



**Ain Shams University**  
Egypt



**University of Stuttgart**  
Germany

# **Community Resilience for Coastal Peripheral Areas Development in Nuweiba, South Sinai**

**Towards an Integrated Sustainable  
Development in Nuweiba, Sinai Peninsula**

**A Thesis submitted in the Partial Fulfillment for the Requirement of the  
Degree of Master of Science in Integrated Urbanism and Sustainable Design**

**By**

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2017

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# Disclaimer

This dissertation is submitted to Ain Shams University (ASU) and University of Stuttgart - Faculty of Architecture and Urban Planning (USTUTT) for the degree of Integrated Urbanism and Sustainable Design (IUSD), in accordance to IUSD-ASU regulations.

The work included in this thesis was carried out by the author during the period from February - July 2017

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Maha Ahmed Fathy Abdel Aziz Basha

Signature

A handwritten signature in blue ink, appearing to read 'M. Basha', with a horizontal line drawn through it.



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# Abstract

Community resilience for development is a crucial issue especially in peripheral areas like Nuweiba. Community resilience relies upon the power of human and the clear understanding of local needs. Hence, planned project should start from and by the local community. Nuweiba is one of the coastal territorial areas where resiliency is of a great interest. Nuweiba is a small coastal city on the Gulf of Aqaba in south Sinai which is known for its authentic Bedouin culture and pristine nature. In this research, local and regional analysis of Nuweiba case study is presented throughout four different periods. Additionally, the driving forces of urban transitions and community interactions during these periods were analysed to determine the various aspects affecting community resilience. Besides, proposing techniques and a vision to ensure prolonged resilient planning.

Before 1967, when the indigenous Bedouins were adaptive nomad dependent on pastoralism, Nuweiba was rudimentary and untouched with development. During Israeli occupation, globalization and modernization affected the locals who tried to cope with challenges without abandoning their culture and traditions. After Sinai liberation, plans were set to start developing the whole peninsula of Sinai but still Nuweiba was not fully planned neither was of great interest. Yet, the flourishing tourism in Sinai and in Nuweiba after a decade of the liberation, made a space for community development. While after Arab spring revolutions, plans were delayed as a result of economic capital deficiency along with tourism relapsing. Nowadays, plans are being reviewed and developed towards a transitional urban development in Nuweiba. Nevertheless, plans ought to be revised to activate and achieve resilient planning vision.

This thesis proposes a framework for understanding and assimilating resilience factors to override conventional strategic planning. The study is divided into three parts. Part I focuses on general understanding of Nuweiba area and Sinai Peninsula. Part II emphasizes on the transitional periods and their effects on Bedouin community. Part III presents an attempt to link between community resilience and planning in Egypt by connecting all involved stakeholders from Bedouins, migrants, investors, planners and decision makers to reach the targeted results. First, by identify community's seven capitals then assessing each capital separately. Afterwards, analysing points of resilience in each capital. Then, find challenges and constraints which threaten the targeted community to be considered in future land use planning. Finally, proposing ideas and giving recommendations to strengthen each capital and build community resilience. In conclusion community resilience is an extensive topic to be discussed and analysed particularly when dealing with indigenous people who are marginalized for decades and struggling for survival. Hence, deep understanding and involvement of Nuweiba community is essential at least before implementing any development plans.

Key words: Indigenous community, Bedouin of Sinai, Community Resilience, Nuweiba, Resilient planning

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# Glossary

- El orf: Bedouin customary law
- Sheikh: Bedouin tribal leader
- Khoms: One big family of same generation
- Robaa: Part of Bedouin tribe which consists of 5 generations
- Makaad: Bedouin traditional meeting
- Rabeaa: Traditional move during the spring
- Halal: Goats
- Diya: Compensation
- Wadi: Valley
- Etawa: Tribute or customary tax



# Acronyms

- BRIC: Baseline resilience index for communities
- CARRI: the community and regional resilience institute
- CBO: Community Based Organization
- CCF: Community capital framework
- DRR: Disaster Risk Reduction
- EEAA: Egyptian Environmental Affairs Agency
- GTZ: Deutsche Gesellschaft für Technische Zusammenarbeit
- GOPP: General Organization of Physical Planning
- HFA: Hyogo Framework for Action
- ICCAs: **Indigenous Peoples' & Community Conserved Territories and Areas**
- IRDR: The integrated research on disaster risk
- LED: Local economic Development
- NCPSLU: the national centre for planning state land uses
- NGO: Non-Governmental Organization
- UNDP: United Nations Development Programme
- UNISDR: The United Nations Office for Disaster Risk Reduction
- USAID: United States Agency for International Development
- SCPUD: The Supreme Council for Planning and Urban Development
- SDA: Sinai Development Authority
- SMEs: small and medium enterprises
- TDA: Tourism Development Authority
- TOSE: technical, organizational, social and economic
- SSRDP: South Sinai Regional Development Program



## Part I:

# Conceptual and Regional Understanding

The first three introductory chapters are focusing on understanding thesis structure and building research framework by presenting theoretical background about community resilience, then finally giving clear understanding and overview about Sinai and Nuweiba.



# Chapter 1: Introduction and Research Framework



Captured and edited by the Author in Nuweiba



# 1. Introduction and Research Framework

## 1.1. Background

Nuweiba is one of the remote, peripheral and isolated areas in Egypt. It is located 470 km away from Cairo. Nuweiba is a coastal city on the gulf of Aqaba in Sinai Peninsula, situated 65 km away from the Egyptian/ Israeli borders. Its name comes from the Arabic name "نويبع" which means springing water due to the presence of several water springs as well as wells in Nuweiba region. Taban-Nuweiba Region was occupied by Israel from 1967 till 1982. Nuweiba has also kept a similar name during the Israeli occupation period which was "Neviot". Nuweiba is the only city in south Sinai which maintained the authentic Bedouin culture and traditions. As the predominant majority of Nuweiba population are Bedouins who belongs to two dominant tribes; Tarabin & Muzeina. Accordingly, there are around 15 Bedouin villages in Nuweiba, from which: Muzeina, Wasit, Tarabin, Wadi Malha, Bier Sweer, Thawra, Sheikh Atya, Ras El Saad, Ein Fartagga, Wadi Homs, Wadi Sagher, Wadi Ghazala and Bier Zagheer. By reflecting this prevailing Bedouin identity on community resilience definitions, obviously, Nuweiba indigenous community has very strong identity, social ties, long history, cultural and traditional believes. Those indigenous people recovered from various challenges either by adaptation, mitigation or avoidance throughout the history, starting before 1967 when the Bedouins were nomad dependent on pastoralism until they became semi-nomads and semi-urbanized as it is seen nowadays. Those challenges and responses will be discussed in detail in the upcoming chapters to evaluate Nuweiba community resilience.

## 1.2. Research Problem

Nuweiba is a relatively new city. It started to develop after Sinai liberation in 1982. First, the indigenous Bedouins from the two tribes; Tarabin and Muzeina, settled down in two Bedouin agglomeration near the coast. They started to build houses from wood and other local building materials as natural stones with silt binder or sometimes mortar which were used during the occupation period as well. Then, many migrants from upper Egypt and Nile valley came with their diverse cultures and backgrounds to Nuweiba searching for job opportunities and investments in the newly governed territorial periphery.

In parallel to this rapid morphological urban development which took place until 1986, the Egyptian government put many plans to develop Nuweiba under the SDA -Sinai Development Authority- that is affiliated to the Housing ministry to ensure its sovereignty and attract population to the city.

Accordingly, several tourism investments started to develop on Nuweiba coast which employed migrants as well as Bedouins. Since then, the local indigenous Bedouin community was not included in the development process. Thus, the vibrant community started to implement inconsistent urban growth by informal horizontal expansion on Nuweiba land. This reflects the immense gap between top-down government planning approach and community's bottom up vision particularly in the way the locals perceive Nuweiba future as shown in figure 1.



Figure 1: Research Gap between government approach and community approach  
Source: Author

Additionally, the Bedouin indigenous community were marginalized for decades and deprived from fair participation in all sectors. They used to face many challenges and threats on social, environmental, cultural and economic level. Those challenges have implicit or explicit impacts on planning. Nevertheless, they managed to mitigate them by adaptation and transformation techniques. For instance: Bedouins transformed from nomadic lifestyle which was based on pastoral activity as a main source of their livelihood into totally urbanized or semi-urbanized settlers on the coast of Aqaba bay depending on alternative modern economic activities. Nowadays, Nuweiba community has become bigger, due to the cross-community migration to the peninsula either from Egypt or across the borders since 1982. Migrants shared experience, culture, knowledge, language and everything with the Bedouins until they became one community with many paradoxes.

It was obvious in the government strategic vision for the year 2014, the target of building a regional colonelcy in Nuweiba city. Because of its touristic, agricultural and commercial and economic resources. Accordingly, in the last two decades, there were too many Speculations. when Nuweiba port was opened in 1985, many people thought that Nuweiba will be a commercial zone which join trade between eastern Asia and Africa via the Gulf of Aqaba and eastern Europe through mainland. Additionally, rapid urbanization of building multi-storey blocks and mass construction hotels and resorts, let the community feel disparities of future visions regarding Nuweiba city. Moreover, they recognized that the government did not respect their identity, uniqueness, cultural and traditional believes, as the social differentiation in the urban practices was obvious -and still- that does not match with the rudimentary and uniqueness of the place.

The ongoing development and proposed strategic plan does not include disaster risk minimization nor risk reduction strategies on economic, environmental, social, cultural, human, institutional and physical level. Because, there was no actual participation of local community in planning and local considerations in

any development processes. Accordingly, many forms of urban disparities and inconsistency appeared in Nuweiba as shown in Figure 2. On the one hand, the government implements multi-storey buildings, concrete hotels and public gardens. On the other hand, the local community prefers to live in one storey house with courtyard and simple beach huts are implemented for tourist investments. Moreover, native edible plants and palms are being planted in the courtyards of each Bedouin house. whereas, weather sensitives plants are in the streets, hotels and gardens in Nuweiba.

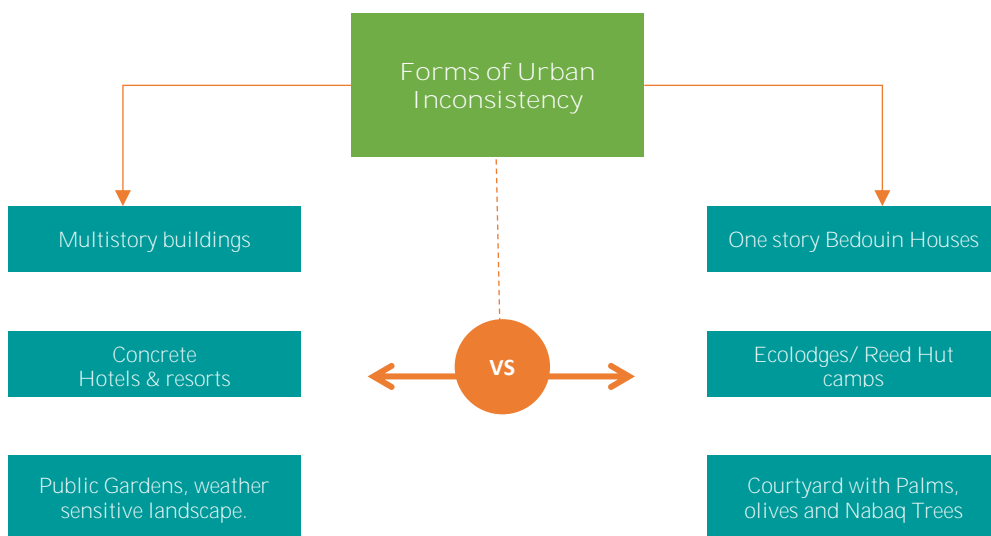


Figure 2: Urban inconsistency between government and community implementation  
 Source: Author

Subsequently, there is a premise of potential risk which might happened between different ethnic groups -on the one hand- which form Nuweiba current community around urban related conflicts, because of the different socio-cultural backgrounds, exclusiveness, miscommunication, readiness and the disparity of community degree of resilience, on the other hand, conflict between community and local /government representatives. Hence, more emphasizes and attention should be dedicated to the authentic local community, as they could have a noticeable impact on the success or failure of city strategic plan.

### 1.3. Hypothesis

This piece of work emphasizes on the importance of increasing Nuweiba Community Resilience through well understanding of community's structure, behaviours, culture and traditions. Then analysing community's responses to different challenges which they face in the past and up till now. Aiming to encourage as well as guide decision makers to start an integrated sustainable development in Nuweiba, putting in consideration indigenous people inclusion. As they are marginalized for decades and struggling for survival. So, the main line of argumentation in this research is integrating community resilience in planning process in Nuweiba by bridging the gap between the local community, urban planners and decision makers.

### 1.4. Objectives

This study is directly focused on five objectives. These objectives are under three main goal umbrellas. First, this research aims to assimilate Nuweiba community through analysing the dynamics and the driving forces that affected community transformation. Second, searching for indigenous resilience by illustrating community responses to several challenges. Third, building a framework for resilience based on Cornelia and Jan Flora (2008) community capital, in order to be capable of highlighting potentials, then projecting them on local and regional level.

- Understanding Nuweiba community dimensions
- Analysing the dynamics and the driving forces of the changes that affected Nuweiba indigenous community
- Illustrating indigenous peoples' responses to different challenges
- Illustrating community responses and their support to the indigenous community
- Highlighting potentials and constraints in Nuweiba for further community development

## 1.5. Research Questions

The main question that is discussed in this thesis is: what are the capitals that should be reconsidered to strengthen community resilience for future vibrant development in Nuweiba? This question is related to other set of questions to achieve the main aim of this research from which:

- What are the economic, social and ecological characteristics of Nuweiba?
- What are the driving forces that affected Nuweiba Community resilience?
- What are the challenges facing Bedouin community in Nuweiba?
- How did the community respond to/recover from adverse situations?
- What are the impacts of top-down planning on Nuweiba community?
- What are the potentialities for further sustainable community development?

## 1.6. Research Methodology

### 1.6.1. Research process

The research methodological process passes through three phases as shown in Figure 3. The first phase is literature review about the phenomenon itself; what is resilience? and how is it attached to different field of studies? How is it measured and assessed?

The second phase is mainly concerned with the case study which is suitable to integrate the community resilience concept in both regional and city planning. Nuweiba was selected as case study of this piece of work. Due to its strategic importance which triggered decision makers to direct attention towards this coastal peripheral area for urban development after long years of neglects.

Besides, in the past few years, there was a big controversial discussion on the future of city development among different actors. Moreover, the city has been experiencing an urban transformation of increasing the number of civic settlement movements and immense number of informal built houses in the urban fabric. The third phase is focusing on providing recommendations and conclusion based on field visits observations, interviews, focus group

discussions and surveys. Since, the topic of community resilience has a significant impact on planning and vice versa. Its integration in the planning procedure from the start will enhance and facilitate well understanding of community assets, needs and indulgences.

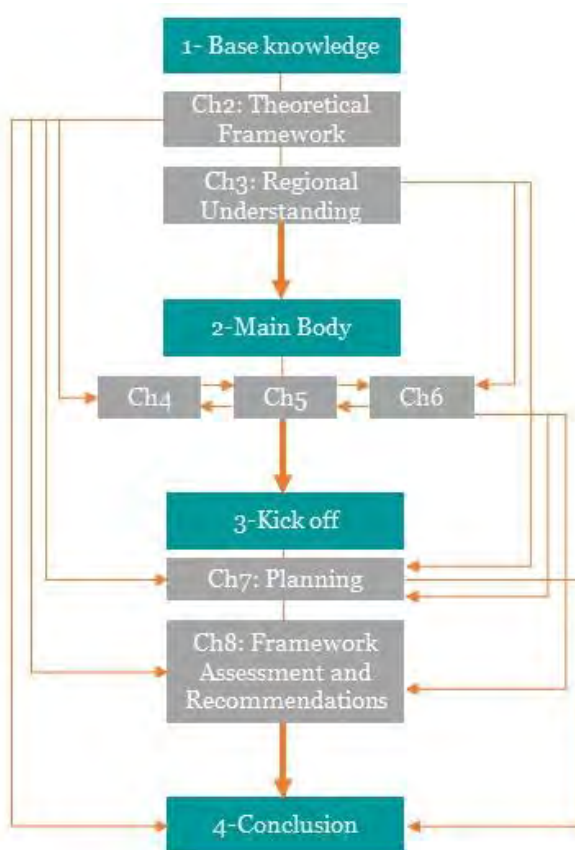


Figure 3: Research process  
Source: Author

Subsequently, rebuilding and strengthening community resilience will be in the light of the following considerations:

- Relation between indigenous community and outmigrants
- Socio-economic and ecological attributes which influence development
- Community based urbanism
- GOPP strategic plans and planning practices
- Governmental polices

### 1.6.2. Methods and tools

There are several methods which have been used to reach the main objectives for each chapter as shown in Figure 4. Accordingly, different tools have been chosen to fulfil specific methods.

a) Desktop research

Checking literatures, previous researches and related studies was done as a preliminary phase of this research to understand as well as gather information about community resilience in the peripheries then about the area. It also lasted till the end of research process.

b) Field observations

The idea behind this piece of work started with series of observations during the first field visit in December 2016. The researcher observed huge potentialities in Nuweiba which are not well used or misused. Observation was also a tool that was used to search for the history, present and also look for community capitals to be used in the future developments.

c) Structured and semi- structured interviews

Around 40 interviews were conducted with Bedouins from Tarabin and Muzeina. The researcher was keen to include both gender and cover all age groups in order to collect information from the past, present and then reflect on the future.

d) Focus group discussions

Few discussions were conducted to triangulate information and sometimes to brainstorm Nuweiba future. There were contradictory ideas and point of views. However, in the end it was agreed on some collective ideas or dominant actors indirectly pass their opinion to the others.

e) Survey

Number of surveys were filled to measure community resilience in different situation in the past and present based on anthropological approach.

f) Workshop

It was hard to organize the planned workshop due to time limitation, as a lot of effort and time were spent to understand some social and cultural constraints. Hence, those constraints hindered the implementation of the workshop and gathering different stakeholders on one table (men & women, men only or women only from Tarabin & Muzeina tribe, Bedouins & government employees, Bedouins and migrants).

g) Mapping

Mapping the challenges as well as community projects in Nuweiba to be able to identify risks then work on enhancing as well as mitigating those challenges in the upcoming future plans.

h) Timeline

The research was done on a certain timeline starting before the 1960s when Bedouins were nomads and semi nomads, passing by Israeli occupation period from 1967 until 1982, then Sinai liberation and the new development plans period and finally, the current situation after the Arab springs. this research focuses on the challenges and responses in each period to be able to reflect on Nuweiba future development.

i) Stakeholder Analysis

The involved actors and stakeholders were identified in each period. Moreover, current stakeholders and their roles are described in detail in chapter 7.

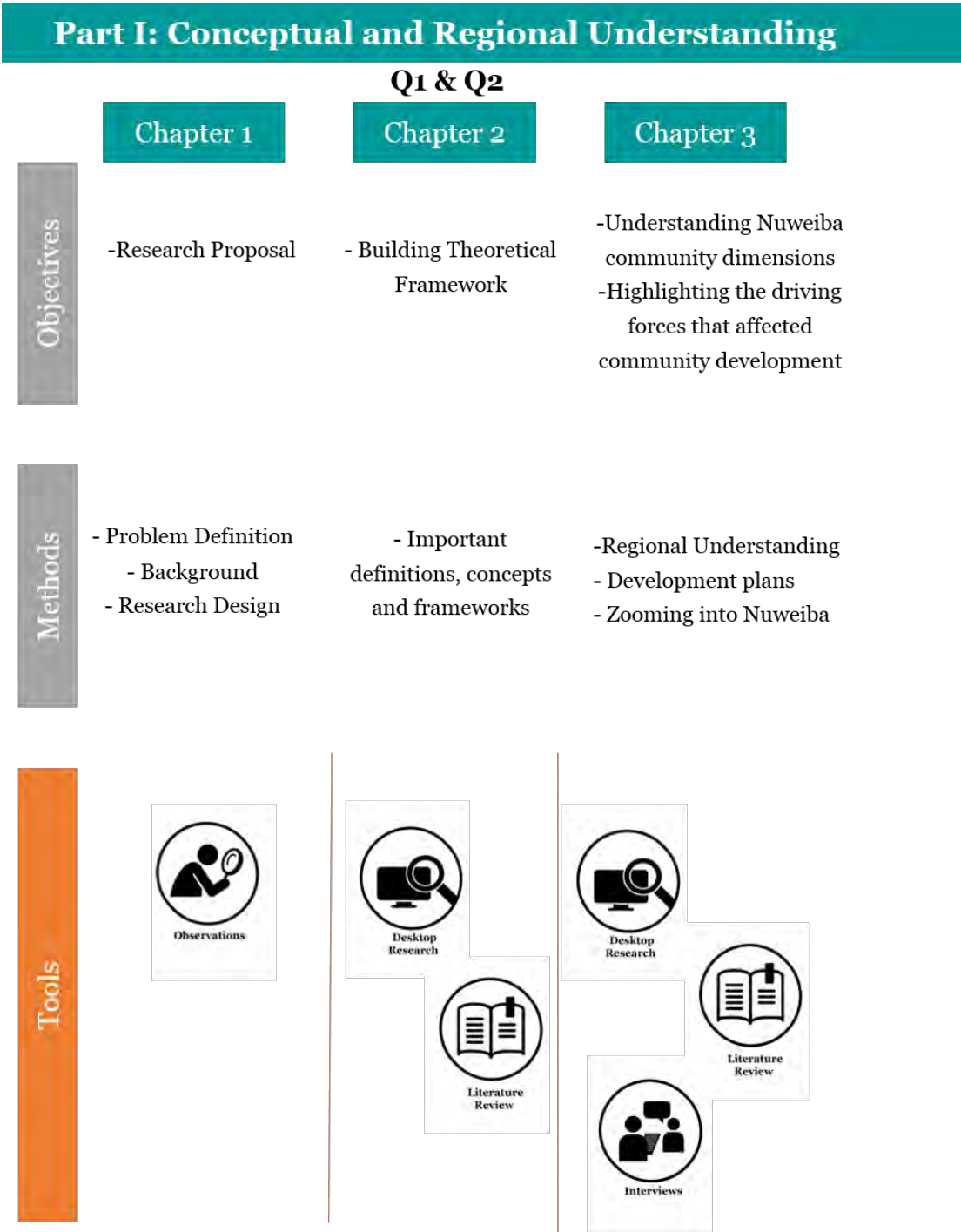


Figure 4: Research Methodology

source: Author

## Part II: Transitions from The Past and Present to The Future

### Q3 & Q4

#### Chapter 4

#### Chapter 5

#### Chapter 6

#### Objectives

Demonstrating community's transitions in different sectors (economic, social, cultural, political ...etc.)

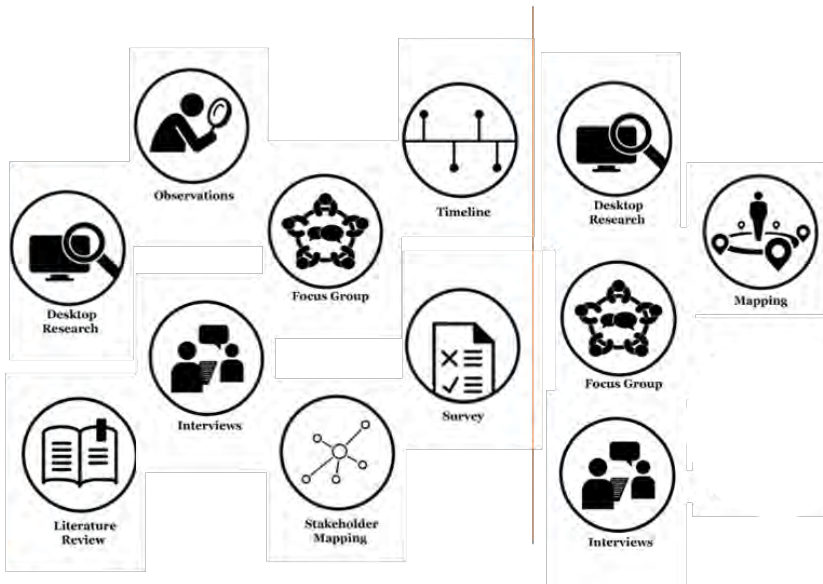
Highlighting indigenous peoples' and community's responses to different challenges

#### Methods

- Focusing on certain timeframe between 1950s until 1980s then the period between 1980s until 2020s
- Stressing on planning reflections
- Illustrating related issues in different sectors

- Stressing on critical challenges
- Selecting several community initiatives and projects
- Comparing between indigenous responses and other community responses

#### Tools



## Part III: Community Resilience in Nuweiba kick off

### Q5 & Q6




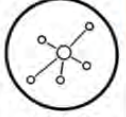



	Chapter 7	Chapter 8	Chapter 9
Objectives	<p>Understanding planning process to find an entry point for putting community resilience factor in consideration</p>	<p>Highlighting potentials and constraints in Nuweiba for further community development</p>	<p>Conclusion</p>
Methods	<ul style="list-style-type: none"> <li>- Detailed illustration for planning process and involved actors</li> <li>-Comparing between current land use and planned land use</li> </ul>	<ul style="list-style-type: none"> <li>- Identifying assessment criteria for each capital</li> <li>- suggesting projects and giving recommendations to enhance each capital</li> </ul>	
Tools	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; text-align: center;">               Desktop Research         </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; text-align: center;">               Literature Review         </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; text-align: center;">               Mapping         </div> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">               Stakeholder Mapping         </div> </div>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; text-align: center;">               Observations         </div> <div style="border: 1px solid #ccc; padding: 5px; margin-bottom: 10px; text-align: center;">               Focus Group         </div> <div style="border: 1px solid #ccc; padding: 5px; text-align: center;">               Interviews         </div> </div>	

Figure 4 (Continue): Research Methodology

Source: Author

## 1.7. Research Outcomes

This Thesis comes out with a methodological framework for community resilience with specific domains and variables in order to understand Nuweiba community as well as assess its resilience. The framework helps to identify strengths and gaps for future development. Additionally, this piece of work presents a participatory approach to strengthen community resilience so that more robust and adaptive system can withstand challenges, risks and disasters.

## 1.8. Research Design

The research is divided into three parts and nine chapters. Part I emphasizes on building research framework by presenting theoretical background about community resilience finally giving clear understanding and overview about Sinai and Nuweiba. Chapter one gives an overview about the research proposal and thesis structure. Chapter two proposes some definitions and concepts to build research framework. Chapter three presents holistic background about Sinai and Nuweiba.

Part II addresses the challenges and responses in Nuweiba in four different periods. Chapter four focuses on the predevelopment and occupation period. While chapter five stresses upon the near past; after Sinai liberation and after Arab springs period. Chapter six gives a summary of major challenges and it also shows critical analysis to some current selected responses and projects in Nuweiba.

Part III aims at integrating scientific, local and indigenous knowledge to build resilient planning. Since, planning should be transplanted into global impacts, local challenges and community responses. Chapter seven demonstrates the planning process in Egypt and the involved actors. Chapter eight presents the results and recommendations to strengthen the seven capitals. Then finally chapter nine is the overall conclusion of this piece of work.

## 1.9. Research Limitations

During research process, many challenges and obstacles were faced. As the research is mainly based on site observations, visits and talks. The researcher conducted two site visits; the first field visit was in December 2016 under the Planning & Design in Practice (PDP) Module 1. The visit lasted for a week and it helped the researcher to discover the place as well as the community. The second field visit was in February / March 2017 and It lasted for three intensive weeks. The work load was minimum 6 working hours per day, divided between conducting interviews, focus group discussions, surveys, site visits or living a new Bedouin experience.

### 1.9.1. Desktop Research

This tool is one of basic and primary tools in research. however, the researcher found some restrictions since the beginning of research process. for instance:

- Limited literature about Nuweiba and the region.
- Some existing studies tackled Bedouins culture and history. Yet, very little or almost no research was held in the field of urban and regional planning.
- The number of foreign research is higher than the number of local research and even researches by Egyptian scholars.

### 1.9.2. Field visit observations

Bedouins are very conservative, this resulted in restricting the researcher couple of times from taking photos especially in the two settlements Tarabin and Muzeina. In addition to that, limited means of transportations hindered the researcher to go from one place to another and/or stay for the planned time.

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*1. Planning & Design in Practice (PDP) Module: is a study module in the third semester of IUSD master program which concerned with visiting specific locations and areas in Egypt to implement needed interventions after deep analysis and studies.*

### 1.9.3. Focus group discussion

During the focus group discussions, sometimes there is a dominant person who talks and answers most of the question. Additionally, He/ she may direct and influence the answer to go to a certain direction.

### 1.9.4. Interviews

It was intended to conduct interviews with all stakeholders to share their ideas, community experience and the history of Nuweiba. Nevertheless, Bedouins who are living in wadi up the mountains are not included in this study, since they fear from any external person coming up to their wadis and they may set fire to any external who is accompanying someone they do not know. Additionally, the researcher failed to include local government representative, as the city council refused to collaborate with the researcher. The issue was raised to higher authorities' due to the sensitivity of this location and the tense situation in the peninsula. This resulted in some fear and avoidance from some Bedouins which hindered the researcher from conducting planned meetings and interviews. Over and above, the researcher was asked not to meet or talk to the Bedouins and it is better to go back to Cairo for the sake of self safety due to community mistrust. The researcher refused to leave the place as she might not be allowed to come back. Moreover, she insisted on field visit continuation in this peripheral area for the sake of this marginalized community and finish according to the planned schedule.

### 1.9.5. Surveys

In many interviews, the time slot exceeded its limit, some of the interviews were extended for more than two hours. So, there was no time to end by answering paper based questions - the survey -. Subsequently, some interviewees took the survey home then filled it and returned it back but some did not. Hence, the number of the conducted interviews is not comparable with the number of filled surveys.



Chapter 2:  
Literature Review



Captured by the Author in Nuweiba



## 2. Literature Review

This chapter gives an overview of existing literatures in the field of community resilience. Additionally, it provides background information which explains important terms, concrete definitions and concepts which will be used in this piece of work. For instance: indigenous community, community development, community resilience, community's vulnerability, disaster risk reduction. Some frameworks for resilience will be presented as well, to show to what extend scholars had reached. However, the focus will be on one framework.

### 2.1. Community

Community can be defined as a group of people who have some common things and similar characteristics, for instance traditions, identity, territory, history, **culture...etc. This group lives together in close proximity.** They have common ownerships, strong family ties and same agenda. Those people share values and religion (oxford dictionaries, 2017). Additionally, it is "a dynamic system of people, organizations, and patterned relationships and interactions. Most of these relationships and interactions are physically supported **by a community's** built environment, which is a complex and interdependent network of engineered subsystems and components, including buildings, bridges, pipelines, transmission towers, and other structures. Subsequently, the built environment plays a crucial role in enabling a community to successfully function, providing the physical foundations for much of the economic and social activities that characterize a modern society" (Mieler, 2012).

" Communities act as the brain of the city, directing its activities, responding to its needs, and learning from its experience. During a disaster, the community networks must be able to survive and function under extreme and unique conditions. If they break down, decision making falters and response drags. Social and institutional networks exhibit varying degrees of organization, identity, and cohesion" (Godschalk, 2003).

## 2.2. Indigenous Community

Two centuries ago, the indigenous people used to live everywhere in the world. However, they are living nowadays on nearly 6% of the earth's land (Molodecky, 2016). Indigenous communities are communities who live in territories with extreme conditions that stand against development. Indigenous communities are considered from the most marginalized and challenges prone communities in the world. Since, they are very attached to their lands, cultural and traditional believes, struggles and conflicts occurred against the hegemonic systems in order to keep ancestral territories.

Indigenous people are considered as second-class citizens (world bank,1995). Accordingly, " their resources have been exploited for the benefit of other groups in society and, in many countries they are the poorest of the poor. Often, they experience political and economic discrimination and are perceived as backward **or primitive**" (ibid). **Based on the Indigenous Peoples' and Community Conserved Territories and Areas (ICCAs)**, "Indigenous peoples and local communities are defined by their relationship with and dependence on natural resources, including land and water resources. This long association and reliance upon local resources has resulted in the accumulation of local and traditional knowledge that contains insights, innovations and useful practices that relate to the sustainable management and development of these areas" (Corrigan and Hay-Edie, 2013).

Whereas, indigenous knowledge is a body of knowledge possessed by some people living close to nature over generations (UNEP, 2008). Since, the everyday lives of traditional communities are closely intertwined with nature and its elements. Indigenous people demonstrate resilience because of their cultural beliefs, practices, and their understanding of the environment.

