categorized the informal areas in GCMR in a quantitative way. According to Sims there are four main types of the informal areas while Soliman argues that there are only three, but both of them explore a further extension of the two main criteria of legal status and physical condition from the classification by PDP. Synthesizing the categorisation typologies based on Sims's four different types in order to interpret the typologies suggested by the authors in a comprehensive way, the following table (See Table 1) provides an overview.

Government Response to the Informal Areas:

According to the World Bank (2008), Egypt does not have official urban policies except the one produced by the Ministry of Housing in 1982, but rather a series of national sector policies and an overarching spatial strategy for desert development. The New Towns Policy⁶ has dominated both Egypt's urban development discourse and budgetary allocations since its adoption in 1977 (Sims 2003, p.13). As described in the previous chapters, there has been a large negligence towards informal development processes (Alsayadd 1993, p. 398) which has offered political benefits as well as challenges for the government. Although the Egyptian government attempted to invest public service provisions since 1990 to mitigate the problems in the informal areas,

⁶ Massive public resources and the State apparatus have been committed to shift urban populations and economic activities to desert areas in Egypt. The national policy of attenuating concentrated urban population growth, named as "New Town" policy, invested in creating an industrial base outside the Nile Valley and attracting public and private investments to the region. This strategy failed in attracting population to the desert areas. Even worse, it generated unbalanced financial resources allocation: over-relying on State resources and budgetary commitments, the inexistence of recovery cost mechanisms contributed to make it sustainable.

deteriorating urban conditions have not only tarnished Cairo's global aspirations, but have even been associated with the rise in political Islam in recent years.



These aspects, among others, might then be the motivation for designing a plan such as the forthcoming Strategic Urban Development Plan (SUDP) for GCMR, a joint initiative of General Organisation for Physical Planning (GOPP), UNDP, UN-HABITAT, JICA and the World Bank. With an estimate budget of 3,500,000 USD (most of it funded by the Egyptian government) within the timeframe of 2008 to 2011, it is aiming to guide sustainable social-economical development and to affirm the city's position as first capital within the Middle East. The plan includes short term objectives (such as competitiveness through proper planning and institutional reform). Furthermore, it aims at discerning the city's competitive clusters redefining the region's economic profile. The plan also aims at strengthening linkages and integration between the consolidated urban areas and NUC, arguing for the necessity to access labor market pockets in the white-collar new towns.

The SUDP evolves on seven different levels closely related to the above mentioned challenges. First of all, it seeks to upgrade the informal areas through action plans and to prevent their expansion by belting them with new planned areas. Secondly, it is envisaged to transfer Egypt's political centre to a new built-up area in Cairo's outskirts, in order to alleviate infrastructure and investment pressure on the city centre. In the same mindset, the plan aims at relocating heavily polluting land-uses outside the inner city areas, therefore bringing together labor force and facilities, but also attempting to diminish pollution problems. To achieve this aim, the much-thought transport and infrastructure regional strategic plans, which are going to be jointly designed with the Japanese International Cooperation Agency (JICA) is needed. In additions to this partial plan, there is a commitment to come up with a local economy development strategy focusing on Cairo's competitive advantages.

Some scholars agree that an improvement regarding the institutional framework is needed for feasible implementation of SUDP. GC presents a fragmented and incoherent institutional framework, which affects local service delivery, inefficient land policies and management, as well as improper investment allocation in preferential economic clusters. GCMR is not a legal entity, so decisions are made separately by each of the four governorates within the region, and also by the NUCA that runs the New Towns and responds directly to the Ministry of Housing. Adding to this cumbersome institutional map, jurisdictions do not always coincide and, regulations sometimes differ according between local, but neighbouring, authorities.

Table 1 Typology of Informal Areas in Cairo

Source: Sims (2003), Soliman (2004) and El-Sioufi (1982)

		Type A (Informal settlements on former agricultural land)	Type B (Informal settlements on former desert state land)	Type C (Deteriorated Historic Core)	Type D (Deteriorated Urban Pockets)
Where	Emplacement	On privately owned formerly agricultural land Agricultural land*	On formerly state-owned desert land Vacant state land*	Neighborhoods with old, crowded, and deteriorated structures Old buildings and medieval urban fabric	Dilapidated storey structures
	Layout/Pattern	Irrigation patterns / No open public spaces* 	Incremental subdivisions* 	N/A	N/A
	Plot	Smalls: Average 80m ²	First: Quite large plot, then subdivided by owner or pioneer	N/A	N/A
	Material	- Concrete frame - Floor slab construction - with red brick infill walls	Housing conditions are generally worse than Typology A	Generally deteriorated buildings	Very precarious type of housing
How / What	Process of construction	Incremental (Room by room and floor by floor)	N/A	N/A	This type represent less 1 per cent of urban population. Most are slated for removal or have already been converted in parks.
	Final product / Use	- Frontage 7 to 10.5 meters - 100% Plot coverage - Some light wells - Designed at least 5 floors	N/A	From residential spaces to commercial and workshop use	This type represent less 1 per cent of urban population. Most are slated for removal or have already been converted in parks.
	Infrastructure	Basic services: roads, water, electricity. Also religious complex like masques*	Limited basic services: lack of social and public services*	N/A	N/A
Who	Legal situation / Legal Development process	Completely illegal: No legal paper work	Completely illegal: No legal paper work but it is quite easy to become formal	As a result of confusing ownership and/or owner neglect	Due to precarious land tenure situations
	Who lives there	- Illiterate female: 40.3% - Illiterate male: 28.9% - Households living in Single Room: 18.7% - Household without Public water supply: 21%	- Illiterate female: 65.9% - Illiterate male: 53.4% - Households living in Single Room: 26.5% - Household without Public water supply: 33.3% Only in Manshiet Nasser people work in: - 12.4% public sector - 16% private sector - 65% Self-employment	Quite poor families: - Illiterate female: 48.9% - Illiterate male: 36.8% - Households living in Single Room: 32.7% - Household without Public water supply: 32.1%	Very poor families or "Ultra poor families"
	Major activities / Income sources	One can find professionals and other kind of workers, more related to middle class income	Income heterogeneity	Income heterogeneity	Income heterogeneity
Examples		Boulaq el Dakrou, Waraq el Hadir, Basatiin, and Embaba	Manshiet Nasser	Darb el Ahmar and El Gamalia, and parts of Masr el Qadima, Boulaq Abou Aala, El Khalifa, among other.	Masr el Qadima, Hekr Sakakini in el Wali, and Teraa el Towfiqia in Mataria.

Concern on the consequences of Cairo 2050 project on the city's informal areas has also been rising among international press and political opposition – Muslim Brotherhood. Some of the Cairo 2050/SUDP main axes and real-estate developments are being designed over actual Ashwayat neighbourhoods, like Manshiet Nasser. Although the Minister of Housing is requesting everyone's involvement on the project and appealing to the public interest: "It is for everyone and it aims for a better city and country", it is likely that inhabitants of informal areas will pay the most for Cairo 2050, facing relocation to peri-urban areas and/or improper financial compensation due to their informal status.

2.3 PDP – Participatory Development Programme in Urban Areas

The Participatory Development Programme in Urban Areas (PDP) started as an Egyptian Government's request to the German Government as part of the official development cooperation between both countries. Likewise, PDP is a project of Egyptian-German development cooperation, implemented by the Egyptian Ministry of Economic Development (MoED), supported by the *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ) and the *Kreditanstalt für Wiederaufbau* (KfW) commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) (*Ibid.* 2010a). Amongst a wide number of participating partners aiming at the improvement of informal areas in Greater Cairo are the Governorates of Cairo, Giza, Qalyoubia and Helwan (Kipper and Fischer 2009, p.11).

2.3.1 PDP – Objectives and Approach

The objective of the program is to support "the public administration and civil society organisations to provide improved and coordinated services to satisfy the basic needs of the poor urban population" (PDP 2010b). According to the PDP (2010d), inducing policy change is necessary in order to ensure an effective upgrading of informal urban areas. However, in order to induce this policy change it is necessary to introduce **participatory methods** of governance and policy making. Moreover, policy change in urban development also requires **decentralisation** and **subsidies**, meaning "that ministries are advised not to intervene in policy implementation themselves, but instead supply local governments with the resources and technical expertise to do so" (PDP 2010d).

According to the program's concepts, PDP has a three-level approach, closely related with different phases in order to reach their objectives. The first phase took place between 1998 and 2003. The objective of this phase was to test different models of community participation in various development sectors (social, economic, urban and environmental) in the pilot project areas of Manshiet Nasser and Boulaq El Dakrour (Kipper and Fischer 2009, p.126). The second phase (2004 to 2007) focused on

development and application of participatory development tools in the pilot areas of Manshiet Nasser, Boulaq El Dakrour, Helwan and three settlements in the Governorate of Alexandria (PDP 2010e). The third phase is currently in process (2008 to 2011) and it focuses on capacity building of local administrations in order to apply participatory development methods by themselves in the pilot areas as models for replication (*Ibid.* 2010e)⁷. The project activities take place on three different levels: National, Regional and Local (see Table 2).

2.3.2 PDP Framework of Categorisation and Intervention

The categorisation framework developed and applied by the PDP is used as a model tool to characterize and classify the informal areas in order to derive an appropriate intervention strategy. It is based on a synthesis of several approaches of different public institutions to define the informal areas predominantly using quantitative parameters. The characterisation of the informal areas leads to three categories each linked to one of the following intervention strategies:

- B. **Upgrading** and gradual urban development of large consolidated informal areas, mostly around the city fringes;
- C. Radical intervention, including partial demolition and extensive **redevelopment** of informal enclaves within the city core.
- D. **Containment** of informal encroachment on agricultural land around the edges of urban agglomeration.

(Abdelhalim 2006, p.8)

⁷ To have a comprehensive and graphic idea of the phases of the program go to <http://egypt-urban.pdp-gtz.de1.cc>, About PDP, Programme Phases.

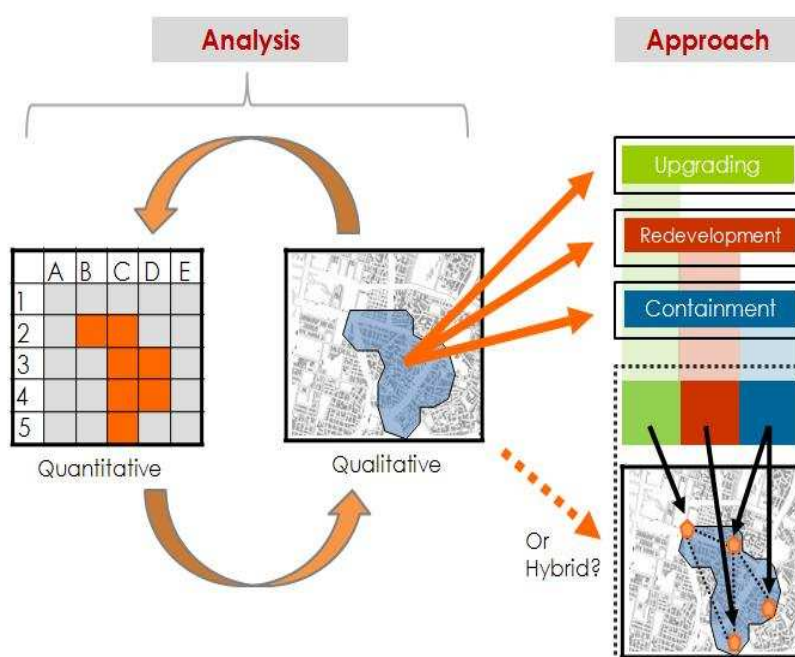
Table 2 PDP - Program Levels

Source: Participatory Development Program in Urban Areas, Egypt (PDP 2010e)

Program Levels		
National level	<ul style="list-style-type: none"> Policy advice on decentralization and the promotion of ministerial support while dealing with informal areas. Developing participatory urban upgrading methods within a comprehensive conceptual framework. Designing capacity development concepts for local administration civil society and the partners involved. 	Phase 2008-2011
Regional level	<ul style="list-style-type: none"> Creation of urban upgrading units for informal areas at governorate level. Supporting governorates in priority areas, implemented by local administration. 	Phase 2004-2007
Local level	<ul style="list-style-type: none"> Institutionalizing participatory methods through training of local stakeholders. Maintaining Boulaq el Dakroul and Menshiet Nasser as pilot areas for participatory urban development and as showcase areas for local administration. 	Phase 1998-2003

Fig. 5 Qualitative Complementation of Categorisation

Source: UM TU-Berlin



2.3.3 Proposal for Qualitative Complementation

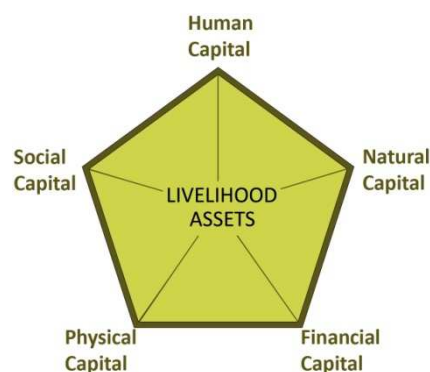
The consideration of exclusively quantitative data tends to present complex and context-specific problems in an over-simplistic, two-dimensional manner. By including a qualitative assessment component to the analytical phase, greater insight may be reached into the inter-linkages that help understand both weaknesses and opportunities in the settlements⁸. Furthermore, the dearth of accurate quantitative data – ubiquitous throughout the developing world – will render a meaningful, multi-dimensional assessment impossible.

Employing an iterative analytical approach (shifting between quantitative and qualitative data) also allows for greater understanding at a finer geographical scale. Accordingly, it may be determined that a settlement should not be dealt with as a singular entity, but rather as a network of interrelated sub-places (or ‘precincts’), each confronting its own set of challenges and offering unique opportunities for the settlement as a whole. A hybrid, tailor-made approach may therefore be a more suitable option to respond, where sub-places within the settlement are identified and categorized for upgrading, redevelopment or containment. The hybrid approach (also known as ‘Urban Acupuncture’) seeks to tackle urban problems in specific ‘pressure points’ that cause positive ripple effects throughout entire communities. Problems may be issue- or area-based, requiring different intervention strategies. It is therefore in contra-distinction to a comprehensive, conclusive, settlement-wide solution. It is ideally suited for urban contexts where resources are limited.

The logic behind the proposed qualitative complementation is inspired by the concept of sustainable livelihoods coined by Rakodi and Lloyd-Jones (2006) which has been adapted for the specific context of informal areas in Greater Cairo. This qualitative approach of understanding is premised on the guiding logic that households construct their livelihoods both on the basis of assets which are available to them and within a broader socio-economic and physical context. Sustainable development thus requires interventions that put these ‘household livelihood assets’ to work in order to generate a flow of income or other benefits for the community (Rakodi and Lloyd-Jones 2006). For this specific context, the following assets were defined:

Fig. 6 Livelihood Assets

Source: UM TU-Berlin



- **Human capital:** the labour resources available to households, determined by education and health,
- **Social capital:** networks, relationships of trust and reciprocity, and broader systems of governance,
- **Physical capital:** basic infrastructure that enable people to pursue their livelihoods,
- **Financial capital:** savings, credit, remittances and pensions,
- **Natural capital:** natural resources (incl. land, water, air) upon which livelihoods are ultimately dependent.

The assets defined above, inspired by the concept of sustainable livelihoods, were used as a guide for conceptualizing the fieldwork in order to obtain a holistic understanding of the informal areas. In the case of Giza, the assets were applied according to a certain area, whereas the assets concerning Cairo were issue based. The following chapter is a documentation of the fieldwork conducted according to the here proposed categorisation framework.

⁸ For more on qualitative data, see section on Multiple Dimensions of Livelihood in Chapter III.



CASE STUDIES: EZZBET AL NASR & DAYER EL NAHIA

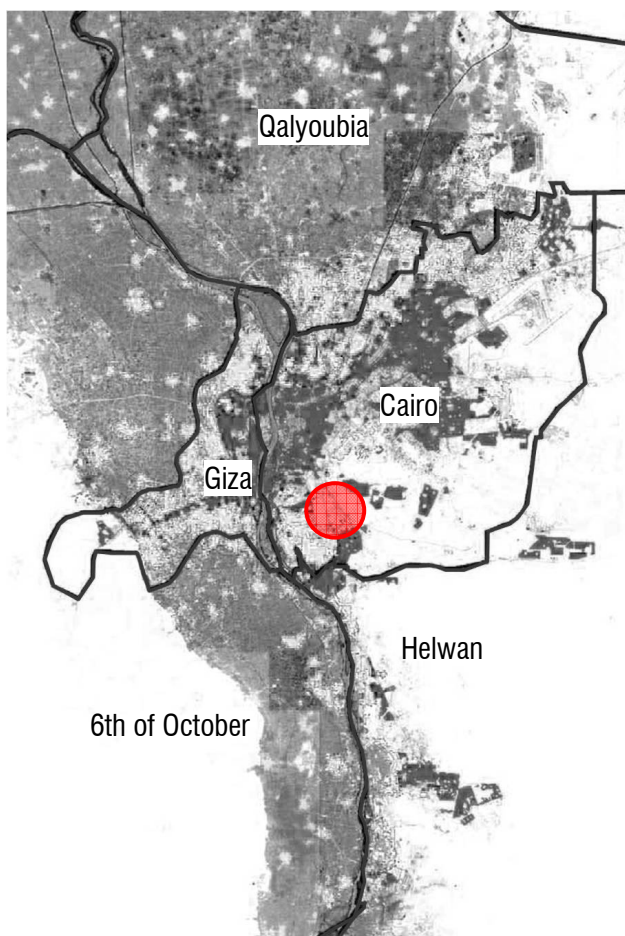
3. CASE STUDIES

This section introduces the findings emanating from the fieldwork in two study areas: Ezzbet Al Nasr in the Cairo Governorate and Dayer El Nahia in the Giza Governorate. The two case studies - including methodology, analysis and intervention framework - are presented sequentially.

