

Not Our Land: An Analysis of a Socially Dysfunctional Community in El Fayrouz, Red Sea Region, Egypt

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1 ABSTRACT

Community is an integral part of human social fabric; without a sense of belonging societies can no longer function properly. This paper investigates a low income residential area in El Fayrouz, an area located between the city of Hurghada and El Gouna in the Red Sea Governorate of Egypt. The methodological process of urban analysis is focused on understanding the residents of the area, their behaviours, challenges and expectations through studying qualitative and quantitative social and contextual data. The literature review, analysing similar case studies and benchmarks inspired the proposed solution. It is evident that the diversity of cultures of the migrants coming from Upper Egypt in search for economic opportunities has formed social segregation in the area. This is magnified by the infrastructure deficiencies, the urban fabric and the unstable sources of income. "Not Our Land", a manifestation of the sense of isolation and the disregard for the communal space is visualised through the solid waste in the street. This presents an opportunity for an environmental entrepreneurship model which integrates the community through an economic incentive: a solution that encompasses social, economic, ecological and infrastructural dimensions.

Keywords: Migration, sense of community, urban analysis and recycling

2 INTRODUCTION

Migration is an integral part of a country's development since it encourages sustainable, social and economic mobility. The opportunity for people to search better living conditions and employment is an invaluable commodity. In Egypt, the Red Sea is one of the most attractive governorates for the migrants as the tourism industry provides new employment possibilities. The majority of the population in this study area have migrated from Upper Egypt, but despite this commonality, they face challenges to integrate in their new community. This is due to numerous barriers which include social segregation, infrastructure deficiencies and lack of sense of belonging. These facts critically influence their sense of responsibility towards their environment and buildings which is exhibited through the way they treat solid waste. This report seeks to analyse the current situation of the El Fayrouz area, the built environment, infrastructure, ecology and the community to assist the residents in finding a common language to improve their community and improve their quality of life. A possible solution will be offered to transform the existing problems into a social and economic opportunity.

3 METHODOLOGY

The philosophy of the research was to discover an underlying cause or an issue that would significantly help or improve the community. A mixture of qualitative and quantitative research methods were chosen and the research process was composed of two main parts: site visits and data analysis. The primary sources used included interviews with the inhabitants, the municipality and the social unit located in the area. Furthermore, photographs and observations were used as primary sources to collect deductive and inductive data. Secondary sources included governmental websites to understand the different owners and authorities involved. In addition, satellite images were used to analyse the site. Different data analysis tools were used to help present and analyse both the qualitative and quantitative data. AutoCAD was used to generate the map. Quantitative data analysis was done using Microsoft Office Excel 2013, and presented as graphs and charts. However, the research was limited by the area defined, as well as the time offered by the institution to complete the studies for presentation on 7 November 2018. Moreover, access to the site was limited due to its location and certain areas on site were inaccessible as a result of being gated.



4 LITERATURE REVIEW

"For many years, poverty was seen as a root cause of migration" (IOM, 2005:194). In Egypt, the lack of adequate job opportunities has resulted in the spread of 'survival migration' where the youth in rural areas migrate to high potential urban cities searching for more productive employment (Ayman Zohry 2009, p. 8). Urban governorates such as South Sinai and the Red Sea "absorb the highest inflows of migrants" as the tourism industry creates new employment possibilities in comparison to rural areas that depend on agriculture. The Red Sea is one of the highest governorates receiving migrants with a 19.4% net migration flow (Herrera and Badr 2012, p. 9).

Nevertheless, migration creates a new set of challenges for the migrants adding to their low income status. They are required to adapt to their new context and to new societies. In reality, the migrants find different barriers to integrate such as cultural barriers, social segregation, lack of relations between newcomers and existing residents: internal segregation, infrastructure deficiencies and lack of sense of belonging (Ramos et al. 2017, 2).