In previous eras, indigenous people around the globe verified their capacity for resilience by fighting against the colonialist ideas and paradigms. They used to show their sovereignty in addition to self-determination. Throughout the history colonisers came across the indigenous peoples which gave a variety of methods (Aspin et al., 2014).

Accordingly, Community development through empowerment and collaboration is essential for economic, social and any kind of development in the peripheries. Since, especially the indigenous communities are the most suitable peoples to be partners in development as well as decision makers. Moreover, they are eager and passionate to contribute to develop their territories. And so, Local and indigenous knowledge should be integrated in any future development plans (Molodecky, 2016).

### 2.3. Community Development

Community development is a process in which citizen are the key actors in the development process. Community members determine then decide to solve their problems and take collective actions for better quality of life. Simply, it is the action that community takes to develop itself with or without external support. It can be considered as a social movement for citizens' welfare or it is a silent revolution. On a professional level, community development process depends on sound planning visions which may take time and patience in consultation (Green and Haines, 2015).

## 2.4. Community Vulnerability

It has been proven empirically that communities in developing countries are more vulnerable to hazards. There are a lot of reasons behind this fact. First, the developing countries are exposed to several natural hazards, for instance, flood, seismic, volcanic and other natural challenges. Second, low quality development or sometimes absence of development increased community vulnerability, this mainly appears in the inconvenient building materials, fragile economic activities, inconsistent urban fabric, poor infrastructure, weak community organizations, awareness deficiency and coping strategies. These turbulences lie under the umbrella of weak political will. Third, demographic changes resulted in altering urban configuration, settlement patterns as well as land uses. Additionally, community transformation from traditional and semi-modern community into a modern one has put many pressures on the community as they are not aware of globalization consequences and not prepared for this kind of transformation (Webersik, 2012; GTZ, 2002).

### 2.4.1. Community's Hazardous Events

Hazard is defined as the potential threat which has a certain probability to occur in the future, it can be natural or man-made. Each hazard has its own risk level that has its intensity and severity. Vulnerability exists due to community exposure to hazard. Accordingly, risk is considered as a product of both vulnerability and hazard. Each community is vulnerable to synthesis of challenges either on political, social, economic, environmental level. Nevertheless, each has its own capacity of responses and reactions to these challenges (Enam, 2015).

There are three levels of hazard events that varies in their characteristics and magnitude: routine hazard, expected and extreme hazard event. The resilient planning is concerned with the three levels of hazards. Routine hazard happens frequently, it has minimal impact on the community which can be mitigated or

avoided. Expected hazard occurs in a certain predictable time. When the community is prepared for it however it needs time to recuperate from its impact. Extreme hazard has severe impacts on the community. It is unexpected in time however, it can be anticipated based on the historical events and ongoing global challenges. The community needs a longer time to recover from it than expected event, according to a clear response plan and recovery vision (Disaster Resilience Framework, 2015). The following Figure 5 shows the effects of sudden shocks and stresses on the community and how the community can recover based on its resilience degree.

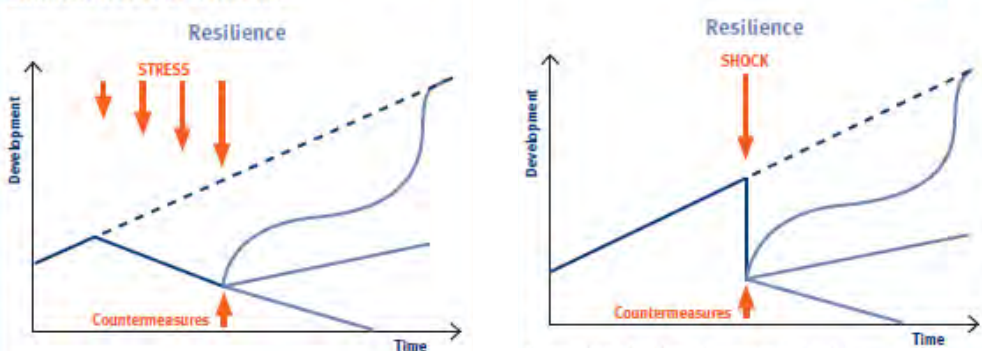


Figure 5: The Effects of shocks and stresses on community development  
Source: (Mitchell and Harris, 2012)

#### 2.4.2. Community Synthesis

Yet, the appropriation of the community responses to the direct and cascading consequences are classified into three categories as shown in Figure 6 based on (Fabricius et al., 2007). First, Weak communities which have low adaptive capacity, shortage in natural, financial, social, cultural, physical, and human resources. Besides, they have low power of governance are "powerless spectators". They are controlled by inappropriate policies which direct them towards agricultural practices. Moreover, they lack awareness towards threats, do not have knowledge, access to the minimum endowment. Second, "Coping actors" are communities with short term responses, they have limited governance tools which is not enough to manage for instance socio- ecological challenges. Moreover, their adaptive capacity is being used without guided vision. For instance: Bedouins in Sinai adapt to climate change in dry seasons in

was done in the frame of cultural and traditional habits not for long term the deserts. This vision. Third, "Adaptive managers" who have high adaptive and governance capacity, they can implement appropriate responses in the frame of long term plans and sustainable visions.

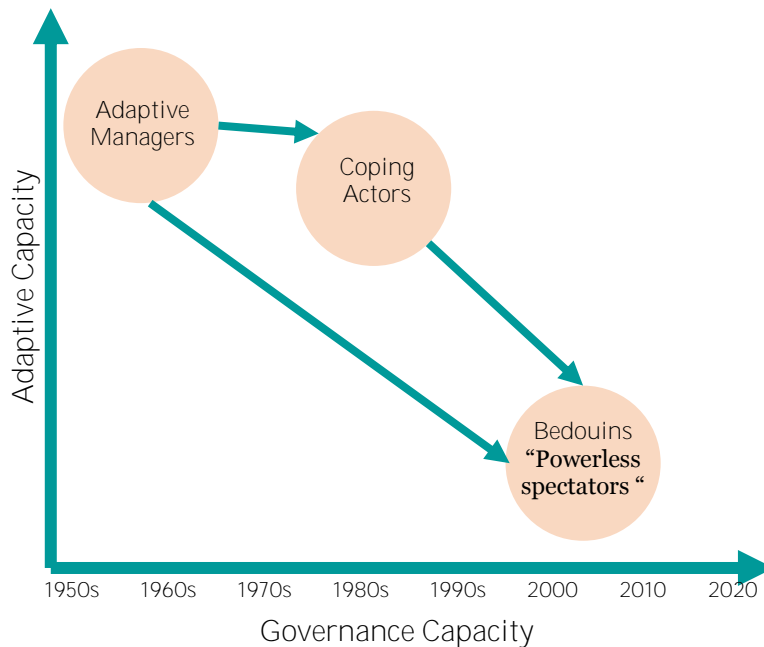


Figure 6: Change in Community Synthesis with time  
Source: Author based on (Fabricius et al., 2007)

## 2.5. Community Managed Disaster Risk Reduction

**“A process that mobilizes a group of people in a systematic way towards achieving a safe and resilient community/group. Its end view is a dynamic community that equalizes power relations, binds the group cohesively in the process of making decisions, deals with conflicts, resolves issues, and manages individual and collective tasks through addressing and bouncing back from hazard events”** (Gordon, 2017). It is a demand driven process where community organizations are key players. They chose and implement interventions based on demands and community's current capacity to respond to challenges then monitor changes and finally put evaluations. The CMDRR is considered from the bottom up approach in development in which community become powerful, empowered and active actor not powerless nor passive spectator (Wedø, 2015).

## 2.6. Resilience in Theory

Resilience is not a novel word. It appeared in the mid-17th century. It originated from the Latin word "resalire" which means to bounce or spring back. Resilience can be defined as "the capacity to cope with unanticipated dangers after they have become manifest, learning to bounce back" (Wildavsky, 1988). Also, "the capacity to adapt existing resources and skills to new situations and operating conditions"(Comfort, 1999). Scientists first used the term of resilience in material science, to describe the changes of the resisting material during its exposure to external shocks (Davoudi et al., 2012).

In the last two decades, Resilience field has gained big tractions and attention from scholars and decision makers. It was adapted in the field of ecology and psychology in the 1970s and 1980s. In the field of psychology, the term was used by Werner to describe the group of people or individual who cannot change their behaviour in tough times or during hazards (CARRI, 2013). In 1973, resilience appeared in the field of ecology by Crawford Holling who defined the two faces of system resilience; the engineering resilience and the ecological resilience (Davoudi et al., 2012).

The first face which is the traditional one, is defined as the ability of a system to recall to equilibrium after sudden shocks and disturbance. Engineering resilience is measured by the resistance of system to maintain the steady state. It is all about " efficiency, constancy and predictability". The second face is the ecological resilience which is the ability of a system to change to another steady state by adopting to the current regime. The resiliency of the system is measured by "the magnitude of the disturbance that can be absorbed before the system changes its structure by changing the variable and processes that control behaviour". The system is based on "persistence, change and unpredictability" (Holling, 1996).

Since then, hybrid definitions between engineering, ecology and behaviours have arisen. From which, Socio-ecological resilience that appeared after applying social science on ecological resilience. It is a bridging concept between specialty and interdisciplinary. Evolutionary resilience which explains system shifts due to the change in time and needs that is also considered a socio-ecological resilience (Folke et al., 2010).

In many literatures, Resilience definition starts with "the ability to ...", other literatures stressed on the phenomenology of the term and described it as " A process ...". Whereas other scholars tried to explain the term using two paradoxical targets of " being and becoming". An endeavour is done in this research to work on processing and operationalize the concept of resilience for community development (Plodinec, 2009). The following figure 7 shows how resilience as a process is described in theories to be used as an assessment tool.

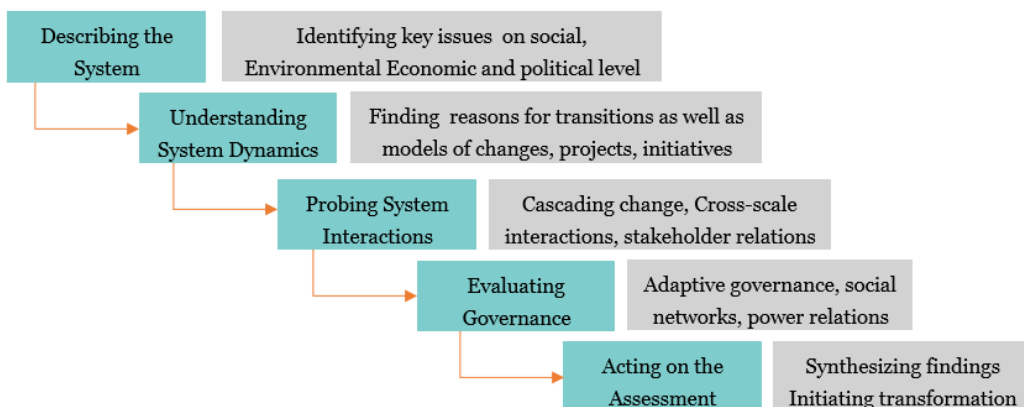


Figure 7: Resilience assessment process in theory  
source: Edited by Author after (Resilience Alliance, 2010)

Since there is no unified definition of resilience in all disciplines. The community and regional resilience institute has put five characteristics for resilience which are considered as core concepts of resilience (Plodinec, 2009):

- Attribute: resilience is an attribute of the community.
- Continuing: resilience is an intrinsic and dynamic part of the community.

- Adaptation: the community can become accustomed to adversity.
- Trajectory: a positive result for community resulted from adaptation relative to its condition after the crisis, especially in terms of its functionality.
- Comparability: the attribute permits communities to be assessed in terms of their ability to positively become accustomed to adversity.

## 2.7. Resilience in Practice

Resilience is a sound concept that entered many disciplines like its sister sustainability. However, the application of resilience in practice is still the issue. The term has been used in ecology, psychology, sociology, economics, material science, engineering, planning and everywhere (Seville, 2008).

Resilience is a dynamic contextual process because each system has its own circumstances, potentials and constrains. It is more intricated and sophisticated than sustainability as resilience is a snowball that should be chased and solved, in order to be able to find solutions. All human kinds fear the unknown besides sometimes it is hard to identify and predict the things which is not known. So as to manage the unknown the integrated research on disaster risk (IRDR) stated how the community can manage the unknown by **“starting point for facing tomorrows changed risk, whether from climate change, globalization or development. These three policy arenas share interests in monitoring changing risks, reducing exposure and vulnerability and advancing the transformation to resilience and sustainability”** (Rovins et al., 2014).

Resilience is a new holistic and multi sectoral approach which have been added to planning. Since planning absorbs new concepts and transform them into theories and practices. Resilience as a term became widely used in strategic planning and governance topics. Moreover, Resilient thinking helps to understand complex systems and find justification for transformations that happens normally in the field of planning (Davoudi et al., 2012).

## 2.8. Community Resilience

**As defined by the USAID, resilience is “the ability of people, households, communities, countries, and systems to mitigate, adapt to, and recover from shocks and stresses in a manner that reduces chronic vulnerability and facilitates inclusive growth” (USAID,2012). However, this research examines resilience at community level.**

Based on the community and regional resilience institute (CARRI), Community resilience is "the capability to anticipate risk, limit impact, and bounce back rapidly through survival, adaptability, evolution, and growth in the face of turbulent change" (CARRI, 2013). There are two types of community resilience, specified resilience which is related to a certain problem. It is argued that this type of resilience is dangerous because the community became only oriented to overcome specific shocks and not ready to cope with others. It shows "how systems that become very robust to frequent kinds of disturbance necessarily become fragile in relation to infrequent kinds". The second type is the general resilience, which is about dealing with all kinds of risks collectively with higher support in the governance structure (Folke et al., 2010). The difference between individual resilience and community resilience is that; on the one hand, the individual resilience is the ability of person to behave positively and adapt during tough times. On the other hand, community resilience expresses the ability of community to maintain its structure and function by absorbing stress forces then recover by well managing its resources after sudden shock (Seville, 2008). The main focus in the field of community resilience is measuring and defining resilience based on ethnography and social science perspective.

Community resilience is characterized by two crucial factors adaptability and transformability which are basically dependent on community's adaptive capacity and its willingness for transformation. Accordingly, community resilience is considered as "the general capacity of a community to absorb change, seize opportunity to improve living standards, and to transform

livelihood systems while sustaining the natural resource base. It is determined by the community's capacity for collective action as well as its ability for problem solving and consensus building to negotiate coordinated response" (Frankenberger et al., 2013).

### 2.8.1. From Absorptive to Transformative Capacity

Using the available resources, from knowledge, experience in tough time to meet needs and keep the system equilibrium state, is known as adaptability. This concept depends on the community's capacity to develop internal responses to face external threats in the same trajectory. However, transformability is considered as a regime shift, based on creating a new system stable state by using effectively community assets in a new trajectory (Walker et al., 2009). Figure 8 shows the three different community capacities "absorptive capacity – the ability to minimize exposure to shocks and stresses through preventative measures and appropriate coping strategies to avoid permanent, negative impacts; adaptive capacity – making proactive and informed choices about alternative livelihood strategies based on an understanding of changing conditions; and transformative capacity – the governance mechanisms, policies/regulations, infrastructure, community networks, and formal and informal social protection mechanisms that constitute the enabling environment for systemic change" (Frankenberger et al., 2013).

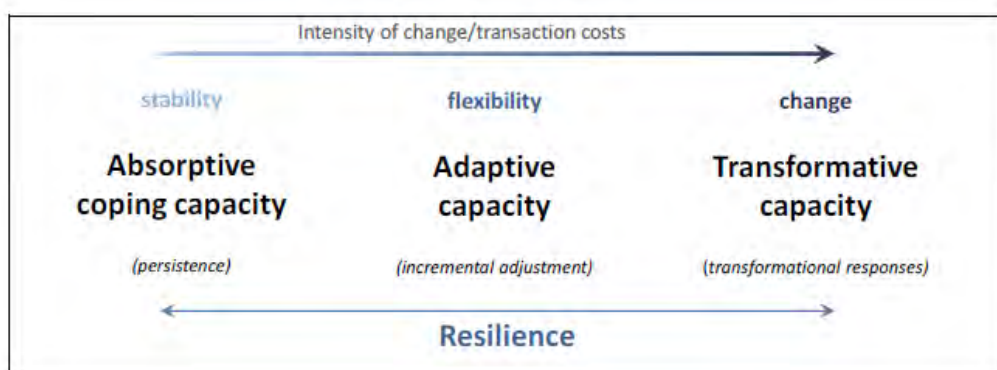


Figure 8: Key capacities for resilience  
Source: (Frankenberger et al., 2013)

### 2.8.2. Community's Adaptive Capacity

Adaptability and transformability are key factors influencing community resilience. Community's Adaptive capacity is the ability to learn from faults, moderate disturbance, make effective use of potentials and build up knowledge and experience of how they dealt with specific challenges. So, that later they can manage the problem and cope with the consequences (Fabricius et al., 2007).

Local knowledge is one of the key factors for adaptation and coping mechanisms (ibid). Accordingly, any retreat in the community's collective identity and values, results in decrease in the adaptive capacity and vice versa. Hence, Communities should withstand to mitigate social and cultural risks such as loss of traditional knowledge, access to natural resources and more, which are the consequences of national and international policies of sedentarization of pastoral nomads. Additionally, Bedouin communities in Sinai are affected by national and international conflicts leading to adaptation disturbance. Moreover, scarcity of natural resources, global warming, climate change and desertification put extra pressure on the community which continuously increases in population. Thus, the community livelihood strategies are altered to suit the newly introduced conditions.

Adaptive capacity is the ability to learn from mistakes and generate experiences of dealing with changes. Also, it mitigates social impacts and influence the governance of natural resources. Henceforward, adaptive capacity influences community resilience. Either, it spirals the community up to be capable of regime shifts with high transformative capacity, or spiral it down due to sudden shocks and long years of stresses. So, the only resilient response is to mitigate the impacts of these shocks with high absorptive capacity.

### 2.8.3. Building Community Resilience

Building community resilience is like constructing a skeleton for the community with foundations, pillars and roof as shown in figure 9. The base layer or the foundation of building Resilience for collaborative planning are history, geographical location, infrastructure availability and natural environment "natural, cultural, built". Its pillars are social networks, policy drivers, community capacity and area of control or power "social, political". However, there are stress forces which put pressure on community resilience such as socio-economic challenges, political will, demographic changes and more. It can be concluded that community resilience is an interdisciplinary research field. Interoperability is a key which facilitates transitional spatial resilient planning (Collier et al., 2013).

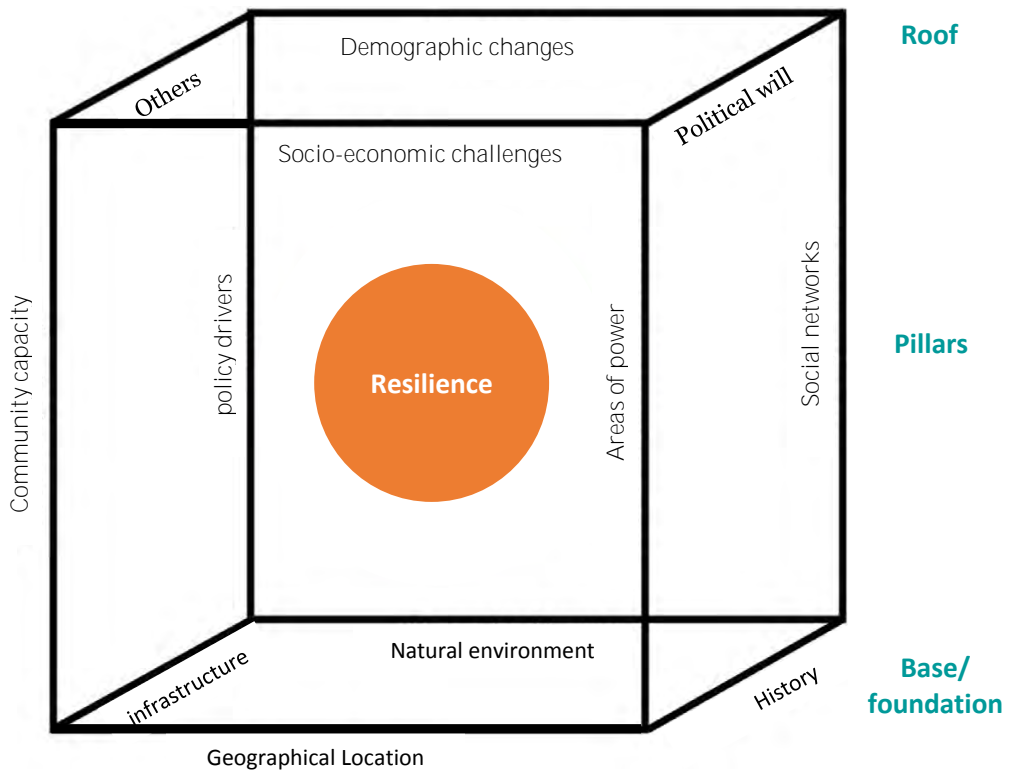


Figure 9: Skelton of community resilience  
 Source: Author, Modified after (Gitay et al., 2013).

## 2.9. Community Resilience Methodologies

There are many tools and frameworks for resilience analysis, assessment and operationalization since 2010 when the UNISDR launched the 5-year campaign for "Making Cities Resilient". Several qualitative and quantitative indicators were set to analyse and assess community resilience using multiple techniques for instance: interviews, surveys, checklists, national data...etc. as in Figure 10.

Group	Category	Sub-Category	Existing Assessment Methodologies								
			SPUR	Oregon Res. Plan (ORP)	UNISDR	Scorecard	CARRI CRS	CART	BRIC	Rockefeller CRF & CRI	NOAA CRI
1	Comprehensiveness	Community size	+	+	+	+	+	+	+	+	+
		Hazards	+	+	+	+	+	+	+	+	+
		Recovery time scales	+	+	?	?	?	?	+	+	+
		Systems	+	+	?	+	+	+	+	+	+
		Interdependencies	+	+	?	+	+	+	+	+	+
2	Utility	User friendliness	+	+	+	+	+	+	+	+	+
		Utility without hired or volunteer SMEs	-	-	+	?	?	?	+	?	?
		Value of outputs for resilience planning	+	+	+	?	?	?	+	+	?
		Consistency with PPD-21	+	+	+	+	+	+	+	+	+
3	Impacts assessed	Physical impacts and recovery times	+	+	+	+	+	+	+	+	
		Economic impacts and recovery times	+	+	+	+	+	+	+	+	
		Social impacts and recovery times	+	+	+	+	+	+	+	+	
4	Techniques used	Checklists	-	-	+	+	+	-	+	+	+
		Interviews, Surveys	-	-	+	+	+	-	+	+	+
		Ratings	+	+	+	+	+	+	+	+	+
		Existing national data sets	-	-	-	-	-	+	-	-	+
		Physical inspections	+	+	+	+	+	-	+	+	+
		Engineering analysis or expert opinion	+	+	+	+	+	-	+	+	+
		Statistical inference	+	+	+	+	+	-	+	+	+
Simulations	+	+	+	+	+	-	+	+	+		
5	Critical Assessment	Maturity	+	+	+	+	+	+	+	?	+
		Unique/innovative	+	+	+	+	+	+	+	+	+
		Objective/repeatable	+	+	+	+	+	+	+	+	+
		Scientific merit	+	+	+	?	?	?	+	?	+

Group	Symbol	Description
1	+	Addresses a broad range
	•	Focused subset, but not inherently limited
	-	Limitation
	?	Additional information required
2	+	High
	•	Moderate
	-	Low
	?	Additional information required
3	+	Explicitly assessed
	•	Partially or indirectly assessed
	-	Not assessed
	?	Additional information required
4	+	Yes
	•	Optional
	-	No
	?	Additional information required
5	+	Strength
	•	Neither a strength nor a weakness
	-	Weakness
	?	Additional information required

Figure 10: Assessment of Nine Existing Community Resilience Methodologies  
 Source: (Disaster Resilience Framework, 2015)

### 2.9.1. Community Capital Framework (CCF)

The CCF is an analytical tool which is used to understand the community, analyse holistic changes then determine community assets in order to spiral it up for development. Hence, CCF helps to systematically think in community projects for strategic development (Emery and Flora, 2006).

Based on Flora's community capital, seven capitals are identified as shown in Figure 11. they are depending on one another and they complete each other. The CCF assists project managers to trace assets for investments. Also, it determines the interrelations between capitals and boundaries of each. The main objectives for CCF are the achievement of: Vibrant Regional Economy, Healthy Ecosystem, Social Equity and Empowerment (Flora et al., 2005).

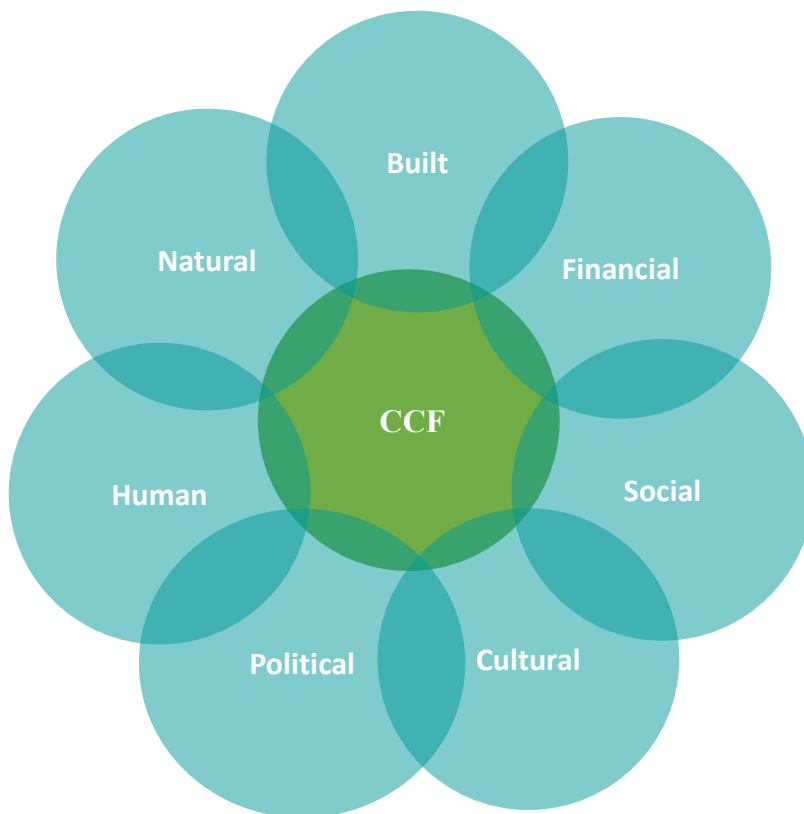


Figure 11: Flora's Community Capital Framework  
Source: Author based on (Flora et al., 2005)

Social capital is one of the most crucial capitals due to its critical role to achieve community resilience by collective actions. There are mainly three social capital types that helps communities to be ready for, handle as well as recuperate from any sudden shocks and stresses. Bonding social capital denotes the relations between community members. It usually appears in disaster context where people work adjacent to each other providing help to recover. Bridging social capital connects the community members and groups to other communities and groups. It usually passes boundaries as racial limits, geographic constrains or language differences. Linking social capital appears in confident networks between persons and groups with different interaction through explicit, institutionalized and formal boundaries in society. These interlinked networks are crucial for social resilience in addition to economic development, as they Offer possessions and information that may be not available through other methods (Frankenberger et al., 2013). Another additional type is entrepreneurial social capital which is concerned with community's local economic development. It is based on internal and external connections, local ways for mobilizing resources and reaching goals (Flora and Flora, 1993). Social capital is all about bond between people, groups, organizations, networking and networks in the community.

Political (Institutional) capital refers to the access to resources, connection to people in power, and organisations. It reflects the ability of people to be engaged in actions and decision making. It consists of power relations, as well as access to and influence on the political system and governmental processes at local and higher levels. Political capital is all about local government, inclusion of women and minorities in decision making, influence of local participation, transparent interaction between government and traditional authorities.

Cultural capital reflects the way how people live and react based on their traditions, habits and heritage. It includes languages, ethnicity, spirituality, Cosmo visions, **rituals, cloths ...etc.**

Human capital addresses abilities, skills, knowledge, self-esteem, physical and mental health. It can be assessed through demographics, socio economic data, quality of services and infrastructure.

Natural (Environmental) capital refers to a particular location with its assets and uniqueness from weather, beauty, natural resources, biodiversity, fresh water availability, local landscape, **wildlife...etc.**

Built (Physical) capital includes the infrastructures for instance transportation and roads, shelter and utilities, sewer and water systems, schools and health facilities in addition to markets. The physical built capital enables people to live better quality of life.

Financial (Economic) capital refers to the available financial resources to achieve socio-economic development, investment in community capacity-building, support to civic and social entrepreneurship. It includes external financial assistance, credits, savings, wealth, investments, **grants...etc.**

The community capital framework will be used throughout this thesis to be able to understand community's dimensions, assess each capital then give recommendations to strengthen each capital and purpose a methodological framework in the end to operationalize community resilience.

In conclusion, the community capital framework will be used all over this thesis to be able to understand community's dimensions, assess each capital then give recommendations to strengthen each capital and purpose a methodological framework in the end for Nuweiba community resilience. Moreover, there are too many frameworks which are being used for community resilience. Some of them are general and others focused on certain part of the process either analysis, assessment or operationalization.

### 2.9.2. Baseline Resilience Index for Communities (BRIC) <sup>1</sup>

BRIC is one of the very first resilience indices which is used to determine empirically the community resilience pre-existing conditions. It is not a hazard based approach. Nevertheless, it is dedicated to being used by decision makers to determine strategic interventions. Accordingly, it depends on sources and data provided by the government. However, the data very often are not up to date and not available at any time for anybody. Moreover, the correct database does not reflect current local circumstances. There are around 39 Variables for BRIC in five domains, the weight for each variable range from zero to one using min-maximum rescaling scheme as shown in figure 12. Zero means low resilience and one means very high resilience. There are two variables having inverse scale for instance when the percentage of international migration increase, the community resilience decreases. Since there are five sub-indices, BRIC ranges from zero to 5 (Cutter et al., 2010).

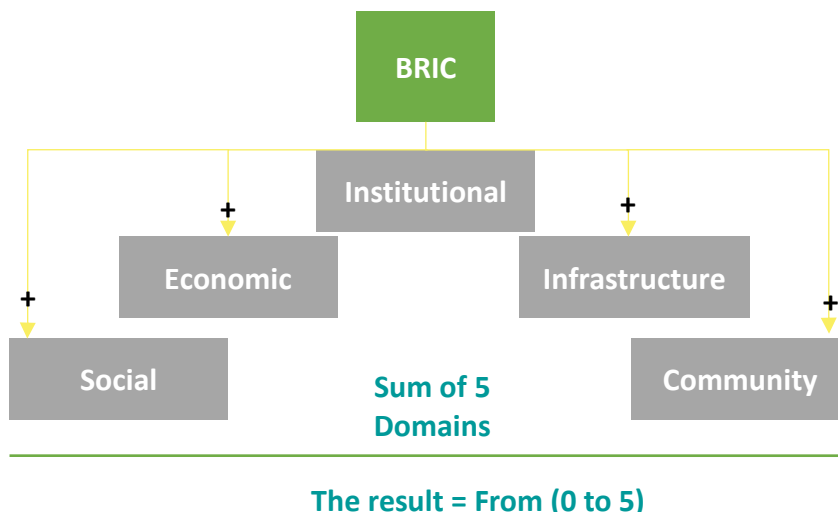


Figure 12: The five domains of BRIC  
 Source: Author based on (Cutter et al., 2010).