3.1 CAIRO: Ezzbet Al Nasr

Map 3 Ezzbet Al Nasr Localisation

Source: UM TU-Berlin, adapted from Sabry 2009



This section presents an intervention strategy for the informal area Ezzbet Al Nasr. The preparatory and analytical process upon which the intervention strategy is based is also documented in this section. Taking into account (a) the objectives set out in the project brief, (b) the contextual specificities related to the study area, and (c) the informational and operational constraints, the study group developed an appropriate methodological approach.

The aim is to achieve a high level of impact with a minimum level of intervention. Relying heavily on information generated through participatory methods, the proposals and the analysis from which they derive is a reflection of the residents' and various stakeholders' perception of the community needs.

3.2.1 Context

Ezzbet Al Nasr is an informal settlement situated in the Basateen District, in the South Zone of Cairo Governorate. Located 4 km east of Nile River and 8 km south of Cairo's historic centre, the site was planned to be an industrial area in Cairo's outskirts. As Cairo expanded, the settlement became increasingly integrated into the city dynamics and today it is in a strategic position adjacent to several new formal housing developments.

Map 4 Ezzbet Al Nasr area of intervention

Source: UM TU Berlin based on Google Earth



Located in proximity to the south-eastern Ring Road, Ezzbet Al Nasr covers roughly 55 hectares of state-owned land, of which the informal urban fabric covers 30 hectares. The remainder of the land is occupied by a historic Jewish cemetery, a mothballed sewage treatment plant and a 6 hectare paved area that has previously been used as a bus depot and a used car market.

The settlement is bounded by a slaughterhouse in the North, commercial developments in the East and dense residential areas in the south and west. Although the neighbourhood located south of Cairo's Ring Road belongs officially to Ezzbet Al Nasr, it is not included in this study. Due to a greater physical and social connection to formal residential areas in Maadi (south of Ezzbet Al Nasr), housing standards remarkably differ in that area. Further, this area is well supplied in terms of infrastructure, requiring different approaches of intervention.

The next sections identify the main challenges and strengths of Ezzbet Al Nasr. Before going through the analysis of pre-existing conditions, the report briefly describes the fieldwork process.

The fieldwork, a preparatory study phase carried out in Berlin and the elaboration of this final report are the main phases of the conceptualizing process, as shows the chart below (See fig. 7). Afterward, proposals for action addressing the most critical issues will be described along with recommended steps for intervention.

3.1.2 Fieldwork Methodology

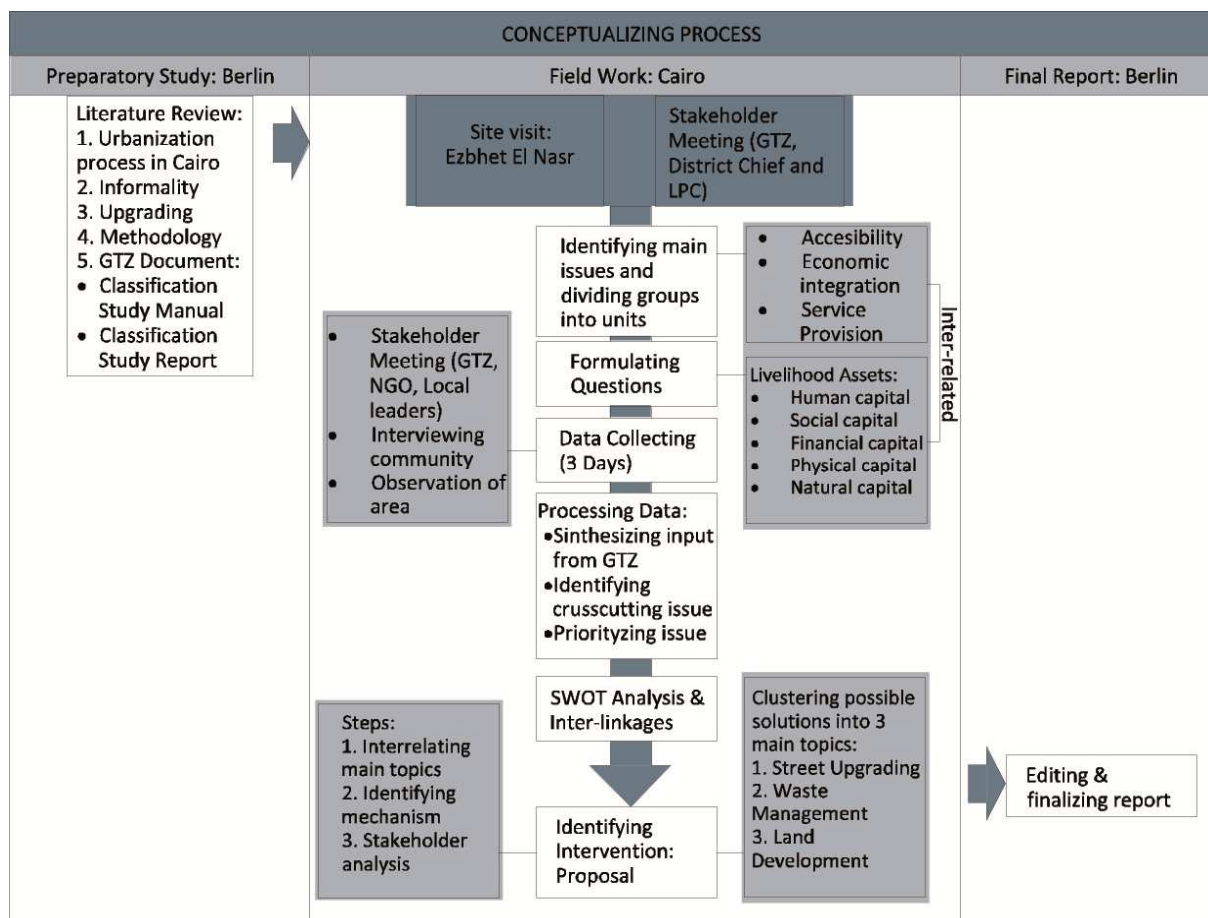
Ezzbet Al Nasr display characteristics that render alternative intervention responses unsuitable:

- The settlement is too large to make redevelopment viable, especially given that certain parts have already been redeveloped in recent years.
- The settlement is bounded by built fabric and has a relatively stable population, thus rendering containment unnecessary.

The fieldwork is accordingly designed to support an intervention framework oriented towards upgrading the existing settlement. It seeks to assess strengths and weaknesses intrinsic to the settlement, and identify areas of potential, particularly through the development of under-utilized assets and the better management of existing patterns of self-organisation.

Fig. 7 Conceptualising Process

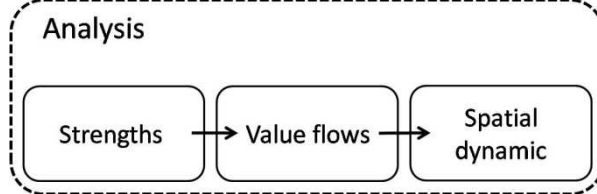
Source: UM TU Berlin



Our analytical approach derives from the Basic Analytical Model, which distinguishes and establishes a causal logic between the intrinsic resources of the settlement, dominant value cycles and regional articulation of these flows:

Fig. 8 Proto Analysis

Source: UM TU Berlin



The following section presents a diagnosis of the subject area. Without the benefit of pre-existing research in the area or the provision of spatial data by authorities, the study group elected to conduct a rapid appraisal of issues facing the region on the strength of preliminary interviews with community leaders, NGOs, local officials, and on-site observation.

These preliminary findings are organized into three interlinked 'priority areas': accessibility, economic integration and sanitation.

From the preparatory to the proposal development phase, the three priority areas were approached from the livelihoods perspective introduced in chapter II – thus ensuring a holistic understanding of the challenges confronting the settlement.

The table (See Table 3) below shows the anticipated interrelation between settlement characteristics and the multiple dimensions of livelihood

Tab. 3 Dimensions of livelihood

Source: UM TU Berlin

		Priority Areas		
		Accesibility	Economic Integration	Sanitation
Dimension of Livelihood	Social capital	Reciprocal networks with surrounding areas	Linkage between local households and business	Trust of government
	Physical capital	Efficiency and reach of regional infrastructure and facilities	Community-driven investment and maintenance of local infrastructure	Road and bulk infrastructure conditions
	Financial capital	Earnings ability Travel cost burden	Price of local goods and services Job availability	Health of local workforce
	Natural capital	Dependency on motorized travel	Provision of water Equitable land use	Condition of land, soil, water and air
	Human capital	Access to training and health service opportunities	Availability of local training opportunities	Health of local workforce



Fieldwork in Ezzbet Al Nasr (2010)

Semi-structured interviews, participatory mapping and focus groups involving 55 residents and local businessmen were the main source of information about Ezzbet Al Nasr and its inhabitants. In addition, insights into local economic dynamics were gained through interviews with sixteen shop owners, artisans and manufacturers. Through discussions with six community leaders, elected councilors and the leaders of three NGOs, a nuanced understanding into the governance and social capital dynamics was gained, in addition to the success and failure of development initiatives in the area.

District officials and sustained engagement with senior GTZ staff provided official information and additional informants to the research framework.

3.1.3 Situation Analysis

The three priority areas were identified according to the perception of several stakeholders, with emphasis on the residents of Ezzbet Al Nasr. The first residents came from Upper Egypt, more specifically from Qena and Sohag Governorates. Motivated by the proximity with stone quarries, they settled in this area and created a migratory flux from their original villages. Family ties became a solid base for community organisation. Over the last three decades, Ezzbet Al Nasr evolved from a first stop for migrants from Upper Egypt to an established permanent community of approximately 60.000 residents, according to GTZ and Cairo Governorate UUU's estimates.

This section will give an overview of the current situation and the main challenges Ezzbet Al Nasr is facing.

a) Accessibility

Ezzbet Al Nasr is characterized by a high level of **internal accessibility** for pedestrians, and medium level accessibility of vehicular traffic. While street widths permit access to vehicles to most areas, accessibility is impeded by the generally poor condition of the streets. The poor condition arises from an almost universal lack of paving and grading, coupled with the episodic occurrence of localized flooding and accumulation of sewage.

Of greater importance is the very low level of pedestrian accessibility between the Ezzbet Al Nasr and surrounding areas – **external accessibility**.

Map 5 Accessibility

Source: UM TU-Berlin, based on Google Earth.



The area is extensively bounded by impermeable borders: highways form the southern and eastern boundary, whilst the slaughterhouse fence constitutes the northern edge. The fence demarcating vacant land and municipal facilities form the western boundary. The access provided by the corridor linking the settlement to the north-northwest is periodic, as this area is considered unsafe after nightfall.

Besides the tunnel in the South and the road in the North-west, community members identified the highway interchange as an unofficial pedestrian access point to the East. This has inevitably resulted in several accidents in this area, where vehicles travelling at high speed strike pedestrians.

The precarious nature of pedestrian accessibility is further aggravated by the recent closure of the bus depot located in the Northwest vacant lot.

"I have to go to the hospital every other day. Because of the problem in my leg, it usually takes 40 minutes from my place to the bus stop, crossing the street" –(from an interview with an old lady in need of special care).



Accessibility in Ezzbet Al Nasr (2010)

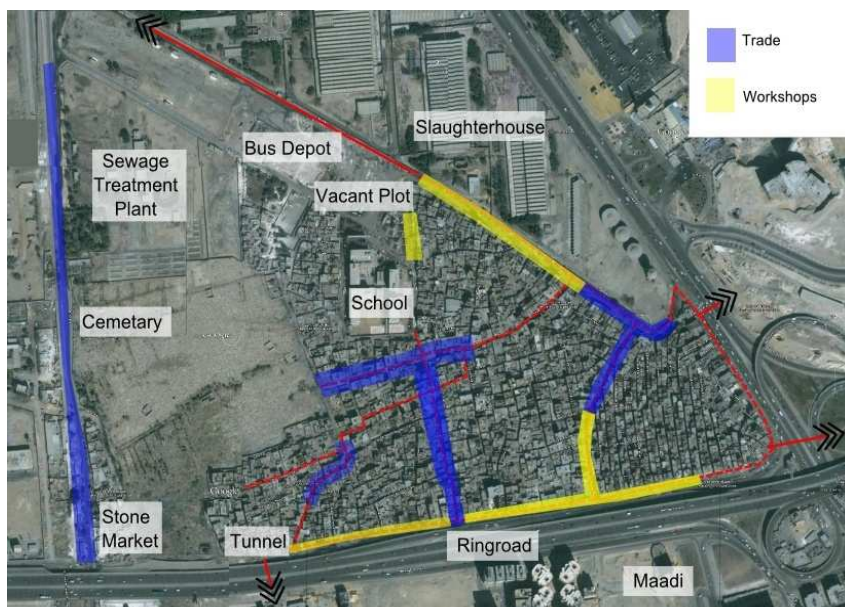
b) Economic Integration

Economic activity in the subject area has a distinctly dualistic character:

- The **trade sector** is almost entirely inwardly focused, providing limited goods and services to local households. There is also tentative evidence that this sector is operating sub-optimally due to inadequate competition and resultant collusive behaviour among traders. This may be attributable in part to the lack of a central market. Local prices are generally set above import-parity levels and thus effectively exploit mobility-impaired residents such as children and the aged who cannot easily access the markets in adjacent areas. Besides these individuals, the vast majority of individuals interviewed claimed to purchase virtually all goods and services at the many large markets in close proximity to Ezzbet Al Nasr.

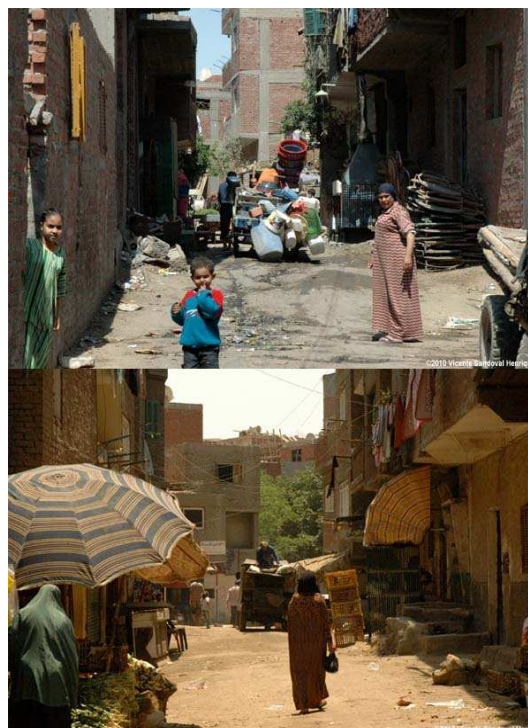
Map 6 Economic Integration

Source: UM TU-Berlin, based on Google Earth.



Economic activities Ezzbet Al Nasr (2010)

- The light manufacturing sector displays characteristics starkly different to the trade sector, with its value chain segregated from the local trade and household sector. The proliferation of quasi-legal operators in this settlement – most notably marble processing, carpentry and car repair – is directly attributable to the settlement's highly accessible location relative to massive development to the East, the regional marble clearing-house ("Shaa' El Tea'ban" - dubbed "Snake Crack" to the immediate south), and the densely populated and established high-income areas to the south and west. The proliferation of quasi-legal operators in this settlement – most notably marble processing, carpentry and car repair – is directly attributable to the settlement's highly accessible location relative to massive development to the East, the regional marble clearing-house ("Shaa' El Tea'ban" - dubbed "Snake Crack" to the immediate south), and the densely populated and established high-income areas to the south and west. The low level of local ownership and the widespread use of external labour is further testament to the absence of inward linkages. Furthermore, the embedding of these activities in the settlement's residential fabric and the noxious nature of the manufacturing processes suggest prima facie evidence that the well-being of the community is being harmed by these activities in three ways (e.g. interviews, observation): noxious gas, noise and vehicular traffic.



Lack of central market (2010)

Although some local industries routinely make use of resident workers, most work-seekers from Ezzbet Al Nasr benefit from the intense demand for semi-skilled artisans in the burgeoning construction sites in the area. Economic participation is high but irregular and undiversified, raising questions about the settlement's economic resilience in the long-term.

Table 4 Externalities of Light Industries

Source: UM TU-Berlin

	Particulate matter/ noxious gas	Noise	Vehicular traffic
Marble processing	High	High	High
Metal works	Low	High	Medium
Car repair	Low	High	High
Slaughter house	High	Low	None
Carpentry	Low	Medium	Low

c) Provision of waste & sanitation services

Map 7 Provision of waste and sanitation services

Source: UM TU-Berlin, based on Google Earth.



One of the most salient challenges facing the settlement is the provision of reliable sanitation services, specifically solid waste removal and sewerage infrastructure. Waste removal is offered informally by truck owners while illegal access to electricity is often negotiated with state authorities.

Local authorities have invested considerable resources in installing a sewerage network, but technical problems arising from design deficiencies and abuse by illegal users has rendered the system dysfunctional. The inefficiency and unreliability of solid waste removal operations, on the other hand, should not be viewed in isolation as it amounts to a system failure affecting Egypt as a whole, and as such must be addressed accordingly.

The consequences of inadequate service provision – sewage-clogged streets and illegal dumping of refuse – impacts not only on the health of residents and internal accessibility, but additionally impede the ability of the community to pursue lives of dignity and self-respect. Notwithstanding a rights-based problem of existing conditions, the psychosocial consequences identified here render the achievement of broader developmental objectives more elusive.



Lack of waste and sanitation services (2010)

Notwithstanding a rights-based problem of existing conditions, the psychosocial consequences identified here render the achievement of broader developmental objectives more elusive. The pillars of participatory development – self-initiative and trust⁹ – are being eroded as a result.