It can be argued that the lack of sense of belonging impacts the residents' sense of responsibility towards keeping their neighbourhood clean, negatively affecting their quality of life. This is heightened by the gap in positive practices in the planning of the neighbourhoods to manage the wastes generated by this new population, a common deficiency in Egypt. Moreover, the scarcity of quality education and awareness hinders the community's understanding of how poor waste management generates health and environmental risks. A potential solution to this problem could be the use of the power of sense of community to influence change.

According to Sarason (1947, p. 157) sense of community means: "[t]he perception of similarity to others, an acknowledged interdependence with others, a willingness to maintain this interdependence by giving to or doing for others what one expects from them, the feeling that one is part of a larger dependable and stable structure".

Having migrants from different geographical backgrounds can conceive a lack of common language between them as they have no established relations prior to moving to a new area, creating internal segregation. The only shared common language is the need for stable job opportunities. One solution to this could be having self-initiated job opportunities through social entrepreneurship: "the process of bringing together resources to address a social need" with the community, as a collective, playing a vital role in influencing the entrepreneurial activity (Ratten and Welpe, 2011).

In areas that lack physical or financial resources, one could resort to the concept of waste valorisation as a solution. Waste valorisation "means assigning economic value to what is considered waste, repurposing it into non-waste and therefore making waste management an economic activity" (Dean and McMullen, 2007). In this case the entrepreneurial action of waste management would offer a solution to both the environmental issues caused by waste, as well as the market failure and decline in economic activities (Dean and McMullen, 2007, p. 51) where local collectives can act as the agents of change (Gurău and Dana, no date, p. 221).

5 EL FAYROUZ AREA URBAN ANALYSIS

5.1 El Fayrouz location

The study area El Fayrouz is located in the Red Sea governorate which is one of the biggest governorates in Egypt with 28.3 million feddan, 12% of the whole area of Egypt and it is bordered by 585 km along the Red Aea (GOPP 2017, p. 6). The governorate has six cities with Hurghada as the capital of administration and the central touristic location (GOPP 2017, p. 7) It is bordered by Magawish village in the south and two km above El Gouna, a sustainable touristic city, in the north (Responsible in the planning unit, Hurghada City centre, November 2018). In addition, as shown in figure 1 Hurghada city has two main districts; the southern district and the northern one which includes the study area (GIS unit, Red Sea Governorate, November 2018). Figure 2 illustrates the surrounding area' functions and roads. Hurghada's potential as a tourist destination creates a pull factor for the residents in Upper Egypt, a potential for the El Fayrouz area being midway between Hurghada and El Gouna.



Fig.1: El Fayrouz location- GIS unit, Red Sea Governorate, colours edited by authors, 2018, Fig.2: surrounding area - from google maps, edited by authors, 2018

5.2 Built Environment: Land-use



Fig.3: the residential projects in El Fayrouz area - from google maps, edited by authors, 2018

The El Fayrouz area includes four residential projects; three of them are owned by the government and only the "Star Compound" project is owned by a private investor as shown in figure 3. The land-use in El Fayrouz is mainly residential. There are a few designated commercial areas which are centralised in each of the zones as shown in figure 4, but their functionality is questionable. The overall occupancy rate of such commercial units ranges from zero to forty % and they include supermarkets, hairdressers, electronics, construction tools, bakery and others. Public facilities are limited and cannot support the population. They include mosques, a police station for the neighbourhood, a school and a fire-fighting facility. In fact, healthcare services are lacking with only one non-functioning health clinic at the border of the area (observation and site visits, October 2018).



Fig.4: buildings land use - from google maps, edited by authors, 2018

5.2.1 Built Environment: Mobility

As shown in figure 5, the access to the different blocks and interconnections between the blocks are limited. The connections within the blocks are informal: much of the streets are not paved and those that are paved are not maintained properly. It seems that the planners were not concerned by the harmony and connections between each of the projects, negatively impacting the connections between the residents of the community.