### 2.9.3. Hyogo Framework for Action (HFA) <sup>2</sup>

In Hyogo framework for actions, five thematic areas are identified to cover all aspects of resilience and build resilience of communities as in table 1. Several components are essential for the success or failure for each thematic area (ISDR, 2005)

Table 1: Hyogo's thematic areas  
Source: (Benson et al., 2007)

<b>Thematic area</b>	<b>Main components</b>
<b>Governance</b>	<ul style="list-style-type: none"> <li>▪ Policy and planning</li> <li>▪ Legal and regulatory systems</li> <li>▪ Resources and capacities</li> <li>▪ Integration with development</li> <li>▪ Institutional mechanisms, capacities and structures</li> <li>▪ Political commitment</li> <li>▪ Accountability and participation</li> </ul>
<b>Risk assessment</b>	<ul style="list-style-type: none"> <li>▪ Hazards/risk data and analysis</li> <li>▪ Vulnerability and impact data/indicators</li> <li>▪ Early warning systems</li> <li>▪ Scientific and technical innovation</li> </ul>
<b>Knowledge and education</b>	<ul style="list-style-type: none"> <li>▪ Information management and sharing</li> <li>▪ Education and training</li> <li>▪ Public awareness</li> <li>▪ Learning and research</li> </ul>
<b>Risk management and vulnerability reduction</b>	<ul style="list-style-type: none"> <li>▪ Environmental and natural resource management; climate change adaptation</li> <li>▪ Sustainable livelihoods</li> <li>▪ Social protection</li> <li>▪ Financial instruments</li> <li>▪ Structural and technical measures</li> <li>▪ Planning regimes</li> </ul>
<b>Disaster preparedness and response</b>	<ul style="list-style-type: none"> <li>▪ Organizational capacities and coordination</li> <li>▪ Preparedness and contingency planning</li> <li>▪ Emergency response mechanisms</li> <li>▪ Participation and voluntarism</li> </ul>

1 and 2: The previous two frameworks were selected as examples of resilience framework for assessment and operationalization. since, Flora's framework is mainly used for analysis and understanding. Accordingly, Baseline Resilience Index for Communities and Hyogo Framework for Action were selected. so that, the proposed community variables and domain, in addition to the methodological framework, which are thesis output, will be on solid base and researched background.



## Chapter 3: Region Identification



Captured by the Author in Nuweiba



### 3. Region Identification

This chapter aims at identifying the region of focus with its strategic, economic, social and cultural importance. Taba- Nuweiba region is one of the most significant locations in south Sinai and the peninsula. It represents a long authentic history as well as a harsh dispute between Egypt and Israeli colonization forces. The region has a great strategic and touristic importance. As it is embedded between the Gulf of Aqaba and Sinai mountains. In addition to emphasising on the potentials and constrains in Nuweiba as a focus city.

Nuweiba has many resources which increases the competences of the city from which touristic potentials, agricultural lands and economic viability. In addition to other intangible resources like its proximity to the city of peace "Sharm El Sheikh" and Ras Muhammed natural conservation. Based on GOPP report for year 2008, it is expected by the year 2027 that the city will grow and expand until its population reach 35,895. There are no enormous industries in Nuweiba because the city is not rich with mineral resources. However, it depends on small and medium traditional enterprises.

The discussion in this chapter starts from planning provinces in Egypt, Sinai Peninsula and its development plans, south Sinai governorate then zooming into Nuweiba city and analyse it in detail. To understand Nuweiba community dimensions and find its potentials, several topics are discussed for instance: Natural environment, economy, social structure, urban development, culture and traditions.

### 3.1. Administrative Planning Provinces in Egypt

In Egypt, as in Figure 13, there are seven administrative planning provinces: Greater Cairo, Alexandria, Delta, Upper North, Upper south, Assiut and Suez Canal. The latter is the third biggest province from the existing seven. Since, Suez Canal province represents around 8% of the total area of Egypt. Six governorates are encompassed in this province: Port Saied, Ismailia, Suez, Sharika, North Sinai and south Sinai. The last two governorates are the largest in area. They represent 75% of the province total area. Yet, they have very low population of about 4.7% (GOPP official website, 2017).

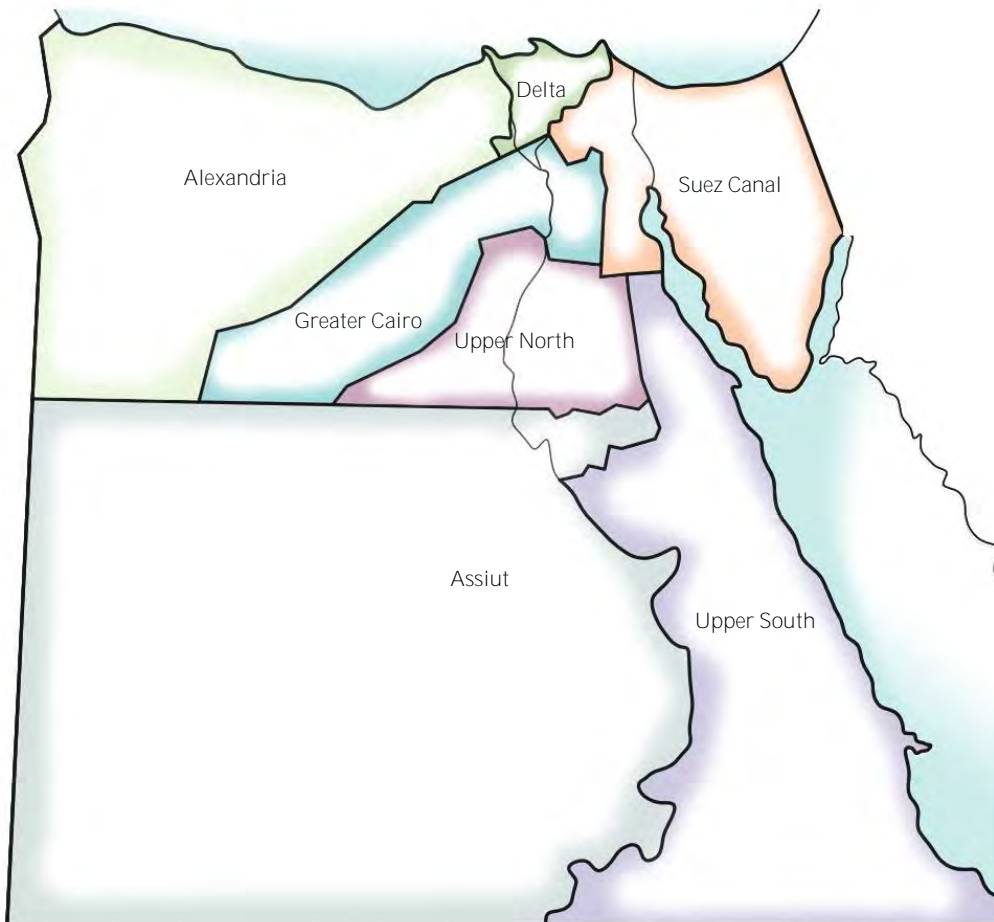


Figure 13: The seven administrative planning provinces  
 Source: Author based on (GOPP official website, 2017)

## 3.2. Sinai Peninsula

Sinai Peninsula is located in north-eastern Egypt. It is the only part of the country that is situated in Asia. The peninsula represents 6% of the Republic area. It has an area of around 61,000 square kilometres, which is nearly three times the area of Israel (SouthSinai, 2017). Administratively, as in Figure 14, the peninsula is divided into two separate provinces: North Sinai and South Sinai. However, there are three other governorates situated on the western border of Sinai on the Suez Canal; Port Saeed, Suez and Ismailia.



Figure 14: Sinai Peninsula and its governorates  
source: Author based on (GOPP, 2017)

Sinai has a significant history. Starting from the pharaonic era, Pharaohs Sneferu was the first one to enter Sinai in 2900 B.C. Then Sinai had fallen under different empires: the Ptolemaic, the Nabatean, the Byzantine, the Abbasside and the Ottoman empires. Moses spoke to God on one peak of Sinai's peaks. The highest peak in Egypt is Saint Catherine Mount which is 2,642 m above sea level, exists in Sinai. The Holy Family passed through Sinai on their blessed trail from Palestine to Cairo. The Islamic army started to spread Islam in North Africa from Sinai.

The whole peninsula had fallen under Israeli occupation twice. In 1956, the Egyptian army left Sinai, in order to prevent the British and the French forces from entering Cairo. As a result, Israeli forces took over Sinai just for few months after the united nations interference to solve the conflict. After the six days' war in 1967, Sinai was totally lost for the second time under the Israeli forces. Nevertheless, after the victory in 1973 and the camp David accords between the two countries, Sinai was gradually retrieved until 1982. Starting from President El Sadat era, Sinai development vision was set clear to ensure the Egyptian state sovereignty by establishing a territorial depth as well as increase population density in the peninsula (Serag, 2010).

Sinai is considered as the eastern gate to Egypt. It has a strategic, economic and political importance. However, it is still the least developed part in Egypt (Sims, 2015). The absence of development, infrastructure, services and employment in remote peripheral parts of Sinai is considered a main factor driving local youth into the black market and illegal actions. In this research, the focus will be on south Sinai, especially Nuweiba and its indigenous Bedouin community.

### 3.3. Sinai Development Plans

#### 3.3.1. openness and the New Map of Egypt

Before Nasser's era, the dominant city model in planning was the European western model. However, in the 1950s and 1960s this model was replaced by traditional Egyptian model with modern perspective following Nasser's socialism policy. Afterwards, openness post war policy was introduced and the western globalized model returned back again (Abdelwahab and Serag, 2016).

During president El Sadat's era, a new development map of Egypt was introduced with two pole cities; Cairo and Alexandria as main core of development. Longitudinal and transverse axes were identified to develop the republic and redistribute population following three phases as shown in Figure 15. The plan aimed at settling around 100,000 citizens in Sinai in 34 newly developed

settlements from which 18 coastal settlements. However, the plan was unsuccessful because it relied on governmental fund without any private capital nor investment (Serag, 2008).

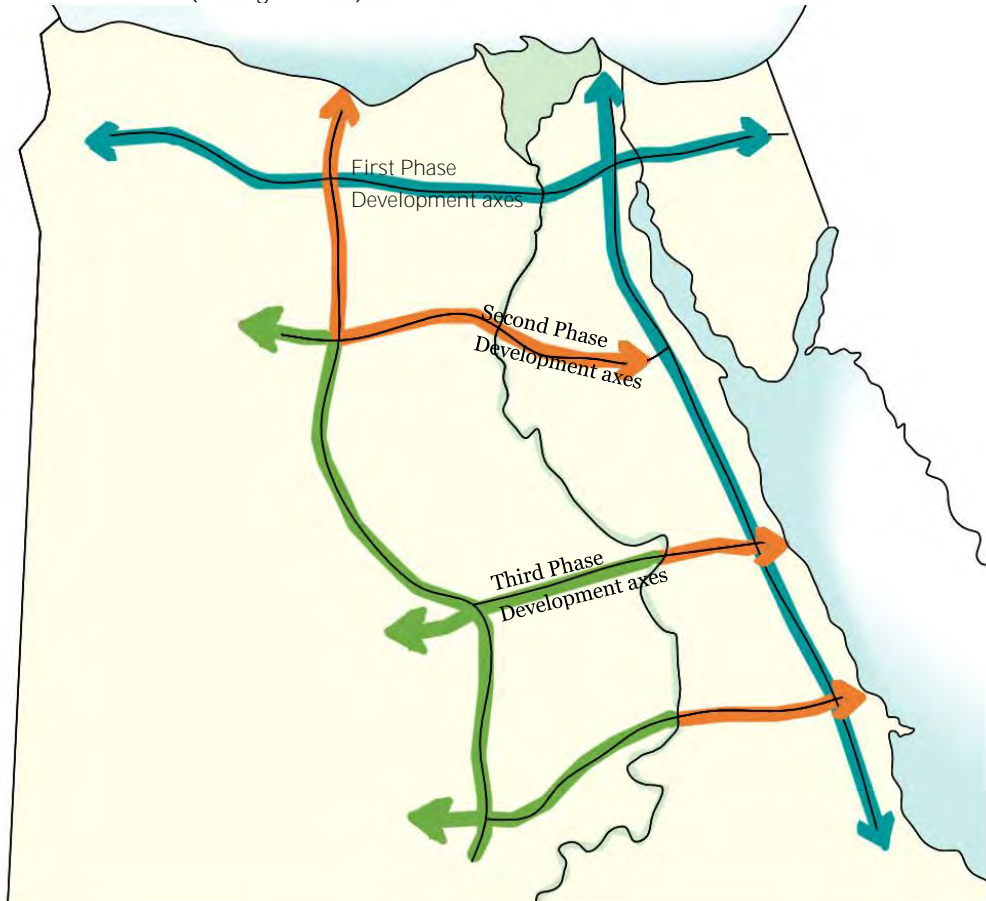


Figure 15: Development corridors after Sinai Liberation  
Source: Author based on (Attia, 1999)

### 3.3.2. The National project for Sinai development

Since Sinai has terrific natural resources and spectacular marine life. All attention was directed towards tourism industry in south Sinai and especially in Sharm el sheikh. Many hotels were constructed along the shore of Sharm. Then, Bedouins had no chance for fishing in front of the hotels. Tourism industry had been flourished in the 1990s and 2000s. However, the natural resources were exploited and became threatened. That is why, the Egyptian government in collaboration with EU had initiated the first protectorate in south Sinai in 1983, which is Ras Muhammed protected area (Ali, 1998).

Afterwards, the national project for Sinai development had been released as shown in Figure 16. It aimed at attracting population from the overcrowded Nile valley establishing new urban communities. Moreover, it is meant to get foreign currency as well as intensification of security in Sinai. Notwithstanding, 7% of Sinai lands were allocated to ethnic indigenous groups of Sinai. The government established to exploit all water natural resources, discover ores and work on tourism industry. The plan targeted at the creation of 800,000 job opportunity and settling 3.2 million citizens until the year 2017 (Sarnowski, 2010).

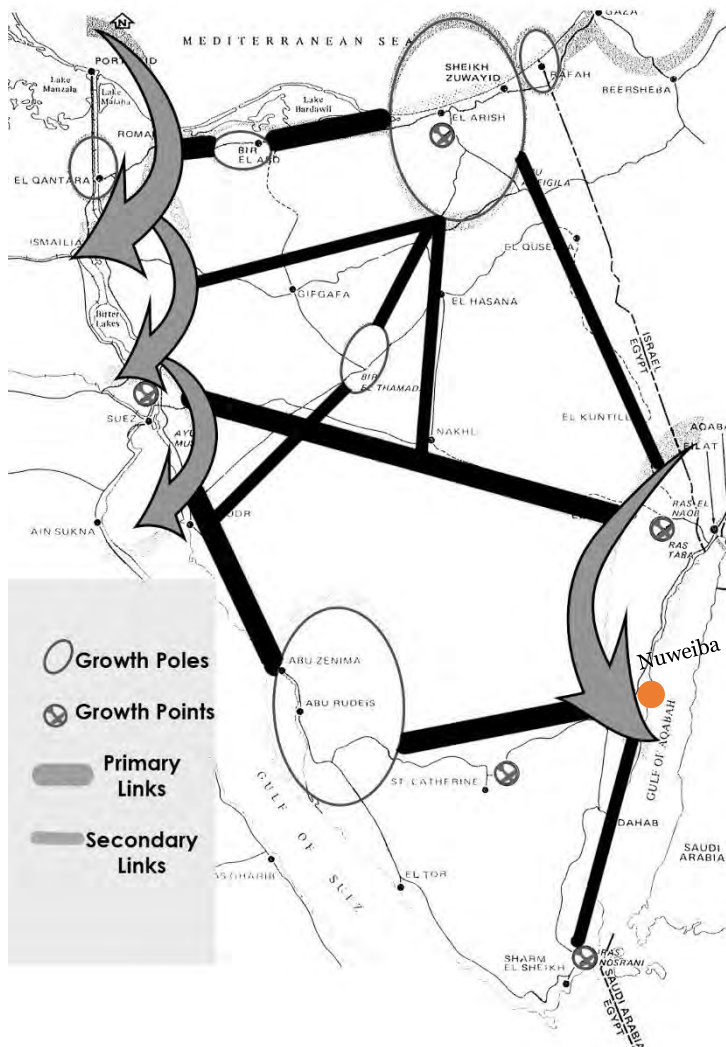


Figure 16: Recommended strategy: growth poles, growth points and linkages

Source: Edited by the Author after (Sinai, 1985)

The first development plan of Sinai was in 1985 by Dames and Moore. Then in 1994 the national plan for Sinai development was released to ensure Egyptian sovereignty after two occupation periods during modern history. The plan targeted the attraction of around 3 million inhabitants in the peninsula. Accordingly, many projects and infrastructure were developed with 10-30 % government fund and the rest were supplied by private companies and investors (Sims and El Miniawy, 2003).

### 3.3.3. After the Arab spring

After 25th revolution, The National Agency for Sinai Peninsula development has been established to manage the development projects in Sinai region. It includes representatives of Bedouins of both sexes. Its mission is clarified as the state body responsible for supervising, controlling and providing any assistance, grants or foreign donations that are monitored by any organizations, associations or individuals to develop any projects in the region.

According to the law, the ownership of land and real estate in the development areas in Sinai is restricted to Egyptians "Egyptian legal persons" whose capital is wholly owned by Egyptians. In case the heir is not Egyptian, he has no right to dispose of the inheritance except to an Egyptian. After the approval of the National Authority for the development of Sinai. The new law allows for foreign partnership in investment projects through Egyptian joint companies, provided that the participation rate of Egyptians is not less than 70%. The government and involved agencies are responsible for limiting the cases of foreign heirs to follow up and to supervise them. The disposition of land and real estate in the development areas is for a maximum of 99 years (Today, 2017).

## 3.4. South Sinai Governorate

South Sinai governorate is situated in the southern part of Sinai Peninsula. It takes a triangular shape; its northern base is extended from Taba on the Gulf of Aqaba in the west till Suez on the Gulf of Suez in the east. The two gulfs are met

in Ras Muhammad protectorate in the south. South Sinai is 31,272 km<sup>2</sup> in area which represents 8.38% from the total area of Suez Canal provinces and 1.3% of the republic area. There are eight administrative centres in south Sinai as in Figure 17: Abou Zeniema, Ras Sedr, Abou Redes, Sharm El Sheikh, Tor and Nuweiba. Tor is the administrative capital which is located on the eastern coast of the Suez Gulf. Administrative borders of Nuweiba covers two cities: Taba and Nuweiba (SouthSinai, 2017).

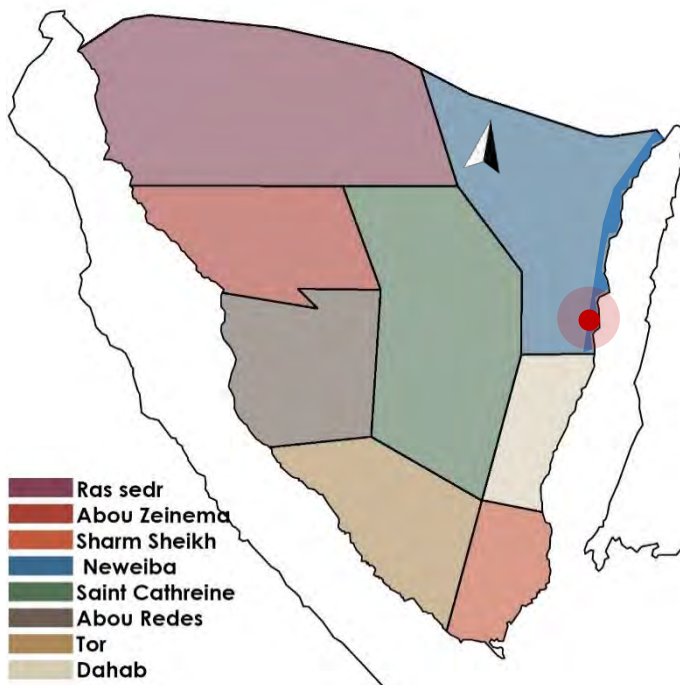


Figure 17: South Sinai administrative centres  
 Source: Author based on (south Sinai official website, 2017)

### 3.4.1. South Sinai Resources

South Sinai is famous for its uniqueness in natural environment, arid climate and richness in ecosystem biodiversity. The governorate hosts endangered species of plants as well as diverse species of animals in the desert. Moreover, the marine life is rich with partisan endemic coral reefs and species particularly in the Gulf of Aqaba (Baldwin et al., 1988). On this regard, there are around five natural protectorates in south Sinai: Abou Gallum, saint Catherine, Nabq, Taba, and Ras Muhammed. They represent around 50% of the governorate total area.

Furthermore, the entire coast of Aqaba is under protection of Egyptian environmental affairs agency (EEAA) that is affiliated to the Ministry of Environment. The Gulf is around 300 km in length. It is extended from Ras Muhammed protectorate in the south until Taba in the north. Also, south Sinai has many oil wells, mineral resources and mountains of precious stones. This resulted in encouraging investors, researchers as well as invaders to come to south Sinai for resources discovery and exploitation.

#### 3.4.2. South Sinai Development

The development of south Sinai came late due to several reasons. Its location is on the periphery, it is situated far away from the capital Cairo. Therefore, the region became a neglected and isolated part. Additionally, the tough topography restricted to provide needed basic services and infrastructure especially to the eastern part on the Gulf of Aqaba. Since Sinai was a battlefield in three consecutive wars in 1956, 1967 and 1973. Also, lack of security and Arab region instability since 1948, delayed the integration of the region with the Republic.

### 3.5. Nuweiba

Nuweiba is located 120 km away from Sharm el sheikh and 340 km away from Ahmed Hamdi tunnel. Nuweiba is 6,977 square meters in area, which is 22.31 % of the total area of south Sinai. It is also named as the pearl of Aqaba. Nuweiba is tourists and passengers meeting point before going to the holy land for Haj. It is wedged between Sinai mountains and the Gulf of Aqaba. It is also considered as one of the most important cities in south Sinai. Taba is located in the North of Nuweiba where the Egyptian border line with Israel is, Dahab city is in the south which is a tourist destination location, Aqaba gulf in the east and Sinai mountains are located in the west where caves, coloured canyons, natural rocks and valleys exist in a wild adventurous life. Figure 18 shows Nuweiba coastal strip where most of urban development and tourist investments are being developed.

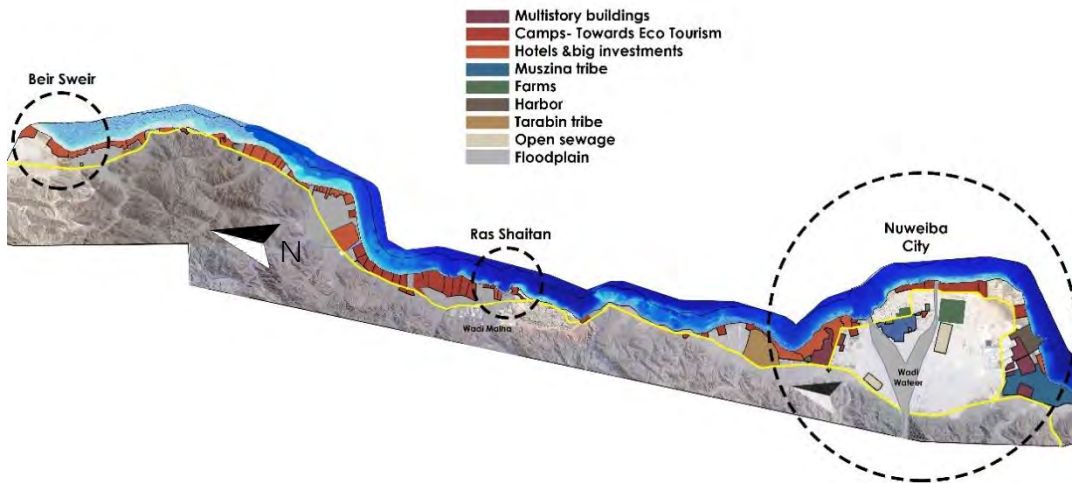


Figure 18: Nuweiba coastal areas  
 Source: author based on google earth and field visits

### 3.5.1. Nuweiba Community

Bedouins represent the great majority in Nuweiba. The word Bedouin is derived from the Arabic word " Badu" which means the people who live in " Badya". All Bedouins who are living in Sinai have Arabian ancestry. For instance, in Nuweiba, there are mainly two tribes: Tarabin and Muzeina. Tarabin are originally from Yemen and Saudi Arabia, they are the grandchildren of the prophet Muhammed. Muzeina's ancestors came from Saudi Arabia in the 17th century. Muzeina Tribe falls under El Tyaha alliance but Tarabin is under El Tawara tribal Alliance who used to dwell mountains (Ali, 1998).

All Bedouin tribes are an ethnic group who came from Arabian Peninsula since the pre-Islamic age. They are the indigenous people in Sinai because they are the first who lived in Sinai. However, Egyptians did not inhabit the peninsula since the pharaonic time and until the Israeli occupation period. Moreover, the Pharos used to send delegation to Sinai in order to exploit its resources from copper and turquoise similar as Egyptians who later extracted oil. Figure 19 shows the biggest three Bedouin agglomeration in Nuweiba which are currently in the city: Tarabin, Muzeina and Al Wasit.

Nowadays, Nuweiba community is not only the indigenous Bedouins but the Egyptian migrants from Cairo, delta and upper Egypt also form the current social fabric. In addition to foreigners who merged into the society and live between Bedouins in their settlements or in the wadis up the mountains.



Figure 19: Bedouin settlements in Nuweiba  
source: Author based on google earth

### 3.5.2. Natural Environment

Nuweiba has prepossessing natural sceneries. It is an inveterate and authentic sub-Region in south Sinai. Additionally, it is considered as the city of magic and beauty, the city of integrity and history. Based on the GOPP report 2008, more than 11,000 palms existed only in Nuweiba. From the natural attractions in Nuweiba, the coloured canyon which is a labyrinth of sandstones and rocks coloured in gold, orange, purple, yellow, red and magenta. The canyon is around 800-meter long and reaches 40 meters in height. Wadi El Washwashi which is a huge natural pool in the mountains existed on the route of the coloured canyon. It is a very beautiful place yet hard to reach particularly in winter. Since, it is only accessible after passing under two big boulders on the way and the route under those rocks is filled with water as shown in Figure 20. In addition to the spectacular coral reefs and rare species in the Gulf of Aqaba.



*Figure 20: Natural attractions in Nuweiba, on the left is wadi el washwashi canyon entrance, On the right is the coloured canyon.*

*Source: Author and (Coloured Canyon in Nuweiba, 2017).*

### 3.5.3. Social Structure

The two tribes living in Nuweiba; Tarabin and Muzeina represent the majority of Nuweiba population. Tarabin is living in the northern part of the city, Muzeina tribe lives in the southern part near the harbour. The two tribes are in contact with other Bedouin tribes and sometimes they organize together safari businesses and trips. Bedouins have a very strong family ties. Since each tribe has its own sheikh who simply acts as the president of this tribe. Each tribe consists of number of " Robaa' " quarters. Each Robaa has number of " khoms" fifths. The " Khoms" is five generations from one family. Two " khoms" form one " Robaa' " which is two big families of two grandfathers who are in very close relations as shown in Figure 21.

Additionally, Bedouins have their own constitution "Al Orf", which is derived from mores and manners. Local judges are appointed to solve conflicts between Bedouins. Each judge is specialized in a certain topic; for instance, there are judges for land conflicts who only resolve disputes on land ownership, accusations and so on.

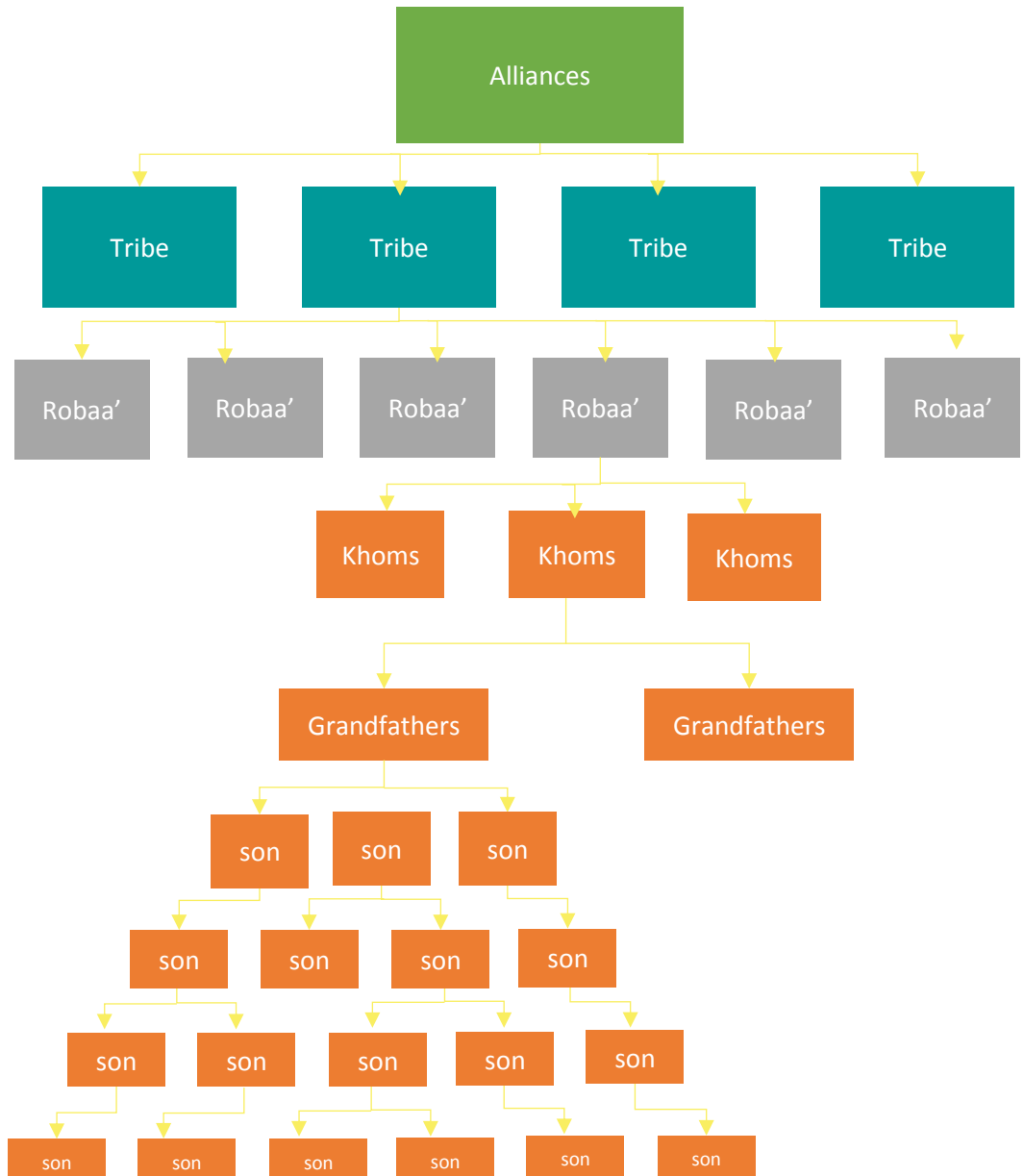


Figure 21: Tribal Family structure  
Source: Author based on conducted interviews

### 3.5.4. Culture and Tradition

Nuweiba is very famous for its authentic Bedouin culture. They have inherited basic traditional knowledge from their ancestors in astrology, geology, medicine. Furthermore, they have traditional music and instruments for instance "shababh 1" for women and "simsimya 2" for men which was originally taken from Port Saied. Bedouins usually play music in weddings and in spring gatherings " Rabeaa" up the mountains. Rabeaa is a seasonal trip for Bedouin families with their children and animals in the spring after long rainy winter days to mountains. During Rabeaa, each family goes up the mountains to practice traditional pastoral activities, feed their "Halal", teach children how to live tough life of their grandparents as well as eat traditional food (such as Madfona 3, Farasheh 4, Lebah 5 and more). They basically depend on hot sand which is heated naturally by the sun or fire some wood then put the food in a hole of 1-meter depth and cover it with sand. Moreover, they like to narrate stories and say poems during this traditional trip.

Bedouin respect each other, have prominent level of pride, self-containment and dignity. On this regard, they share daily life experiences in "Makaad" which is like a public meeting for Bedouin men to solve social conflicts. Noticeably, Women and Religion are from the taboos in Bedouin society. Women are highly respected and appreciated within the society. They should cover their faces and should not be mixed with men in any occasions or under any conditions. Based on that, they prefer dark streets without lighting fixtures, so that women will not be seen when they walk from one house to another. Moreover, if a man is driving a car inside a Bedouin settlement at night, the light should not be high especially if a woman is passing by.

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1. *Shababh*: A musical instrument usually played by women. It is like a metal cylinder with some holes on it.  
2. *Simsimya*: A musical instrument which is usually used by Bedouin men.  
3. *Madfona*: Bedouin traditional food in weddings and parties. Bedouin dig a hole in land of 1.5m in depth and put goats' meat to be cooked under Sinai sand.  
4. *Farasheh*: Bedouin bread. 5. *Lebah*: kind of bakery which is surrounded by sand to be cooked

Additionally, it is not desirable for a Woman to work or go out alone especially if she is under 40 years old. Accordingly, if a man did not respect women's privacy or does any fault in women related issues, this incident will be raised in "Makaad". Consequently, certain amount of money "Diya" has to be paid as a compensation and punishment for breaking Bedouins' rules "El Orf".