⁹ Trust within the community and between the community and local authorities.

3.1.4 Synthesis of Findings

In order to derive meaningful results from the data obtained through fieldwork in a very limited period of time, a partial SWOT analysis was conducted including all three-priority areas to be able to see correlations. This strategic planning method was applied in order to organize and consolidate the mass of data into a clear causal structure linking strengths to opportunities, and weaknesses to threats. A summary of this process is shown below to illustrate the process logic employed. (See Fig. 9)

Fig. 9 SWOT Analysis Ezzbet Al Nasr

Source: UM TU-Berlin

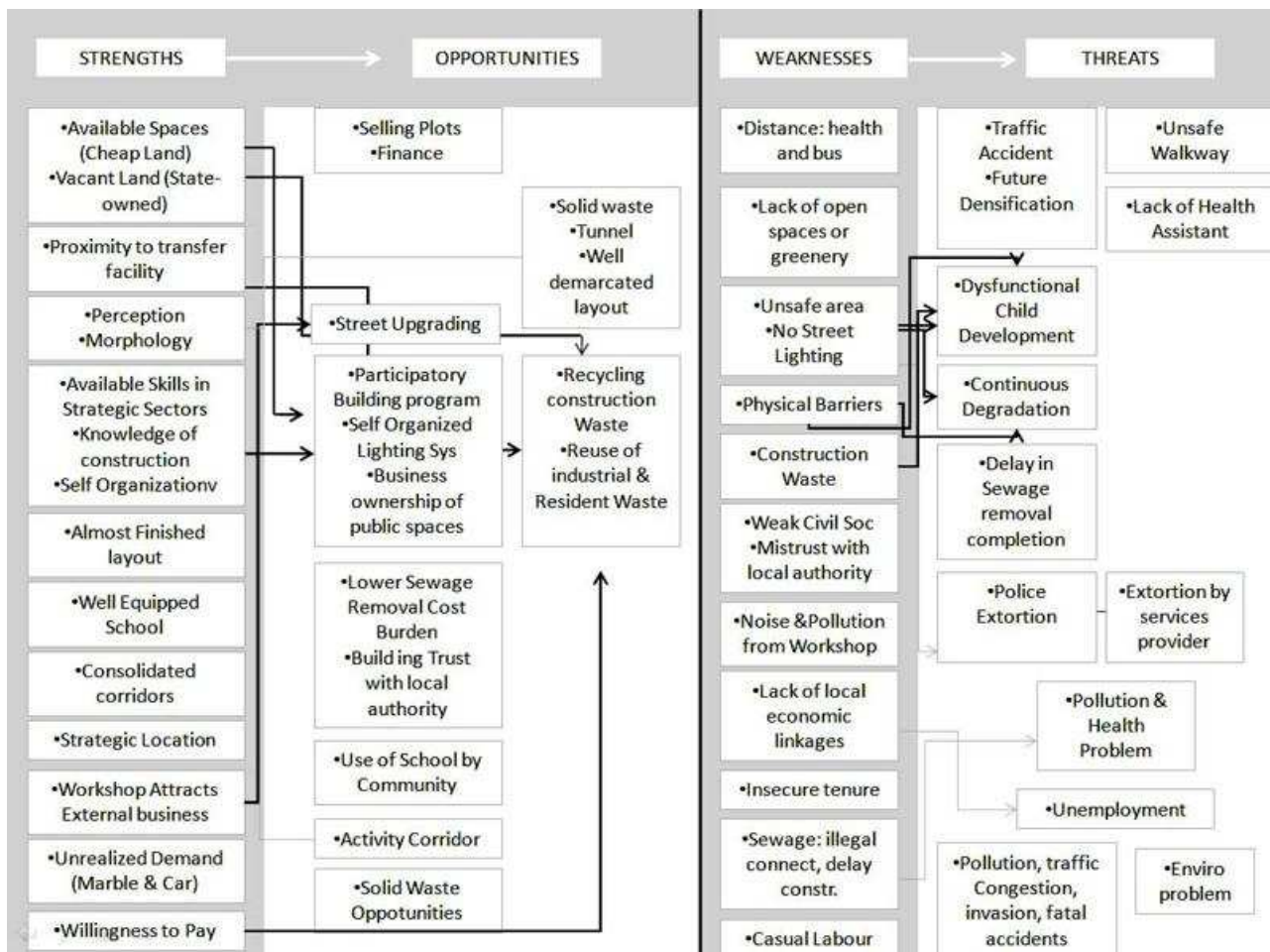
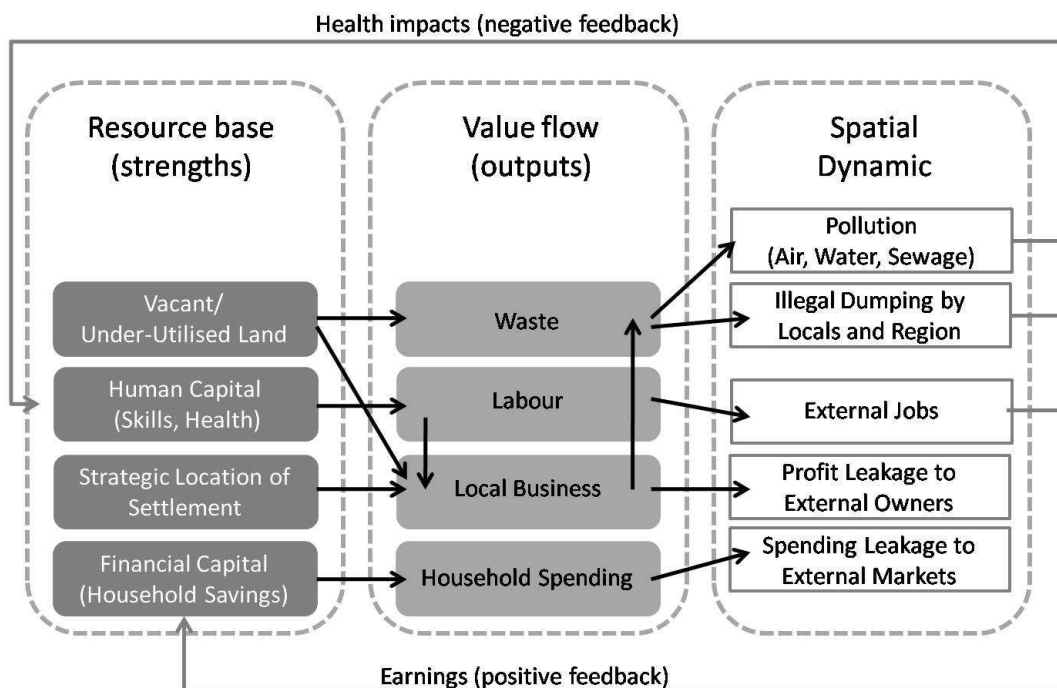


Fig. 10 Diagnostic Model

Source: UM TU-Berlin



Diagnostic Model

The SWOT analysis provided a useful link between the situation analysis, the identification of strategic constraints and opportunities confronting the study area.

To structure the key elements identified in the SWOT the Basic Analytical Model was employed, thus generating a diagnostic model for the settlement. This model consists of the following elements:

- Unique strengths constituted the intrinsic **resources** available to the settlement
- **Value flows** reflect the main outputs generated by these resources
- The **spatial dynamic** of these flows – hollow boxes indicate a negative dynamic (either through negative feedback loops or leakage of value to the region), whereas solid boxes indicate positive feedback (i.e. re-investment of value)

3.1.5 Intervention Strategy

This section begins by translating the analytical outcomes of the fieldwork to a framework of intervention. This is followed by an introduction of the three proposals that constitute the intervention strategy. Finally, a phasing plan that indicates the optimal sequence for project implementation is proposed.

From Analysis to Intervention

Our analysis was predicated on the Basic Analytical Model that distinguished and established a casual logic between intrinsic strengths, value cycles and regional spatial interactions. The diagram below indicates how this analytical model can be translated into a framework of intervention. The strengths constitute the resource base attributable to the settlement; while a more sustainable pattern of value flows require process interventions that manage these flows. At the same time, these value flows must be anchored in the space economy through physical interventions.

Adding the findings from the diagnostic model related to Ezzbet Al Nasr the intervention framework becomes an overview of how the local resources can be managed and developed to achieve an upgrading of the current situation. In the Intervention

Fig. 11 Intervention Framework

Source: UM TU-Berlin

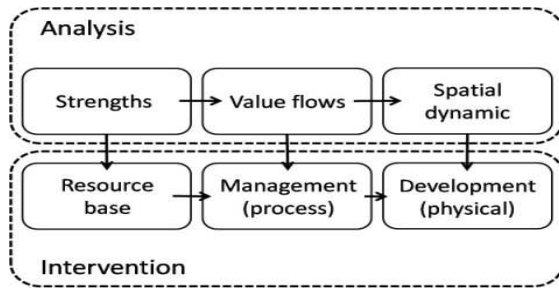
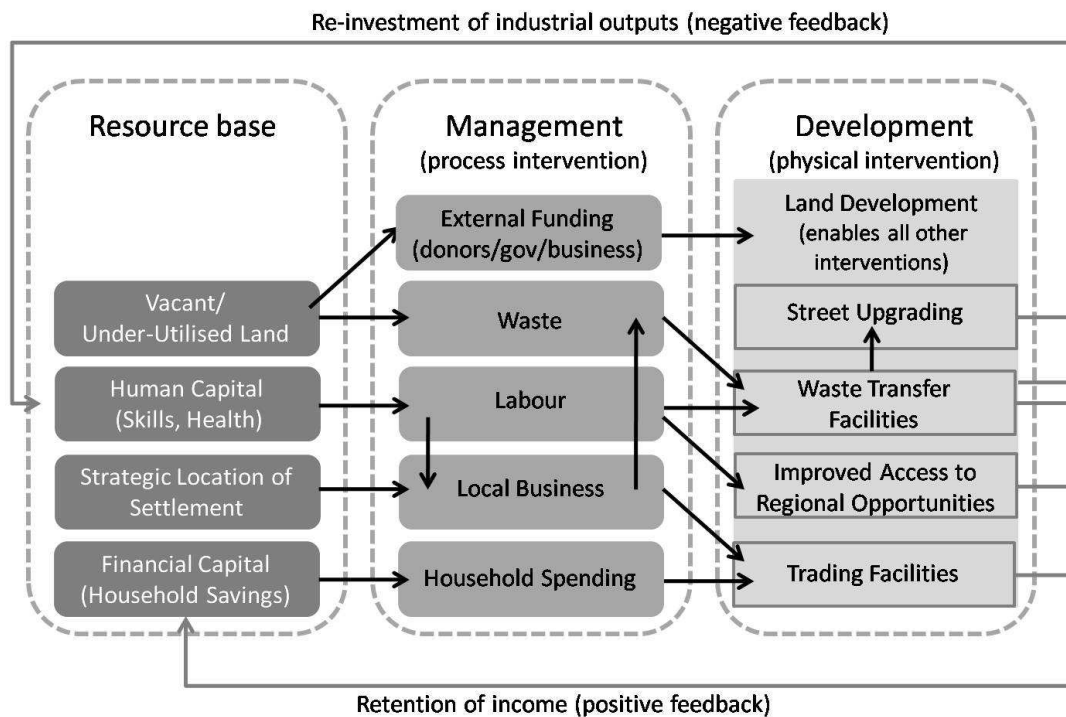


Fig. 12 Intervention Diagram

Source: UM TU-Berlin



Street upgrading (proposal 1)

The fieldwork enabled the identification of strengths and weaknesses that conduce to tangible implementation proposals for street upgrading in Ezzbet Al Nasr. This study identified street morphology, residents' knowledge of construction, experiences of self-organisation, and available construction materials as resources that may potentially be combined to drive upgrading. Weaknesses identified in the situation analysis include (a) difficult pedestrian access to the surrounding area, (b) distance to health and transportation facilities (c) lack of greenery and places for children and (d) poor infrastructure services.

Based on this analysis, an intervention proposal composed of four street upgrading issues was formulated: street lighting, paving, building a pedestrian bridge, and tree planting. By utilizing the strengths as available resources and managing them in coordination with various actors, the intervention proposals are aimed to reach the goal of participatory development, encompassing both physical and organisational levels.



Street lighting (2010)

Table 5 Proposal of street lighting

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Street morphology Financing (household savings) 	<ul style="list-style-type: none"> Participatory maintenance for street lightning: <ul style="list-style-type: none"> - installation of lamps - Maintenance Actors: The community and NGOs, Cairo's Governorate 	<ul style="list-style-type: none"> Physical intervention: electricity-line provision Organizational development: Mutual trust between govt. & the community

Street Lighting

“The electricity provision is a problem for us. Do you see those electricity cables under the sand lacking secure connection? Those connections are illegal, and some of us don’t have a permission to have light inside our houses and lamps outside the buildings” – (from an interview with a group of residents).

The first type of intervention is street lighting provision. Because street width fairly allows the circulation of special vehicles, it is not necessary to demolish houses in order to open new access. Thus, street infrastructure can be immediately upgraded, which includes the electricity-line reticulation. In cooperation with Cairo's Governorate as an electricity-line provider, the community –coordinated by NGOs– can play a responsible role of lamp installation and maintenance. This cooperative management for street lighting can contribute not only to the physical improvement of security and public space, but also to the organisational development of mutual trust and participatory maintenance. There are two types of streets designated for upgrading requiring different types of lighting in Map 8; the relatively narrow streets inside the neighbourhood and the wide streets along the 6th October and El Madbah. In the former case, as shown in Fig. 3, the street morphology is very suitable for electricity-line provision without building electricity poles; therefore either cantilever wall lighting or ceiling lighting can be used for street lighting. In the latter case, as shown in Fig. 4, it is more suitable to provide street light poles for both vehicles-use and pedestrian-use.

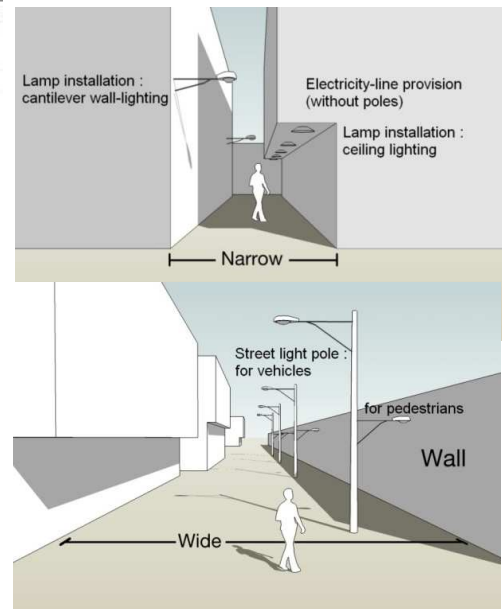
Map 8 Proposal of street lighting

Source: UM TU-Berlin



Fig. 13 and 14 Street lighting for narrow and wide streets

Source: UM TU-Berlin



Best Practice

To explore best practice for street lighting the urban upgrading project in Chile, “*Quiero Mi Barrio*” (I Love My Neighbourhood), may be consulted. Regarding street lighting, it already demonstrated the importance of participatory maintenance. When the government provided both the electricity-lines and lamps all together, some residents just stole the lamps since they lacked the awareness and responsibility on sustaining the system. After lesson learned, participatory maintenance was implemented and gained a success, involving residents in buying and maintaining lamps.

Paving

The second intervention involves the paving of designated streets, as shown in Map 9. By re-using construction waste materials and taking advantage of the construction skills in the area, the community – coordinated by NGOs – can drive the paving of streets for pedestrians using tiling. In that process, the stone workshops and the community are encouraged to organize the recycling workshop which can further result in capacity building and income generation, and to utilize some parts of the vacant land as a construction waste depot which is proposed more in detail in the next section of proposal (2). Cairo’s Governorate is also encouraged to participate as a provider of seed capital.

The laying of asphalt for vehicles by local authorities however must precede this. Providing asphalt paving on the most heavily utilized streets is a crucial element for all proposals regarding the vacant land development, in a sense of facilitating the mobility from both inside and outside the community into the vacant land.

Table 6 Proposal of paving

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Construction waste materials Skills on construction Vacant land 	<ul style="list-style-type: none"> Recycling workshops Actors: Stone workshops, The community and NGOs, Cairo's Governorate 	<ul style="list-style-type: none"> Physical intervention: Street paving, Construction waste depot Organizational development: <ul style="list-style-type: none"> - Capacity building for recycling of materials

Map 9 Proposal of paving, pedestrian access and greening

Source: UM TU-Berlin



Greening

The last proposal of street upgrading brings the idea of tree planting. Through the participatory process involving NGOs, schools, and the community, tree planting can be implemented to enhance the public spaces in a manageable way with relatively small budgets.

Under the guidance of NGOs and the cooperation with relevant bodies of the schools, the community themselves (including children) can participate in growing the trees at the proposed nursery (see proposal 2), and to help with tree planting in designated streets, in which people take responsibility for maintaining and cultivate the sense of belonging to the community.

Best Practice

Greening projects in the informal areas of the desert town of Kimberley in South Africa have shown that by actively involving the community in the growing, planting and conservation of trees, both the welfare of the trees, and the benefits derived from them, are wholly appropriated by the affected communities.

To summarize: the intervention proposal for street upgrading addresses both physical and organisational development of the community, focusing on participatory development. Utilizing already existing resources by different actors, strongly involving the community, the street upgrading proposal is expected to gain not only immediate improvements of physical environment in the area, but also broader level of integration towards the formal society in GCMR.

Pedestrian access

In addition to improving access within the community, the following intervention aims to integrate the settlement into surrounding areas. This includes the construction of a pedestrian bridge to provide reliable and secure access to the East, and putting together a partnership between government and the community to upgrade and utilize the parcel of vacant land in the Northeast.