This is also manifested in unnecessarily large roads and the discontinuity betwen the different projects. The only well maintained roads are in the area that was constructed by the military. Public transportation is non-existent, there is only one micro bus station at the border of the area that mainly goes to El Dahar; Hurghada city centre (observation and site visits, October 2018).



Fig. 5: streets Network - by Authors, 2018

There is a clear distinction between the types of the different areas, each area has its own distinct solid and void pattern. The urban design of each zone seems to be intentionally isolating through being inward looking with the facilities and economic areas enclosed at the centre of the plan. Furthermore, there is clear segregation between the areas with tangible and intangible borders created through the wide roads, large empty spaces and green fences in some areas (observation and site visits, October 2018).

5.3 Infrastructure

5.3.1 <u>Infrastructure: Waste Management and Pollution</u>

There is a major problem with waste management that is visible in the whole area. There are large garbage containers on the street but they are not effective in terms of convenience and quantity as shown in figure 6. There is no systematic or creative approach towards waste management, garbage can be seen on the streets. This does not only affect the visual aesthetics and the odour of the area, but has negative implications on the health of the residents and the environment. Figure 7 shows that the water tanks used by the lower income residents for drinking are contaminated with solid waste. It can be argued that the main cause of this excess of waste on the streets is the people's culture and their practices (observation and site visits, October 2018).



Left, Fig. 6: garbage container - photo by author, 2018 right , Fig. 7: garbage around a water tank - photo by author, 2018

5.3.2 <u>Infrastructure: Water</u>

Water supply exists for the majority of the areas through water tanks, with the exception of the 2520 units project having a connected pipe to the new water facility built by the army as shown in figure 8 (the army is responsible in the municipality, October 2018). The water tanks system functions through water trucks filling a large concrete tank connected to each building. However, this process only happens twice a week for Zone A and once a week for Zone B with each apartment paying an average of 35 LE per month. As shown in figure 9, due to having solid waste contaminating the large water tanks connected to the buildings and the need for adequate water supply, some of the residents install their own private water tanks costing 1500 LE

per tank. Access to water quality is dependent on the economic status of the residents and their ability to pay more (the local residents, October 2018).



Fig. 8: water supply methods - google map, edited by the author, 2018

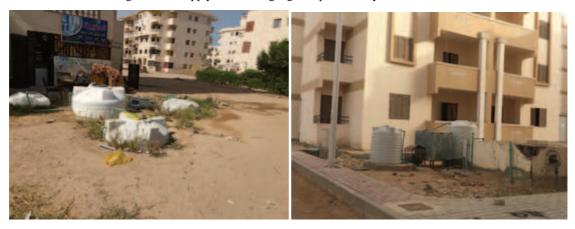


Fig. 9: water supply tanks - photos by author, 2018

5.4 People

5.4.1 People: Stakeholder Analysis



Fig. 10: stakeholder analysis graph, showing the role of each stakeholder- author, 2018

Figure 10 shows the hierarchy of the different authorities involved in the area. The government has most authority being the owner of the land and having social housing as the main land-use in this area. However, the government did not interfere on a regular basis after the delivery of the project, instead of managing the infrastructure, it contracted companies that then are in charge of management (those responsible in the municipality, October 2018). Although, the land is owned by the governorate, the army has more authority

over the land on a day to day basis, being the executive arm of some of the projects, as well as the main provider of some infrastructure services such as sewage, with the whole area being connected to their treatment centre in the near future (the army is responsible for infrastructure services in the municipality, October 2018). Only one zone is owned by the private sector and is considered to be 'gated', making it hard to access even for surveying (site visits, October 2018).

People and Economics: Demographics and Economic Division 5.4.2

The residents in the area are either permanent families or temporary individuals working in the tourism sector, mostly migrants with 80% from Upper Egypt. There is no community governance or leadership and no visible civil society in the area; the only community exists within the walls of each building (the local residents, October, 2018).