Though Bedouin are very conservative and strict, they are opened to know about diverse cultures. Subsequently, most of them are at least bilingual, they speak Arabic as well as Hebrew due to their proximity to Israel and the long years of occupation. Although the majority cannot read nor write, they like to learn languages. Moreover, some of them can speak English and German too.

#### 3.5.5. Bedouin livelihood

Long years ago, Bedouins were nomads who live in harsh conditions. They used to depend on fishing, grazing and charcoal production to cover their basic needs. They were also authentic tour guides who protect the caravans of pilgrims and traders (Gilbert, 2011). During occupation period, cutting wood for charcoal production was prohibited. Also, fishing was only after permission, since the Israelis introduced natural protections along the Gulf of Aqaba. Additionally, the occupation forces established the foundation of eco-tourism in Sinai. They organized trips for tourists and students from Israel to enjoy the pristine nature on the Gulf of Aqaba. Consequently, Bedouins worked in tourism sector as guides, guards, drivers and workers. Some Bedouins opened camps for tourists with Number of straw huts on the shore (Lavie, 1990).

Yet, after the peace treaty, the Egyptian government put many plans to settle Bedouins to raise their standard of living. Since then, nomads became more modernized and indigenous identity became threatened. Hence, many nomads worked in farming and industries (Hobbs, 2010).

However, Unemployment and lack of job opportunities in the city resulted in attracting Bedouin youth to illegal practices and sometimes joining militant groups.

### 3.5.6. Urban Development

Based on the GOPP report in 2008, the following maps figure 22 and figure 24 show Nuweiba city development and the current planned/ unplanned areas. Long years before 1967, Nomadic Bedouin settled down near the coast in two small agglomerations. They stayed there in certain season to fish then returned to the mountains. Then, those agglomerations started to grow and expand as it will be explained in chapter 4. However, Nuweiba city started to develop into globalized city model during the Israeli occupation period and it will be explained in detail in chapter 5. In the meaning time, the strategic plan of Nuweiba city is being approved. It will be the first of its kind for Nweiba.

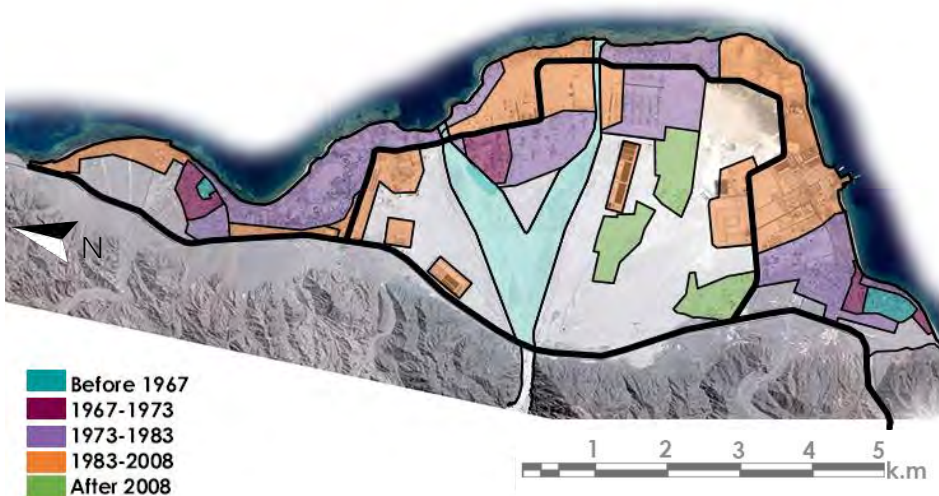


Figure 22: Nuweiba development  
Source: Author after (GOPP,2008)

Unfortunately, there is no unified vision either on local or national level. Figure 23 shows the result of conducted interviews and surveys with Nuweiba community, around quarter of the interviewees dream of touristic identity of Nuweiba so that they can work and make fast money. However, the majority of about 30% preferred having diverse identity which follows their culture and traditions.

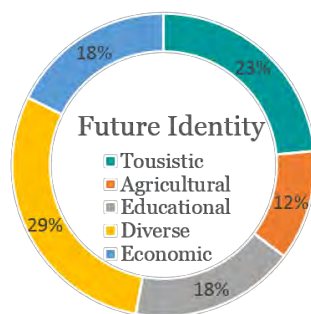


Figure 23: Nuweiba future identity  
Source: Author

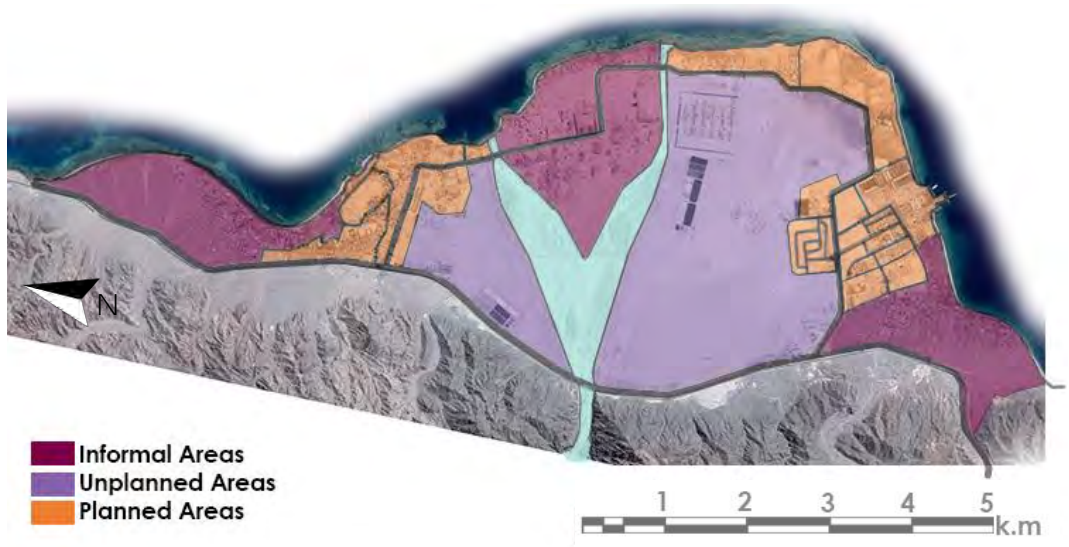


Figure 24: planned and unplanned areas in Nuweiba city  
 Source: Author after (GOPP,2008)

### 3.6. Conclusion

In conclusion Nuweiba has many potentials that affected and still impacting its development since the city initiation, as it was illustrated in this chapter and it will be discussed in part II. The following Figure 25 shows the driving forces for development in Nuweiba. Nevertheless, those potentials act at the same time as challenges to development as it will be shown later.

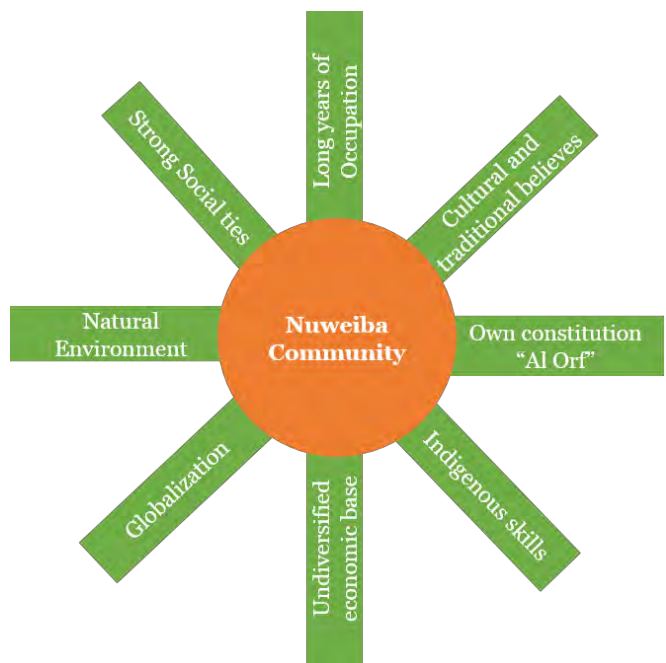


Figure 25: The driving forces of development in Nuweiba  
 Source: Author



## Part II:

# Transitions from The Past and Present to The Future

The following three chapters illustrate analytical framework of Nuweiba community resilience based on anthropological analysis of historical events and ethnographical analysis of changes in Nuweiba, relying on the conducted field visits.



## Chapter 4: From Adaptive Managers to Coping Actors



Captured by the Author in Nuweiba



## 4. From Adaptive Managers to Coping Actors

This chapter focuses on two periods of time, in order to compare the changes that happened to the bedouin community. Before 1967, South Sinai was untouched or addressed by any development plans from the state. There was also no attempt from Sinai inhabitant for any kind of community development. Since, all Sinai inhabitants were nomadic Bedouins who do not know what urban development mean at that time. There were no roads nor transportation, no utilities, services nor facilities. Bedouins were nomads and semi nomads, dependent on limited sources of economic activities. The pre-development livelihood was pastoralism up the mountains and in the oases to collect orchard fruits and dates. Bedouins used to live in hair house "bait Al shaar" or a tent due to their flexibility which suites their mobile livelihoods. They were not in need of cash as they used to raise sheep and goats which provided them with valuable protein from milk, cheese, and meat. Also, they used the dried animal skin to make hides for carrying water. In addition to, wool for rugs and tent panels for their houses.

Bedouins' life changed a lot between 1960s and 1970s; from totally depending on predevelopment pastoralism into finding sources to earn cash money, from agri-pastoral livelihood into insecure paid work. Since, Sinai fall under Israeli colonization in 1973 until 1982, a massive shock hit Bedouin tribes in the whole peninsula. In the beginning, all tribes escaped far away up the mountains and even they did not go down on the coast for fishing.

## 4.1. Planning between Localization and Globalization:

### 4.1.1. Local planning in Nuweiba

Long years ago, before the 19th century, Bedouins used to live in mountains, they used to go down near the coast in certain seasons. Based on the conducted interviews during the field visit, in the past, each family planted palm trees to collect and eat dates during their stay. Afterwards, the palm became an indication of physical territory to these lands. The idea behind planting palm trees as a proof of territoriality on the shoreline of the gulf of Aqaba or even on the flood plain, was that if the flood took out the palm better than demolishing a house. So, that when they went down from the mountains they put their tents or reed houses for two months and they started to collect dates and fruits for their sustenance. Also, they stored dates and salted fish for a year to eat them during pastoral time up the mountains. The Bedouin family were very attached to their palm trees. Because palms were the source of food and shelter. When a family planted a palm tree, there should be a buffer zone of (7-10) m, which was equal to the length of palm leaf that made a shaded area around each palm. If a family planted two palms trees the land between them became their territory as shown in Figure 26. The more a family planted palms and take care of them every season, the bigger territory they owned. Subsequently, until now 100 palms were planted on 2 Km along the shoreline by one family, this means that one family in Nuweiba claims 2 km of Nuweiba land.

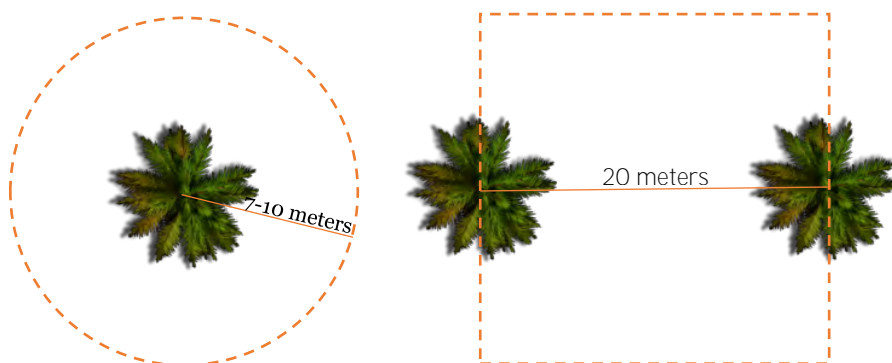


Figure 26: The buffer zone around each palm  
Source: Author

If more than one family planted many palm trees on small land plot as Figure 27, conflicts were created later on regarding whose territory it belonged to. Yet Bedouin families managed to solve those kind of problems, either by finding someone who witnessed that a certain family came to the land first and planted the palm trees or by the number of palm trees which existed on a certain plot of land and were planted by one family - Based on Bedouin law "El Orf"- In the 1960s, some of the Bedouin tribes started to settle down on the coastal areas in Nuweiba. Tarabin and Muzeina tribes lived in tents or in small houses with clay as binding material on the lands where their palm trees existed. Since then, the social territory started to be defined. Any Bedouin from Tarabin tribe could not plant any palm or put his hand on a land in Muzeina's territorial area.

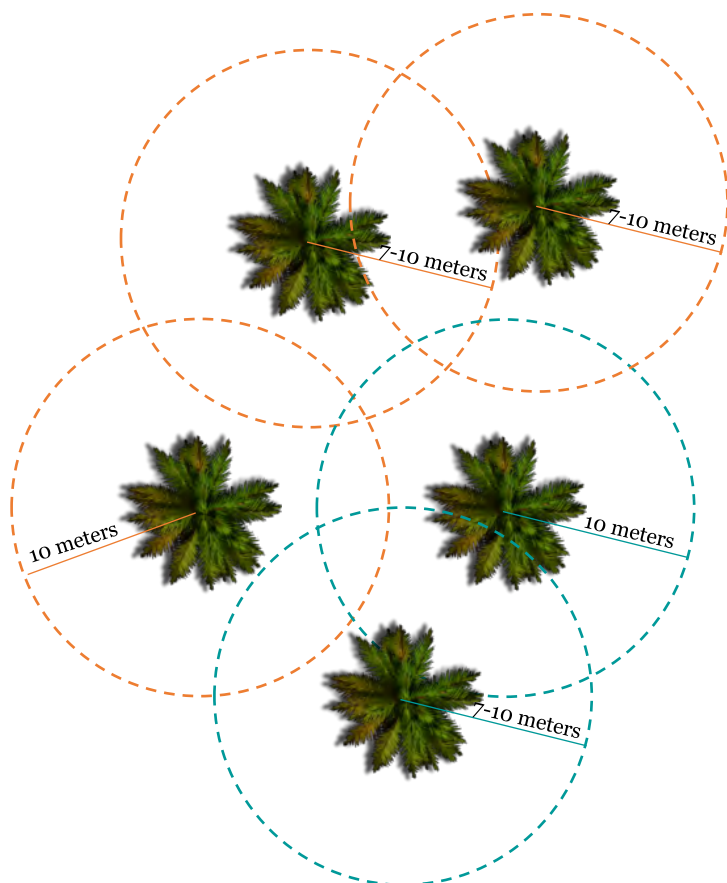


Figure 27: Territorial conflict  
Source: Author

#### 4.1.2. Towards Glocalization

In the first very beginning of the Israeli occupation, all Bedouins escaped and went to live on the mountains. They did not even appear to collect dates from their palms. Gradually, they began to reveal and work to cover their basic needs. Although the Israeli people were occupation forces, they did not deal with Bedouin using Force or oppression. However, they negotiated with the locals from the two tribes on lands to start building and working in the city, because Israelis recognized that they could not work in disturbed environment. Besides, Bedouins would not be silent or calm if their territories were taken without their acceptance. Accordingly, they included Bedouins in planning process as well as negotiated with families on lands before choosing any location for implementing Israeli settlements, factories, farms or whatsoever. Afterwards, the occupation forces started to build and put fences around their occupied territory after negotiation with Bedouins. They implemented the first steps in planning the city of Nuweiba as in Figure 28, by building staggered chalets with gardens having Seaview " kibbutz", reclaiming agriculture lands, opening a factory for sorting and packing, constructing roads, service area and basic infrastructure.

The occupation forces targeted and negotiated over lands near the coast and they did not implement anything on the mountains. Consequently, it became clear for the Bedouins that the Israeli forces took over their resources as they built their kibbutz, factories, camps, resorts and even started to farm on land near the coast. Over and above, Bedouins were banned from fishing and even from living on the coast. Since then, Bedouins understood the importance and the value of coastal lands along the shoreline of the gulf of Aqaba.

The indigenous Bedouin community were more resilient while dividing lands and tribal territories before occupation, since planning was a simple process based on respect and mutual approval. The Israeli occupation dealt with Bedouin the same way in planning. Though indigenous people knew that they were less powerful than they used to be and at that time the Israeli controlled.

They took over lands for projects and settlements locations. The following Figure 28 shows Nuweiba first development during Israeli occupation era.



Figure 28: Nuweiba first Development during occupation Period  
Source: Author based on interviews and google earth

The occupation bodies were seeking selective collaborate with native Bedouins and tribal sheikhs in order to dominate and stabilize their kibbutz through inclusion. Hence, the followed planning by the occupation power was not

exclusive nor subjective. Furthermore, it depended on inferiority and superiority of the occupation in the process of inclusive planning. Nevertheless, the occupation forces emphasized on citizens' inclusion and civil society partnership during the transformative planning practices in Nuweiba. After Sinai liberation and the peace treaty between Egypt and Israel, the local community was impressed by the Western model that was introduced by the Israeli occupation in building construction and style of housing. Consequently, a state of aversion to the previous lifestyle evolved. Due to the rise in modernity, Globalization and the new openness policy, the world became like a big city. However, there was a counter movement of keeping community localization to maintain culture and traditions. Subsequently, Glocalization resulted from the interaction between the previously mentioned two-paradoxical concepts (Meir, 2005).

#### 4.1.3. Israeli Kibbutzim in Nuweiba and Sinai

Kibbutz is a concept of a religious community which have been built collectively based on Zionism -Figure 29 shows an example of kibbutz community-. Though, kibbutzim were vulnerable to international changes, they were merged under bigger communities which were responsible for their economic support. After the establishment of Israel, the country stopped to support the kibbutzim communities, so many of them failed. Besides many families started to be independent entities. This resulted in weak cohesiveness and loose values in the community. Up till now, kibbutz concept is considered as a successful idea. It survived for a long period, because members in the kibbutz were emotionally connected, they lived together and worked together. Simply they shared a short history affiliated to organic solidarity which was based on religion and occupied territoriality (McMillan and Chavis, 1986).

Accordingly, families who believed in the kibbutz concept came from all over the world to Sinai and formed a multi ethnic society. Some families settled in Nuweiba which is known by Neviot kibbutz as in Figure 30 and Figure 31.

Moreover, the settlers worked hand in hand, men, women and youth for self-sufficiency from food and utilities. Additionally, they started to bring experts to conduct researches in different fields for their sustenance as well as to increase their production.



Figure 29: One of Israeli kibbutz in the last century  
Source: (Wikivisually, 2017)



Figure 30: A chalet and an old American truck in Neviot Kibbutz  
Source: (Christopher-leach-photography, 2017)



Figure 31: Simple constructions by Israeli settlers  
Source: (Lostamigo, 2017)

## 4.2. Shelter Typologies and Services

Bedouins used to live in " Bait Al Shaar" goat hair house or tents dependent on mobile livelihood as shown in Figure 32. In summer, Bedouins used to live in tents. Whereas, they lived in goat hair houses especially during rainy seasons, because goat hair stretches when rains run on roof preventing water from penetrating. Other parts of this house were made of wool to keep warmth inside. Nevertheless, during hard winter days, they lived in caves in the mountain to be protected from harsh weather conditions.



Figure 32: Bedouin traditional shelter before the 1960s  
Source: (erbzine, 2017)

During the occupation period, it was prohibited for any Bedouin to live near the coast. Nevertheless, there were some exceptions for Bedouins who get permission from the Israeli forces to build small wooden huts as a shelter for their family. The Israelis were keen to build using natural materials specially those on-site materials. The used materials were natural stones, reed and mud besides prefabricated concrete for walls, wood and corrugated sheets for chalets roof construction. There was only one Israeli settlement built and surrounded by a fence. It had number of chalets and private garden to plant and cultivate crops for each family as in Figure 33.



*Figure 33: Israeli chalet in Nuweiba*

*Source: Author*

Indigenous Bedouin accepted any housing prototype and materials since they were not used to build permanent houses following modern globalized techniques like what they saw at that time. Moreover, there were no services before the occupation, no roads nor facilities, no hospitals and utilities. Bedouins were sent by helicopter to Eilat for treatment or to work like any Israeli citizen living in Nuweiba at that time.

### 4.3. Economic Activities

Long centuries ago, all Bedouins were nomads and semi-nomad dependent on mobile livelihoods as in Figure 34. Additionally, Sinai Bedouins used to protect caravans of traders, travellers as well as pilgrims which were passing through Sinai. Some tribes around saint Catherine monastery were responsible to protect the monks as well as tourist who come to visit saint Catherine. Muzeina and Tarabin Bedouins in Nuweiba used to live on the coast to cultivate palms on the alluvial plains and fish in Aqaba then they used to dry fish to either be sold or eaten later when they were not inland as in figure 35. Also, they cut trees to make charcoal (Sarnowski, 2010).

At the beginning of the 20th century, particularly after world war I, globalization had affected Bedouin livelihood and still. The smuggled drugs coming from Jordan and Lebanon to upper Egypt and delta. Since then, Bedouin society was polarized; some of them became wealthy entrepreneurs and others were poor tribesmen (Lavie and Young, 1984).

Bedouin livelihood had changed a lot during the Israeli occupation era, many camps for tourists had opened with numbers of tents and huts. Consequently, local Bedouins worked in insecure paid employments on daily basis. There were many available jobs for Bedouins in tourism sector, agriculture, the sorting factory and even in Eilat (Marx, 1984).



*Figure 34: A veiled Bedouin woman carrying a large bundle of sticks and a lamb in the Sinai Peninsula.*

*Source: Photo by Keystone Features/Getty Images 1966. (gagdaily, 2017)*



Figure 35: Bedouin Arab fishermen bring in their catch June 3, 1975  
Source: Photo by Shalom Bar Tal/GPO via Getty Images, (gagdaily, 2017)

Notwithstanding, Nuweiba was one of exporting cities at that time. Since flowers, fruits and vegetable were packed and were being ready to be sold immediately after arrival to the USA and some European countries. What is significant was that the indigenous community coped with the newly introduced jobs to cover their basic needs as in figure 36.



Figure 36: Israeli settler farmers, March 10, 1972 in the Israeli settlement on the left. An Israeli farmer carries a couple of local Bedouin laborers on his tractor on the right  
Source: Photo by Moshe Milner/GPO via Getty Images, (gagdaily, 2017)

## 4.4. Governance and Local Power

The indigenous Bedouin community used to control their resources and territories long years ago. The community was governed solely under the role of certain genealogy in each tribe. Bedouins used to have charismatic leader for each tribe. sheikhs were highly respected and appreciated, they had the upper hand and their word should be overheard. Sheikhs were selected based on their leadership skills, hospitality and shrewdness. They should have been supportive to any Bedouin in the tribe and mediators to resolve struggles. Also, they used to have army to settle disputes and protect the tribe from conquerors. Between 1940s till 1952, Sinai was controlled by British army and governed by king Farouk. From 1956 till 1957 Israel backed by France and Britain, occupied Sinai for few months. the colonial power tried to control Bedouins following divide and conquer strategy based on segments. In the postcolonial era, sheikhs tried to keep the indigenous power by transforming any world politics from emergent governments into local poetics.

Though the peninsula was an occupied territory not a colony, the Egyptian state used to govern Cairo the capital and the whole country except this peripheral undeveloped part. In 1967, the governance system totally changed because, Israeli military government took over Sinai Peninsula until the Egypt- Israel peace treaty. Israeli settlers built settlements along the Gulf of Aqaba and Yamit city south Gaza strip. The role of sheikhs was retreated at the time because, they were appointed by foreign occupiers. Sheikhs were allegory of politics to Bedouin community who used to change every day experience into stories to tell in "makaad". Bedouin sheikhs aimed at saving the history of the present by salvaging nostalgic history into tribal past. They evoked Bedouins eternity about their right of lands and resources during makaad. However, they did not take any actions as they considered themselves as people of lands not people of politics (Lavie, 1989).

## 4.5. Reflection on the CCF

This chapter showed how Bedouin community moved from adaptive managers of their own living in the desert or on the coast into coping actors during occupation period. They used to manage their own livelihood, environment, social and tribal relations with highly self-governed system built on respect and trust for their sheikhs as shown in Figure 37. They used to adapt to adverse challenges and situation based on their skills and knowledge which were inherited from their ancestors or learnt by experiences and trials. However, those adaptive managers lost the prominent level of freedom and independence, they lost control over their territories they no more govern. Moreover, they were obliged to cope with tough and harsh situation for their survival. Consequently, obvious regression in their indigenous knowledge cultural and social relations occurred. However, the economy was revived and new building styles were introduced.

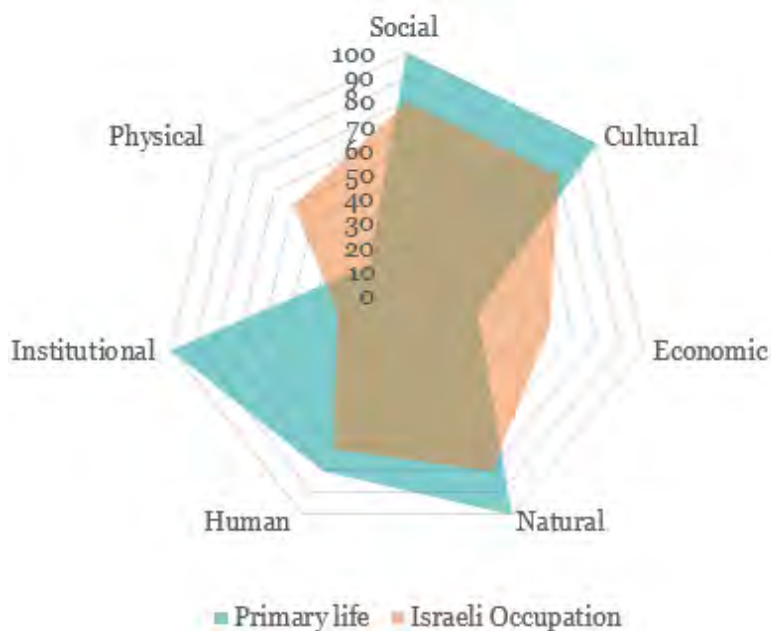


Figure 37: Seven community capital assessment in primary life and during Israeli occupation  
Source: Author based on conducted surveys and interviews



## Chapter 5: From Coping Actors to Powerless Spectators



Captured by the Author in Nuweiba



# 5. From Coping Actors to Powerless Spectators

Chapter 4 and 5 shows the transitions that happened in the Bedouin community as in Figure 38. However, this chapter emphasizes on how the community changed from coping with challenges to be powerless spectators with low adaptive and governing capacity. Nowadays, the settled indigenous community has minimal financial capital and technological facilities. They also lack the minimal endowment of natural resources, skills, networks and networking. The discussion in this chapter is related to multiple topics for instance: planning and Architecture, infrastructure and utilities, Economy and social life.

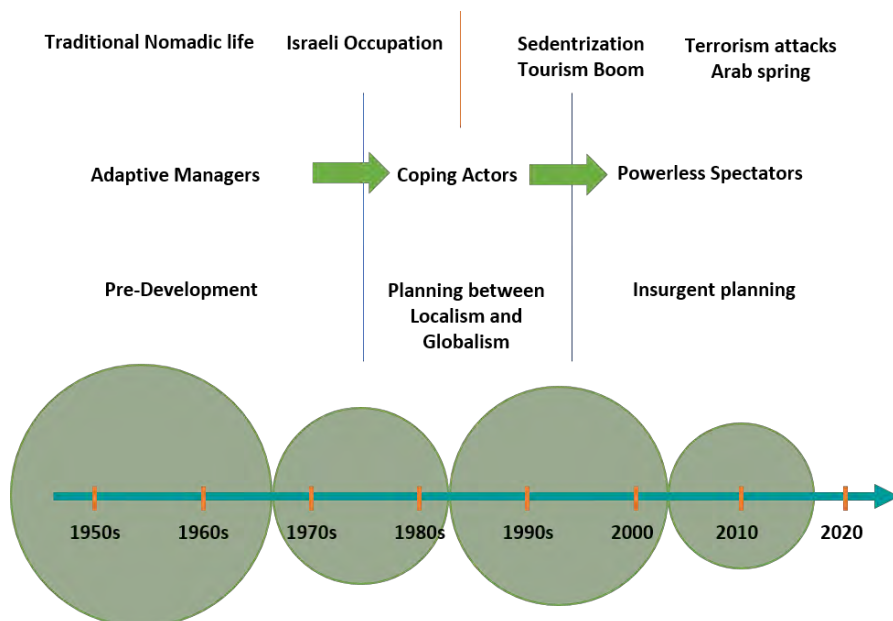


Figure 38: Discussed topics in chapter 4 and 5 on a timeline  
Source: Author

## 5.1. Planning vis-à-vis Territoriality

### 5.1.1. Insurgent planning

The insurgent planning is " radical planning practices that respond to neoliberal specifics of dominance through inclusion - i.e., inclusive governance. It characterizes the guiding principles for insurgent planning practices as counter-hegemonic, transgressive and imaginative" (Miraftab, 2009). The insurgent planning is not the dominant in Nuweiba, it surpasses the changes by imposing a different world without erasing the history, culture and traditions. Yet it destabilizes communities' regime in order to promote the new practices.

Directly after the departure of Israeli forces and Sinai liberation, -based on the conducted interviews- each of Bedouins tribes: Trabin and Muzeina returned to their social territory and started to divide lands again in smaller plots ranges from 50 m<sup>2</sup> – 175 m<sup>2</sup> using stones as demarcations to determine their territory. The distribution and the division process was organized based on which family came here first. Some families looked to the future. Therefore, they bought or negotiated on a bigger piece of land than others, for their sons and descendants. Other families just looked that they only wanted a shelter for themselves and took small piece of land. The incidence of territory transfer was witnessed by two persons from the tribe, because, there were no contracts or written papers within Bedouins but territory transfer acceptance was by a word of mouth. If any conflict happened later on a certain piece of land and many persons claimed that it was their property, the witnesses were asked to judge and say the truth. Since, they attended the incidence of buying or selling the land. Bedouins in both tribes started to build their houses with wood as they saw that occupation forces used wood for building constructions. They found wooden houses were more durable and better than living in tents. Even if Bedouins went up the mountains in spring for pastoralism or in any period, they would find the wooden house when they returned to settle near the coast. To separate between two empty lands, each family used to put stones on the four corners of the land plot to determine their

territories. After Sinai liberation, the lands that were occupied by Israeli forces, returned to the Egyptian government and few Bedouins did not object or oppose the idea. Some Bedouins believed that if the country took all lands and implement immediate investment to employ their sons and descendants, it would be better than just keeping the empty land for themselves. This showed a crucial point of resilience in dealing with lands. It also showed that they were keen to live day by day and did not prefer keeping assets for tomorrow. However, all development plans put Bedouin community on the track of modernization and urbanization. On this regard, the traditional pastoral and territories were neglected from the Egyptian government. Consequently, many Bedouins felt more deprived and less respected. They started to be stubborn insurgents by building what was suitable for their culture and expanded horizontally in their settlements.

#### 5.1.2. Architecture and Building materials

After 1982, the city started to develop. Migrants from upper Egypt and delta started to come to Nuweiba seeking to work in tourism or any job opportunity in the region. They introduced another material for building Bedouin houses and another housing prototype which suited more Bedouins culture and tradition than last periods' examples. Skilled and unskilled migrant workers began building Bedouin houses as one big space and a courtyard, with cement blocks for walls and flat wooden roofs. What was important for Bedouin house and till now was the open courtyard. In the courtyards, there was a place for fire to make tea and food. Additionally, Bedouin women raised cattle, planted some trees and herbs, the family used to meet friends and receive guests, kids and children played together in the courtyard. It was considered as a place for meditation, entertainment and freshness for any Bedouin family.

Nowadays, different building typologies appeared in Nuweiba El Muzeina, Nuweiba El Tarabin and A'l-Wasit villages. Some Bedouins live in villas of two or three floors, others live in houses covered with dome on the main living

area, also Chinese style houses appeared in Nuweiba El Tarabin as an unusual house for a Bedouin family as shown in Figure 39. Moreover, there are modern equipment like satellite dishes, fridges and stoves in each house. The change in building style and architecture is significant in Nuweiba, Bedouin houses used to be very simple either a tent or goat hair house. However, the majority live in the single storey house made of cement block walls under covered roof with pieces of wood as in Figure 40. But now, it started to be dissimilar.