The idea of building a pedestrian bridge is not only a response to the urgent needs of the inhabitants to mitigate high incidence of traffic accidents in the *Autostrad*, but also a way of strengthening a new flow of activities from outside into the area and adjacent to vacant land. The proposal for the development of vacant land will be addressed in detail in the next section.

Table 7 Proposal of pedestrian access

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Strategic location 	<ul style="list-style-type: none"> Actors: The Cairo's Governorate 	<ul style="list-style-type: none"> Physical Intervention: Pedestrian bridge Organizational development: Improvement of mobility and safety

Table 8 Proposal of tree planting

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Financing (household savings) 	<ul style="list-style-type: none"> Participation and education Actors: The community and NGO's Schools. 	<ul style="list-style-type: none"> Physical Intervention: Tree planting Organizational development: Responsibility to the community



Vacant Land in Ezzbet Al Nasr (2010)

Land development (proposal 2)

Northwest of the settlement extends a 6 ha parcel of under-utilised, state-owned land. The strategic position of the land is very suitable for land development. Currently it is a waste disposal for solid and construction waste without any type of management. Furthermore, several residents pointed out an abandoned bus stop located on the parcel. It was observed that although there is the presence of the public sector in this area, no formal management of the land is evident.

Current activities that are predominantly illicit and hazardous emanate from informal arrangements between officials and informal operators from both inside and outside the community.

The presence of the school close to this under-utilised area causes insecurity issues and furthermore the lack of adequately management can result in much more serious problems. The vacant Land not only offers the possibility of future developments, but for the moment there are many problems related to it. Thus, it is mandatory to solve the overlapping of certain activities such as children, attending to the Public school, playing football in the middle of the Waste disposal zones.

There are several reasons to propose land development in the mentioned vacant land; some of them have to do with improving local conditions and access to the neighbouring areas. If the development of the land is designed in a way that is at once coordinated and strategic – that is, a greater orientation towards the entrepreneurial, recreational and accessibility needs of the community itself – a more sustainable and self-reinforcing pattern of local activity is anticipated to emerge. The proposal for land development is constituted by a land use plan and a series of community-driven programs. The parcels, as shown in the plan, are subdivided into different uses suggesting future developments.

Table 9 Land Development

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> 6 Ha of unused vacant land Already existing infrastructure (public school, light poles, sewage) Direct connection with main avenues 	<ul style="list-style-type: none"> External funding (donors, gov business) Community development programs 	<ul style="list-style-type: none"> Land Development Program: <ol style="list-style-type: none"> 1. Waste transfer station 2. Construction waste depot 3. Industrial Cluster (Manson Workshop) 4. Bus Terminal 5. Market 6. Nursery- Compost 7. Community Center 8. Park

Reading the plan from West to East: General Waste Transfer Station, Building Waste Depot, Industrial Cluster (Masonry workshop), Bus Station, Nursery/Composting Plant, Green Areas, Market and Community Centre. The spaces are linked by a series of pedestrian corridors and higher transit streets. The scale and function of the different proposals are arranged so that there is a more suitable transition towards the inhabited South-east facet.

The waste facilities and bus station are in the most distant part of the vacant land while the community facilities, green areas and market are closer to the community and in close proximity to the school. This section is directly connected with the main pedestrian walkways of the Northwest area of the community. In the following section the individual interventions connected to the land development plan are presented.

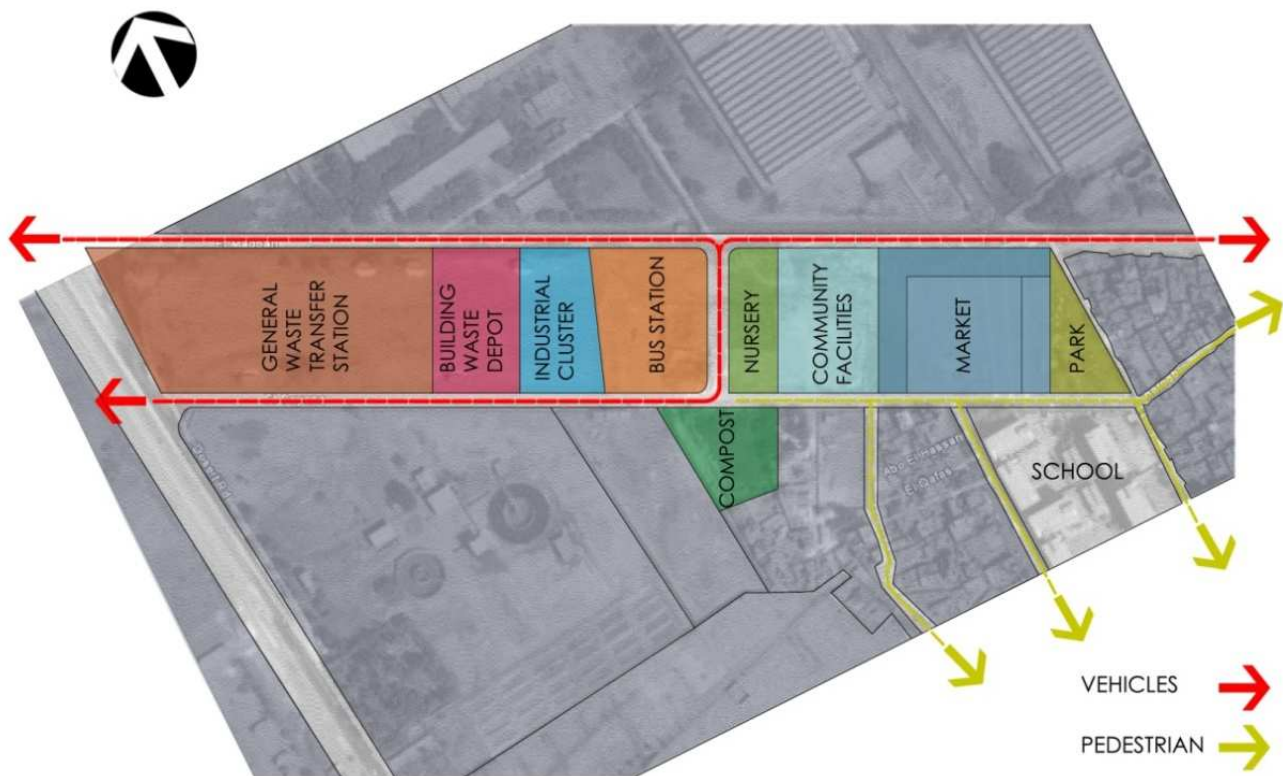
Waste Transfer Station

The proposal of a Waste Transfer Station is an attempt to formalize an already existing situation. The government, the residents and also other districts of Cairo already use this area as a garbage deposit. To formalize, these practices would enable income generation and better waste management for the community. The Transfer Station is an intermediate phase of the city garbage before being transferred to the main waste disposal.

The project called Street Rangers is an example of potential community participation on waste management in GCMR. Moreover, the possible income from this activity could be used to improve the sustainability of infrastructural maintenance. As an important aspect in the waste management proposal, the composting station will provide organic material for nursery activity in the new park.

Map 10 Proposal of Land Development

Source: UM TU-Berlin



Building Waste Depot

One of the main economic activities in the community is the masonry workshops. The waste from these workshops is a valuable material that, with proper management, can constitute a cheap input for the paving programme envisaged in proposal (1). The current mismanagement of this kind of waste shows the lack of integration between these workshops and the community. The proposal of a proper management of the construction waste tries to link the needs of the community with the waste produced in any construction activity within the area, this depot will be the space destined for the accumulation of this type of waste.

Industrial Cluster

The Industrial Cluster, consisting predominantly out of masonry workshops, warehousing and retail outlets, will support one of the main activities of the community. Linked directly to the Market and the Construction Waste Management, the workshop would provide the main education related to the craftsmanship of stone cutting and the business of masonry. As part of the economic development strategy this training component aims to build up capacities as a basis to encourage workers to establish their own workshops in the future. Some of these new 'start-up' workshops could be located in the new Market.

"We have been running the business of marble workshop for 30 years and also offering a training program for youth that helped 300 young people become professionals in this field. We believe in the cooperation between marble workshops instead of competition, so we encourage the trained young people to open their new business"
– (From an interview with four brothers working in a marble workshop).

Bus Station

Part of the vacant land used to be a Bus Station, but when the sewerage project started, the bus service was suspended. This generated severe accessibility challenges for the community. Part of the new land developments is devoted to rehabilitate the bus station. The terminal would connect the northern part of the community through the main vehicle streets.

Vegetation nursery

The Vegetation nursery is envisaged as a green area providing the opportunity for children to learn growing different types of plants. Operational costs would be minimized by sourcing inputs from the adjacent composting plant. It would also serve as a barrier between the community and noxious activities in the West, absorbing noise, dust and heat.

Green Areas

There is a need for green public spaces where the people from the community can gather. The idea is also to provide an adequate place for children to spend time. It will be supported by the production of plants from the nursery. The park would be built in a participative program organized by an NGO and involving the community. The location of this area is the closest to the community, and in front of the public school, to avoid the possibility of a neglected open space.

Market

Envisaged as a corridor-market, the market would connect the pedestrian movement corridor with the main Northern Street (El Madbah), concentrating retail activities in a single area to encourage competition, create logistical economies of scale, allow for better inter-firm cooperation and enable more efficient enforcement of health and sanitation standards. The anticipated reduction in prices and extension of product choice in turn reduces the need for mobility-impaired inhabitants to travel to distant markets to access basic goods. Ultimately, a market will render the local economy more diversified, robust and resilient. The market would also have a section devoted to the products obtained from the masonry workshop and the nursery.

To summarize: The idea is to create a self sustained economy in which the community is producing and selling their work to the same community and other people.

Waste management (proposal 3)

In formulating the waste management proposal, interventions were categorized into four main components:

- Solid waste management
- Composting plant
- Sewerage system
- Building waste management

Strength in the area comprise the proximity to transfer facilities, the availability of vacant land (state-owned), the availability of access within the community (i.e. a high level of accessibility between the main road to the waste collection area), existing community knowledge to identify garbage as business potential, and almost finished layout of sewage. Weaknesses in the area include ineffective waste collection, a lack of solid waste containers, the indiscriminate dumping of waste, and delayed construction.

Solid waste management

The area has potential resources in terms of available land. The potential can be utilised to develop micro-infrastructures allocated to solid waste, such as a waste transfer station, household/street permanent garbage container, and a storage facility for re-usable waste.

A proposed environmental management committee in co-operation with street collector organisation, and participatory design of garbage container are some of the organisational mechanisms proposed to ensure community ownership toward the proposed program. Environmental awareness can be addressed by building capacity within current community structures.

Best Practice

Best practice for concrete garbage container was implemented in Kumasi, Ghana (Wikner 2009). The container was designed and constructed through a community initiative and became a solution for collecting solid waste around the neighbourhood.

Best practice of permanent brick container in Kumasi, Ghana.

Source: Wikner, 2009



Table 10 Proposal of solid waste management

Resources	Management	Development
<ul style="list-style-type: none">• Vacant land	<ul style="list-style-type: none">• Awareness environmental education<ul style="list-style-type: none">- capacity development-meeting local leaders• Process of waste collection<ul style="list-style-type: none">- Environmental management committee- House-to-house collection• Actors: NGO, street rangers, users and government, Public Funding Agency.	<p>Intervention:</p> <ul style="list-style-type: none">- Relocating waste transfer station-Construction of street garbage containers- Income generation through recycling material- Participatory design of garbage container- Capacity Building

Composting Plant

Through interviews and observations it became evident that the community in Ezzbet Al Nasr located close to the solid waste transfer station has secured land where they undertake composting using very crude technology. The proximity to the transfer station offers them the opportunity to access their raw material without high transport cost.

The community, local authorities and a NGO can collaborate to harness this opportunity in form of a management committee. Local authorities can provide modern machinery, while a university can provide technical knowledge to build the capacity of the people to produce large quantities of compost for agricultural use. Since this will be a community-driven initiative, it would create more jobs in the area and the technology could also be transferred to different areas.

Sewerage system

The existing sewerage system can be considered as a passive asset in this area. Local authorities recognize the urgency in addressing the delays in operating the sewerage network. Given that the system will not become functional in at least another six months, it is incumbent upon local authorities to offer intermediate solutions. The temporary installation of a pump at the northern end of the Ring Road tunnel, and the running of a pipe to the neighbouring sewerage system may provide some temporary relief to local inhabitants. Responding to such 'low hanging fruits' is an inexpensive and highly effective mean of restoring trust between the community and local authorities, which in turn is essential for initiating the other, more complex interventions.

Table 11 Proposal of composting plant

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Proximity to transfer station 	<ul style="list-style-type: none"> Forming management committee involving community, NGO and government. 	<ul style="list-style-type: none"> Providing modern machinery Capacity Building for community regarding technical knowledge of composting agriculture

Table 12 Proposal of sewage system

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none"> Existing sewage system 	<ul style="list-style-type: none"> Community proposal to Government Actors: community, government, NGO, installation company (private) 	<ul style="list-style-type: none"> Providing temporary mechanized pumping station Repairing damage control structure in the network Capacity Building for community Cooperation among construction company

Construction Waste Management

Available resources regarding construction waste management in the area are the availability of vacant land and a surplus of construction waste. The suitable intervention for this area will be the designation and preparation of a storage facility for collecting building waste. This material can be re-used for paving the street or to meet community needs for infrastructure development. A participatory approach needs to be applied in the form of a management committee. The committee will be in charge of maintenance of the storage, supervising the selection process of useful material, and organizing the transfer process of the material to designated points.

To summarize: the intervention proposal for waste management addresses both physical and organisational development.

By utilizing already existing resources, mainly relying on the vacant land (proposal 2), the waste management proposal redirect negative flows into positive value flows by integrating existing resources currently identified as negative, such as solid or building waste.



Reusing of building waste (2010)

Table 13 Proposal of construction waste management

Source: UM TU-Berlin

Resources	Management	Development
<ul style="list-style-type: none">• Vacant land• Surplus of construction waste	<ul style="list-style-type: none">• Forming Management committee:<ul style="list-style-type: none">- Maintenance- Supervising selection process for material- Organizing transferring of material to designated points• Actors: NGO, community and Expert-Gov, Public Funding Agency	<ul style="list-style-type: none">• Designated Storage facility• Capacity Development in reusing construction waste

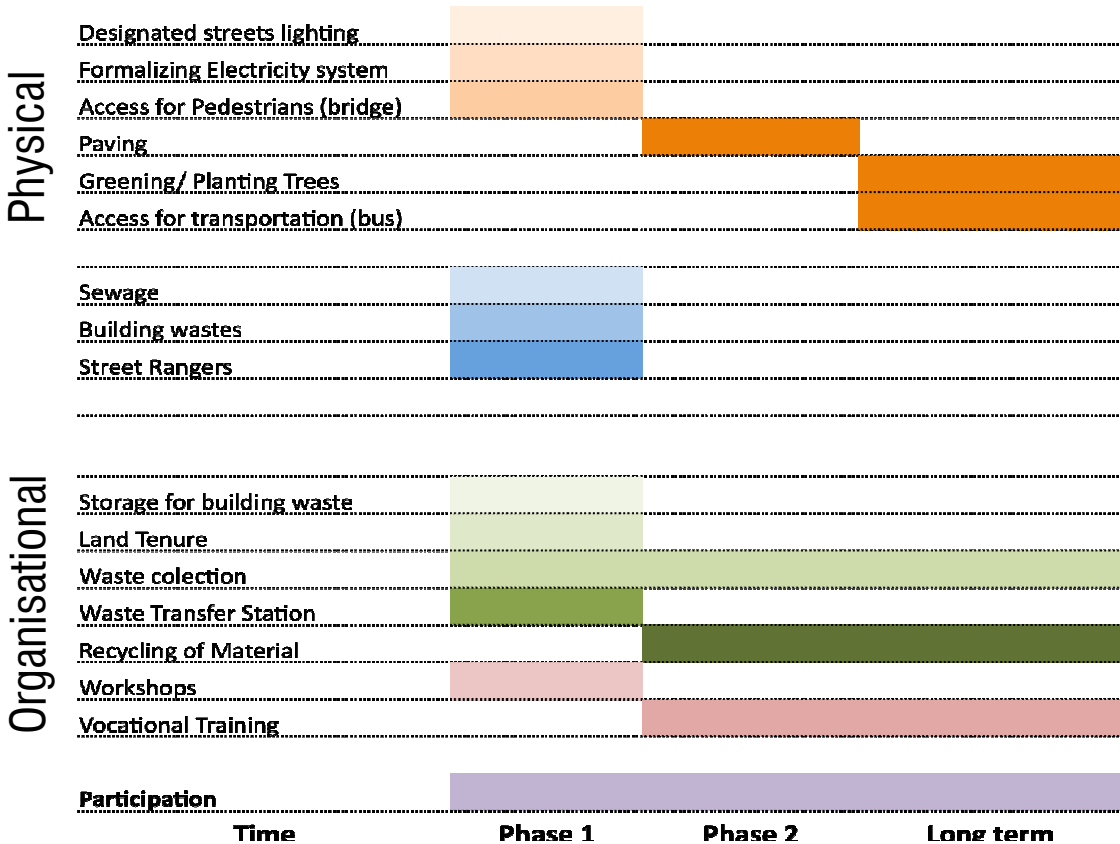
CONCLUSION: from strategy to Implementation

The main challenge of the proposed approach is to reach maximum results with minimum impact. For this, to optimize the available resources and implement the first actions, a phasing plan was created dividing physical and organisational interventions. Most of the physical interventions can be achieved in short term and can result in qualitative improvement of living conditions. Therefore, the interventions of short term are essential steps for the long-term interventions due to the flow of continuity proposed in the plan. The long-term interventions have an organisational character and will be responsible for the sustainability of each proposal, aggregating ownership over all physical improvements and preventing disengagement of the community. Cairo Governorate mobilized financial resources from the private sector, the Hong Kong Shanghai Banking Group, in order to upgrade two informal areas in the Governorate of Cairo.