According to the social workers in the social unit for the northern district, the ratio of female to male is around 8 to 2, which despite being exaggerated, reflects the nature of the residents and their need for support, having no stable source of income. Women and potentially children would constitute the key target users for any designed proposal to upgrade the area.

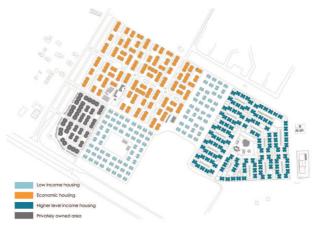


Fig. 11: the classes of housing project - Map by author, 2018

As shown in figure 11, even though this area is mainly allocated to economic housing, there are three different income levels within this same target area. The average rental price for economic housing and low income housing is around 500-600 LE per month and the higher level income housing is 700 LE, except for the units on the last floor: 500-600 LE (the local residents, October 2018). The area offers attractive economic incentives for migrants due to the area's relatively low rents compared to Gouna: 7000 L.E per month (El Gouna resident, 2018), formal settlements and close proximity to workplace whether in Gouna or Hurghada.

5.4.3 People and Economics: Population and Occupancy Rates

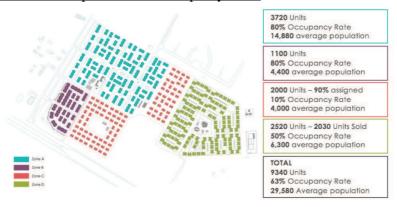


Fig. 12: the occupancy rate and the average population of the four zones of the study area - Map by observation by author, 2018

Figure 12 illustrates that the 2000 units project has the least occupancy rate despite having 90% of the units assigned. This is due to the finishing delivery status as, in contrast to the other zones, the units are delivered with no finishing which is not affordable to their owners (the local residents, October 2018). Having low

occupancy rates in 2000 units of the 2520 units projects negatively impacts the connections between the different zones through not having any community to integrate (observation and site visits, 2018).

5.4.4 People and Economics: Sources of Income

The residents in the area mainly work as employees in tourism resorts in Hurghada. Other work is as drivers, private teachers, house cleaners -mainly women who have also initiated communal nurseries or informal commercial activities, whether in the street or through kiosks and small shops at the ground level. The available formal economic activities are the commercial units that are decentralised in the different zones (observation and site visits, 2018). The average rental price of a commercial unit is 1000-2000 LE per month, which is not affordable for most residents. There is a lack of economic opportunities for the residents within the area which is needed to ensure the area's sustainability and to have access to a better quality of life (the local residents, October 2018).

5.4.5 People and Economics: Education



Fig. 13: schools in the study area - Map by author, 2018



Fig. 14: Gathering nodes and children's play areas - Map by author, 2018

Most of the education in the area is provided at Youssef Afifi, a public primary and preparatory school. The school is struggling to provide adequate education to the students since each class has between 60-80 students, exceeding the governorate standard. There is also a nursery inside Youssef Afifi but like the rest of the school functions, it does not meet the demand in the area, leading the community members to start their

own communal nurseries in some of the buildings (site visit, 2018). On the border of the area there is a school complex comprised of a mixture of public and private schools. As shown in figure 13, the public school only teaches foreign language and the private school is too expensive for the majority of the population. Only the residents of the 2520 units project who have a higher economic status can afford it (the local residents, October 2018).

5.4.6 People and Community: Communal Areas

Formal Communal areas are almost non-existent in the area while informal communal areas can be found throughout. The formal node in Mubarak 11 is formed by the mosque used for classes and by the children to play. Similarly, the formal node in 2520 units project is the mosque with its surrounding plaza and shopping area; however the parking spots there are transformed by the children into football fields as shown in figure 14. The mobility of the children between the blocks creates a connection between the different areas, that might not be the case with the older age groups.