*Figure 39: Different typologies of Bedouin houses, Chinese house, vault roof house and reinforced concrete Skelton structures*  
Source: Author



*Figure 40: Simple Bedouin houses*  
Source: Author

Simultaneously, the government had implemented buildings for Bedouins in wadis up the mountains as well as inland with weird typologies in this location and for those people. Bedouin families do not like to stay in multi storey buildings as in figure 41. Since each family has many goats and sometimes camels. That is why, they do prefer to live in their own simple houses with courtyards. There are

more than 180 social housing governmental blocks with more than 2160 building unit. Some families apply to get flats for their sons, though they do not match their culture and traditions. Yet, some families cannot afford buying or renting the provided flats and they believe that those units are expensive. So, they take the risk of illegally building their own houses.



*Figure 41: Collage of Government social housing*  
*Source: Author*

### 5.1.3. Territoriality Lead to Informality

Nuweiba was the fourth largest growing cities in south Sinai after Sharm el sheikh, Dahab and Abou Zenima (Sims and El Miniawy, 2003). It has been proven after analysing squatters' movements that informal settlements -see Figure 42- appeared due to the state refusal to formally recognize those settlements as well as citizens' insurgency plus insistence to build for the next generations. Since, they were marginalized and believed in land possession. This illegal action strengthened the government and stabilized the centralized system. Moreover, it opened doors for political manipulation and negotiations on territories in exchange with needed services (Miraftab, 2009).

Since Sinai was declared as Egyptian property after Camp David agreement. In 1996, Tourism development agency (TDA) was established. Since then, all lands between Nuweiba city and Taba - outside the municipal boundaries- became its property. It was troublesome for a local Bedouin citizen to purchase a land from the TDA because there was no legal land titling nor building permissions.

In the municipal boundaries, the land authority was mainly under the control of the municipality and the governorate. But, some land plots belonged to the ministry of agriculture, ministry of housing and other ministries. After Sinai liberation and until the first years of 1990s, land registration was opened for Bedouins with very fair prices ranges from 1-20 Egyptian pound per square meter. Nevertheless, at that time the locals did not understand nor appreciate the land value because, they believed that lands are their own property. Additionally, they wondered, why did they have to pay money to own it?!

Starting from mid-1990s, land titling was almost limited as well as permits. Even if a Bedouins had government confirmation of owning an empty land, hardly could they get building permit for a house.



*Figure 42: One of the informal areas in Nuweiba El Muzeina*  
*Source: Author*

Afterwards, lands under TDA which are located outside the municipal boundaries between Nuweiba and Taba, were sold to big companies and investors for one dollar per square meter. At least the area of purchased land was 5,000 m<sup>2</sup>. Consequently, individual Bedouins had no chance to legally purchase lands from TDA due to high qualifications, strict regulations, lack of financial capital and connections to form a company or compete big investors.

If an investor or a company bought a land from the TDA, the land should be build and operated in a certain time frame. The investor should also pay tribute or customary tax "Etawa" for the Bedouin families who used to live on that piece of land. Although, some Bedouin camps were built since years on TDA property, when the government evict the lands, Bedouin return again and build huts on those coastal lands around their old wells - if existed- as they believed that those lands are their property before the Egyptian state.

In the 1980s, though few Bedouins succeeded to claim property right on the coast, they rapidly lost this right during the first stages of tourism development. Some locals either sold their property or signed bad rental contracts for (10-99) years without considering the fluctuation rate due to the following reasons:

- Lack of experience to run projects
- Insufficient skills to handle the tourists
- Avoidance of Government complications and bureaucracy
- Lack of awareness of land values
- Preference to get money without working or exerting much effort
- Fear to lose lands since there was no legal land titling

The ridiculous actions of selling and buying states' lands resulted in many problems on national and local level. Since some investors had double nationality for instance, British/ Israeli citizenship or American/Israeli citizenship, threatening Egyptian state sovereignty and stability. Consequently, Bedouin community were accused of being traitors and collaborators with an enemy state.

#### 5.1.4. Infrastructure and utilities

The city of Nuweiba is recently well serviced from basic infrastructure and capacity buildings. The infrastructure is mostly provided by the government, however tourists' places as well as Bedouin community in sometimes organise their drinking water and energy. Moreover, some members of the community offer parallel education system, trainings and support for the locals.

### Roads and public transportation

Though the topography in south Sinai is tough, Nuweiba city is well connected and accessible. The international Taba-Sharm road connects all cities on Gulf of Aqaba, starting from Sharm el sheikh passing by Dahab then Nuweiba and finally Taba. However, this road is blocked every year because, the flood from wadi Wateir goes into the Gulf and removes everything on its way, even the asphalt road. Surprisingly, wadi Wateir road is considered the main access to the city as it's the shortest route. Yet, Wateir road is yearly maintained with a specific high budget allocated to roads and transportation. Unexpectedly, such a city has no public transportation, yet private companies organise fixed day and night trips from several governorates to Nuweiba. Any Inhabitant or tourist can stop the bus or the micro-bus to drive him/her to any location on its route.

### Water and sewage system

Fresh water sources are very scarce in Nuweiba and south Sinai. However, Bedouins used to depend on themselves by getting fresh water from natural springs and wadis up the mountains. After the liberation, many projects had been implemented by the SDA to avail fresh water for the living communities; wells were dug and a desalination plant in Nuweiba was constructed later in 1999 by the help and financial support of USAid. Yet, private tourist projects were responsible to get their fresh water either by buying it from Bedouins "brackish well water" or by constructing small scale reverse osmosis desalination unit.

In 2002, the USAid finished the implementation of Nuweiba desalination plant and sewage system. The desalination plant was designed to obtain 10,000 m<sup>3</sup> of fresh water per day to cover the whole city. The plant consisted of 5 units each produces 2000 m<sup>3</sup> per day but the plant works with half load due to several technical problems especially in summer. So, the total obtained fresh water around 5000 m<sup>3</sup> per day which is relatively not much for the city. Hence, the cost of desalinated water is expensive which hampered investments. It costs EGP 6.60 for commercial use and around EGP 12.00 for touristic use.

However, the supplied water to houses and flats are subsidized, for the first 10 m<sup>3</sup> costs EGP 0.30, EGP 0.50 until 20 m<sup>3</sup> and EGP 1.50 until 30 m<sup>3</sup>.

Both the desalination plant and the sewage system have negative effects on the environment. The first disposes the returned hot and high saline water in the Gulf which resulted in damaging many corals and killing many species. The location of open sewages in the centre resulted in a noticeable increase in the number of flies and mosquitos which affected the health of citizens and caused many diseases. Due to the hot weather conditions in Nuweiba, the reuse of grey water is too hard, since most of water are evaporated keeping high saline water of TDS<sup>1</sup> 47,000 ppm, which is more than the gulf salinity 43,000 ppm<sup>2</sup>.

### Electricity and Telecommunication

Though south Sinai governorate and cities on the gulf of Aqaba are connected to the national electric grid. Big hotels and even some small touristic places generate their own electricity. Nuweiba is well served with telecommunication landlines. It is covered by the three mobile networks. However, the signal of the three companies is bad in some locations and sometimes the mobile became roaming on Saudi Arabia, Jordan or Israel networks.

### Airports and Ports

Nowadays, Nuweiba is connected through two airports; Taba and Sharm El Sheikh airport. And, it is expected that there will be an airport between Nuweiba and Dahab, 20m in land (Sims and El Miniawy, 2003). The largest port in South Sinai is situated in Nuweiba, serving mainly passengers and car ferries which ply between the city and Aqaba. The port is affiliated to the Ministry of Transportation, with an average 1.25-1.5 million passengers travel or come to Egypt via Nuweiba port per year.

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*1.TDS: Total dissolved solids in drinking water, the ideal permitted TDS should be below 300 mg/L and the maximum permitted reaches 600 mg/L*

*2.ppm: parts per million, the unit for measuring TDS*

## Education and Health

The capacity building of schools in Nuweiba is high, there are number of primary, preparatory and secondary schools in addition to experimental and Azhar schools too. Nevertheless, the Bedouin majority do not continue higher education because, there is not any university or institute near Nuweiba. Some families send their sons more than their daughters to universities in Cairo, Suez or Al Arish. But, the majority is against breaking family ties and traditional believes. Besides, some touristic places and CBOs opened kindergarten for children, parallel school education for future generations and training centres for adults. Only one hospital with very poor medical services receives patients in Nuweiba. Hence, patients prefer to go to far hospitals in Sharm or Suez which are relatively expensive, to get higher quality of medical services. Generally, the capacity building in many locations in Nuweiba usually exceeds what is needed especially in wadis up the mountains. There are hospitals and schools with number of classes but, there are no enough students to attend lessons. Furthermore, the qualified employees in schools and hospital are missed.

## Public housing units

Highly subsidized housing provided by government to Nuweiba community. Units were being distributed among beneficiaries from government employees, permanent residents, tourism workers and local Bedouins after governor's acceptance. In 2003, the number of units reached 128 but nowadays this number increased by more than 10 times (Abdel Gafaar, M., 2014).

## 5.2. Economic Marginalization

"Under the Mubarak regime, the Bedouin were restricted from serving in the Egyptian military—which in turn excluded them from a host of economic opportunities. Governmental jobs were not available to the Bedouin, and local communities were often dispossessed of land and ownership rights. Moreover, Sinai Bedouin were barred from sharing in the lucrative benefits from the

Sinai-based tourism and natural resource industries. As well, during this period the Egyptian government implemented a policy intended to alter the demographic balance in the peninsula, and through the use of subsidies and other government benefits, encouraged resettlement of Egyptians in the Nile Valley. This policy was implemented with little regard for the indigenous Bedouin population" (Siboni and Ben-Barak, 2014).

According to the south Sinai regional development program (SSRDP), The high dependence and reliance on tourism in south Sinai and Nuweiba resulted in unbalanced economic development (Sarnowski, 2010). Moreover, Bedouins were not integrated in this unsustainable economic development. Nevertheless, it was not new that Bedouins were not politically nor economically included in state's plans. They were marginalized since ottoman era. Yet, few Bedouins in Nuweiba succeeded to claim their right of land property on the coast. They established open camps for tourists, organize safari trips, open shops and restaurants. However, the government wanted to limit informal economy. Accordingly, many regulations were set and two licenses should be obtained to work in tourism sector. The first is from the city council and the second is from the TDA. Additionally, many papers have to be finished in Tor, the capital of south Sinai governorate. Running a touristic place -for instance: camp, restaurant or shop- became a bureaucratic hurdle to be practiced.

Regarding Bedouin guides who organize safari trips for one or more days, permissions are needed to go for desert trips especially that lasts more than one day. It was also prohibited for a guide not authorized to go for safari trip with private jeeps or camels. However, trips should be organized via tourism hotels or companies. Bedouins seldom work in governmental positions, because local majority have not completed their education nor joined universities. Many of them did not finish military services since they prefer life of freedom without responsibilities. Concerning Bedouins who want to join police academy or work in police station as even writers, they are unqualified because their fathers or one of their ancestors could be reported in a crime or in smuggling case.

The previously mentioned governmental regulations hindered youth from working formally and independently in different sectors. In the last two decades, they worked for certain jobs as shown in Figure 43. Subsequently, young Bedouins were directed to rely more on the black market as a main source of their livelihood besides their traditional activities because there was no other alternative source of income. Soon after tourism declination, some community members thought of alternative job opportunities for their survival as it will be discussed in chapter 6.

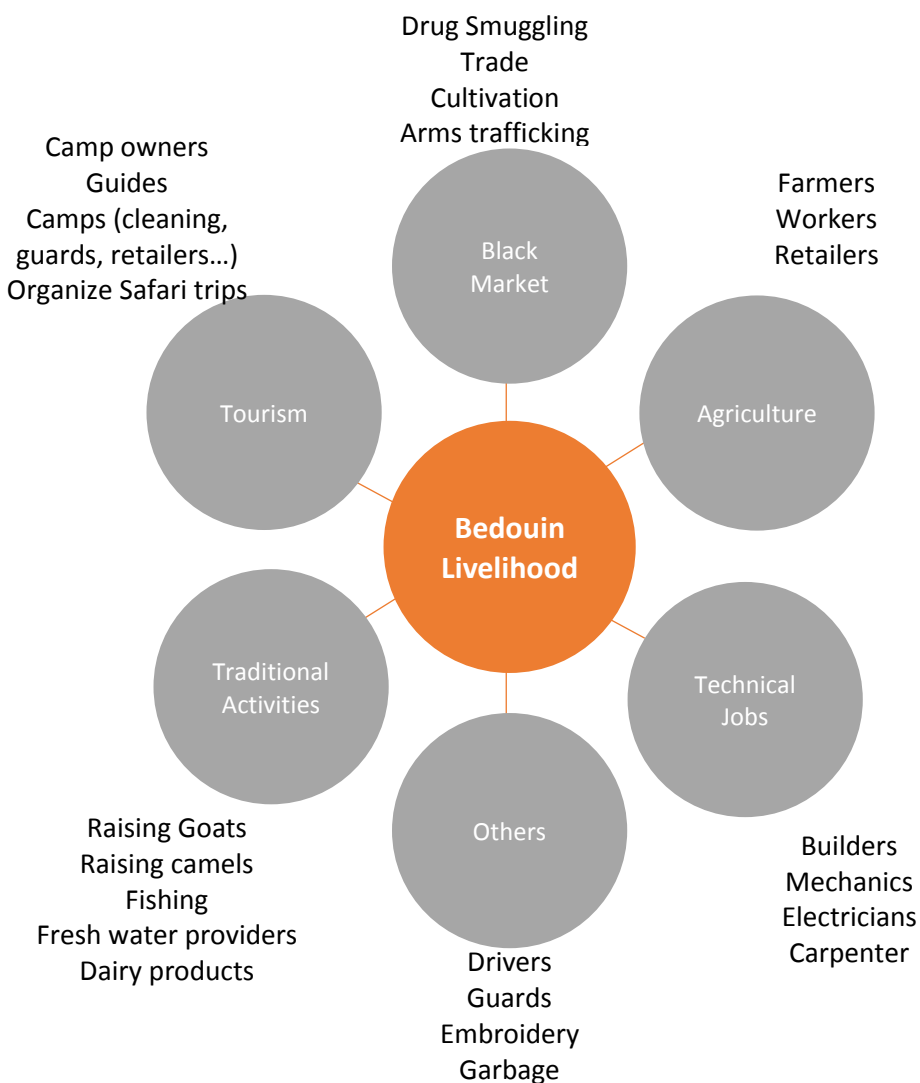


Figure 43: Bedouin Livelihood in the past two decades  
source: Author

Generally, Bedouins prefer to be free and live their life independently without being tightened to a fixed job. They prefer to work in tourism as it brings fast money. They do not like to work under a boss with fixed working hours. However, they search for a job when money is needed. Most of them are pragmatic and not ideological, they want to live today to the fullest and no plans are set for the future. No savings are kept in banks or for the future, their savings are assets like cars, camels or lands. If a business is needed to be initiated, they sell these assets. Hence, the community is vulnerable to economic shocks as they do not have enough financial capital or large savings.

### 5.3. Between Tourism and Terrorism

Tourism was promoted in Egypt and the developing countries as an engine for economic development in the last three decades. It aimed to attract tourists as well as investors to create job opportunities and earn foreign currency. Thus, it contributed to the growth of national economy also it bolstered the sovereignty and the integration of a peripheral region as Nuweiba. On the other hand, tourism drawbacks were many on social, cultural, environmental and economic level; social cohesion was weakened, natural resources were abused, culture was commercialized and livelihoods had totally changed. After the liberation in Nuweiba, based on the conducted interviews, there were only three hotels: Helnan, Hilton and another Two-star hotel. In addition to other three camps between Nuweiba and Taba, one of them is Basata which will be introduced later.

Since resorts and big hotels had been implemented on locals' traditional territories. This resulted in more marginalization and discrimination of local community and market fluctuation. However, the indigenous community participated in flourishing tourism industry. Considering the latter, Bedouins opened their small businesses that were directed to another path of tourism which is the eco-tourism. Nuweiba was mainly relied on Israeli tourists, Russian as well as European tourists. Tourism Bedouin accommodations in Nuweiba differ than any other place in south Sinai, most of them are simple huts made of

reed or bamboo. Aside, luxurious hotels and resorts which are being developed by private investors.

Nevertheless, "Decades of discriminatory policies, economic marginalization and repressive measures carried out by the Mubarak regime created fertile ground for the radicalization of the Sinai Bedouin. Between 2004 and 2006, a series of terrorist bombings were carried out against tourist targets in the Sinai" (Siboni and Ben-Barak, 2014). The following series of events that happened starting from 2004 until later, affected tourism in Nuweiba and south Sinai:

- Taba and Ras Shaitan bombing in 2004
- Sharm El Sheikh bombing in 2005
- Dahab bombing 2006
- Revolution 2011
- Bombing the gas pipeline in
- Russian plane crash in 2015

#### 5.4. From Social tribal relations to social Mix

Significant migration patterns appeared after Sinai liberation. Egyptian migrants were stimulated to come to Nuweiba for some reasons: coastal beautiful calm city, more opportunities than their hometowns, self-realization and less competition. The majority of migrants are from Menofia, Dakahlia, Sharqiya, Gharbia. Some are from upper Egypt and north Sinai, few from other European countries like Germany, Italy, Switzerland, England. Sometimes, this heterogeneity caused social frictions due to the difference in culture and traditions.

The role of Bedouins' sheikhs had been retreated. Since the state's strategy to govern the insurgents is based on dealing with Bedouin representatives to meet political interests. Subsequently, sheikhs are no more selected based shrewdness, hospitality, leadership, support to Bedouins in the tribe nor mediation capacity during conflicts. Yet, sheikhs are appointed and selected by the government.

Their role became lost and paradoxical, Bedouins see sheikhs as government representatives but the government see them as representatives from Bedouins. In the light of the heterogeneous population and the back move of sheikh's role, social tribal structure may decay and each individual may work separately not for the common good.

### 5.5. Reflection on the CCF

The following Figure 44 sums up the changes that happened in the seven capitals. The community coped for survival after the war in Sinai. The individuals and collective responses were opportunistic and reactive for an intermediate time frame. However, they gradually lost their power and control because of political oppressions, lack of legal tenure and inappropriate governance structure. Although, Bedouin families are so keen to bypass knowledge, cultural and traditional believes to their children. They are negatively affected by local and global agendas as shown in the last two chapter which changed community synthesis from adaptive managers to coping actors then powerless spectators.

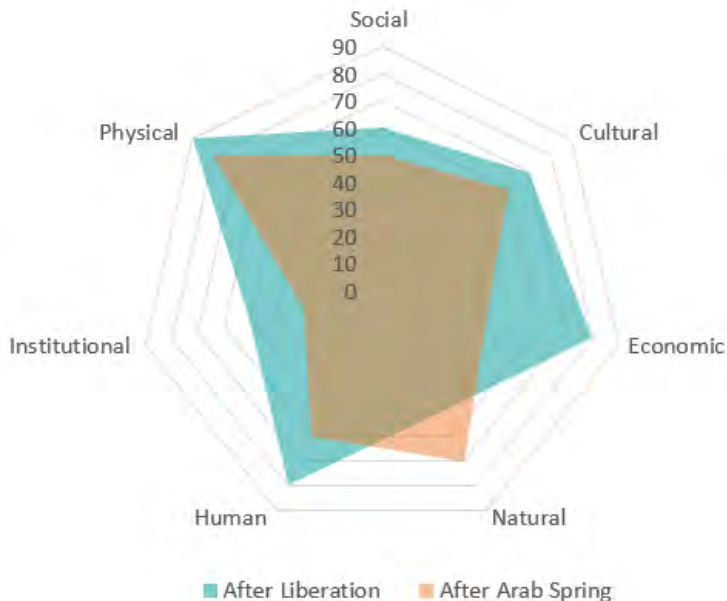


Figure 44: Seven Community capital assessment after Sinai liberation and after the Arab spring  
 Source: Author based on conducted surveys and interviews



Chapter 6:  
Selected Challenges and Community  
Responses



Captured by the Author in Nuweiba



## 6. Selected Challenges and Community Responses

This chapter presents the analytical framework of community resilience study based on ethnographic and anthropological approach. Moreover, current challenges as well as responses will be discussed and analysed based on conducted interviews with the local community. Indigenous responses will be compared with investors migrants to perceive the difference between the two perspectives. Since coastal areas are more vulnerable to change due to the existing conflict between the urban development pressures especially for investments and tourism activities. On the one hand, the ongoing large-scale development which is based on capitalism resulted in lack of access to resources. On the other hand, the insufficient awareness against natural risks like flood, climate change, desertification and so on, brought complex dynamics between Bedouin local community and other stakeholders to struggle for survival as well as be prepared for the ongoing modern urban transformation.

### 6.1. Current Major Challenges

Many challenges are discussed in the last two chapters on social, economic, environmental and political level. Yet currently there are three major challenges which face Nuweiba community. Nuweiba community implemented solutions, projects or initiates to mitigate the impact of those challenges. Accordingly, community responses and projects will be discussed and analysed in the end of this chapter. In addition to finding the impacted capitals for each project.

### 6.1.1. Ecocide and Ethnocide

The indigenous Bedouin community is confronted with the challenge of ecocide and ethnocide. Since, their traditional territories and resources are exploited to implement national projects or sold for investors. Ecocide is the destruction of indigenous territories either by building governmental projects like desalination plants, agricultural and industrial projects or by implementing tourism projects and business for private investors. Ethnocide refers to the extinction of indigenous culture and traditions by forced assimilation or marginalization's from the ongoing development. Ecocide and Ethnocide take place in multiple sectors in Nuuweiba for instance economy, education, health cares and even architecture and building materials as discussed earlier. The two latent threats may result in losing Bedouin identity and culture eradication if it is not carefully faced on local and national level.

### 6.1.2. Livelihoods

The undiversified economy in Nuweiba which was mainly based on tourism activity resulted in limiting Bedouin skills and losing traditional activities. Around 75% of interviewed Bedouins used to or still work in tourism related activities. Some Bedouin entrepreneurs opened tourist camps and cafeterias. Also, many others worked for tourism complementary activities like camel trips, camping, handicrafts, natural and traditional trails. Just few of community members work in agriculture, pastoralism and other technical jobs. From the conducted surveys and interviews with the local community during the field visit in Nuweiba, around more than 75% of the sample worked or still work in tourism sector, while 25 % works in other limited sectors - see appendix 1-.

Tourism is the fastest growing industry in the global economy. This sector in Egypt used to represent 1 % of world's total (Sims and El Miniawy, 2003). However, it is highly vulnerable and sensitive to ongoing events in the world as well as Egypt's security and stability. The rapid growth and down turns in tourism caused many shocks on the local and national level. Most importantly, mounting

irresponsible profitable tourism caused many ecological deterioration and disturbance in the ecosystem. There were many losses in the marine life as many corals reefs -which are the natural habitat for many rare species- were damaged due to several reasons:

- Sea pollutions from boats and ships
- Tourist activities for instance: diving, snorkelling
- Sea cucumber exportation for medicine production
- Indiscriminate illegal fishing
- Return of saline water that resulted from desalination units to the sea

On the one hand, policies and tourism regulations facilitate the establishment of big tourist investments of three to five-star hotels and resorts. Huge amount of water and energy are consumed during construction and after operation of these kind of projects. On the other hand, local Bedouins in Nuweiba prefer responsible ecological tourism. They like individual tourist and not canned groups of tourists who stay in hotels and resorts. They like that kind of tourist who is interested in their indigenous culture and comes particularly to Nuweiba for activities like safari, shopping, hiking, traditional trails... **etc.**

Most of local Bedouins especially youth are just waiting for tourism to come back. They refuse to work or learn other skill because they assume that it will not be as profitable as working in tourism sector. However, some smart entrepreneurs exert efforts to revive tourism in different shapes based on their culture and traditions, to preserve the natural environment as it will be shown later in this chapter.

### 6.1.3. Territoriality

Nomadic Bedouins used to have conflicts over lands with the sedentary. However, in modern time, they are confronted by the demarcation of state boundaries which limit their movement and migration patterns. Additionally,

Nuweiba indigenous community suffered from long history of colonization followed by capitalism development on their traditional territories. Bedouins gradually lose control over lands. However, there were several attempts to withstand the exploitation of their common resources but it was confronted by state's laws and regulations. Around half of interviewees agreed that the complicated system of centralized government hindered them from legalizing their lands. Since they have to go to Cairo to finish papers besides bureaucracy. Around 40% said that there were no lands to be purchased by Bedouin population for long years -see appendix 1-.

## 6.2. Community Responses

Local Bedouin community is trying to cope with different challenges or aiming to be adaptive managers. Accordingly, several projects and initiatives will be illustrated in responses to specific challenges. Each project or intervention may target multiple sectors for instance: strengthen social ties, availing services or job opportunities, imposing ideas **for human welfare ...etc.** The first discussed four responses are indigenous responses from Nuweiba Bedouins.

### 6.2.1. Community Based Organizations

Many community based organizations have been initiated as a response to the previously mentioned challenges. CBOs were formed of local representatives; each CBO has a certain specialty and agenda. Moreover, each is connected with the competent governmental authority. From the existing successful CBOs in Nuweiba is the " united local agriculture association" concerned with agriculture lands in Tarabin and Muzeina which is in direct relation with the desert research institute (DRI). It was founded in 1994, from 70 local members from the two tribes. The idea initially appeared after set of lectures in Tor for Bedouins in south Sinai about governance and how to form a CBO. Its initial capital was 2500 EGP that was collected from 25 members only. Till now the organization depends on local efforts and fund. However, it obtained national and international

supporting fund. The first was a loan from Sinai development authority, around 100,000 EGP was spent in four years on irrigation pipes, fodder for cattle and other services for farmers. The CBO had to make profit to pay off 25,000EGP each year. The second was a foreign support from a swiss organization in 2002. It was a non-refundable conditional grant for two years; the grant value was 800,000 per year. The last grant was in 2016, around 6-8 green house shelters from the Egyptian military were provided to the CBO to be distributed on farmers. The " united local agriculture association" is mainly responsible for providing seeds, any needed support as well as awareness for farmers. It also operates two kindergartens and organizes literacy courses. Also, the CBO runs an agency for touristic services and safari trips. Also, there are other active CBOs slanted towards: women, orphans, traditional handicrafts, investments and business. Yet, some CBOs failed achieve their targets, from which "the Bedouin heritage association" which was concerned with preserving Bedouin culture and traditions. It did not succeed because of complicated procedure for registering the CBO and lack of financial capital.

#### 6.2.2. Wadi Malha

Wadi Malha is a small village of approximately 20 Bedouin house of same quarter "Robaa' " from Trabin tribe as in Figure 45. It is located north of Nuweiba Al-Tarabin, just across the road in front of Ras Shaitan. Wadi Malha's sheikh has a significant role to secure the village as well as legitimize the existence of this small village in front of the state. He mentioned that the village was prone to the risk of flood. However, he asked the government to help them to protect the village. They collaborated to save the village after conducting intensive studies and Bedouins share their knowledge acquired from witnessing flood every year and knowing its source. Noticeably, because of the global warming, the flood did not come long years ago and the wadi had dried out. It is nowadays known as "Wadi Malha El Atshana" which means the thirsty wadi.



*Figure 45: Wadi Malha and Ras shaitan in Nuweiba  
Source: Edited by the Author after Google Earth.*

Although Wadi Malha sheikh did not enter school. He built a school for Bedouin children as he believed in the prominence of education for the future generation. Nevertheless, he could not operate nor provide it with eligible teachers and administrative bodies. Since Bedouins are more pragmatic than ideological, the sheikh donated it to the government for the sake of Bedouin children. Additionally, the researcher also saw high level of care and passion in Bedouins eyes to educate their grandchildren. This situation shows the flexibility of Bedouins to even sacrifice with their lands for better tomorrow. It also shows their eagerness to raise educated and highly qualified generations.

When the government wanted to build Bedouin houses, the sheikh hurried and offered the land facing the international road to build the nine houses for Bedouin as in Figure 46 . Then, they were distributed among families. Notwithstanding, the houses were implemented in a simple modern style with lots of colours which does not match the intact nature. Moreover, the building

materials were not suitable too as a result, air conditioning system is applied in all houses. This response from the sheikh reflects the intention for building relations for the sake of the village to gain legitimacy.



*Figure 46: Recently Built Houses for Bedouins in Wadi Malha*  
*Source: Author*

### 6.2.3. Duna Land Acquisition

In 1990s around 5,000 m<sup>2</sup> were customized to be Bedouin camps or cafeterias directly on the gulf of Aqaba in Duna Area as shown in Figure 47. The area of each land was about 150-250 m<sup>2</sup>. The smallest dimension on the shore is less than 10 m. The small division of land parcels created social conflicts between Bedouins from the same tribe. Since larger low value parcels were planned behind the small cafeterias. The land use of the bigger plots was agricultural land which have no access to the sea. Based on this situation, the Bedouins with the large plot could not access the sea. They could not even buy nor rent the four plots in front of their land to establish new projects since if one accepted to

collaborate the rest would not. Until now, the two parties have no legal ownership, on the one hand, Bedouin farmers have agriculture acquisition since it was easy to be obtained at that time. On the other hand, Bedouin investors have primary contracts for a cafeteria or a small camp. Both parties are aware of this problematic situation so they try to avoid conflict escalations and keep the condition as it is. Notwithstanding, these lands are their traditional territory -as claimed- they are afraid that their lands would be totally lost. That is why, they are carefully solving their conflicts and problems in Makkad to avoid any losses. This urban planning practice, of the small land parcels in front of bigger plot areas for Bedouins, were applied in Tarabin, Muzeina and Duna area in front of Wasit village. Hereafter, it should be reconsidered soon in the future plans.



Figure 47: Bedouin cafeterias in Duna Area and agriculture lands  
 Source: Edited by the Author after Google Earth

#### 6.2.4. Sinai Trail

Sinai trail has been launched in 2008 by a Bedouin cooperative of three tribes: Tarabin, Muzeina and Jebeleya. However, it was known as Ibrahim trail. Each tribe manage the trail on their tribal lands as shown in Figure 48. It is the first longest hike in Egypt of 200km from the Gulf of Aqaba till saint Catherine summit (sinaitrail, 2017). The trail benefits the three tribes. Around 10 Bedouins participate in the trail either by providing camels, selling handicrafts, making food, preparing tea and more. In the following trail, another 10 Bedouins join, so that the large number of community members can participate, benefit and learn from this journey. Consequently, all members became ready and aware of the trail's difficulties as well as interests. Also, they could add knowledge that enriches the trail's experience. Moreover, individual Bedouins can market for their trips and activities during the journey.

The trail itself existed thousands of years ago. When saint Catherine monastery was built, goods were sent from Palestine to the monastery through this path. Although this trail was not the shortest but it was the safest. Unlike Sinai trail between mountains, other paths were open unsecured that enabled the convey to be seen and subjected to unexpected threats. In the past, the convey passed through Sinai trail under a responsibility of certain tribe which protected monks, traders, visitors and pilgrims in their territory.

Nowadays, Sinai trail gives a chance for modern hikers to experience the same journey. On the trail, there are many springs along the route for instance Ein Furtaga, Ein Hudera, Sheifalleh spring and more. Bedouins used to put sign of Aquarius as an indication of fresh water presence. Additionally, travellers might spend their night in caves in the mountains especially during winter. Hence, Sinai trail is from the most interesting and suitable trails due to the presence of fresh water sources, shaded areas between mountains and warmth even in cold nights.

Clever Bedouin guides are the most up-to-date with Sinai trail landscape and variations. Since on the one hand, some routes are blocked due to flash flood or heavy rain. On the other hand, fresh water springs may dry up or evaporate especially during summer days. So, social networks and networking between different territories are essential before and during the journey. Moreover, Training of new Bedouin guides and expanding Sinai trail team is one of key aspects among the cooperative. Also, the team aims to strengthen Bedouin ties by returning back hundreds of years to the future.



Figure 48: Sinai trail's three tribal path  
 Source: Author after Sinai trail official website (sinaitrail, 2017)

In 2015, a British man who used to attend several hikes with Sinai trail team is now a partner too. He is responsible for the publications in Europe, Egypt and every country in the world. Following a simple strategy of establishing direct contact with tourists and small-scale tour agencies in order to have direct access to interested customers. In 2016, Sinai trail won the BGTW Tourism Award for the best new tourism project that attracts tourists to Egypt and Sinai as a destination in the wider world after tourism down turns. Other partnerships are being established after tourism declination aiming to bring back tourism as well as support the trail's growth and development. Sinai trail develops win-win partnerships with different CBOs and partners (sinaitrail, 2017):

- Jordan trail: the twin sister of Sinai trail, even some Bedouins from Sinai go to Jordan trail due to the proximity of two countries Egypt and Jordan. They are directly connected through ferries in the gulf of Aqaba. They share experiences as well as first aid tips during the trail to raise the standard of skills and quick responses.
- Masar Ibrahim Khalil: one of the hardest trails ever due to the complicated political environment in Palestine. Though the Israeli occupation, the trail succeeded to develop a path passing through cultural and heritage sites. It has been a reference for Sinai trail.
- Three peaks Egypt challenge: is a short hike -compared to Sinai trail-with three summits. It is around 38 km passing through mount Sinai, Catherine and Abbas Basha mountain.
- MTB Egypt: is a mountain biking community who aimed to develop Sinai trail by making it accessible for bikers besides sharing experiences with Bedouins and hikers.
- Egypt hiking community: share the same aim of expanding a safe hiking in Egypt and spread it between Egyptians and foreigners.
- Habiba organic farm: will provide Sinai trail with organic food and drinks.