The strategy behind the phasing plan is to create a chain of actions that brings fast solutions for the most urgent problems and builds awareness not only regarding the community rights, but also regarding the potential of self-organisation within the area. That would be the long-term result that can prevent continuity of some points considered here and the proper management of the existent resources.

Thus, by taking advantage of the unique resources available to Ezzbet Al Nasr (such as vacant land or building waste), interventions managing the value flows (such as defining actors and initiating the establishment of a management committee involved in the process of waste management) have been proposed and related to physical interventions (such as a storage facility for collecting building waste) anchoring the flows in the space economy. Thereby negative flows have been turned into a positive feedback loop, reinvesting the value of the managed resource – thereby attempting an upgrading of the current situation in Ezzbet Al Nasr.

Table 14 Priorities / Phases for Interventions
Source: UM TU-Berlin



3.2 GIZA: Dayer El Nahia

This section presents the proposals and recommendations of intervention for the study area Dayer El Nahia. Based on the application of a qualitative approach, these proposals were built up from a preparatory strategy, methodology and analysis of findings from the fieldwork. The information and data collection during this explorative exercise are based on participatory assessment of the perspectives of residents and main stakeholders involved in the context.

The objective of the proposal is to improve the living conditions of Dayer El Nahia, maintaining its strong identity. Therefore it is necessary to apply the hybrid approach mentioned earlier in this document combining different intervention strategies in the same area. Due to its complexity and different spatial and social patterns, intervention proposals in Dayer El Nahia are based on specific approaches and strategies addressing different problems in “pressure points” identified during the fieldwork, which naturally are interrelated as a network of issues that requires an appropriate and specific response for each of them.

3.2.1 Context

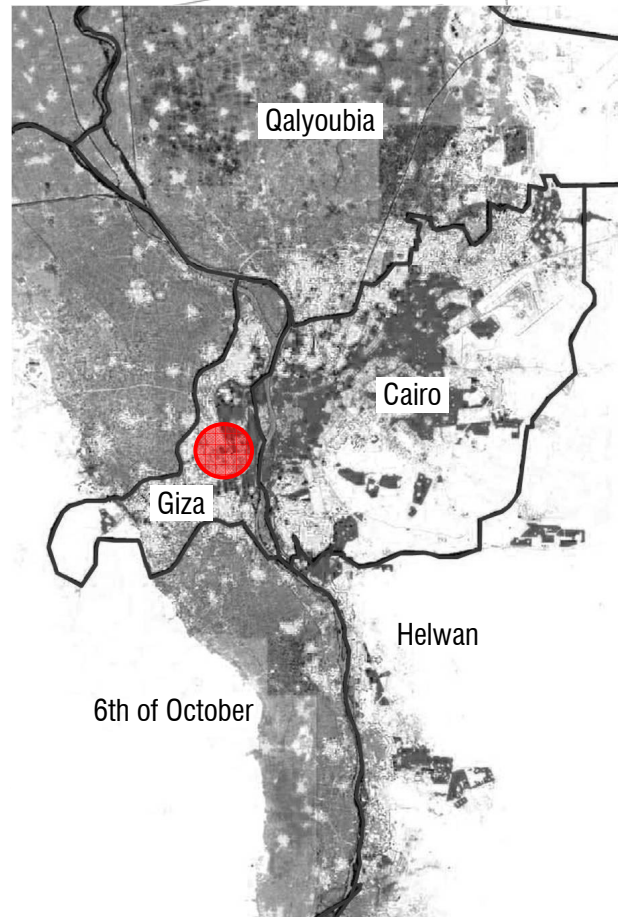
In the central area of Dokki District, one of Giza Governorate’s main and oldest districts, lies the area of Dayer El Nahia, situated between the main popular roads of AlTahreer and Dokki. The area is located beside the Housing and Building National Research Centre. Its main access (Dayer El Nahia) leads to the AlTahreer Road, the other five sub-entrances are located on the Dokki Road. It’s most important streets, aside its main street, are AlMousha and AlSobky streets along with a network of pedestrian walkways.

Dayer El Nahia, is considered officially an unsafe area. Residents are originally from AlFayoum and AlSharqiya Governorates. The land was formally (as many other districts in Giza) agriculture. The main occupation back then was farming. Over the last three decades, Dayer El Nahia evolved from a first stop for migrants to an established permanent community of approximately 50.000 residents (AlFajr Journal, 2010).

Supposedly being settled from the final 19th Century onwards, the neighbourhood now contains approximately 152 housing blocks (1-8 stories). Today, the area is popular for its car repair and carpentry workshops.

Map 11 Dayer El Nahia Localisation

Source: UM TU Berlin, adapted from Sabry 2009



Map 12 Dayer El Nahia

Source: UM TU Berlin, based on Google Earth



Map 13: Actual Situation

Source: Adapted from Urban Upgrading Unit at Giza Governorate



These main topics were then further researched through the fieldwork. Guiding research questions were prepared for each of these four topics and the crosscutting issues to collect information from the field. From this base, questionnaire guidelines for semi-structured qualitative interviews were developed for different target groups: residents, businesses, community leaders and government representatives.

Residents and businesses respondents were randomly selected from different locations equally covering the whole community. For the interviews with residents, both owners and renters were included. For businesses, different types of business representatives (such as car workshops, furniture workshops, merchants e.g. for grocery, vegetables and coal) were incorporated. A focus group discussion with women was arranged by a local NGO. Additionally to the semi-structured interviews and focus group discussions, participatory mapping was conducted with selected interviewees. Furthermore, a participatory assessment of physical building conditions was conducted. In addition to the field work activities, expert interviews with government representatives from the district administration (district chief, department of urban development) as well as with elected officials from the local popular council were conducted.

3.2.2. Field Work Methodology

After having gained an insight to several informal settlements in Giza Governorate, the study group conducted a visit to the Dayer El Nahia community. Conversations with local residents provided an initial impression of the community and its current condition regarding building quality, infrastructure, economic activities and livelihood.

“The water cuts off every day and I ask one of my daughters to stay up late to collect as much water as we need in bottles for the next day, just in case there’s no water” – (from an interview with a housewife)

From this explorative visit, a first basic SWOT analysis was derived detecting positive and negative aspects of the area. Through this, using livelihood approach (DFID, 2004) four major topics were identified as most relevant: Physical Structure, Open Space/Road Network, Economic Livelihood and Social Organisation. Additionally, three cross-cutting issues, (a) government policies, (b) legal framework and (c) community vision for development, were identified.

Map 14 Location of Interviews

Source: UM TU-Berlin



Table 15 Topics in the interviews

Source: UM TU-Berlin

Main Questions		
Four Topics	Physical Structure	<ul style="list-style-type: none"> • What is the condition of the buildings in the area? • Are the buildings served with infrastructure? What is the quality of the services? • What is the relation between owners and renters in the area? • What is the level of fluctuation between owners in the area?
	Open space & Road Network	<ul style="list-style-type: none"> • How do different groups use the different types of spaces in the community? • Is there any lack of public services and infrastructure? • What are the patterns of mobility of different groups in the community? • What are the community perspectives on future development of open space-road network?
	Economic Livelihood	<ul style="list-style-type: none"> • What are the sources of income for the residents in the community? • What are the major business activities in the area and how do they function? • What is the legal status of the business in the area?
	Social Organization	<ul style="list-style-type: none"> • How does the community organize itself in a grass root level? (neighbors/associations business corporations, local networks, CBO's, common decision making) • What is the leadership system in the community? • What is the community relation with different institutions, such as NGO's, private sector actors, political stakeholders?

Based on the assessment of the findings a set of proposals for intervention and recommendations for further improvements were developed related to the different levels of policy recommendation, strategy development and physical intervention.

3.2.3 Situation Analysis

As a result of the field research, an in-depth SWOT analysis was conducted to provide the base for a comprehensive understanding of the local situation identifying and assessing the most relevant topics leading to structure the intervention proposals. Considering the findings resulting from the SWOT, there was strong evidence to reiterate the importance of the four main topics addressed during the fieldwork as focus areas for the intervention strategy: 1) physical structure, 2) open spaces/road network, 3) economic livelihood, and 4) social organisation.

The first topic, physical structure, relates to the issues of building conditions within Dayer El Nahia. Open spaces and road network overlap the questions associated with the urban fabric and open space structures with infrastructures and service management. Economic livelihood addresses the economic basis of the residents and how business activities are linked to land-use and management. Lastly, the topic concerning social organisation refers to the community's identity, the level of self-organisation and the community's position within larger governance networks. The topic of social organisation is considered to be of key importance as it links to all topics mentioned above functioning as the fundamental basis for community participation in intervention activities.

The four research and intervention topics are related to the overall conceptual framework of qualitative complementation – practically applying it in a concrete case. Accordingly, the interrelating topics generally reflect the logic of interdependency laid out in the livelihood concept trying to adopt it to local specifics. Hence, the selected issues relate to its five dimensions: the topics of physical structure and open space/road network intend to address the natural and physical capital of Dayer El’Nahia, as the topic of economic livelihood refers to the human and financial capital within the community; issues of the social organisation including governance aspects are considered as part of the social capital.



Conditions in Dayer El Nahia (2010)

Table 16 SWOT Analysis Dayer el Nahia

Source: UM TU-Berlin

Issues	Strenghts	Weaknesses	Opportunities	Threats
Location	Prime/central location	Contrast with surrounding formal/middleclass neighborhoods	On-site redevelopment, including all interested stakeholders	Real-estate speculation
	Historical value			Growing socio-spatial segregation, between the neighborhood and its surroundings
Ownership	High land values	Complexity of actors regarding property: Land owners, Building owners, Renters	Cooperation between actors to promote on-site redevelopment, sharing mutual benefits and costs	Vicious interrelation between real estate speculation, new law 119 (rent issue) and the intended deterioration of unsafe houses
	Legal tenure of buildings			
Urban Structure/ Fabric	Long-term stability of ownership	Limited accessibility (roads)	Improve accessibility with minor interventions	Empty private land contributing to real-estate speculation/ hindering intervention
	Consolidated and livable urban structure			
		Empty private land used as dumping ground	Reassignment of private empty land for: · Land-pooling (on-site redevelopment) · Public/Communitarian open spaces or facilities	
		Unqualified open spaces		

Issues	Strenghts	Weaknesses	Opportunities	Threats
Open Space Use/ Management	Open space intensely used by the community Security: porous relation between private (houses) and surrounding public space	Lack of communitarian responsibility for the overall neighborhood Gender inequality Illegal occupation of open spaces by business workshops	Cooperative management of the neighborhood's public spaces between all locally involved stakeholders	Growing socio-spatial discrimination of vulnerable groups
Building Conditions	Incremental process of construction: housing process adapted to changes in family structures	Weak ventilation and illumination Small plot size Unsafe structures and building materials	Concentration of unsafe buildings as a potential for bulk redevelopment	Unsafe buildings affecting interdependent structures
Infrastructure	Available and accessible physical Infrastructure	Low quality of service supply (water, gas) Unsafe sewerage system Lack of social infrastructures	Upgrade physical infrastructure using appropriate and sustainable technologies Empty private may be assigned to place lacking social infrastructures	Sewerage system affecting public health and contaminating the soil
Land-Use	Proximity and mixture of uses (productive, commercial and residential)	Polluting manufacturing activities mixed with residential uses	Grouping/Clustering of economic activities Livability due to intensive and mixed use of open public spaces	Informal eviction of residential uses due to the polluting productive activities
Economic Activities	Specialization of economic activities: car repairing, carpentry and daily goods supply Partial interdependency between activities Good Level of entrepreneurship	Environmental and social impact of polluting workshops Illegal status of manufacturing activities High percentage of unemployment (especially youth) Low level of education Unemployment	Invisible “ women workers” as potential target groups Interdependency as potential for collaborative initiatives and clustering	Dismantlement of the economic fabric due to external relocation of all polluting workshops Low capacity of adaptation to market demands

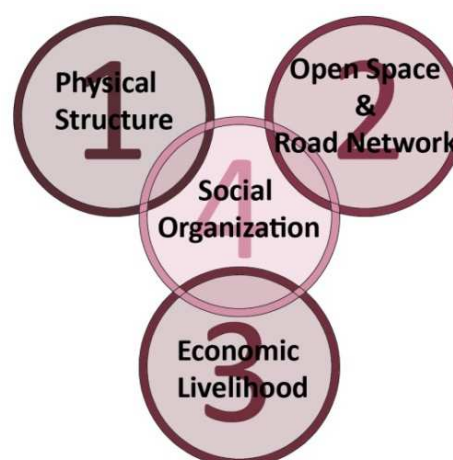
Issues	Strengths	Weaknesses	Opportunities	Threats
Social Composition	Strong communitarian identity Strong rooting Strong cultural capital Good level of self-perception	Low level of social mobility Low social status/high level of prejudice regarding Ashwayat dwellers Community associated with the “culture of poverty”	Potential for strengthening the community's organizational pattern through cooperative associations	Social encroachment Discrimination and marginalization
Governance	Internal solidarity Cooperative initiatives between close neighbors	Low level of integrative community organization Lack of natural leaders Lack of representation Distrust and miscommunication between community and political stakeholders	Scale-up cooperative initiatives between locally involved stakeholders	Organizational pattern related to specific groups/interests (men, mosque, political interests) Politicized institutions (NGO/Mosques) Invisibility of vulnerable groups

Fieldwork in Dayer El Nahia (2010)

3.2.4 Intervention Strategies

The following section presents the specific findings, proposals and recommendations for each one of the main topics identified and explored during the field work. Within its particular methodology and structure, these intervention strategies rely on the diagnosis of the collected data during the field work described above.

Fig. 15 Framework for proposal
Source: UM TU-Berlin



a) Physical Structure

The participatory assessment of buildings in the field was based on safety and construction standards as well as discussions with the local inhabitants. It has shown that many of the buildings in the area are old-aged and deteriorated in terms of their physical conditions. Moreover, they have been constructed without regard to setback rules. An important reason for the deterioration is the complex application of different regulations of rent laws and land ownership that is hindering investment in maintenance. Moreover, it leads to a separation of land owners, buildings owners and renters that all need to be considered in intervention.

“Our house is ours, but the land is not. Every year we pay a lawyer that deals with our case with the land owners. We are not the only case, our neighbours go through the same every year and we don’t even know who the land owner is today, some of them passed away and land was





It was also observed that some buildings in good physical condition were located in very close proximity to the dilapidated buildings and therefore were affected. However, some new buildings are under construction. According to their physical structures, the buildings were classified into four different types related to the proposed action to be undertaken and to the respective actors involved (See table 7).

The most dilapidated buildings are located in proximity to the mosque as well as in several other parts. A full and more detailed survey is strongly recommended to identify the detailed physical conditions of the buildings and their exact location (See map 15).

Table 17 Physical Structures

Source: UM TU-Berlin

inherited by more than one person.” – (an interview with one of the house owners and his wife)

Physical Structure	Classification	Action	Actors
	Unsafe Building Old building, unsafe construction materials, lack of structure or foundation	Detailed participatory survey needed to identify the buildings. Onsite redevelopment	<ul style="list-style-type: none"> • Governorate • Affected renters and owners
	Safe Building affected by unsafe building (structural dependency)		
	Safe Building located in unsafe building cluster		
	Safe Building with inefficient services	Detailed participatory survey needed to identify the buildings. Upgrading	

Map 15 Areas to be further studied for building conditions

Source: UM TU-Berlin



Public-Private-Community Partnership for Onsite Redevelopment

Dayer El Nahia is considered as an unsafe area in Giza situated in a very prime location. The community is characterized by its strong identity, active livelihoods and strong internal potentials which are important to be maintained in intervention activities. As the land value is comparatively high, the study team proposes to improve the area through an onsite redevelopment strategy relocating the affected people within the community. This strategy is based on the attraction of external investment capital applying strong control mechanisms in order to ensure a common share of profits. Furthermore, it is based on a land pooling system that provides a basis to reconfigure the small-scale structures of plots as a larger spatial basis for successful redevelopment. The incentive for the land owners – contributing with their land share to the land pooling- is to be able to sell their land at better conditions in a pooling system.

The onsite redevelopment strategy is proposed to be implemented through a public-private-community partnership approach involving private sector actors, public institutions and the community. The objectives of this strategy are as follows;

- To be financially viable and self sustaining
- To facilitate and provide affordable housing and basic infrastructure facilities
- To improve physical building conditions
- To enable economic revitalisation of the area and create employment opportunities by using of the site or through real estate investment

Steps for implementation of the strategy

- Conduct a detailed survey and identify the unsafe clusters based on the classification of buildings,
- Select the clusters to be assigned for on-site redevelopment,
- Gather detailed information about land owners, building owners and renters. Negotiation/agreement with land owners for participation in land pooling and with building owners/renters about the detail plan of the project,
- Identification of investors for financing redevelopment. Legal agreement of shared profit for investment in affordable housing and community infrastructure,
- Legalisation of land ownership and partnership of the project,
- Temporary relocation of the inhabitants (with their participation),
- Demolish the structures of the selected area, based on detailed studies,
- Onsite redevelopment through land pooling by public-private and community participation,
- The total cost of the project will be financed by the investors – profit will be shared by the different parties,
- The governorate provides control, legal support, monitoring and coordination of the different project phases.