6 DISCUSSION AND MAIN CHALLENGES



Fig. 15: not our land - Diagram by author, 2018

'Not our land.' As the residents do not feel that they belong to the land or to a community as a collective, they feel no sense of responsibility and they contribute to a vicious cycle, creating new problems as shown in figure 15. There are three main root causes for the residents to feel that they do not belong to this community. First, the population demographic which is purely made up of migrants from different parts of Upper Egypt. Secondly, the lack of stable economic and job opportunities, affecting their access to quality of life. Lack of social equity exists within the community itself as the access to quality services depends on the economic status of the families. Lastly, the solid waste pollution litters the area affecting other infrastructure services, such as the water system, and the environment in general as seen in figure 16. Moreover, the solid waste pollution negatively affects the perception of the visitors to the area, marginalising them from the rest of the society.



Fig. 16: plastic waste on the beachside in Area 1-photos by author, 2018

All these challenges are interconnected with each other. Due to the demographics of the population, their geographical, educational and cultural background, there is segregation within the community. There is no unifying mechanism or organisation to bring them together. The fact that they have short term jobs and unstable income offers no incentive or priority for them to interact. The communal spirit is affected by the majority of the population frequently moving in and out of the area visiting their hometowns and families. This lack of community affects their eagerness to maintain or upgrade their neighbourhood. Therefore, all forms of pollution and acts of violence against the environment take place. This is not our Land and we do not care.

7 APPROACH TO A POSSIBLE SOLUTION

7.1 Case studies

7.1.1 <u>Case Study: Zabaleen Community</u>

In Cairo, as the urbanisation increased, Cairens waste increased creating an opportunity for the Zabaleen community, who themselves had migrated from Upper Egypt to Cairo in search for job opportunities (Hussein, 2017, p. 20). The waste produced and the waste management system from collection to recycling has been the main economic activity for the families living in the Zabaleen settlements. In fact, there have been disputes on who has ownership over the waste following the government's privatisation of the waste management systems, affecting the Zabaleen's indispensable source of income (Hussein, 2017, pp. 26–27). The Zabaleen have been forced to act collectively, forming their own organisations or utilising the existing Zabaleen garbage collection companies to be able to work with the public and private sector (Hussein, 2017, p. 27,28).

Since initiation, the Zabaleen were able to leverage on their human capital through dividing the roles between the different stakeholders of the community: the men and boys have worked on the collection of waste and the women and girls on the sorting the waste. This has helped them in creating a strong family interdependent structure as well as maintaining strong relations between the different community members (Hussein, 2017, p. 22).

Nonetheless, the odour and the health hazards created by the organic waste has forced the Zabaleen settlements to move to isolated locations. In addition, the community's negative socio-economic perception of the Zabaleen and the lack of government support for them has resulted in a stronger segregation between the Zabaleen community and the rest of the society (Hussein, 2017, pp. 33–34). Despite the fact that the Red Sea as a context has different characteristics than the area of Zabaleen, we can understand from this case study the value of waste and the opportunity it creates, the social networks that can be created around such projects and the potential social and environmental challenges that could be faced as a waste management and recycling node is created in the area.

7.1.2 <u>Case Study: Waste Management Entrepreneurship</u>

Building on the Zabaleen model to adhere to new evolving trends, existing start-ups that valorise waste can be used as benchmarks to understand the concept of waste management entrepreneurship. Examples of such start-ups that exist locally include Upfuse, and Reform Studio who both focusing on having a triple bottom line: economic, environmental and social. Both start-ups recycle plastic to produce different unique handcrafted products such as bags, furniture pieces and accessories. Their positive environmental impact is through their recycling of plastics to produce lifestyle products and their social impact is through their creation of job opportunities for the local community (Reform Studio, n.d.) and (Upfuse, n.d.). Their ability to measure their impact and communicate it to their consumers, where the consumer can know how a product corresponds to a number of job opportunities or plastic bags, creates the story of their products and a key attraction to a niche conscious market (Reform Studio, n.d.) and (Upfuse, n.d.). In fact, the fast progress in such businesses, which is evident through their increase in outlets and partnerships with corporations such as Ikea (Reform Studio and Designer Bibi Seck - IKEA Today 2017), can be correlated with the current rise in waste consumption awareness in the middle and high class societies in Egypt and across different societies globally. Such models of waste management entrepreneurship can be easy to pilot if such a niche market can be attracted and if the business know-how exists to create the relevant brand and marketing needed.