The Bedouin cooperative is thinking to make this path a national park Where Handmade Bedouin products are exhibited, traditional food is made, rare aromatic and medical plants are being spread, palms and shading trees are

planted when water is present as well as traditional poems and stories are narrated. Furthermore, Sinai trail team also wants to add meditation sessions, yoga session and traditional herbal medicine introduction in their program.

In conclusion, Sinai trail is a successful model not only for bringing back tourism but also for building the whole Bedouin community. Throughout preserving their indigenous knowledge, culture exchange for few weeks in the desert. Sinai trail aims at bypassing indigenous knowledge to new generations, exposure to diverse cultures, culture and heritage preservation and tourism revitalization as shown in the following Figure 49.

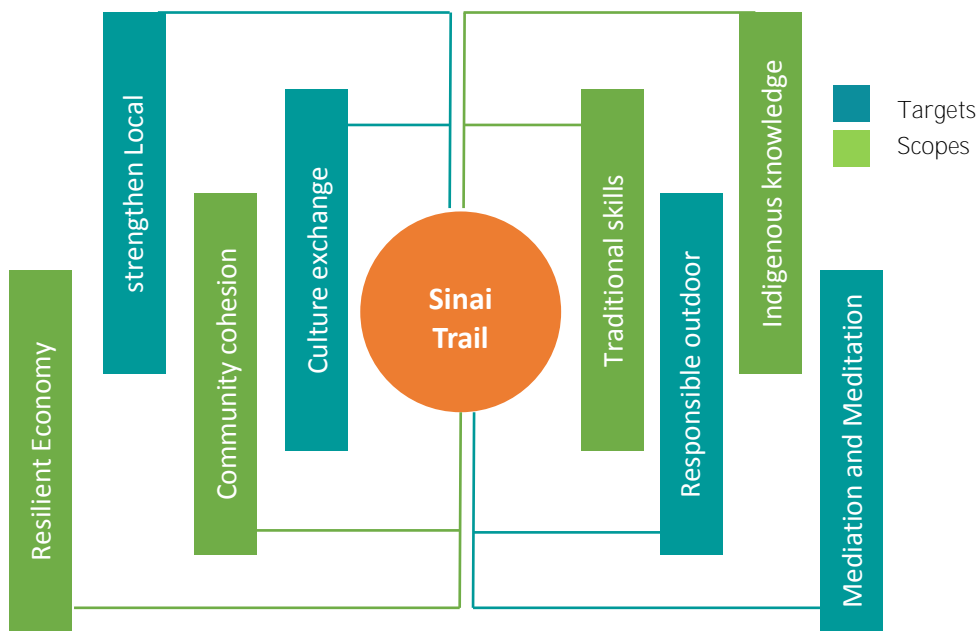


Figure 49: sinai trail's scopes and targets

Source: Author

The next four responses are migrants' and investors responses. The four initiates started as tourists' investment project. However, when foreigner / Egyptian migrant investors came to Nuweiba, they recognized that they cannot live in isolation from Bedouin community. Since, Bedouins do many services to camps for instance: bringing fresh water, food, traditional parties and more. When terrorism attacks started to hit Nuweiba and tourism declined, the investors began to think in projects for the whole community.

### 6.2.5. Dayra Camp

An Egyptian migrant from Cairo and his wife who are interested in art and music, rented an abandon camp from Bedouin family for 10 years. The place used to be a dump site with no water nor electricity. Dayra team aims at attracting individuals who are interested in music in addition to creating a place for inspiration and meditation. The team members accept volunteers who are interested in any type of art even performing art. They are keen to include the locals in their festivals and events as they believe that Bedouins are part of Nuweiba spirit. Dayra organises workshops and help entrepreneurs to reach the local community for help and support. The team also collaborate with NGOs and initiates to preserve the natural environment for instance Dayra team cleaned wadi el washwashi which is one of the important spots in collaboration with " Mashroaa Al saada" - which means project of happiness- because the place was disgusting and full of rubbish. In conclusion, Dayra camp – figure 50- is not just a camp for tourists from Egypt or from all over the world, it is a unique experience which is concerned with art, music and natural environment.



Figure 50: Dayra Camp

Source: Author

### 6.2.6. Habiba Organization

Habiba started in 1994 with a beach lodge as shown in figure 51, for tourists near Wasit area on the sea in the city of Nuweiba by Maged El Said. Habiba's main concept was based on love and passion to people and to the land. Since the first day, Habiba established relations with the local Bedouins and rapidly Maged's family entered Nuweiba community not only as investors but as members of the community.



*Figure 51: Habiba Beach Lodge*  
*source: Author*

After the sudden terror shocks that started since 2004, Habiba recognized that tourism is a fragile economic source of income. Also, new activities should be introduced to open doors for the local community beside tourism. Accordingly, Habiba organic farm (HOF) Figure 52 was established in 2007 aiming to guarantee food security and alternative economic base for Nuweiba community. Since then, more than 8,400 square meters in Nweiba and south Sinai are organically planted and cultivated. Habiba sell the vegetation from fruits, vegetables as well as organic products in markets in Cairo, Dahab and Nuweiba.

Additionally, Habiba promotes for sustainable voluntourism. Volunteers can stay in HOF for three working months or for 20-day program to benefit the community, work in the farm in addition to culture exchange. Habiba organization is not only involved in organic farming and tourism activities but also work on strengthen the human and social community capitals.



*Figure 52: Habiba Organic Farm  
source: Author*

Moreover, Habiba's learning centre – as shown in figure 53 - was established mainly to teach Bedouin kids in an after school educational program to develop their interests in learning and creativity. The centre provides basic skills, applied science, Arabic and English languages and more. The learning centre also organizes several workshops in recycling, waste management, permaculture and organic farming. Womad for women empowerment is a project in the learning centre that have been released by Habiba in July 2016 to help Bedouin women to work in traditional embroidery as well as enhance their traditional handicrafts such as accessories, clothes, bags and more. The project aims at providing cross culture and cross community interactions. Furthermore, its local objective is to

provide sustainable source of income to Bedouin women so that they can support their families and educate their children (Habiba learning center, 2017).



Figure 53: Habiba's Learning Center, the first picture is from outside and the second picture shows the interior of one of the rooms in the center.  
source: (Habiba learning center, 2017)

### 6.2.7. Basata Ecolodge and Hemaya NGO

Basata ecolodge is one of the oldest tourism projects in Nuweiba see Figure 54. It is specifically located between Nuweiba city and Bier sweir, between two hills on a low-lying area on the Coast of Aqaba. It was established in 1986 based on trust, community and cultural understanding. Basata is an environmentally conscious tourism project with relatively low impact on the surrounding environment as well as local Bedouin community. Basata's philosophy is mainly based on preserving the natural environment as well as integrate locals and tourist in an educational participatory experience by exchanging cultures and knowledge (Basata, 2017).

There are constructed chalets made of mud bricks with natural stone base. Each chalet is different architecture design. There are also beach huts made of bamboo and private tents. Undoubtedly, all building materials used in constructions are biodegradable. Hence, they have minimal impact or almost no impact on natural environment. The flora and fauna in Basata are all growing in Sanai so that they can withstand weather condition and water scarcity. Basata concept is built on trust and responsibility. Each person is responsible to prepare food and drink for himself from the common kitchen at any time. Then, everything should be written down to be calculated during the check out. Each guest should also stick to the recycling system used by separating plastics, metal, organic and glass. Basata ecolodge's activities changes dynamically to fulfil guest and community needs and requirements, focusing upon, recycling waste, architecture and responsible tourism (ibid).

Hemaya is a non-profit organization which is affiliated to Basata since both belongs to the same owner Eng. Sherief El Ghamrawy. It was founded in 1997 to reserve natural environment as well as develop local community. It is considered as the implementing tool for Basata ecolodge. It is concerned with solid waste management -see Figure 55- along the coast of Aqaba from Taba till Dahab for 160 Km. Hemaya collects wastes from hotels, resorts, local and governmental

institutions to be sorted in Nuweiba then sold to retailers in Cairo. Also, training programs are being provided to more than 170 homeless children as well as employees from Sekem, Hepka and other companies about recycling and waste management (Hemaya, 2017).



Figure 54: Basata Ecolodge  
Source: Author



Figure 55: Hemaya NGO  
Source: Author

Additionally, Hemaya organizes cleaning and awareness campaigns to preserve the surrounding environment. Besides, participating and implementing several educational and socio-cultural projects with national and international organizations as GIZ, UNICEF, German-Arab trade chamber, ministry of information and communication technology to increase capacity building and eradicate technological illiteracy (ibid).

Basata focuses on education and illiteracy eradication in Nuweiba. Hence, Tarabin kindergarten was opened to prepare Bedouin kids to go to school. Basata school was established as parallel education with focus on learning languages following modern educational techniques. And finally, a culture centre in Tarabin was initiated with two main spaces; the first is computer lab and the second space is a library. Nowadays, due to the declination in tourism activities. Basata tried to open new track for the local community backed by involved bodies in the Egyptian government. It provides a series of technical workshops to repair electronic devices and home appliances.

#### 6.2.8. Pink Camel initiative

Before monks came to Egypt, Bedouin women were concerned with embroidery and traditional handicrafts. They used to embroider plants and flowers on their white traditional Galabya. However, the traditional cloths changes to black after saint Catherine monastery was build and monks came to Egypt. Due to tourism boom, the pink camel initiative and other SMEs working on traditional handicrafts were initiated. Bedouin women thought of producing handicrafts which suite diverse cultures and not limited to embroider on Galabyas.

The pink camel is a local women's project which is initiated in Nuweiba Al Tarabin by a swiss lady who lived many years in Nuweiba. The main aim of the project is to gather Bedouin women in a workplace where they can work together on handmade products and learn from each other. Hence, a house was rented and painted. Then, women were provided with sewing machines and needed

materials. There was a room which is turned over to be a bazar where any guest could enter and buy Bedouin handmade products for instance: bracelets, necklaces, bags, key chains and more. Unfortunately, the pink camel project – Figure 56- has recently been closed because the returns did not cover the expenditures because, there are few number of tourists coming to Nuweiba. Even, there was no money or fund to run the project and pay the house rent.



*Figure 56: Pink camel house*  
*Source: Author*

The project used to depend on snowball effect for marketing as there was no marketing channels. Foreign as well as Egyptian tourists used to come to this place if they know any of the working women because, it was difficult to reach the house alone. Women Gatherings, Events and parties were organized in the house to promote for their products and activities.

Though the majority of Bedouin women work on embroidery and developing hand made products, marketing chain is missing. Consequently, many women just wait for tourists to come, few of them go every day to the beach with hope to sell two or three items, others build relation and establish connections with foreigners as well as Egyptians to sell their products in markets in Egypt or in European countries.

### 6.3. Conclusion

Indigenous Bedouins as well as new community members, as entrepreneurs who came to Nuweiba after the liberation, believe that any success starts with "we" as Nuweiba community not "me" as an investor, migrant or Bedouin. Some migrant and foreign investors started to run projects for the local community as kindergarten, school, culture centre, centre **for handmade products ... etc.** The aim behind those project is mainly to interact with local community as well as widen the band of skills to give back to the community. The following Table 2 shows some differences between indigenous and migrant responses. However, Table 3 shows the impacted capitals of the previously discussed projects.

*Table 2: The Difference between indigenous responses and newcomers' responses*  
Source: Author

<b>Indigenous people's Responses</b>	<b>Migrants' Responses</b>
<b>Aim to Strengthen social tribal ties</b>	<b>Create community interactions</b>
<b>Focus on covering basic needs</b>	<b>Focus on making profit</b>
<b>Cope with natural environment</b>	<b>Try to preserve natural environment</b>
<b>Preserve and pass by Bedouin culture</b>	<b>Promote for Bedouin culture</b>
<b>Return to ancestral skills and activities</b>	<b>Are mainly based on learning new activities or skills</b>
<b>Build what they urgently need informally then they look for ways of legalization. in some cases, the government build what's missing after tribal agreement on what's needed.</b>	<b>Do not target Bedouin settlements, services, infrastructure projects or any physical structures. however, they expand their businesses by building simple culturally appropriate constructions which suite Bedouin and tourists needs.</b>
<b>Strengthen self-governance and go back to tribal constitution to solve conflicts</b>	<b>Must deal with local government for legalization and to gain legitimacy</b>

Table 3: Initiatives and projects scopes in Nuweiba  
Source: Author

Community Capitals Responses	Community Capitals						
	Social	Economic	Environmental	Cultural	Human	Physical	Institutional
<b>Agriculture CBO</b>		•	•		•		
<b>Wadi Malha</b>			•		•	•	•
<b>Duna</b>	•						•
<b>Sinai Trail</b>	•	•	•	•	•		•
<b>Women SMEs</b>	•	•		•	•		
<b>Dayra</b>			•	•			
<b>Habiba</b>		•	•	•	•	•	
<b>Basata</b>		•	•	•	•	•	
<b>Pink Camel</b>		•		•	•		

The responses comprise traditional skills that have been passed from the elderly people to the younger generations as well as imported skills from foreigners and Egyptian migrants. From the traditional skills are: embroidery, weaving, cooking traditional food, ways of survival in the desert, grazing and raising camels. From the imported skills are: learning languages, start a new business, technical skills, organic farming and more.

All those responses are attempts from Nuweiba community; Bedouins, migrants, investor and foreigners to cope with challenges. However, if there are no collective interests are formed nor collective action taken. The indigenous community will be marginalized forever. Besides they will only be insurgent citizens not adaptive manager nor even coping actors. They will only be powerless hopeless spectators who may threaten state sovereignty, living in one of most important peripheral and critical locations on the Gulf of Aqaba. The following Figure 57 shows the impact of indigenous Bedouin responses in comparison with migrant and investor responses on the seven-community capital.

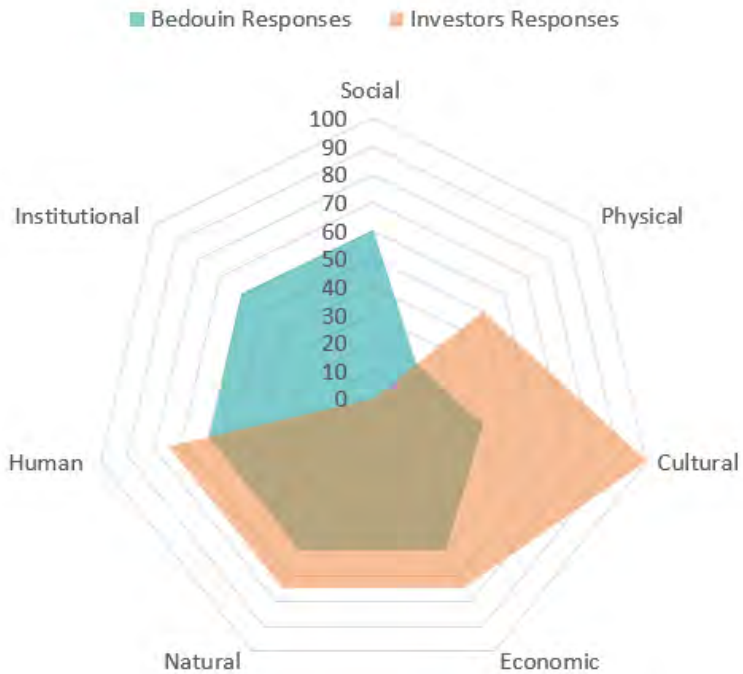


Figure 57: the impact of Bedouin responses in comparison with investor responses on the seven-community capital.  
Source: Author



## Part III

# Community Resilience in Nuweiba kick off

The next three chapters are the end chapters of this thesis. They focus on integrating scientific, local and indigenous knowledge to build community resilience for resilient planning. Since, planning ought to be transplanted into global impacts, local challenges as well as community responses.



Chapter 7:  
Community Resilience Inclusion and  
Operationalization in Strategic Planning



Captured by the Author in Nuweiba



## 7. Community Resilience Inclusion and Operationalization in Strategic Planning

In order to understand how centralized the planning system is and who are the involved actors in the process? This chapter illustrates the planning process in Egypt, involved actors, conflicts and gaps in the planning process. So that, community resilience can be started and pushed for operationalization, based on a solid base. Then the researcher will reflect this analysis on the status quo of Nuweiba city planning as well as the proposed strategic plan of the city by the GOPP. This chapter also emphasises on the importance of land use planning studies in relation to local community integration and inclusion. In conclusion, planners and decision makers should decide; Are they going to plan for the insurgent community who is marginalized and rarely being involved in planning process or Are they going to let the insurgents plan and expand their territories? So, a change in planning methodological approach to empower the community for resilience should be considered in the upcoming future.

### 7.1. Strategic Planning Verses Traditional Planning

Strategic planning in Egypt was introduced in the first half of the 21st century with the support of international organizations like UN-Habitat and UNDP. However, it was confronted by many challenges on national level. Centralization is one key factor which spoils planning process as well as bureaucracy. Since the transition from conventional planning system to strategic process is not only

concerned with systematic steps. Yet it should be accompanied by change in governance and institutional process (Abdelwahab and Serag, 2016). The following Table 4 shows the main differences between both processes in Egypt.

*Table 4: The difference between strategic and traditional planning in Egypt  
Source: by the author based on (Abdelwahab and Serag, 2016)*

<b>Strategic Planning</b>	<b>Traditional Planning</b>
Process oriented	Needs driven
Visionary planning	Unpredictable planning
Integrated design experience	Separated functions necessity
Community participation	No local participation
content and context relation	Focuses on context
Decentralized or Co-productive governance	Centralized governance
Judged through conformance	Judged through sectoral Performance
Coordination is essential	Lack of dialogue and coordination

## 7.2. Strategic Planning Methodology

The strategic planning methodology in Egypt is a complicated systematic process as shown in Figure 58. The process is divided into four main phases plus the preparation phase in which the planning office collects preliminary data about the study location, involved actors and institutions. The first phase is concerned with status quo analysis in collaboration with involved stakeholders. Phase two is mainly for vision preparation. Then the next phase is for setting long-term and short-term goals before the final phase of implementation. Most importantly is community participation in each phase starting from analysis, vision preparation, setting goals and projects proposition. In addition to giving feedbacks, participate in the implementation, monitor and evaluation processes. This is the ideal scenario for strategic planning in Egypt. However, what is being applied on ground may differs and may not include all stakeholders.

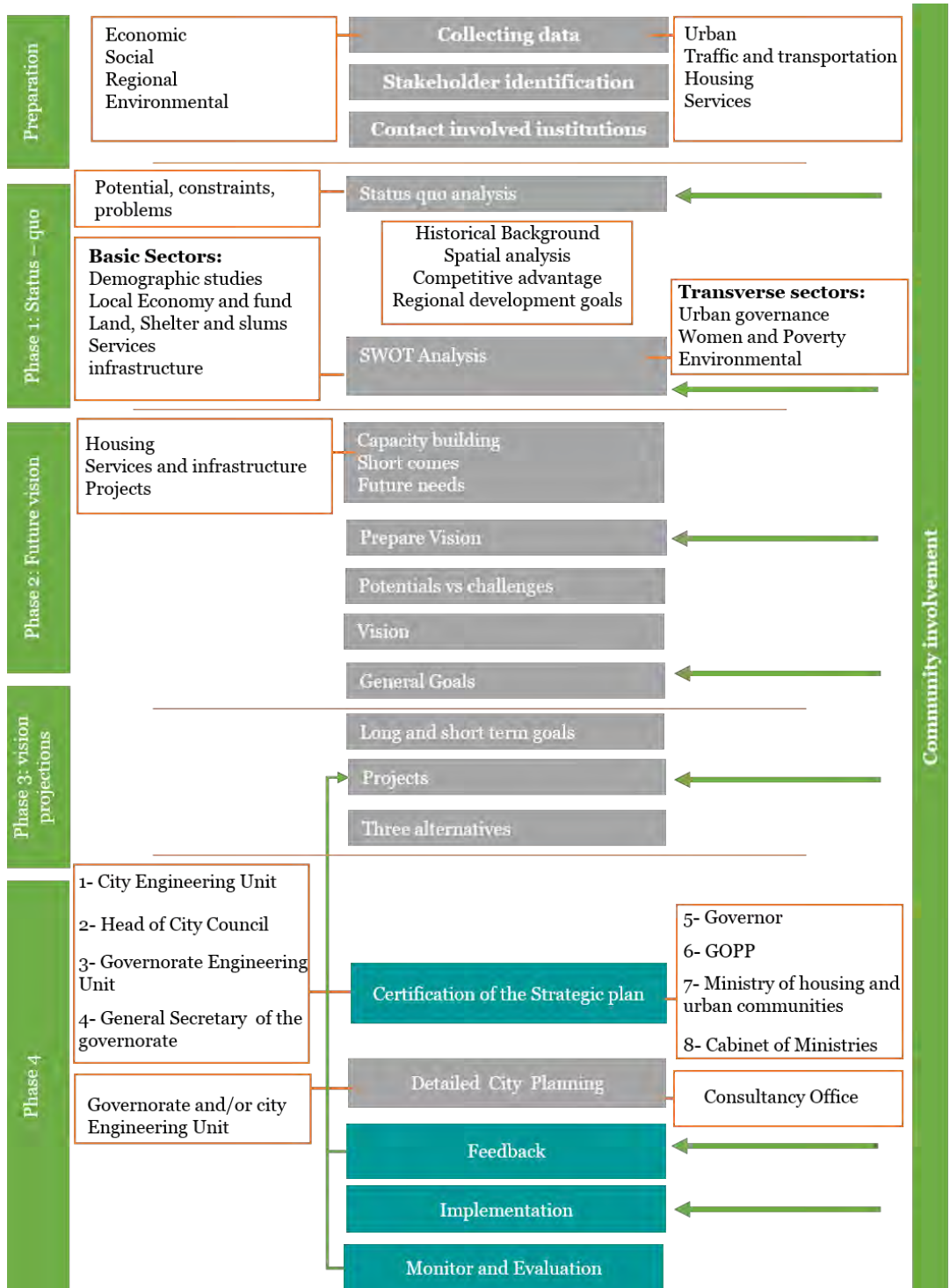


Figure 58: Strategic planning process in Egypt

Source: Author based on (Ashour, 2017); (Serag, 2012); (El Wakil, 2007)

### 7.3. Involved actors

There are different ministries under the cabinet of ministries involved in strategic planning as shown in Figure 59. The ministry of planning is responsible to prepare national and regional plans. Moreover, there are general agencies affiliated to each ministry which set visions and strategies then ensure their implementation. Some agencies are concerned with conducting studies other agencies are responsible for the execution of agreed plans. The national centre for planning state land uses (NCPSLU) is directly affiliated to the cabinet. The NCPSLU is mainly in charge of the coordination with various ministries and state agencies. Furthermore, the ministry of planning prepares regional and national plans after the authorization from the parliament. Then, cabinet of ministries approves the plans. Afterwards, sectoral plans are developed by each ministry through the specialized agencies. Subsequently, these sectoral plans are sent to the ministry of housing to be projected in the strategic planning which is developed under the general organization of physical planning (GOPP).

There are diverse actors involved in planning process in Nuweiba, south Sinai. The following figure 60 shows the power verses interest relation for each actor.

- a) Planners: Though planners' role end with submitting the plan to the GOPP. They have an influence during planning process to direct and project future visions by mediating between different stakeholders to realize long-term goals. It is argued that planners are powerless technocrats (Serag, 2008). However, they have an underlying influence and power to guide decision makers because, they are the experts and maestros of the entire process.
- b) Ministry of Planning (MOP): is responsible for the preparation of the national and regional plans and allocating fund for implementation. The National Agency for Sinai Peninsula development which is recently affiliated to MOP is responsible for managing the development projects in Sinai region. The agency has intersecting roles with SDA and named the same.
- c) The general organization of physical planning (GOPP): is a national agency under Ministry of housing (MOH). The main branch is located in Cairo.

Also, there is another regional office in Ismailia. The GOPP develops regional plans for all provinces, cities and villages in Egypt.

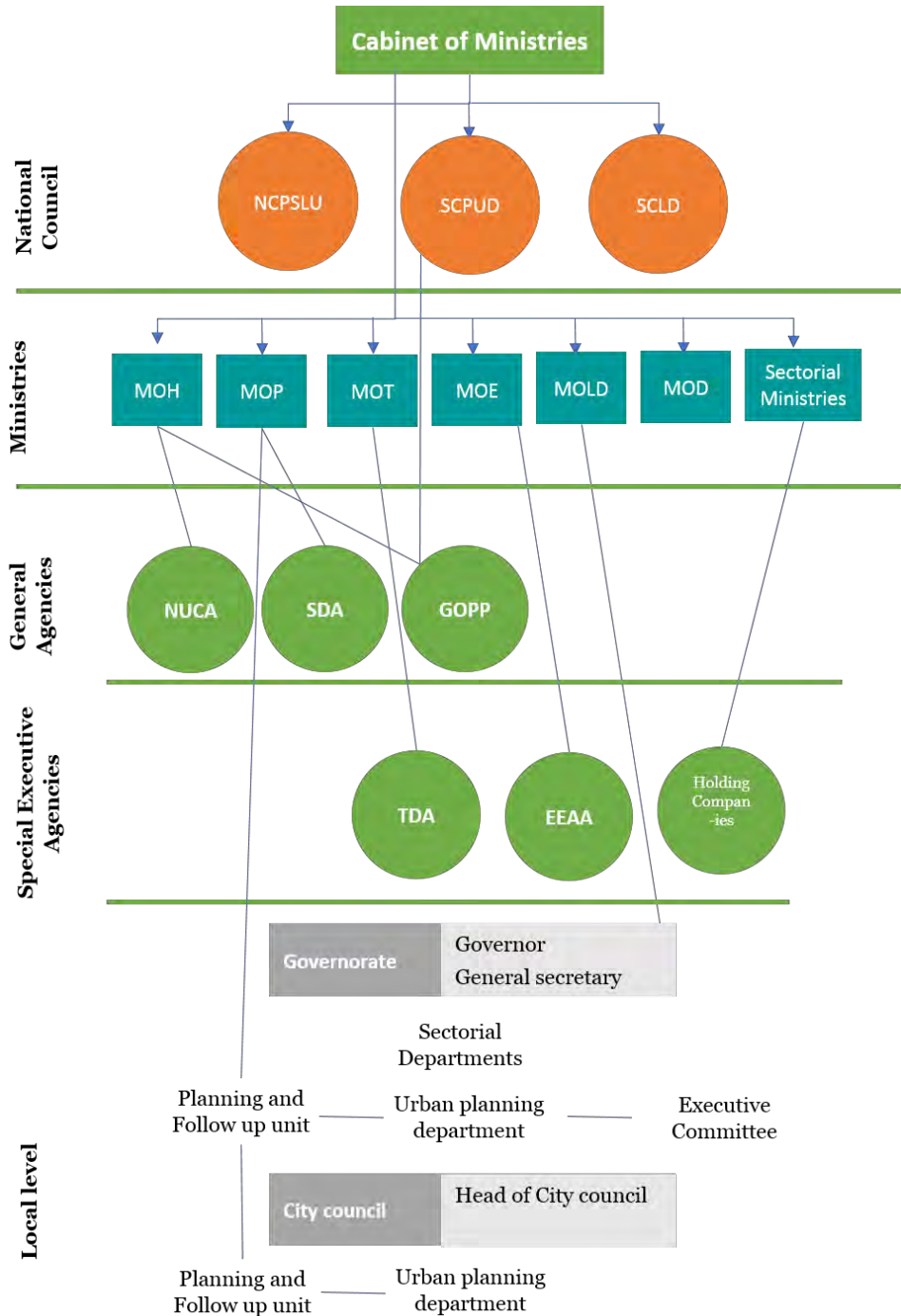


Figure 59: Institutional framework of government hierarchical level  
 Source: Author based on Multiple sources

- d) Ministry of tourism (MOT): controls many lands especially on coastal areas in Nuweiba. It puts plans for tourism development and sets regulations and timeframes for tourism projects implementation. The tourism development authority (TDA) is affiliated to the ministry of tourism and it manage and control coastal areas outside municipal boundaries. It is responsible for planning, development and selling of lands by the sea. The TDA also puts regulation and specification to ensure realization of the national vision.
- e) Egyptian Environmental Affairs Agency (EEAA): is responsible for preservation of natural resources as well as control pollutions by putting measures and regulation that ensure its policies. Accordingly, ecological impact assessment is required to approve the implementation of any project in coastal areas. Moreover, the results should comply with environmental standards of EEAA to ensure natural environment preservation.
- f) South Sinai governor is a key player in planning process. He may accept or reject the strategic plan. Also, the governor gives the final approval on it.
- g) City council: suggests and expresses the needed projects to planners, approves the plan then supervises its implementation. Most importantly, it is responsible for the success or failure of community participation in planning process.
- h) Sinai development authority (SDA): is a technical agency under the MOH. It is concerned with the planning and accomplishment of projects in the peninsula in addition to infrastructure provision.
- i) Community based organizations (CBO): lack of CBOs in Nuweiba and south Sinai in general lessened real community participation in comprehensive planning process. Since, Nuweiba is considered one on the peripheral area on the gulf of Aqaba that is isolated socially and politically from the rest of the country.
- j) Investors might be interested to invest by implementing projects from the proposed projects in the strategic plan. Yet, the majority implement projects based on their interests even if they are contradicting the plans. That is why, the presence of investors and their inclusion in the process is essential.

k) Local Community: is the least involved actor in development because, they have opposing ideas unlike top-down planning institutions. However, sometimes individuals from the community would rather work for personal interests than common good of the society.

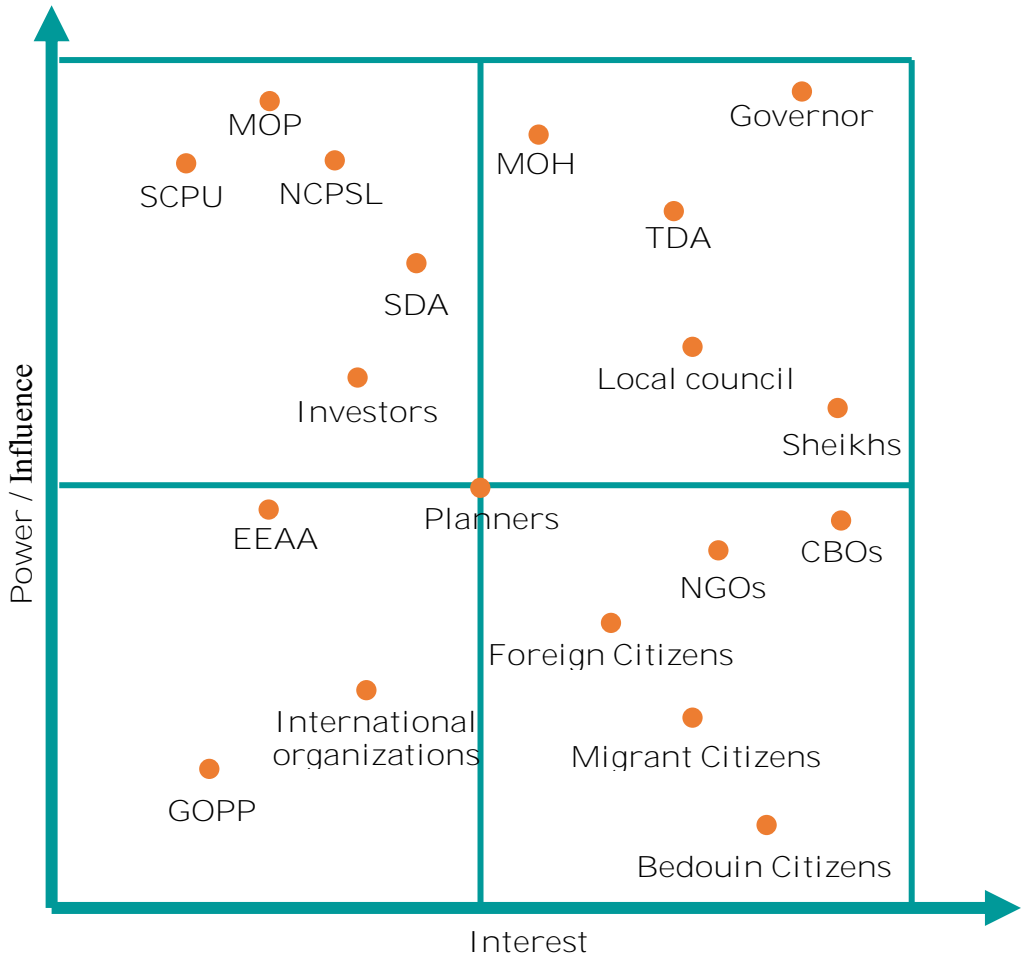


Figure 60: stakeholder mapping of actors involved in Nuweiba city planning

Source: Author

## 7.4. Conflicts and Gaps

Since there are too many stakeholders involved in planning process working on local and national level, many complications and Fragmentation in future visions appeared because of miscoordination and weak cooperation.