Fig. 16 Land Pooling

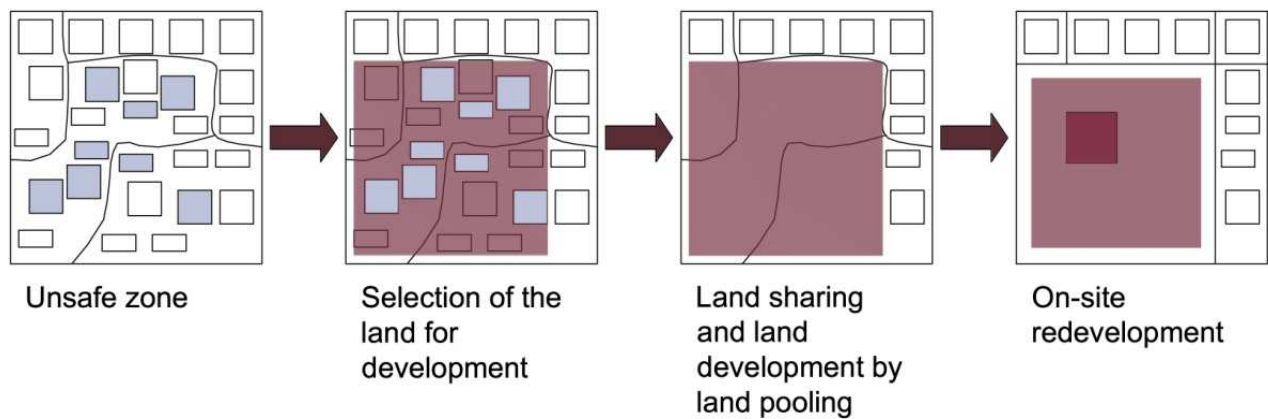
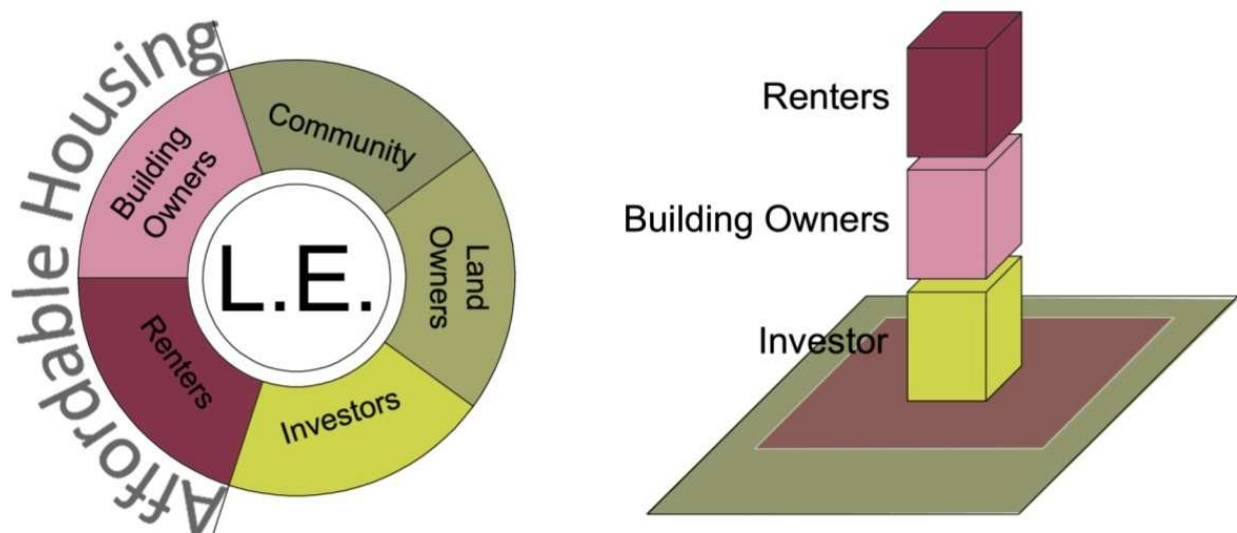


Fig. 17 Multi-Stakeholders Cost and Benefit Sharing



Project outcome, benefit and profit sharing mechanism

The main condition of this system is that all involved stakeholders will gain a share as investors are required to share their profit with building owners/renters and the community for financing affordable housing and infrastructure. First, the investors will gain a profit from a share of units that can be sold or rented at market rates. In case there are existing building owners, they will get their share of the overall profit through the same number of units as they have owned before. The renters will be provided with improved units for affordable prices.

The contribution and benefit of public, private and community stakeholders are shown in the following table. It is worth mentioning that the public authority can also take on the role of the investor in order to generate profit out of onsite redevelopment which then could be reinvested in other community projects for the benefit of all. In any case, this concept offers major advantages for the public authority in comparison with current redevelopment policies aiming for cost-intense off-site redevelopment and relocation of the affected population.

Table 18 Land Pooling Contribution and Benefits

Source: John P. W. (2006a)

	CONTRIBUTION	BENEFIT
GOVERNORATE	<ul style="list-style-type: none"> • Legal Support • Monitoring and Control • Providing Services Facilities 	<ul style="list-style-type: none"> • Avoid Costs of Relocation • Potential Profit • Shift Informal to Formal Areas • Replicable Model of Intervention
INVESTOR	<ul style="list-style-type: none"> • Financial Investment • Develop the Area 	<ul style="list-style-type: none"> • Profit
COMMUNITY	<ul style="list-style-type: none"> • Land Sharing • Participation in Plan Preparation • Monitoring 	<ul style="list-style-type: none"> • Affordable housing to the rental group • New unit for flat owner • Land owner will be able to sell the land

Table 19 Land Pooling

Source: John P. W. (2006b)

TOOL BOX
<p>LAND POOLING: A land Development Technique</p> <p>Land pooling (sometimes called land readjustment) is a method whereby the ownership of scattered and irregular plots of land is pooled, roads and main infrastructure are built, and the land is then resubdivided into new plots. Each landowner must contribute a portion of their previous land holding (commonly 30% of the total) to provide space for roads, parks and other public space, and for reserve land. The reserve land is sold at the end of the project to pay the cost of planning, administration and construction.</p>
<p>Pros</p> <ul style="list-style-type: none"> • Land Pooling (LP) has the potential to be a self-financing technique for urban land and infrastructure development. • The pattern of property divisions (cadastral) is reformed and new infrastructure and public space, particularly for roads and parks, is acquired. • LP projects are attractive to landowners because "substantial increases in the values of land may be achieved by the process. • The land pooling provision guarantee the equitable sharing of costs and profits among landowners affected by redevelopment.
<p>Cons</p> <ul style="list-style-type: none"> • Land pooling requires commitment by local agencies and landowners to its operational system sustained land market and development pressure. • As increased contribution ratios imposed heavier costs defrayment on landowners and leaseholders, it becomes increasingly difficult to gain consensus. • Often, no detailed land use plans are provided for the readjusted area. • Where sites have already beensub-divided into small lots, it is difficult to assess contribution lands.

Table 20 Best Practices Physical Structures

Source: Own elaboration (UM TU-Berlin)

		
	Land Pooling: Metrovivienda Bogota, Colombia	Public- private partnerships to develop big-scale social housing projects. Management of Land Bank. www.metrovivienda.gov.co
	Private sector Driven Slum Redevelopment Mumbai, India	Enabling Slum Redevelopment by Community Base Organization. http://www.archidev.org
	Inclusionary Housing/ Bonus Density California USA	Inclusionary Housing. A project that requires a given share of new construction to be affordable by people with low and moderat incomes. http://www.calruralhousing.org

b) Open space and road network

Analysis of current situation

The actual conditions of Dayer El Nahia in terms of roads and open spaces are quite diverse. The neighbourhood keeps characteristics of a historical village core which is affected by dynamics of change reflecting the needs of the community. A considerable percentage of commercial and manufacturing activities (cars and furniture workshops in particular) are located in the areas which tend to dominate the use of roads and open spaces through their activities. In the case of Dayer El Nahia, the public space can be defined as two main criteria; the main public space such as road and market place; and the semi public-spaces in front of shops and houses which are used and maintained by users.

The multiple and overlapping uses of open space within the specific characteristics of Dayer El Nahia's street grid (narrow streets with no sidewalks in most cases) cause regular congestion and conflicts of usage and mobility between different residential and commercial user groups, vehicles and pedestrians. This is further aggravated through the lack of urban furniture, the problematic conditions of roads and sidewalks (different levels and textures, most of them are not paved), and the need of adequate parks. The open spaces of Dayer El Nahia are either of very low quality or of no use at all as they are often covered by considerable amounts of trash as the community lacks a continuous garbage collection service. Hence, public space turns into "no one's land" as the neighbouring residents do not relate to it.



Public Space in Dayer El Nahia, UM TU-Berlin (2010)

Main objectives of the proposal

According to the diagnosis, it is important to formulate an integrated proposal for roads and open spaces, which aims to solve existing conflicts and weaknesses maintaining “the residential scale” and the special characteristics of the community. The main objectives of the proposal are:

- Keep the existing conditions of the urban fabric improving the accessibility and internal mobility in the neighbourhood,
- Define open spaces for common activities,
- Improve the existing conditions and provide the conditions for an organised use of roads and open spaces.

Following these objectives, a set of programs, actions and recommendations was formulated providing short-term interventions and long-term strategic improvements of opens spaces and the road network in Dayer El Nahia.

Programs and actions

Roads- street grid

In order to generate the proposals for road network and open space, the street plan for Dayer El Nahia prepared by the Governorate’s Urban Planning Department was reviewed. This proposal aims at improving the accessibility and internal circulation of the neighbourhood by introducing a reconfiguration of the block structure with extensive building setbacks and an extended street network. Nevertheless, to implement this proposal a considerable amount of buildings would have to be demolished. This program can be integrated with the land pooling proposal as redevelopment will allow road network readjustment.

After the study of the Governorate’s proposal, an alternative proposal was elaborated that includes different actions. It aims to preserve the essential characteristic of the neighbourhood while at the same time improving the accessibility through minor interventions using empty plots and existing streets.

In the alternative proposal, three different types of streets are defined to provide improved mobility in the area: collector roads, local streets and primary pedestrian ways. Important elements of the proposed grid are two internal rings ensuring and enhancing the flow of mobility while preserving the residential core with mainly pedestrian traffic.

Map 16 Governorate’s Urban Planning Department Street Grid Proposal

Source: Giza Governorate Urban Planning Department



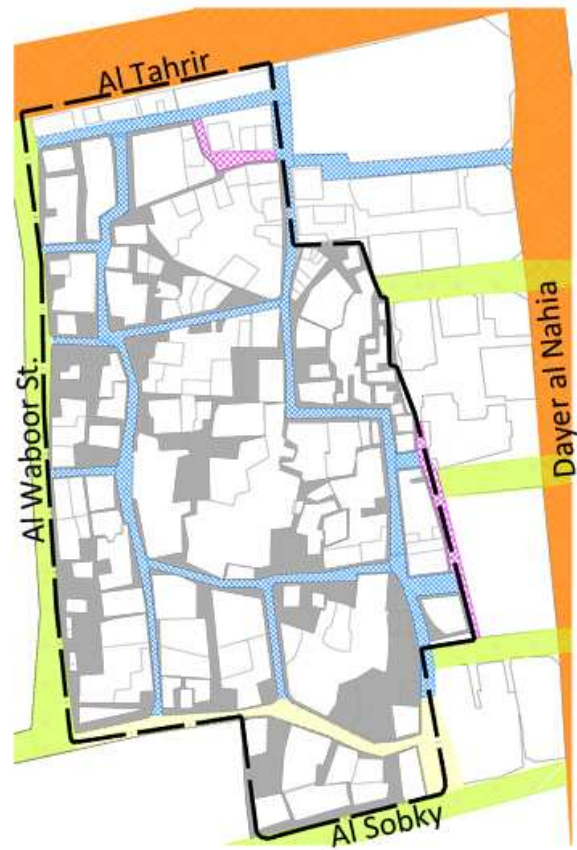
Map 17 Alternative Proposal Street Grid

Source: UM TU-Berlin



Map 18 Traffic Concept

Source: UM TU-Berlin



- Main connecting road
- Service street
- Local Street
- Collector Road
- Transition

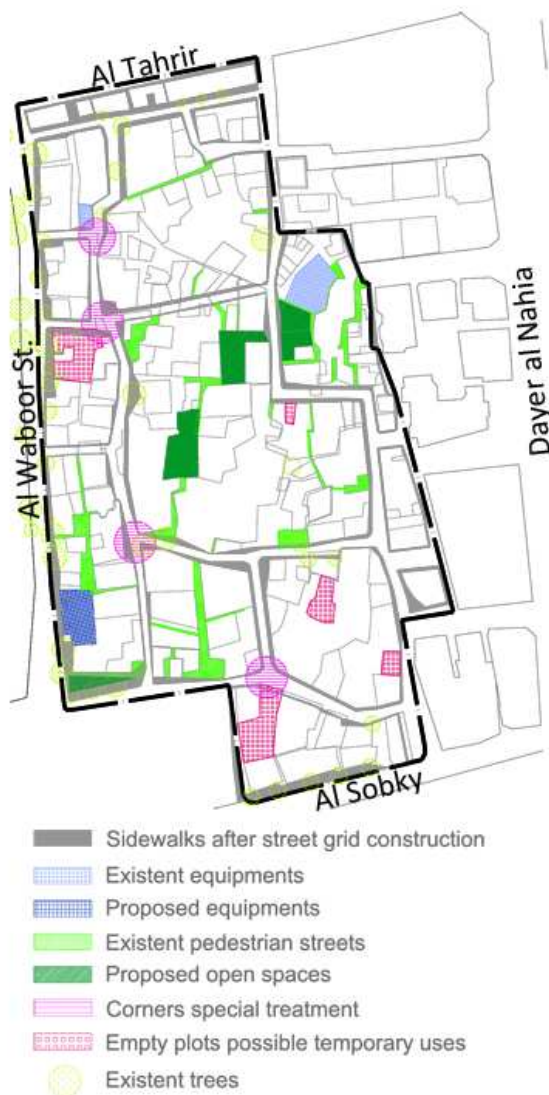
New spaces for common activities (public and private)

The establishment of new open spaces for common activities is based on existing vacant plots improving the ratio between built-up areas and open spaces. There are two kinds of proposed actions:

- The assignment of empty areas as potential spaces to be acquired and designed as public parks,
- The activation of empty private lots through temporary uses (commercial or public) on a contractual basis. This can generate an income for the land owners until the plot eventually will be redeveloped.

Map 19 Open spaces and Public Services

Source: UM TU-Berlin



Improving conditions of roads and open spaces

For the improvement of the roads and existent open space the following actions are required:

- Improvement of street and sidewalks: apply appropriate pavement patterns with different levels and textures as well as structural elements supporting an equalisation of different uses allowing a fluid and secure circulation of vehicles and pedestrians,
- Installation of street furniture: to complement activities in open spaces with street benches; to permit the visual control of the spaces 24 hours with street lighting; to complement the waste management programs with trash cans; and to control the parking of cars on the sidewalks with bollards,
- Planting of new and maintenance of existing trees taking into consideration potential affects to building foundations or streets levels.



Existing open spaces in Dayer el Nahia, UM TU-Berlin (2010)

Fig. 18 Urban Furniture

Source: UM TU-Berlin

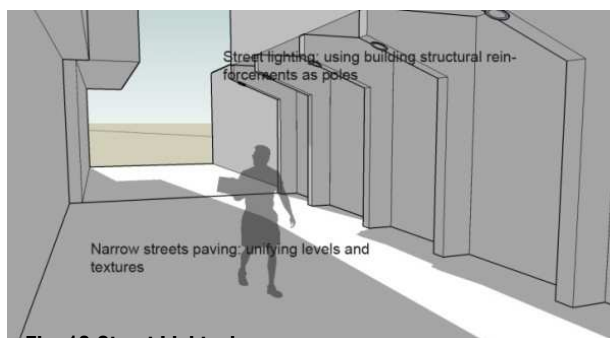


Fig. 19 Street Lightening

Source: UM TU-Berlin

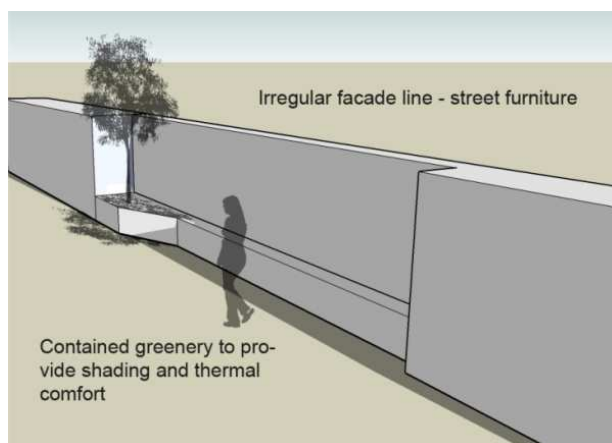


Table 21 Best practice Open Space

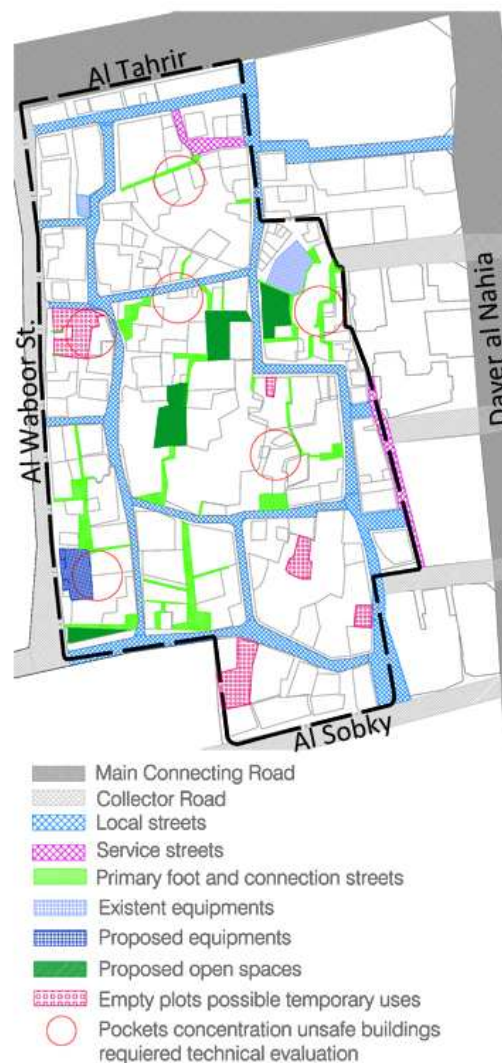
Source: UM TU-Berlin

		
	Community Gardening/ Urban Agriculture Green thumb, New York, USA	Community Gardening. http://www.greenthumbnyc.org/
	Temporary Uses of Empty Land Berlin, Germany	Temporary Use of Empty Land in Berlin. http://www.meanwhile.org.uk/useful-info/misc/MeanwhileinBerlin.pdf

The following map aims to illustrate how the different proposals of interventions regarding physical structure and open space/road networks function in a comprehensive way.