7.2 Solution

Based on the literature review and case studies, an integrative solution could be implemented to address the main challenges in the area, creating a domino effect to upgrade the whole neighbourhood. Learning from waste management and recycling start-ups, a business opportunity can be created to tackle both the pollution and economic deficiencies in the area. In fact, the nature of our site, being located in a key touristic location can create a market for the community of Al Fayrouz to target. The existing permanent and temporary customer segments in Hurghada and Gouna can be attracted through unique recycled and up-cycled handcrafted products that are non-existent in the Red Sea area.

As shown in figure 17, there are five key factors to be considered for such an opportunity to exist and to be managed properly. First, the type of waste to be managed should be non-organic due to the proximity to the beach and to ensure that this community is not further marginalised as a result of odour pollution. In fact, focusing on plastic and glass can have a higher environmental impact in this context by keeping the beaches clean and saving the coral life with less plastic waste. Second, creating community alignment through awareness, trainings and proper community representation, the inhabitants should be empowered to take action. Women and children could be the first and main target group for such a project as they constitute a large part of the population, they have no jobs to keep, and they can help create the foundation. Third, establishment of relations and partnerships to leverage on existing resources and efforts. Those partnerships could be with the existing private recycling initiatives in Hurghada and Gouna such as Hepca's new factory or even the governorate. Also, partnerships can be created with existing businesses such as Upfuse and Reform Studio who have the business and technical know-how, but could benefit from the human capital in our site as their businesses expand or who could mentor the existing community to build their own start-up. Fourth, maintaining direct relations with the external communities to ensure integration in the rest of the society which can be through having direct commercial outlets to the customers run by the community members. Fifth, creating a brand and a brand experience that appeals to our target customer segment or integrating in existing successful brands through partnerships as previously mentioned.

BRANDING EXTERNAL CONNECTIONS PARTNERSHIPS COMMUNITY EMPOWERMENT NON-ORGANIC WASTE

Fig. 17: solution's factors

8 CONCLUSION

All human beings need stability in their life, whether economic, social or even in their sense of safety. While there is an economic incentive for migrants to move to El Fayrouz, it provides only a partial answer to their needs. With the tourism market fluctuating with the changes in demand and seasons, real career or economic opportunities are still unachievable by most. Factoring in the fragmentation, segregation and dysfunctionality of the community that they live in, it is not surprising that the inhabitants do not feel that they belong there. This leads to the aggression that they exhibit towards their environment through solid waste litter, further contributing to the area's disorder and sense of abandonment. This creates a cycle that is hard to break without a common language or a mechanism to bring the community together, something that can offer them a sense of belonging and comfort while serving their survival needs.

Through our research, there is a solution that solves all three of these challenges. Through a Communal Recycling Start-up, we could offer the community economic stability, a sense of belonging and turn their

solid waste problem into an economic opportunity. This is a strong incentive for the community to come together since it offers the people a chance to make their life better and the opportunity to feel a sense of belonging. This will not only solve the current issue but possibly future ones too. Therefore, instead of the sense that 'This is Not Our Land', the community will offer the opportunity to say: 'This is Our Land, Our Community and Our Opportunity'.

The Research in this area is just a starting point, but more is needed to implement this project in real life. Further studies on the solid waste makeup, financial aspects, stable external target markets and potential products need to be done in order for the project to work. However, through the existing case studies and the natural and human resource available in the area, there is a strong and encouraging sign that this project could be implemented and could be a successful and sustainable business for the inhabitants of the area.

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