#### 7.4.1. National level

Meanwhile, there is no unified vision and no coordination between ministries and involved agencies. Nevertheless, two councils are in charge of solving this issue. The (SCPUD) Supreme Council for Planning and Urban Development was established for combining all visions from states' institutions concerned with construction, in an attempt to bridge and reduce the gap between those institutions to merge different visions. Besides the role of NCPSLU which is achieving the best possible use of its territory and to pursue the development of these lands and the provisions of control from infringements and study of major national projects to ensure maximize returns and boost investment and ending rates of the desired development through the public state's policy.

#### 7.4.2. Local level and Citizen Participation

Before 2000, there was almost no participation on the local level neither the city officials nor community representatives were encompassed in planning process. However, in 2003, the bottom up planning approach was introduced to emphasis on the importance of local actor involvement in the process. Accordingly, in 2006, the GOPP started a program with UN Habitat which stressed upon integrated and decentralized approach. The program targeted three sectors: Shelter, services and LED. Yet, natural environment, governance and vulnerability are side additional topics (Serag, 2008). The city council chooses some representatives from the community to express together their needs for the upcoming plan. Those representatives may have personal interests so that they do not reflect fully community's needs. Moreover, the city council sometimes takes the responsibility of detailed planning continuation without having the expertise and trained cadres to do so.

#### 7.4.3. Budget Allocation

As discussed earlier, the MOP is responsible for assigning budget for any development plans. However, the proposed budget is proposed by the MOF to the cabinet of ministries and the parliament as shown in Figure 61. Most

probably the allocated fund is not sufficient to achieve the goals and the full plan. Accordingly, Deficit in the general budget might occur or the plan will not be completed based on the aimed vision. Though local investors might be interested to fund some planned projects, their minimal contribution and involvement in the planning process hindered them from being active stakeholders (Serag, 2008). The same for international organization like EU and USAid, which do not participate in planning process. They fund projects in Nuweiba for instance: the **desalination plant, sewage system...etc. based on their agendas and perspectives** that might not match the strategic vision.

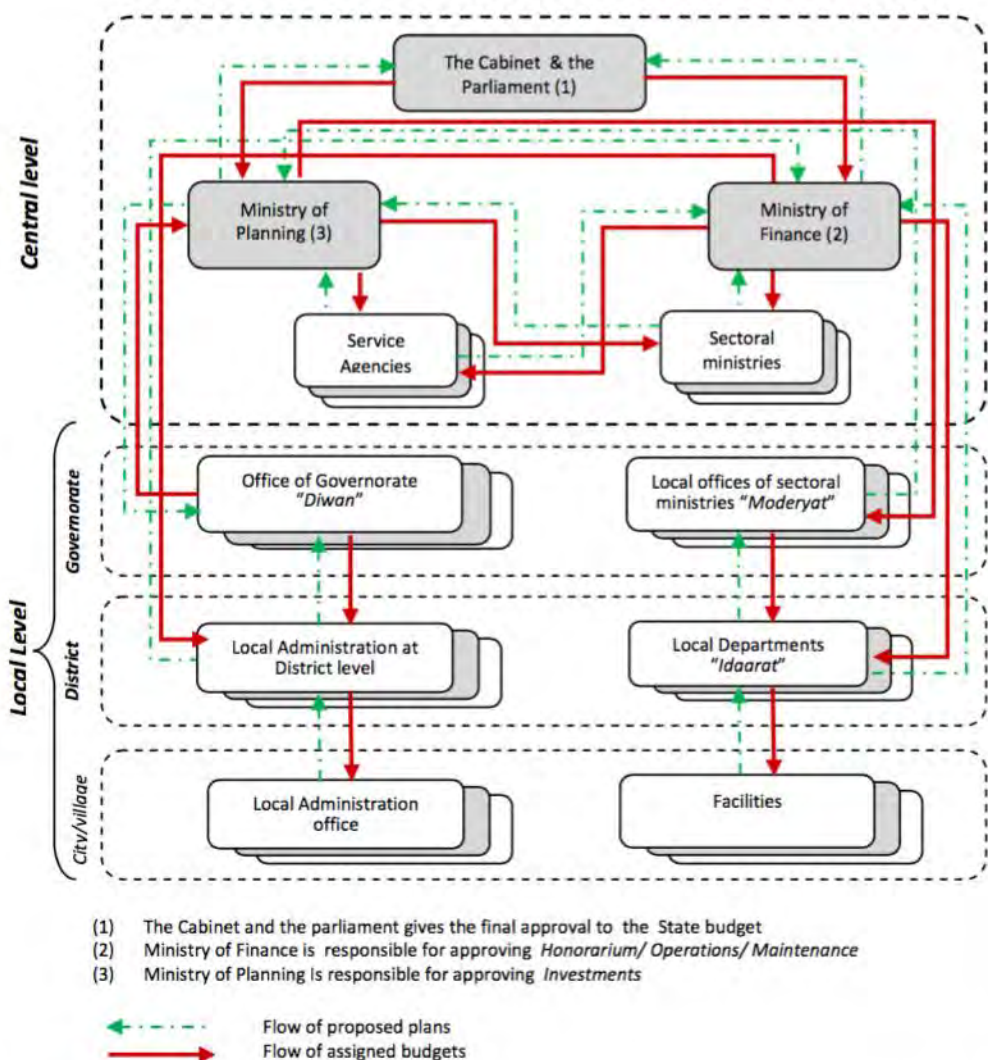


Figure 61: Flow of Budget  
 Source: (Abdel-Latif, 2013) based on Law no. 70/1973

7.4.4. Relation between Planners and the involved Actors

Since there is no coordination between ministries while preparing sectoral plans, this resulted in each ministry suggests projects that might be duplicated or contradictory. Moreover, the economic plan does not match the spatial planning due to the minimal coordination between GOPP and the ministries. The role of planners has become a burden which takes too much time and effort because of the complicated planning process which might last for 10 years as Nuweiba strategic plan see Figure 62. Generally, a consultancy office is selected by the GOPP to develop the strategic planning. After approval either the office will continue working on the detailed planning or the strategic plan will be put on

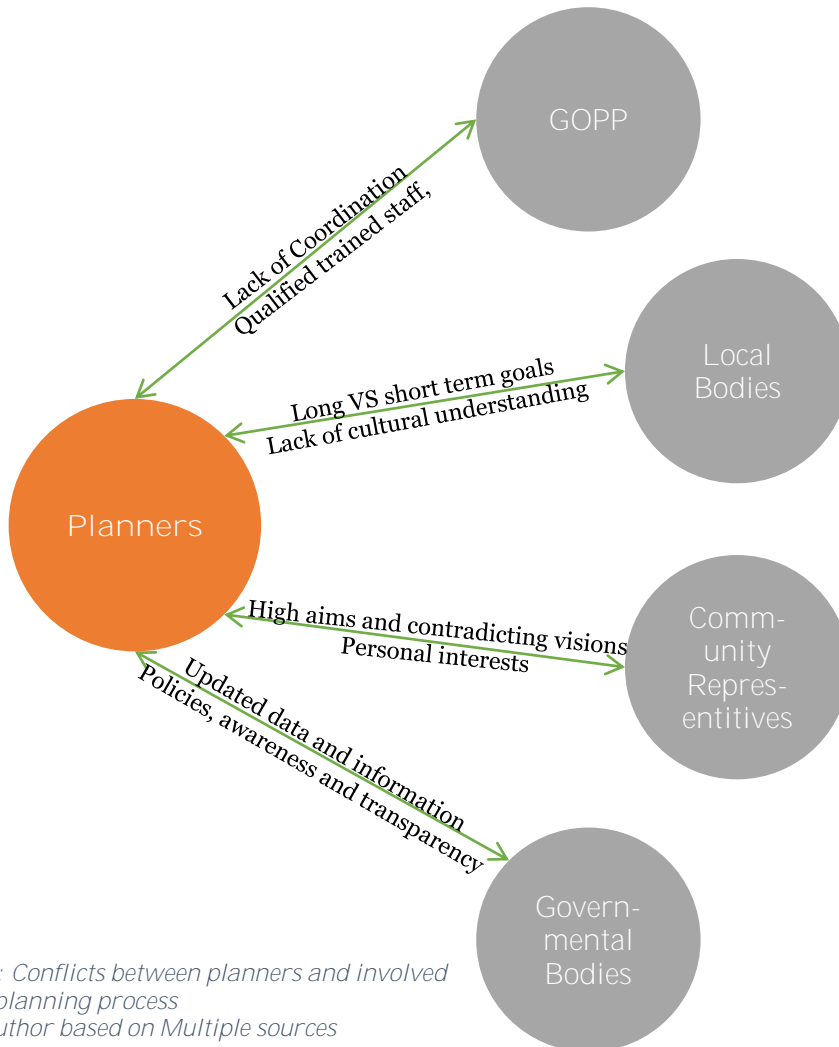


Figure 62: Conflicts between planners and involved actors in planning process  
 source: Author based on Multiple sources

shelf until it became outdated. In some cases, the local engineering unit in the city council works on the detailed planning and this resulted in defects on the socio-spatial level as illustrated earlier in the last chapter. In Nuweiba case, the strategic planning process started before 25th January revolution, in 2007/2008. However, the process had been interrupted by series of events after the revolution. By 2014, the third report was accomplished and the three proposals were declared. Nevertheless, more studies and modifications were requested and the plan is still in the approval stage.

## 7.5. Critical Issues Related to Nuweiba Planning

There are two critical and important topics related to planning: land encroachments (in some cases land accusation) and informal settlements as shown in Figure 63. Based on 48/2017 in south Sinai governorate. Legalization of squatted lands is possible as long as SMEs or business are running, a residential building was built or deserted land was reclaimed before January 2012. Though the law is still active and valid in all cities of south Sinai governorate from Jan/2017 until Jan/2018, few Citizens go for legalizing their lands or houses. But, it is argued that the process of legalization is complicated, many papers are needed which required visiting Cairo to be finished.

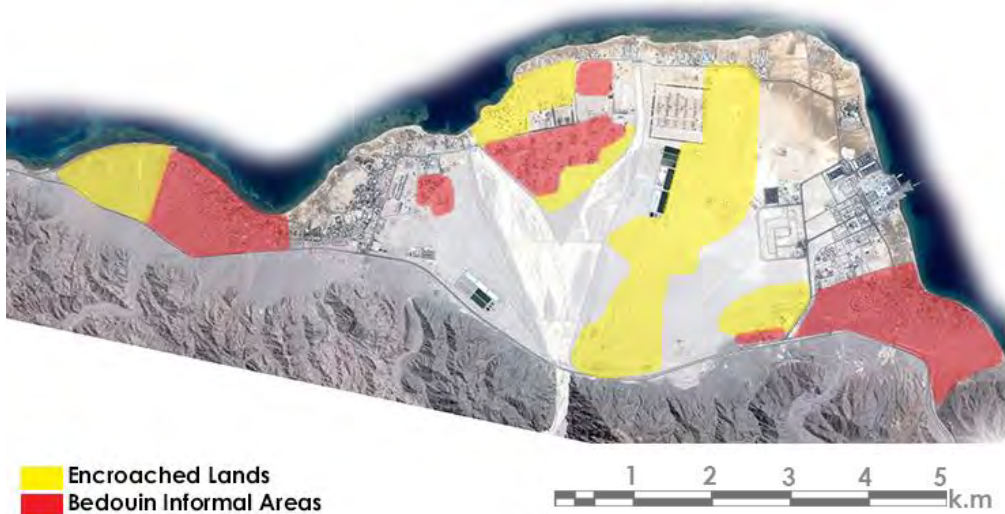


Figure 63: Map of the informal areas and encroached lands

Source: Author based on GOPP, Google Earth, Nuweiba Engineering Unit

## 7.6. Land Use Planning for Spatial Development in Nuweiba

Accordingly, land use planning is an important section for spatial community development. It may solve conflicts of land acquisition between government and local community. Land use planning is highly based on the illustrated community resilience activities in the previous chapters. Since it is concerned with land allocation, future development and resource management. However, there are many constraints and challenges stand against the application of land use planning as shown in Figure 64 (Disaster Resilience Framework, 2015). In areas like Nuweiba, resilience factor can be applied either by land use planning then develop strategies to implement it or develop several alternative land use plans based on community resilience as a part of recovery process to the expected challenges. Also, political will may give strong backing to assist in decreasing risks and mitigate hazards that stand against planning success.

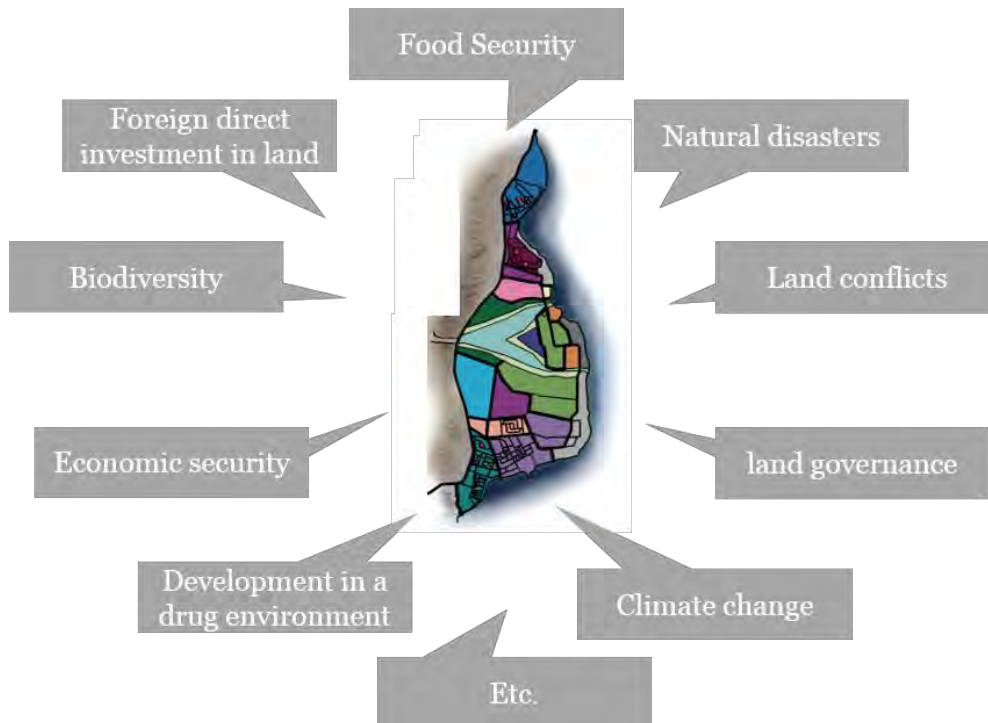


Figure 64: Challenges and constraints of land use planning in Nuweiba  
Source: Author based on (Wehrmann, 2011)

Subsequently, integrated participatory land use planning is essential for full spatial local planning starting from preparation phase to the fourth phase of monitor and evaluation. Setting city vision should be as big as the challenges it faces. Based on (Flora et al., 2005), analysing each capital then projecting potentials and challenges of each on land use planning is crucial, so that future polices, projects and scenarios could be discussed and well implemented based on deep analysis and on ground verified data as shown in Figure 65.

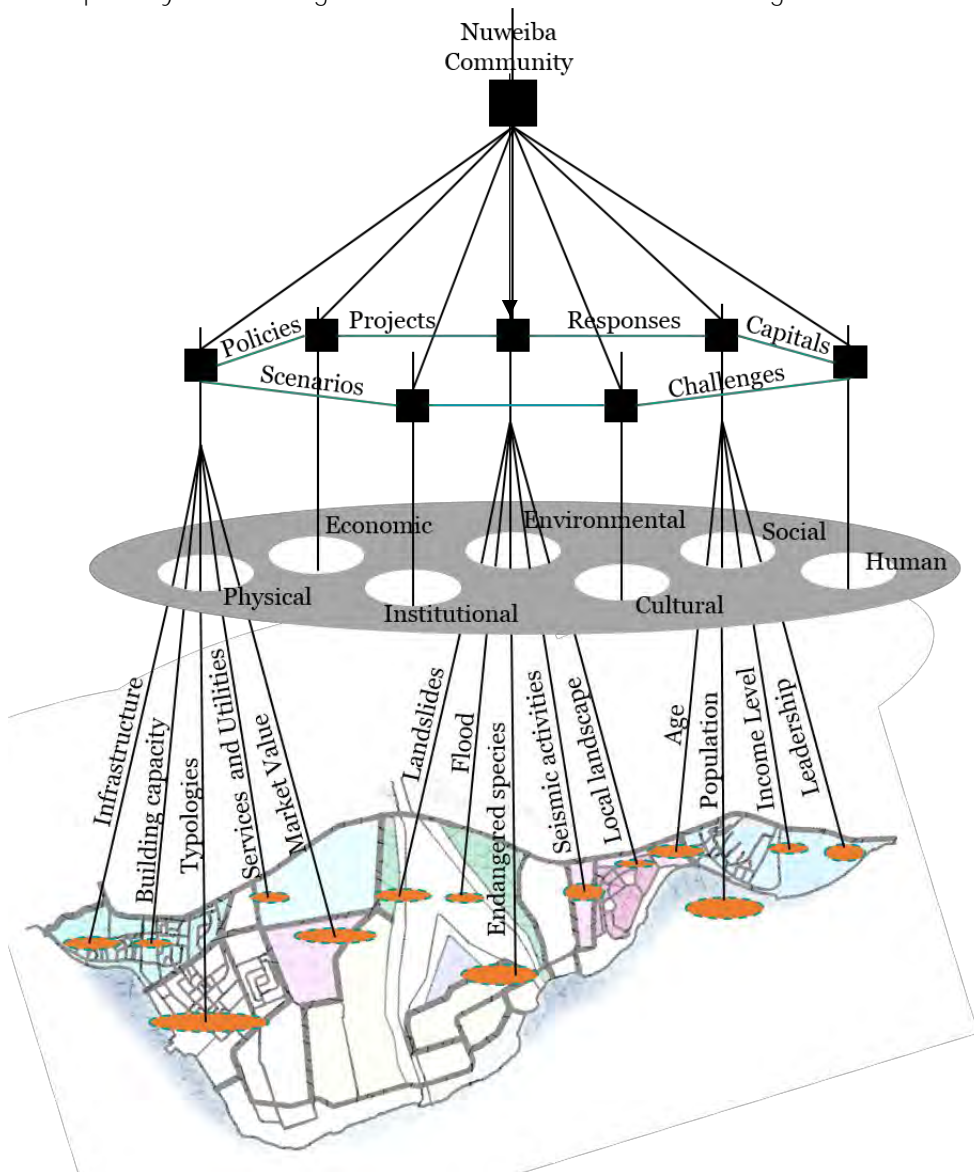


Figure 65: projection of seven domain on land use planning  
source: Author based on multiple sources

## 7.7. Addressing Land use planning in Nuweiba

The following two figures, Figure 66 and Figure 67, show the contradictories and overlaps in land uses in Nuweiba. There is a clear gap between the status quo and what is being planned for implementation. The following recommendations are proposed after community discussions on the upcoming land use planning vision:

- It is not recommended to construct longitudinal roads passing by flood plain since lots of money will be lost for maintenance and repairing damaged parts in the roads every year.
- It is not recommended to build construction near areas subjected to seismic activities since there are land cracks which might cause building collapsing.
- Existing Bedouin settlements should be taken in consideration while developing land use plan either to be pre-planned with same land use which is residential, or availing alternatives in the new plan.
- There should be public beaches in the city and not to plan the all lands on the shoreline as private tourist investment, since almost all lands outside the city boundaries belong to the TDA where private tourists' investments are implemented. So, beaches are needed for Nuweiba community in the city.
- Central market in Nuweiba is urgently needed in a middle area (Wasit).

Therefore, participatory land use planning should have been addressed to mediate between different interest groups and identify common vision for the city of Nuweiba. So that, land use planning threats will be mitigated, through:

- Self-sufficiency and food security by expanding agricultural lands
- Mitigate and avoid natural hazards impacts which are shown in Figure 68, for instance: flood and seismic activities
- Land conflicts between local community and the state should be solved
- Natural environment should be highly preservation
- Availing secured diversified economic base

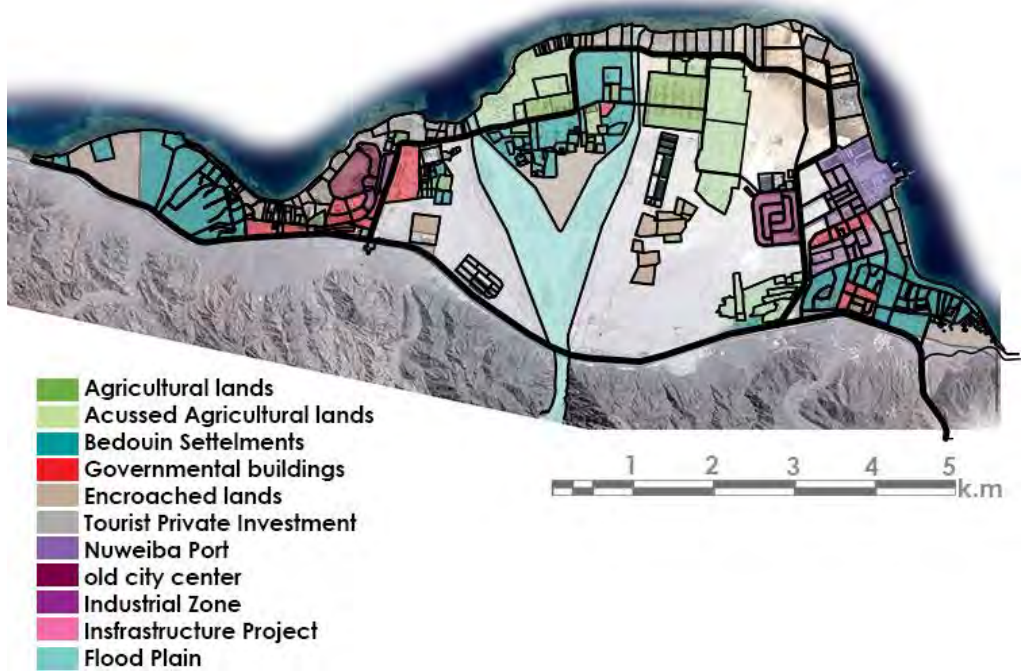


Figure 66: Current land use in Nuweiba City  
 Source: Author based on field visit and Google Earth

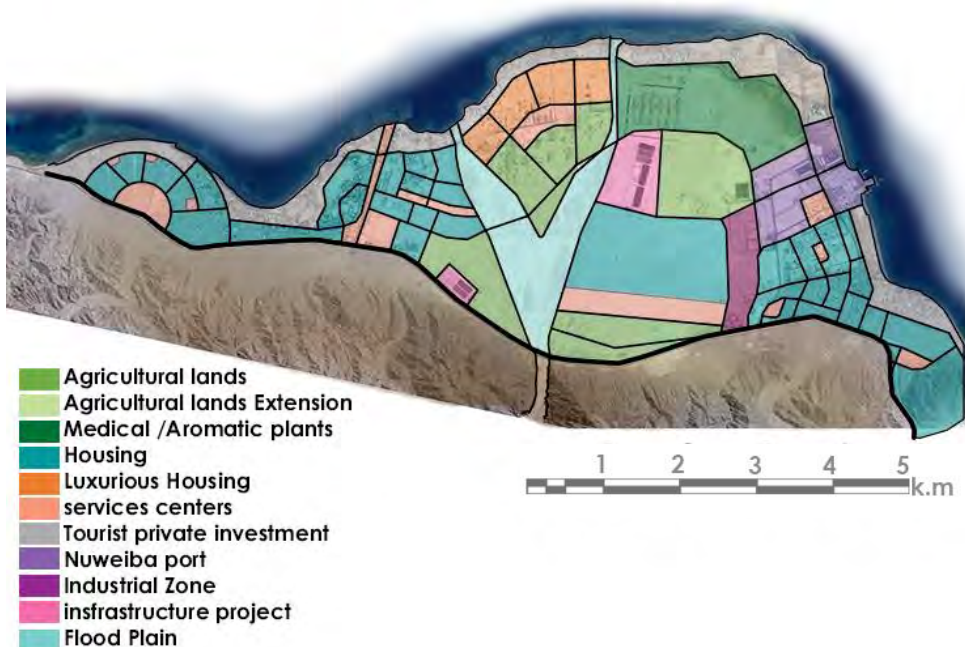


Figure 67: Third proposal of Nuweiba city land use planning  
 Source: Author after (GOPP,2014)

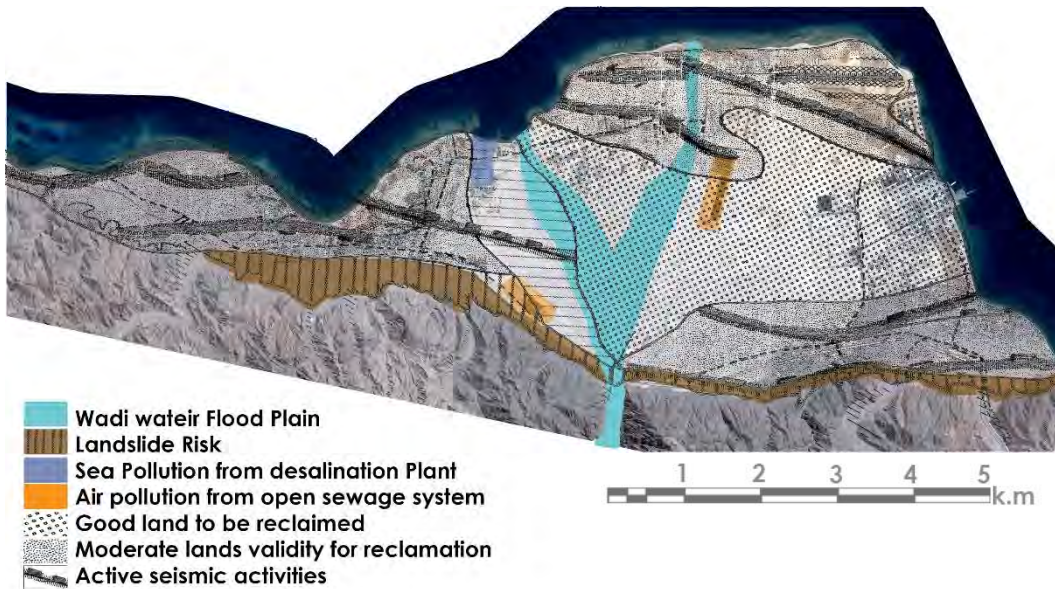


Figure 68: Environmental Risk in Nuweiba  
 Source: Author based on (GOPP,2008)

## 7.8. Insurgent planning or planning for the insurgents

Planners and decision makers should stand and ask themselves, are they going to let the insurgents plan and expand in land encroachment and building informally or are they going to plan for the insurgent marginalized ethnic group? Though all lands in Sinai are state's property. The state should be resilient and cautious because these lands used to be traditional territory of Bedouin ethnic group who used to live there for decades even before demarcation of states' artificial borders. It is argued in this thesis that Nuweiba community has kind of resilience especially in land use planning and economic sector. So, a resilient approach should be followed from both sides in order to keep the states' property and not to create insurgents in this critical peripheral area.

Accordingly, there are two controversial approaches in development in peripheral area like Nuweiba. Either neglecting the Bedouin indigenous community by planning the city for others and plan another area up the mountain for the Bedouins. This will result in their isolation from the new

society as the new city will not suite their needs. On the one hand, this approach may protect their culture and traditions. On the other hand, it may also cause insurgence and violent reaction. The other approach is to let them participate in the process and live in culturally appropriate zones. So that they can get equal opportunities and improve their living. However, they will gradually lose their identity, indigenous knowledge and tradition.

Culturally appropriate land use planning advocates traditional architectural principles to foster indigenous community. Also, it reduces and limits urban sprawl. Accordingly, community Resilience factor should be taken in consideration before starting planning process, during the process and in the implementation phase of planned vision. Since it will save time and reduce risk of conflicts between community and local authorities.

The researcher assumes that the role of planners should not be limited to developing land use planning then work on the detailing. Yet, proposing steps and procedures to ensure the realization of planned vision, so that it cannot be ruined or modified after handing over. Though planning process is a long systematic process, putting community resilience factor in consideration will ensure its success on local level, because planning will not only be based on participation but also built on cooperation for the sake of local community and the state. That is why, it is essential to discuss the topic of operationalizing community resilience, because the locals are the main and the most important actor in the development process.



## Chapter 8: Community Resilience Framework, Assessment and Recommendations



Captured by the Author in Nuweiba



## 8. Community Resilience Framework, Assessment and Recommendations

This chapter focuses on linking the previous analysis and findings with research aim and questions. First by developing a framework for community resilience. It was based on the discussed frameworks and the case study analysis. This methodological frame aimed at reaching resilience in time of needs, during and pre-event. Second, some indicators were identified to evaluate resiliency factor in the community. Third, recommendations were made for planning, design and policy interventions for Nuweiba development. The recommendations were mainly based on the field visits which reflect community's viewpoints. And finally, the conclusion mainly emphasized on the prominence of taking in consideration community resilience for integrated sustainable development.

This piece of work addresses community resilience not from the hazard specific approach. But its focus is to provide an approach to integrate communities in sophisticated activities, by encouraging communities and decision makers to think about the general resilience. So that robust foundation for development could be established. Significantly, community resilience is based on well understanding of community capitals by analysing then assessing then operationalization as shown in Figure 69. Nevertheless, the spotlight will be on assessing community capitals and giving recommendation to reinforce each capital after giving a quick overview on community capitals indicators or variables.

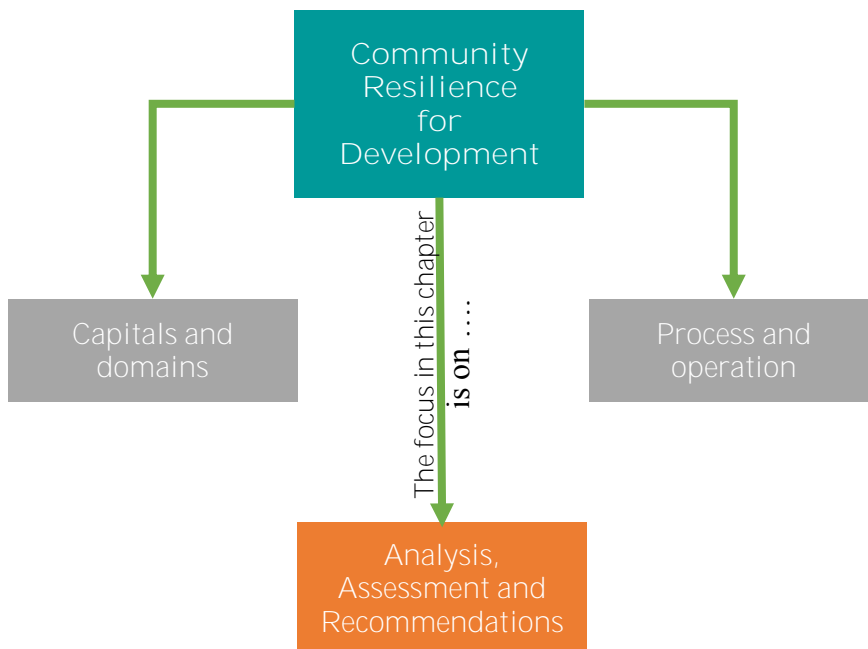


Figure 69: Bases of community resilience for development

Source: Author based on multiple sources

## 8.1. Community Resilience Framework

Since, the resilient community is ideally the safest disaster-prone community that can cope with and pass by the damages brought by disasters, either by securing their pre-disaster social fabric or by accepting peripheral larger change in order to survive (Gaillard, 2007). It has the necessary resources and is capable of organizing itself both prior to and during periods of need. The community is required to be prepared to face abnormal events in terms of its form, scale or timing. Also, it ought to have the ability and willingness to adapt to a changing and threatening environment by raising a common cause and a shared set of morals (McAslan, 2010). Figure 70 shows how community can be ready prior to, during and after challenging events. Consequently, each community needs to understand how resilient they are, to participate in development and face prone challenges. Consequently, variables are identified for each capital as in Figure 71 in order to be able to assess resilience for Nuweiba community inclusion in future development.