Map 20 Urban Structure

Source: UM TU-Berlin



c) Economic Livelihood

Analysis

Based on the field survey two main activities were identified in Dayer El Nahia: car repairing workshops and carpentries. As substitutes of residential activities, there are also two relevant secondary activities which are sellers serving the 'daily needs' and handicrafts production. Due to their environmental impacts, such as noise, waste and chemicals, the main criteria to classify Dayer El Nahia's economic activities distinguishes black, grey and white activities. Black refers to industrial activities that are not allowed in residential areas (regardless of their scale) and, according to planning regulations in Greater Cairo, must be resettled outside the urban fabric in an area specifically assigned for industrial facilities.

Table 22 Categorisation of economic activities according to the environmental law

ENVIRONMENTAL STATUS TYPE OF ACTIVITIES	BLACK	GREY	WHITE
MAIN ACTIVITIES	CAR REPAIRING		
	CARPENTRY		
SIDE ACTIVITIES			DAILY NEEDS
		HANDCRAFT	

This situation leads to two main questions regarding the intervention proposal:

How to maintain the economic livelihood of the area applying an up-grading strategy?

How to upgrade commercial activities and simultaneously maintain their strong relation with the community?




The following analysis of the current situation illustrates the positive and negative aspects of the different activities.



Economic Livelihood, UM TU-Berlin (2010)

Table 23 The positive and negative aspects of the activities

Source: UM TU-Berlin

	CATEGORIES	POSITIVE	NEGATIVE
Car repairing workshops		<p>Good level of Entrepreneurship</p> <p>Mix of activities Special activities and conventional activities</p>	<p>Basis products without addition value Environmental and social impacts</p>
Carpentry workshops		<p>Innovation/creativity potential</p>	<p>Low level of legal capacity</p> <p>Lack of skillful labors</p>
Potential groups		<p>Vulnerable groups potential workers:</p> <ul style="list-style-type: none"> • Youth • Women 	<p>Lack of managerial and technical skills</p>

The car repairing is the main economic activity and it reveals a good level of entrepreneurship by local inhabitants.






Car Repairing Activities in Dayer El Nahia. Source: UM 2010

Most workshops are owned by local residents and provide local employment opportunities. Moreover, it is observed that the car workshop activities have interdependencies and important links to other related business activities within the neighbourhood creating economic chains. The carpentry activities are another special manufacturing activity in the area that is mostly based on external marketing relations to surrounding neighbourhoods. Most activities, both car workshops and carpentries, are still at a rather basic product stage although they already exist for more than 15 years in this area. Most of the manufacturing activities also face legal issues as they don't have official permits from the local authority and cannot afford legal advocacy. At the same time all activities within this area face problems due to the lack of skilful workers and managerial skills.

Women, unemployed people and youth are the most potential groups of the community in an economic sense although they are currently lacking a sustainable livelihood basis.

Table 24 Economic Strategy

Source: UM TU-Berlin

	CATEGORIES	POSITIVE	NEGATIVE
Car repairing work-shops		Partial relocation	Organization to maintain the link <ul style="list-style-type: none"> • Cooperative associations • Reception desk for customers • Coordination of transportation (cars, workers) • Mutual support (technical, legal and financial)
Carpentry workshops		Internal Clustering	Maintain Proximity and Mixture of Uses <ul style="list-style-type: none"> • Assign manufacturing pockets • Open access for customers • Enhance competitiveness and cooperation • Reduce conflicting uses
Potential groups		Economic activation of vulnerable groups <ul style="list-style-type: none"> • Women • Youth • Unemployed 	Capacity Development <ul style="list-style-type: none"> • Vocational training • Adding values to product • Distribution and market • Handicraft shops

Proposal

To maintain the economic strength of the community, three main strategies are proposed:

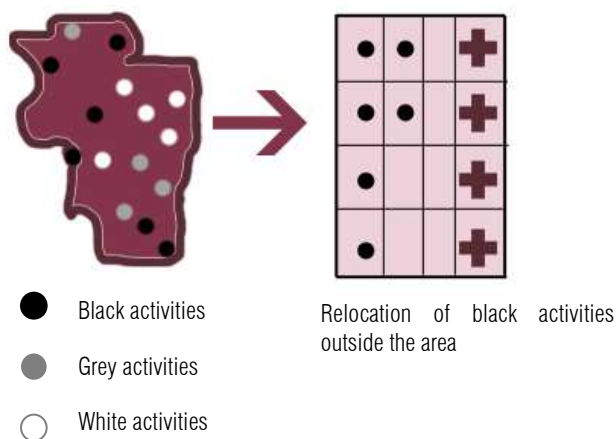
- 1) partial relocation of manufacturing activities of the black category and/or
- 2) internal clustering (as a policy recommendation) and
- 3) the economic activation of vulnerable groups.

The strategy of partial relocation considers the displacement of the black activities from Dayer El Nahia to newly assigned industrial areas located outside of the community. With this strategy, the negative impacts of industrial activities to the neighbourhood will decrease and the activity itself can have better opportunities to extend business activities.

To facilitate the strong link between the related businesses in terms of a strategy maintaining the dependencies between removed and remaining businesses, it is proposed to create a cooperative association among the workshop owners to empower their capacities of mutual business management. It permits the management of a reception desk for clients in Dayer El Nahia and facilitation of transportation of cars to the new appointed industrial area to the relocated workshops. The cooperative can also manage to support coordination of transportation for workers. As the most important issue, the cooperative can also be the institution for mutual support regarding technical, legal and financial issues.

Fig. 20 Partial Relocation

Source: UM TU-Berlin



The second strategy of internal clustering can be applied to both car workshops and carpentries as it aims at internal relocation of black activities in small-scale manufacturing clusters within the area. The proposal is to assign manufacturing pockets inside the community to concentrate emitting activities to reduce conflict with surrounding residential uses, improve access to clients, and enhance competitiveness. It further aims at enhancing cooperation among the owners due to spatial proximity. Moreover, the establishment of an organisational structure (such as a cooperative) would facilitate coordination and mutual

Fig. 21 Internal Clustering

Source: UM TU-Berlin



The third strategy is the economic activation of vulnerable groups. This strategy targets women, youth and unemployed inhabitants of the area. The objective is to create solutions for these groups in order to make them economically active and in a sustainable way. Vocational training is one proposal to increase human capital for these groups. The handicraft activities of women should be enhanced by adding value to products and improving marketing by creating handicraft shops.

Table 25 Best Practices Economic Livelihood

Source: UM TU-Berlin

support.

INTERNATIONAL BEST PRACTICES		
	Cluster of Small-Scale Enterprises OGWI Carpenters Union, Nigeria	Small and Medium Scale Enterprises Cluster Development in South-Eastern Region of Nigeria. http://www.iwim.uni-bremen.de/publikationen/pdf/b086.pdf
	Business Angels: Sponsoring Micro-Business Portugal	http://www.iwim.uni-bremen.de/publikationen/pdf/b086.pdf
	Entrepreneurship Incubation European Union Policy	Business Incubation and Entrepreneurship: The Importance of Social Communities. www.proinno-europe.eu/.../Incubation_and_entrepreneurship_The_importance_of_social_communities.pdf

d) Social Organisation

Analysis

According to the fieldwork findings, the current status of the social organisation in Dayer El Nahia is characterized by low representation and recognition of both natural leaders of the community and official Local Popular Council. The problem of recognition and representation is mainly affiliated to the elected representatives by the residents. The Local Popular Council claims on one hand that they are representatives of the community as they act as natural leaders while on the other hand the community does not recognize them as such.

There is only one NGO in Dayer El Nahia area. The role of the NGO is perceived quite controversially if recognized at all. Its services focus on specific target groups or selected residents without a clear and transparent selection procedure leading to suspicion and a feeling of unfairness among local residents. The NGO is strongly related to some members of the Local Popular Council and political stakeholders. This enhances mistrust by the inhabitants of Dayer El Nahia.

“The NGO gives away food every year, sometimes medicine and also winter blankets when it gets cold. Not everyone gets his/ her share as they do not have enough for everyone” – (interview with a single mother)

Although there is no integrative community organisation on the level of the whole community, the inhabitants maintain a high level of individual solidarity among each other. Moreover, they are very well self-organized regarding specific issues or interests. Especially the car workshops maintain an informal cooperation mode as they collaborate in a chain of highly specialized car repair services.

Many inhabitants participate in the saving groups called ‘*Game’iya*’. These groups work as money-savers, where each participant contributes monthly or weekly with a specific amount (previously agreed on). One person, normally the initiator of the club, is in charge of the collecting and the distributing process among the members.



Objective

The field work findings illustrate the level of social solidarity and good relations between neighbors. The strong community bonds are the base and starting point for the proposal which aims at strengthening and enhancing the community organisation as a whole. This will only be possible by empowerment and cooperation between all the stakeholders involved, raising their awareness, recognition and capacities. There is a need to find an adequate structure and procedures aiming to establish a level of mutual responsibility and control, articulating the community's demands and advocating their interests. The current organisational patterns of the different community stakeholders seem to be informal, separated and sometimes even conflicting. Hence, the goal is to establish an integrative system of organisation to support the challenges that the community will face in the future.

Table 26 Current situation and recommended actions

Source: UM TU-Berlin

Current Status	Objectives	Recommended Action
Local Popular Council <ul style="list-style-type: none"> • Low level of recognition by the residents 	<ul style="list-style-type: none"> • Empower the links with the community 	<ul style="list-style-type: none"> • Capacity Training • Leadership Workshops
NGO <ul style="list-style-type: none"> • Activities are focused on specific groups and objectives 	<ul style="list-style-type: none"> • Expand the coverage of the existing NGO activities and other institutions 	<ul style="list-style-type: none"> • New Registered NGOs • Presence of external NGOs in the area
Natural Leaders <ul style="list-style-type: none"> • Low representation 	<ul style="list-style-type: none"> • Empower the links with the Local Power Council and the Community 	<ul style="list-style-type: none"> • Leadership Mapping and Capacity Training • Raise Awareness
Community <ul style="list-style-type: none"> • Low level of integrative community organization 	EMPOWERMENT	
Individual <ul style="list-style-type: none"> • Strong Community Bond 	<ul style="list-style-type: none"> • Capacity Training 	<ul style="list-style-type: none"> • Vocational programs • Courses • Upgrading Skills

Proposal

In order to provide the community with capacities for articulation of interests and adaptation to the expected future changes, the creation of a Neighbourhood Committee is proposed. It should include community representatives, Local Popular Council members, the NGOs, owners of workshops of all types, natural leaders, and any business related activities in the area, representatives of women, and the vulnerable groups of the community. The main objective of the Neighbourhood Committee is to facilitate a strong link between the community and the local government as well as other relevant stakeholders in order to share responsibilities, create coalitions and maximize relationships and communication. The different interest groups in the community would have the opportunity to articulate their demands in order to negotiate compromises that benefit the whole community. All stakeholders should participate, organize and control the decision making processes and should be involved in conflict resolution. The main activities of the Neighbourhood Committee should include the following types:

- 1) public hearing to facilitate information sharing with the whole community, participation and transparency,
- 2) committee meetings where all committee members participate in decision making,
- 3) thematic working groups comprising few members elaborating proposals for action related to specific issues to prepare decision making by the committee.

Table 27 Best Practices Social Organisation

Source: UM TU-Berlin



People of Dayer Nahia, UM TU-Berlin (2010)

		
	Participatory Budgeting Port Alegre, Brazil	The Participatory Budgeting to overcome severe inequality in living standards among city residents of Porto
	Neighbourhood Management Berlin, Germany	Alegre. http://www.plannersnetwork.org/htm/pub/working-papers/brazil/brazil_goldsmith.pdf
	community Driven Slum Upgrading, UPPRP Bangladesh	Community Urban Development in Urban Upgrading. http://siteresources.worldbank.org/INTEAPREGTOPURBDEV/PublicationsandReports/20465088/cdd-urban-upgrading.pdf

3.2.5 Spatial Application of Proposals

As an example to illustrate how the proposed actions can be applied on the ground, the area surrounded by the Mosque was selected to illustrate a “future image”. It applies several actions and different interventions that are proposed for the whole community in one particular exemplary area. The following step is to coordinate the different interventions with an effective management system that includes all the stakeholders involved.

The main characteristics of the selected area:

- The mosque, a focal point of the neighbourhood,
- The main road, with high commercial activities that extend to public space in most cases, creating traffic conflicts,
- Concentration of unsafe buildings according to the observational visit,
- Different levels of vehicular and pedestrian roads,
- Unqualified open space.

Following the defined framework of the proposals, the interventions and actions are proposed as follows:

Physical structure

- Based on the public-private-community partnership approach and land pooling, on-site redevelopment of unsafe buildings is proposed with a rational mix of land uses. Buildings are designed to respond to the familiar composition and the cultural characteristics of the community,
- Upgrading of the deteriorated buildings through structural reinforcement, renovation of interiors and exteriors as well as maintenance of the building's infrastructure.

Roads and Open Spaces

- Defining new streets grids based on the communal understanding of open spaces: vehicular streets that allow accessibility to the buildings and connecting pedestrian streets including meeting pockets of different scales,

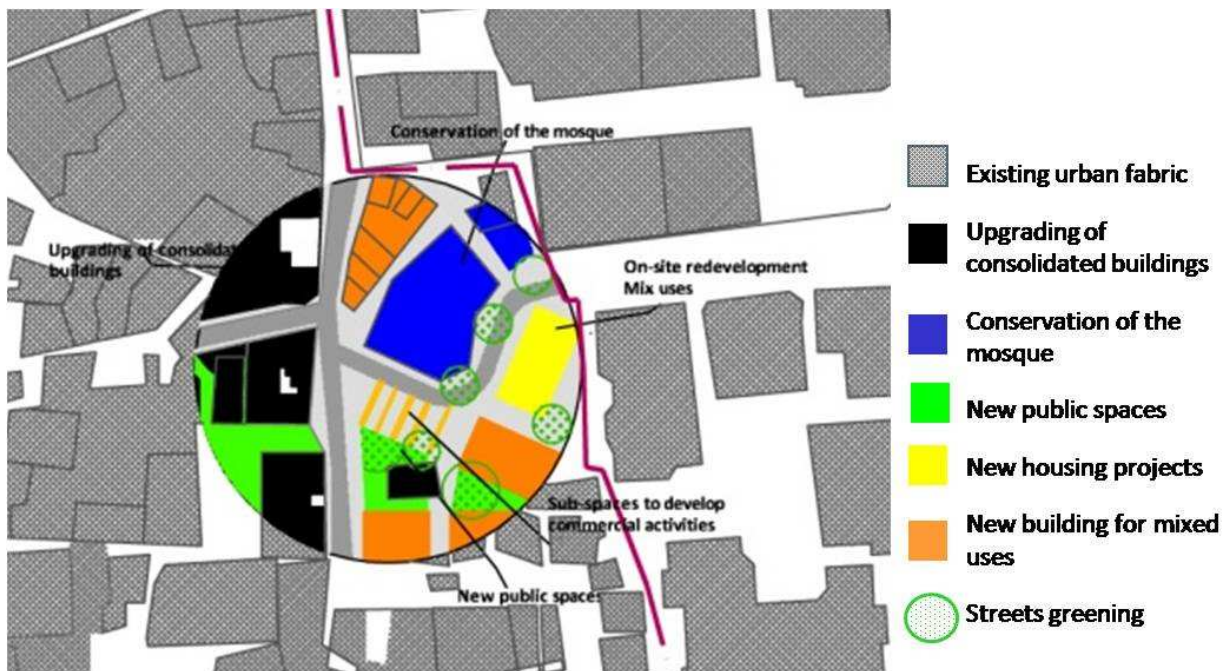
- Establishing new public spaces to ensure a well-balanced distribution between built-up and open areas,
- Improving open spaces for the establishment of commercial activities (e.g. market facility, shops),
- Equipping with urban furniture to enhance the use of public spaces (e.g., benches, waste receptacles) as well as setting up green areas,
- Upgrading of both roads and sidewalks to strengthen the flow of mobility in the whole community (especially for children, old people and the disabled),
- Maintenance of the existing public services networks.

Economic livelihood and social organisation

- Partly relocating emitting commercial activities in order to reduce conflicts with other uses of open space,
- Developing additional commercial activities in the open space (e.g. market stands) using the concept of mutual benefits where users have to pay or be in charge of the maintenance.

Map 21 Designal Proposal

Source: UM TU-Berlin



3.2.6 Summary Dayer El Nahia



Children coming from school Dayer El Nahia, UM TU-Berlin (2010)

The expected outcomes of Dayer El Nahia intervention proposals tend to go further than to merely develop Dayer El Nahia as a livable neighbourhood. Indeed, the livelihood approach that inspired the proposal's conceptual framework points at the mobilizing of all the community assets/resources in order to build capacity within all the relevant stakeholders. Capacity building refers to steering cooperative modes of social organisation, to entrepreneurship initiatives that can sustain and develop Dayer El Nahia's economic fabric and, also, to develop communitarian responsibility for the neighbourhood qualified public spaces and upgraded buildings, their maintenance and management. Equally so, it intends an implementation of the on-site redevelopment that can only take place if all the involved stakeholders are properly informed of all its mutual costs and benefits. Capacity building, then, especially on the community's social organisation, is the utmost mean/instrument to align the expected intervention outcomes with the objectives/principles of a true sustainable development. Such a complex achievement, considering the recognizable constraints, is the reason for the elected hybrid intervention strategy which this proposal practically applies.



GENERAL CONCLUSION

4. GENERAL CONCLUSION

The Cairo experience was extraordinary in many regards and developed valuable capacities in order to successfully deal with the multiple challenges at stake. Working under extreme time pressure required to apply unconventional working methods with parallel processes of data collection, analysis and elaboration of conceptual solutions based on high levels of dedication, coordination and efficiency in order to reach valuable results. Working in interdisciplinary and multinational teams of experienced young experts representing different professional backgrounds created a highly productive atmosphere of new thinking with valuable exchange of ideas and perspectives where cultural and disciplinary limits were overcome. Working as consultants in a real context and therefore being exposed to multiple stakeholders and interests required to take on various perspectives at the same time in order to successfully develop and position proposals in a sensitive political context.

The approach that was chosen for the field work was derived from an important finding. During the preparatory weeks, the instrument of categorisation of informal areas linking to respective intervention strategies (upgrading, resettlement, containment) was analysed and critically discussed. Resulting, the group suggests combining this rather quantitative approach as it is currently applied with a more qualitative analysis of spatial foci and key issues within informal settlements. This complementary understanding might lead to the application of different focused intervention strategies within the same settlement in the sense of a hybrid approach. This qualitative addition of the categorisation framework was operationalised and successfully applied during the field work in the two selected areas Ezzbet Al Nasr in Cairo and Dayer El Nahia in Giza. Especially given the short timeframe, this approach proofed to function well in terms of rapid assessment leading to a substantial level of understanding about the local situation in the areas and the major issues at stake.

Based on the findings of the fieldwork, both groups identified key areas of intervention and proposed adequate strategies as well as a collection of concrete ideas for practical implementation. The strategies suggested for the two areas differ due to the highly different contexts. In Dayer el Nahia, a hybrid intervention approach is proposed focusing on

- 1) on-site redevelopment of deteriorated houses through land pooling and Public-Private-Community-Partnership,
- 2) the improvement of the road network and open spaces as well as

- 3) the reconfiguration and vitalisation of economic livelihoods. An important precondition for successful implementation is the establishment of a neighbourhood committee as a basis for community participation and collaboration between the different stakeholders involved.

In contrast, an all-encompassing upgrading concept was proposed in Ezzbet Al Nasr with very specific interventions. Aiming at a high impact with a minimum of intervention, three priority issues using the available resources were identified. Accordingly, proposals were articulated for

- 1) street upgrading taking advantage of the existing morphology,
- 2) land development involving managing material flows and community responsibility, and
- 3) waste management securing a better environment for the residents of Ezzbet Al Nasr.

Due to the participant's international experiences, the proposed interventions combine innovations and best practices from all over the world.

Additionally to continuous discussions with the partners of GTZ and the Urban Upgrading Units at both governorates, the proposals were finally presented to the political decision makers: the Governor of Giza and the Vice-Governor of Cairo. Both presentations were perceived with a high level of attention and interest. The field work findings and the intervention proposals were discussed in a very constructive manner and concrete steps for future implementation.

The strong collaboration between GTZ and the Governorates in the context of PDP and the dedication of the involved stakeholders will provide a promising base to facilitate the follow-up process and to continue with the implementation activities in both areas. Additionally, the cooperation between GTZ and TU Berlin will ensure a fruitful continuation of exchange and discussion in the future.



UNDERSTANDING CULTURE IN CAIRO'S INFORMAL AREAS

GUEST COMMENT by El Mouelhi, Hassan

UNDERSTANDING CULTURE IN CAIRO'S INFORMAL AREAS

This section explores cultural characteristics that shape the local urban context. Once identified, these factors could help inform the broader qualitative research framework and ultimately, the proposal for intervention. It also shows that understanding context-specific insights relating to local *cultural dynamics* could improve the outcome of urban development processes, specifically related decision-making leading to intervention. In particular, this section seeks to propose complementation to the categorisation of Cairo's IAs in order to take into consideration the cultural parameters of targeted communities.

Since the early eighties, urban developmental and upgrading projects in Egypt focused almost entirely on physical interventions based on the current physical conditions of the subject area. However, it has become clear in subsequent years that sustainability of upgrading projects depend profoundly on the participation of the inhabitants.

Beyond this, the incorporation of cultural aspects into policy making is often lacking. However, aspects of local culture could be introduced into categorisation and be useful for intervention. Through understanding people's values and beliefs, their behaviours could be predicted. Moreover, once the interrelated reasons for people's behaviour in a certain setting are understood, subsequent intervention strategies might be enriched accordingly.

Insights from fieldwork: Local culture

The field research in Cairo and Giza provided various insights to community life in informal settlements. Through the conduction of qualitative interviews, group discussions and observations, several cultural aspects raised special attention and were assessed as relevant to be incorporated into analysis/categorisation, decision making and intervention.

High level of communication and cooperation between community members of both Ezzbet el Nasr and Dayer El Nahia communities - either between different residents, or between residents and workshops owners/workers who are sometimes living outside the area. This was obvious in the case of Ezzbet El Nasr, as neighbors collaborated and collected money together to overcome or solve a certain problem, either through sharing the expenses of a solution, or even through paying bribes.

Common climatic protection created by residents. UM TU-Berlin (2010)

Sometimes residents cooperate together to install a shading tent over a street, or remove garbage from a certain part of a street or to plant some trees in front of one of the mosques, or put water jars for the pedestrians to drink or illegally installing light to a part of a street. This could be an indicator for potential community self-organisation and cooperation. Thus, sharing Problems, through facing the same legal and physical problems together with other factors (e.g. origin/family) may lead to a better sense of cooperation between the residents of IAs.

The level of homogeneity and coherence in the community targeted by development is a crucial factor that might help a lot as a resource for the development process. Communities, which are formed on formerly agricultural land in many cases were communities originating from the same village (e.g. Upper Egypt) or belonging to the same family. Whether the level of homogeneity affects the potential for community participation needs to be further researched.

Mistrust between the community and the government is a defining factor in many communities. Many local residents commented that the money which is going to be given to the governorate is not necessarily being spent on their needs. This rather common issue is very important to consider as it highly influences the relations between the different community and government stakeholders involved in intervention processes.

Corruption is discussed by many scholars addressing the contemporary Egyptian society (G.Amin 2009), and it is also reflected in daily life of many IAs. Most of the interviewees mentioned the necessity to pay bribes to different officials in order to gain public services such as building licenses or electricity provision in the house. It has been found that the informal status of settlements is often being abused by government officials for additional benefit and at the same time hindering solutions to the local problems.

Marginalisation is debated as one of the most challenging issues regarding IAs in Cairo (Shehayeb 2009). Such communities, as in the case of Ezzbet Al Nasr, can be considered to be "marginalized" in the sense of lacking basic needs (e.g. water supply and sewage system, garbage collection, safety, income, health). At the same time, they share in the working force of the society, playing a role in the market economy (Perlman 1979-2005). Their way of perceiving themselves as "informal" might be one of the motivators of some of their behavioural patterns, the so-called "A'shw'aya" meaning random behaviour.

The concept of "the other" between inhabitants of Cairo IAs on one side, and other people living in the so called



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The concept of “the other” between inhabitants of Cairo IAs on one side, and other people living in the so called “formal Areas” on the other side could be still considered an obstacle against integrating such communities within the whole Cairene society (Safey El Din, H., El Mouelhi, H., 2009).

This selection of cultural aspects that were observed through fieldwork in Dayer El Nahia, and Ezzbet Al Nasr is still incomplete. However, it raises the central question in how far different cultural aspects are interrelated with each other as well as with other non-cultural characteristics of informal areas.

Complementing categorisation with cultural aspects

Informal settlements in Cairo represent very different characteristics regarding their physical, environmental and socio-economic conditions. These differences are reflected in the categorisation approach developed and applied by GTZ in order to guide decision making leading to intervention strategies. It is argued that cultural aspects play an important role in shaping a certain community. Therefore, understanding the local culture of informal settlements is crucial. Hence, the incorporation of cultural aspects into the categorisation framework would widen the understanding of informal areas and subsequently enrich the decision making regarding specific intervention activities.

Defining Cultural Characteristics for further research

The aspects of local culture that have been assessed through fieldwork in Greater Cairo represent a preliminary and still incomplete collection. However, they lead to several hypothesis and research questions that need to be addressed in subsequent investigation in order to reach a model for in-depth understanding of culture in IAs.

The interrelation between several aspects seems most relevant to be understood. It tackles the issue of “understanding culture” (Tylor 1924) from the scope of its association with the dynamics and interrelationships of the three different entities (1) cultural characteristics (2) behavioural patterns of the residents and the (3) physical environment. Hence, a question needs to be

addressed: how far people, who represent certain cultural characteristics, interact with their setting and shape their area?

The factors which define the physical settings are already being used in the pre-established list for assessment and categorisation frameworks. Indicators for *cultural characteristics* related to behavioural patterns need to be further defined. However, they may differ from one area to another, meaning that some of the factors may be applicable in all cases or types of areas (e.g. origin, profession), while others may be neglected in other cases (e.g. religion).



IAs' residents (Ezzbet Al Nasr) with upper Egyptian origins. El Mouelhi (2010)

Based on the analysis of qualitative data gathered from the field, a preliminary list of five factors comprising *cultural characteristics* is suggested which still need to be further investigated, tested and elaborated. These factors are argued to be interrelated and responsible for several forms of interaction between the residents and their physical setting in the form of certain behavioural patterns.

Origin and kinship: The informal settlements of Cairo residents' origins are different from one area to another. They migrate from one of the following places: Upper Egypt rural/urban areas (different cities or villages), Delta rural/urban areas (different cities or villages), or other districts in Cairo.

Taking Ezzbet Al Nasr area as an example, most of the residents originate from a specific area in Upper Egypt, and some families are located in certain neighbouring streets in the area. Upper Egyptians known as “Sa’idi” are known by their dignity and being proud about their cultural identity, which makes them maintain their beliefs or cultural characteristics (Miller 2006). The kinship tra-

ditions of upper Egyptians place great importance to respect for elders, and each group of people who belong to the same origin has a leader. Sometimes these leaders intervene in conflicts between households. These inter-family and intergeneration links also strongly influence economic and social networks in the settlement.

Major economic activities: This factor, including the Profession and Income generation, addresses the economic status of the area and its relation to other areas and districts of the city. Many informal areas act as business incubators, each specializing in a specific type of goods or service. As the informal settlement's reputation for a specific range of products grows, these business networks extend regionally. Having different workshops sharing the same profession, or maintaining related specialties, helps in strengthening the bonds between its owners, as in the case of chain process for car maintenance in Dayer El Nahia.



*Car maintenance workshops in the street (Dayer El Nahia)
UM TU-Berlin (2010)*

Religion: Households that share specific religions – especially minority religions – tend to concentrate in specific precincts comprising one or several streets. These spatial arrangements help shape the dynamics of community governance, and not infrequently result in tension and territorialism between various groups.

Education: Also the level of education, which is somehow related to the type of jobs or professions, share in shaping the character of the users, their belonging to a certain social class, their perception about their present, and their vision about their future. A question could be raised here: how far can the desire to reach a relatively high level of education and/or to sustain a certain prestigious job affect the behaviour and social aspiration of IAs residents?



Women sitting selling things in front of their house. El Mouelhi (2010)

Self perception: The community's perception about itself and its role in the regional context plays a crucial role in shaping the community's capacity to share in the development process. These perceptions are frequently shaped by different factors such as the intensity of contact between the informal community and nearby formal settlements. The question arises: In how far is the way inhabitants of IAs are perceived and often stigmatized (Shehayeb 2009) by formal inhabitants affecting their behaviours?

These factors could be reflected on residents **Behavioural Patterns**, which are the ways residents act, react and behave according to their culture shapes the built environment. The usage of open space is one mean by which cultural specificities manifest in physical space. It is assumed that activities in these areas are an extension of indoor activities, workshops, restau-

rants or even a living room. Outdoor activities also depend on and help to shape the using the physical environment. In Ezzbet El Nasr, males and females have different types of outdoor activities.

This context raises some questions: is this behaviour due to certain concepts and traditions rooted in their culture of Origin? Or it is only due to the lack of space.

Studying cultural aspects of informal settlements also demands to critically assess and reflect the work of various academic disciplines and schools. The academic debate about the relevance of culture to urban development is grounded in several disciplines, mainly "Urban sociology", "Urban anthropology", "Cultural Studies" and "Environmental psychology". Anthropology is the origin of most of the mentioned disciplines, and understanding cultural factors was based on theories coming from many field works by anthropologists like Edward Hall (Hall 1966). Environmental Behavioural Studies (EBS) is also a discipline involved in investigating the relation between culture and space in urban context. According to Rapaport, built environment is usefully conceptualized as the organisation of space, time, meaning, and communication (Rapaport 1986). Park in his theory of "Human Ecology" assumes that the human community consists of a population and a culture (Park 1936), Luis Wirth (1938) in his article: "Urbanism as a way of life" agrees on Park's concept of the city as "mosaic social worlds". Wolfgang refers to the importance of Social networks, and believes that spatial opportunities alone are not sufficient (Wolfgang 1986, pp.64).

Hence, crossing through theories and methods of those different interrelated disciplines, and using their various techniques could benefit the understanding of residents' culture in the research field of IAs development. However, it must be remarked that the study of cultural aspects in urban development of informal areas needs further research linking between theories and empirical practice. The preliminary findings of this section guide the way to further investigation that will be conducted in the PhD project of the author.

PROFESSIONAL PROFILES

Abakisi Lincoln Brown, Ghana.

Urban Planner. Project Manager, Solid Waste Landfill.

Altami Chrysan Arasty, Indonesia.

Bachelor of Psychology, Communication expert for Environmental and Climate Change project (SFF -GTZ, Indonesia), experienced in cross-cultural studies, relevant experience in administrative affairs of National Development Planning.

Ana Isabel Ruiz Remolina, Mexico.

Architect, Project Manager and Design Studio teacher. Experience working for the private/public sector. Professor of design studio in the National Autonomous University of Mexico. Technical Manager for on-site projects.

Ana Laura Felix Carlos, Mexico.

Architect and Construction Supervisor. Experience working for the private/public sector. Graphic Design.

Carolina Vanderhuck, Colombia.

Architect Experience working for private/public sector in urban planning and management projects: cities of Cali, Bogotá and Mompox- Colombia. .

Claus Rabe, South Africa.

Planning professional engaged with economic development and poverty alleviation projects throughout South Africa. Clients and funders have to date included local, provincial and national departments, the Office of the Presidency and development agencies such as GTZ, Southafrican Cities Network and Biodiversity International. He has a Bachelor in Value and Policy Studies from Stellenbosch University, and the Master in City and Regional Planning from the University of Cape-town.

Febyana Suryaningrum, Indonesia.

Urban Planner. Relevant experiences on Urban Health Management, Micro and Meso Participatory Development Planning and Poverty Eradication Programs in Indonesia.

Izabel Torres C. Rennó, Brazil.

Architect and Urban Planner in the Secretary of Urban Development and Environment of the Federal District, Brazil. She has work with land regularisation policies and urban projects related to regional development.

Karima Momen, Egypt.

Architect. Experience working for private sector. Graphic design.

Kurdo Ihsan Abdulsamad, North of Iraq.

Civil Engineer. Field of experience: Supervising and Monitoring engineering project, Involved NGO activities on citizen participation and awareness programs, Slum upgrading.

Luis Beltran del Rio Garcia, Mexico.

Architect by profession graduated in National Autonomous University of Mexico. Experience in project design and execution. Project manager in the housing project prototype developed with Habitat for humanity for the region of Tabasco in Mexico. Professor of design studio in the National Autonomous University of Mexico and CENTRO design school.

Mohammad Ishtiuq Hossain, Bangladesh.

Urban Planner. Field of experience: Urban planning, Urban governance, Slum upgrading.

Paula Vianna Queiroz e Souza, Brazil.

Graduated in Tourism, specialised in Planning and touristic city management. Experience in participatory programs of city improvement.

Rui Santos, Portugal.

Architecture related activities in private ateliers concerning eco-friendly design solutions. Post-graduate studies in Planning and Building for Sustainable Development.

Soo Hyun Kim, Republic of Korea.

Architect and Project manager, on-ground architectural experiences in private sector. Off-campus Assistant Lecturer at Ewha Womans University (05') Worldwide Correspondent of "Design Seoul Program" by Seoul Metropolitan Government (08'- 09').

Thiago Soares Barbizan, Brazil.

Architectural experience in the private sector. Relevant national and international experience with urban planning, master plans and upgrading programs for low-income communities. Bachelor in Architecture and Urban Planning, post-graduate degree in Project Management.

Vicente Sandoval-Henriquez, Chile.

Designer, Project Manager and Intercultural Mediator. Experience in urban planning, GIS project development, graphic & industrial design projects, university teaching and photography.

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The cases of Ezzbet Al Nasr & Dayer El Nahia