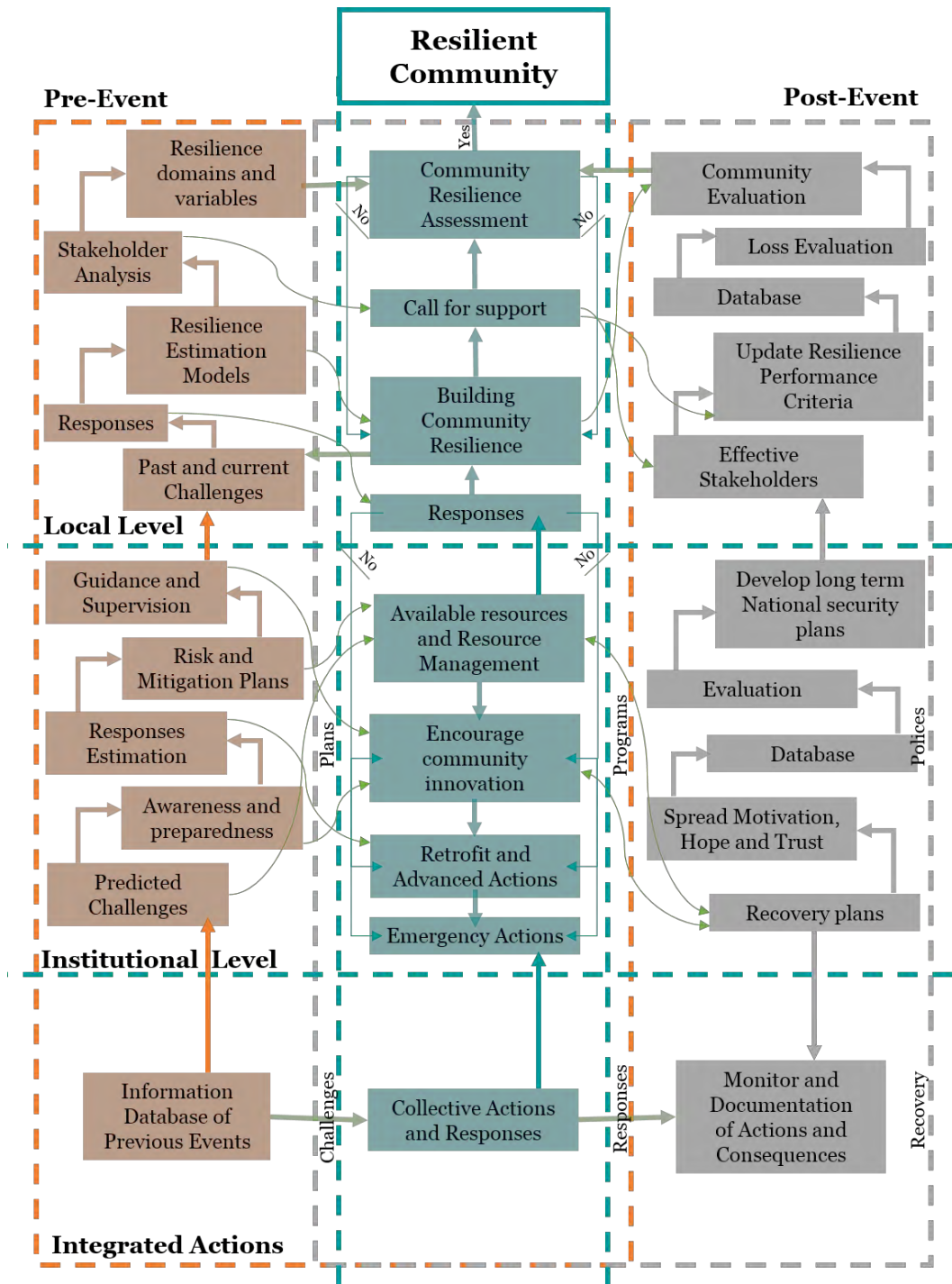


Figure 70: methodological diagram for operationalizing community resilience

Source: Author based on (Bruneau et al., 2003) and other multiple sources

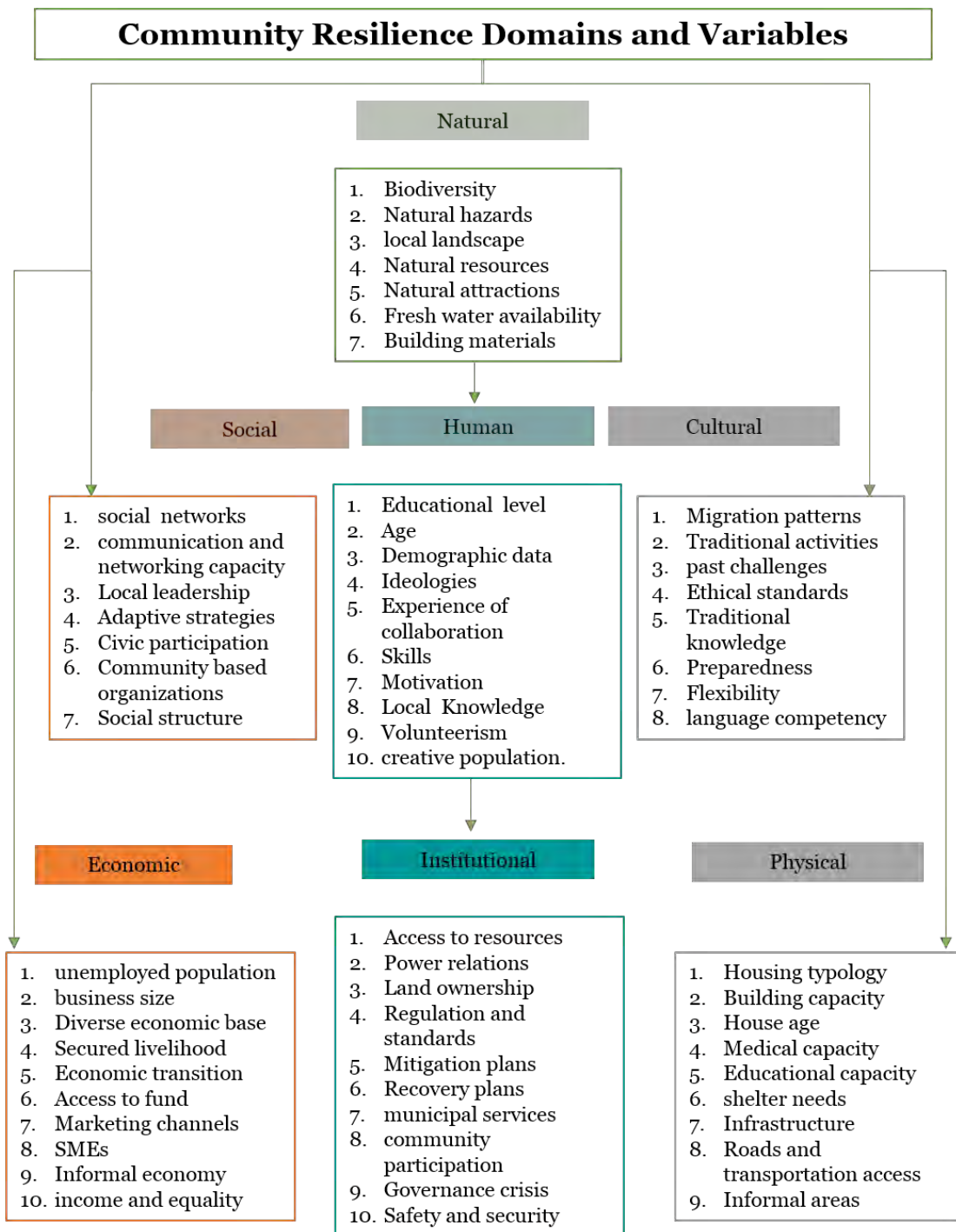


Figure 71: Community resilience variables in the 7 domains

Source: Author based on field visit and multiple sources (Davis et al., 2004, Benson et al., 2007, Buckle et al., 2001, Cutter et al., 2010, Flora et al., 2005)

## 8.2. Community Resilience Assessments

### 8.2.1. Natural Capital

The local indigenous community in Nuweiba are very attached to natural environment even after modernization. They still practice their traditional seasonal movement to the mountains in the spring especially after rainy days. Around 70% of interviewees still organise for seasonal movements with their families in order to practice early pastoral activities and to bypass wildlife knowledge and experience to their children. They were resilient to many natural challenges for instance flood, heavy rain, water scarcity and danger of wildlife animals. The most critical period which negatively impacted the natural environment was during tourism boom in Nuweiba after Sinai liberation until Arab spring revolutions. Unlike, primary life period, all resources were Bedouin common property. Nuweiba was a pure pristine area that is untouched with development. During Israeli occupation. Resources were exploited by Israeli and under their control. However, they put the first stones of development in Nuweiba. Also, they tried to preserve natural environment by building using sustainable materials like wood, putting regulations on fishing, charcoal, building and resources exploitation. Figure 72 shows a relative change in this capital based on conducted surveys in Nuweiba and as discussed in Part II.

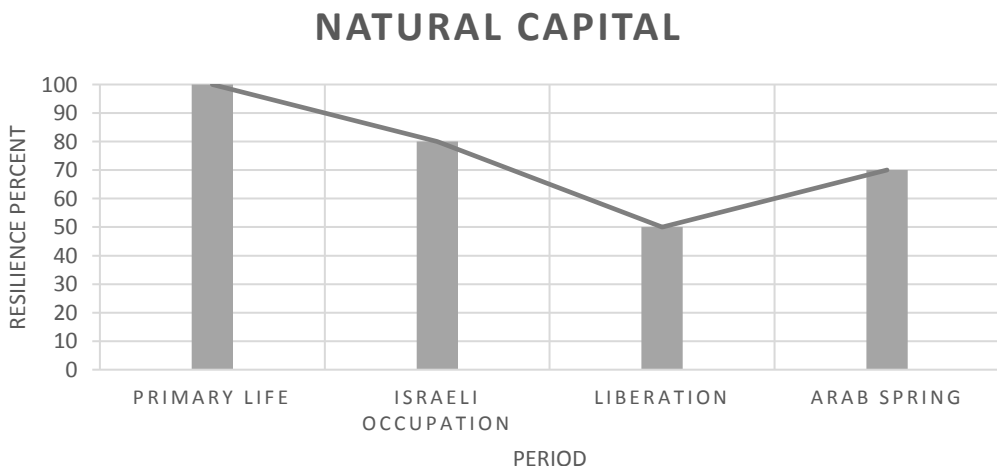


Figure 72: The change in Natural capital in four different periods

Source: Author based on conducted surveys and interviews

## Recommendations for the Natural Capital

- Since Nuweiba is highly threatened with flash flood that cut the international Taba -Sharm road destroy cars, threaten many houses, destroys many corals and affects biodiversity. It is highly recommended to build dams to store flood water instead of letting it goes to the sea.
- Due to the scarcity of water in Nuweiba, a desalination plant was built funded by USAid in 2002. The desalination plant in Nuweiba which depend on reverse osmosis process to obtain fresh water, represent a risk to the marine life. Because of the warm high saline water which returns to the Gulf, affecting biodiversity and endangered species. Therefore, it is recommended to use the return high saline water in salt production which will bring benefits on the economic sector by availing number of job opportunities to the community.
- Establishing a CBO for natural environment preservation, especially for spots like coloured canyons, wadi Al Washwashi, Fortaga natural spring.
- Avoid planning weather sensitive landscapes even in the 5 stars hotels and resorts because of their high-water consumption. Instead, encourage planting palms, olive trees and other native plants.
- Local participation with EEAA to protect natural environment.
- Awareness campaigns for the local community to protect, preserve Nuweiba environment as well as for their self-safety.

### 8.2.2. Physical Capital

Nowadays, Nuweiba is being developed especially in the construction sector. The Egyptian government is keen to avail needed capacity building from social housing, services and infrastructure. It became away different than primary time, due to the presence of multi-storey buildings, international Nuweiba port, a hospital, schools, hotels, resorts, in addition to the basic infrastructure from sewer system, desalination plant and electric power plant. However, most of these developments were implemented since the 1990s to attract population

and investments to the newly developed city. As mentioned earlier the physical capitals in Nuweiba started to develop during Israeli occupation period. Thus, factories, water system, chalets, roads and more were constructed. Figure 73 shows the evolution in physical capital during the four main phases.

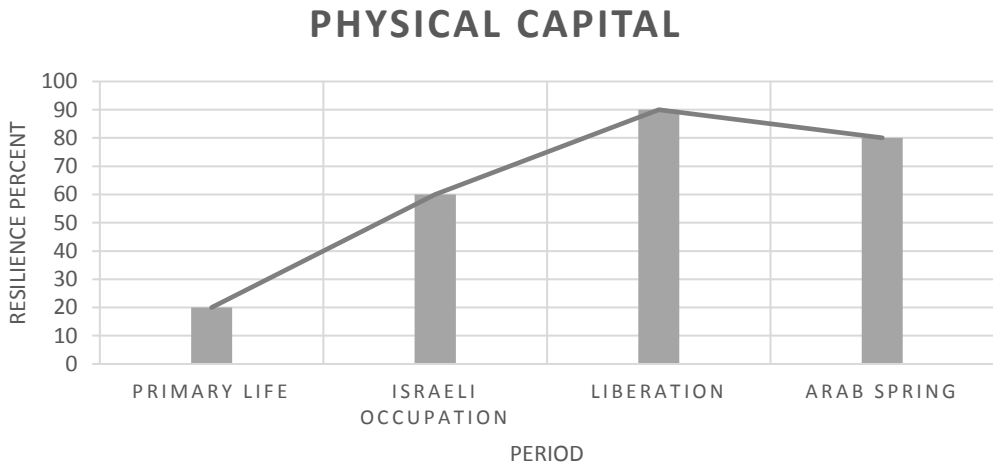


Figure 73: The change in physical capital in four different periods

Source: Author based on conducted surveys and interviews

### Recommendations for the Physical Capital

- Developing culturally appropriate governmental housing designs
- Develop a traditional theme for building construction in Nuweiba
- Use of local materials from stones, reed and clay in building constructions
- Avoid building near dangerous areas which are subjected to natural risks for instance: flood, seismic activities and landslides.
- Securing existing Bedouin settlements from the risk of flood.
- Increase the number of Local businesses and use of building technology
- Expanding Local pharmaceutical manufacturer capacity building.
- Younger generation should build assets in transfer of ownership
- Access to information and material resources
- Developing mental and physical health care services
- Close wadi Wateir road because it is on the path of flood plain.
- Central market is needed in a central area in Nuweiba
- Culture centre should be built to revive traditional poems and stories

### 8.2.3. Economic Capital

In early pastoral time, the economic capital was not only limited to herding and charcoal production but also protecting trade caravans and pilgrims. Then, the community depended on unsecure job opportunities in occupation factory and farm lands. Nevertheless, the economy revived in this period and there was a very low rate of unemployment. After Sinai liberation and until 2011, there was an increase in investments and more access to fund due to the open-door policy during Sadat era and continued during Mubarak period. Local Bedouin worked in tourism sector and other related economic activities. Accordingly, when this sector declines, Nuweiba community was highly affected by this crisis because they did not find alternative strong economic base for the city and still. Figure 74 shows the change in economic capital in the last three decades.

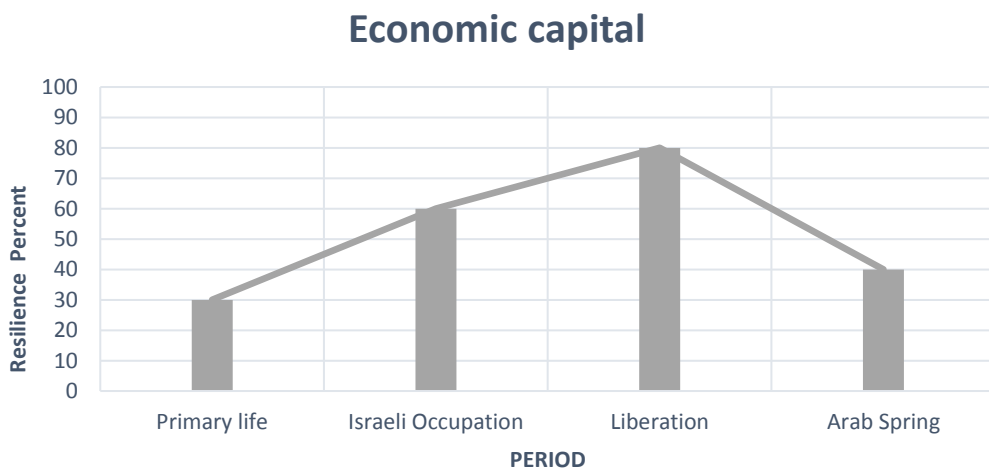


Figure 74: The change in the economic capital in four different periods

Source: Author based on conducted surveys and interviews

### Recommendations for the Economic Capital

- Support for local businesses and small-scale industry.
- Promoting slow growth that fits community values and aspirations.
- Strengthen and encouraging community foundation in Nuweiba.
- Programs to revive traditional handmade industry.
- Building industry based on aromatic and medical plants.
- Make effective use of sands in art or glass and technological industries.

- Traditional food industry: dairy products, dates, olives and more.
- Salt extraction industry after sea water desalination.
- Formation of business clusters.
- Limit black market economic activities.
- Increase links of Local businesses to global market.
- Encourage the increase in investment in local business development.
- Palm tree as a main sustainable source of food, handmade products and building construction.
- Offer Scholarships to support leadership training for youth.
- Foundations should have access to funders and access to state agencies.
- Financial planners, professionals should facilitate charitable giving.
- Encourage Edu-tourism, voluntourism in Nuweiba.
- Avoiding mass tourism, yet stimulating traditional responsible tourism.
- promote for medical tourism particularly addiction recovery programs to change the perception that Nuweiba is a market of drugs and addiction.
- Reclaim more agriculture lands for food security and self-sufficiency.

#### 8.2.4. Social Capital

Social capital is one of the most crucial capital for community resilience especially in Nuweiba where indigenous Bedouin people live. When social capital is strongly being present, goals are set and decisions are made based on consensus. Furthermore, expanding social networks between Egyptian migrants, foreigners and investors in Nuweiba will help to find new alternatives for collective actions. It is recommended to widen the networks to include governmental entities, who make decisions about Nuweiba community in order to help in realization of legal urban transformation. Since, social relations help to understand what is within us from economic capitals, what is between us from infrastructure, services and capacity buildings, and what is beyond us related to governance and political capital. So, social capital is all about organization for development to achieve tasks such as: planning, evaluating, mobilizing resources, coordinating activities, and resolving conflicts are more manageable

in a community that is well connected both internally and externally. Figure 75 indicates the change in social capital along the four identified periods.

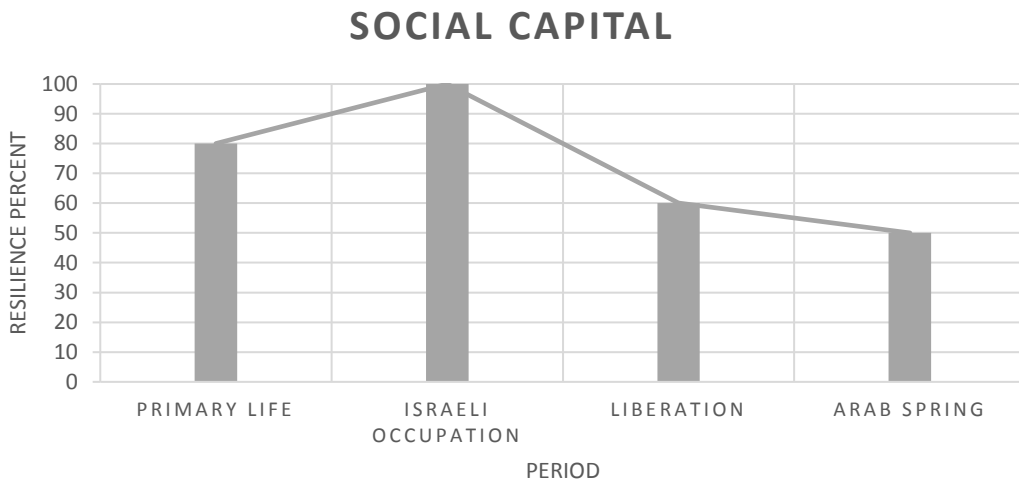


Figure 75: The change in social capital in four different periods

Source: Author based on conducted surveys and interviews

### Recommendations for the Social Capital

- New opportunities for youth and adults to work together in projects through the youth development team, leadership training, and entrepreneurship training.
- Community members should work in teams for long volunteer hours.
- Community members ought to change more readily and they should overcome historical social conflicts.
- More organizations and groups should be linked together through the participation of members in teams.
- Community foundation becomes an effective team as indicated by the growth in volunteers' number, the number of giving, donated money.
- CBOs should be connected to national and international organizations.
- Community networks support youth entrepreneurship and generational transfer to plan for succession.
- Creating voluntary groups to practice recreational and leisure activities.

### 8.2.5. Cultural Capital

The Bedouins are well-known by their nomadic lifestyles, special Badawi language, social structures and culture. Since the majority of Nuweiba community are ethnic tribal groups with unique social and cultural identity which subjected them to be vulnerable to deprivation in the development process. They have their own constitution, traditions, accent and traditional activities for instance camel race and indigenous knowledge in medicine, astrology, geology and more. Also, they are highly attached to the natural environment as well as their ancestral territories. They used to live in goat hair tents and ride camels. However, their culture was negatively affected when Israelis entered Sinai they introduced the globalized city model, technology and culture mix. Figure 76 shows cultural degradation throughout the last three decades. After Sinai liberation, the social mix increased and there was a huge exposure to diverse cultures. Consequently, it is recommended to include specialized experts with anthropological, sociological and ethnographic background during planning process to ensure full and respectful realization of the development plan. After Arab spring revolutions, the situation of Bedouins and their culture were faced with various challenges as the Bedouins started to interact with modern cultures and the imposed western practices.

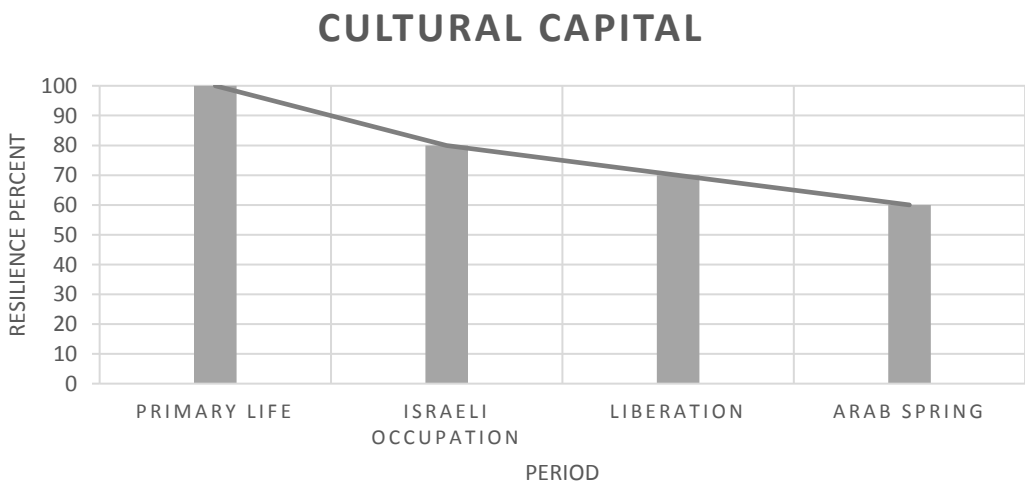


Figure 76: The change in culture capital in four different periods

Source: Author based on conducted surveys and interviews

## Recommendations for the Cultural Capital

- Cultural revitalization through going back to the future.
- Learning Languages in centres with accredited programs.
- Increase Connection with the land through Culture camps.
- Community events to celebrate diversity.
- Anti-racism and discrimination programs.
- Organise traditional festivals which encourage local as well as foreign tourists to know more about Nuweiba community.

### 8.2.6. Political Capital

Bedouins were in control of all the resources. This control decreased during the Israeli occupation since Sinai lands were not under Bedouin nor state's control. However, after liberation the land became under Egyptian state's control. Also, the open-door policy was introduced in 1970s encouraged foreign investments in tourism development in south Sinai. During Mubarak era Bedouins were totally marginalized and deprived politically, economically and socially. Even, they were not able to form a political party. It can be realised in Figure 77 the change in the political capital and it recorded the lowest percent during and after Arab spring revolutions, because of the low governance power, prominent level of centralization and bureaucracy, weak local administration and more.

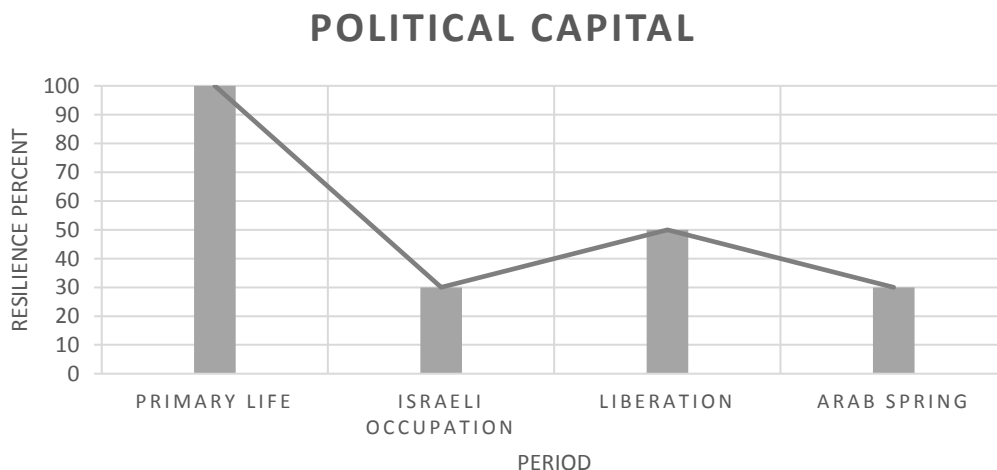


Figure 77: The change in Political capital in four different periods

Source: Author based on conducted surveys and interviews

## Recommendations for Political Capital

- The Head of city councils is preferred to be from local community.
- Community empowerment programs to develop political activities, Indigenous rights **and ... etc.**
- Encouraging local control and Collective actions.
- More participation of business owners in state and local government.
- Local community representation in the Egyptian parliament.
- Strengthen leaders' connections with the state and local government.
- Lessen the complications of land and shelter legalization mechanisms.
- Decision should be taken regarding city vision either trade centre on the Gulf of Aqaba, Medical and safari tourist destination, miscellaneous.
- Identifying priority projects in Nuweiba.

### 8.2.7. Human Capital

The Human capital is the most important capital for community resilience, because it has one of the strongest bonds to each of the other capitals. It is basically concerned with humans helping humans to build their community together either physically or mentally by respecting their own believes. It is about collective responsibility by taking charge of the future. Education and leadership are the main attributes in human capital. Nevertheless, based on the conducted survey and interviews, almost half Bedouins society did not receive any education especially the elderly. Nowadays Bedouins are eager and keen to learn. They aim to be effective citizens who participate in developing Nuweiba and helping their country. Though, there are many schools covering all educational stages, primary, preparatory and secondary. The qualified staff is missing. That is why Basata, Habiba and others offered parallel school or after school education system to fulfil society's needs. Figure 78 shows the change in human capital based on survey. The result shows that after Arab spring revolutions, the human capital recorded its lowest percentage due to loss of jobs, disturbance in political, social and cultural capital. For building human capital, community members should learn from other surrounding communities, develop leadership skills

by training and practises, seek formal or informal education systems and make good use of knowledge and experiences.

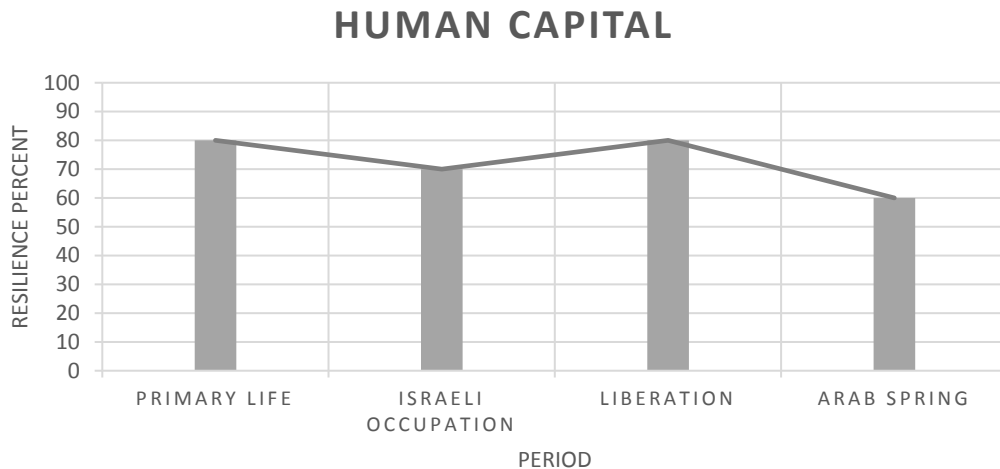


Figure 78: The change in Human capital in four different periods

Source: Author based on conducted surveys and interviews

### Recommendations for Human Capital

- Parents illiteracy educational programs.
- Family-centred programs: Support for mothers and families.
- Increased knowledge of entrepreneurship.
- Move of new professionals and qualified labours to the city.
- Early childhood educational programs.
- Self-help groups to solve problems via trusted legitimized leaders.

### 8.3. Nuweiba Seven Capitals for Community Resilience

In conclusion, it's significant that Nuweiba community (Bedouins, migrants, foreigners, investors) has shortages in human and political capital. Nuweiba inhabitants are handcuffed because of those two capitals. There are no skilled labours to work in building constructions, no technicians, no experts in all sectors. Moreover, migrants who escaped from the competing environment in their city of origin are manipulating all the administrative sectors in the city.

The Egyptian migrants work in numerous economic sectors. Consequently, Bedouin opportunities became limited. Since then, Bedouins differentiated themselves as Bedouins not Egyptian migrants. Besides the current critical unstable situation in Nuweiba and Sinai, from terrorism of radical islamist groups, which hindered the implementation of development visions. Therefore, addressing the unsettling political and institutional policies and practices at all levels is essential to achieve comprehensive efforts that will promote for community resilience. Additionally, it will enrich public knowledge of local community and increase self- esteem and aspirations for aboriginal culture and traditions.

At the current time, the Egyptian government is giving attention to develop Sinai and its inhabitants. Thus, planners and involved actors are working on the strategic plans for different cities from which " Nuweiba". However, the government should reconsider its plans and import projects and models for building a resilient community as well as local inclusion in the process.

For building community resilience, any kind of vulnerability should be taken in consideration in order to be prepared or recover from certain challenges. Also, responses should be collectively organized and managed based on trust. CBOs have significant role in building resilience because they can back the members of the community during times of need. However, CBOs should be supported from non-governmental and governmental agencies. They should also be connected to academia and research centers. Moreover, the seven capitals should be put as a high priority issue to be analysed and updated regularly. Then the agreed recommendations ought to be implemented in collaboration with involved actors.



## 9. Outlook and Conclusion

This thesis presented the socio-economic characteristics of Nuweiba community as well as the ecological, political and physical situation in the city. Moreover, it gives an overview about human skills and experiences in the last few decades. It has also shown in this research, the key factors which affected community resilience in Nuweiba for instance: modernization, globalization, social structure, long years of occupation and more. Hence, those driving forces should be well managed collectively for community resilience and resilient development. Furthermore, different forms of frictions on local, national and global level were discussed. For instance: both the Egyptian government and the developing agencies do not seek to maintain sustainable sources of livelihood for nomadic Bedouins to solve the hazardous economic situation in Nuweiba. Nevertheless, they are developing sectoral plans to fulfil the agency's aim. Also, youth who are coming from Delta and upper Egypt are offered job opportunities in all sectors. But, Bedouins tried to dig their economic path themselves and cope with this economic blockade.

### 9.1. Future Research

This thesis tackled community resilience from its general perspective. However, more focused studies are recommended in each capital of community resilience, so that a more solid and deep results will be reached then directly being used in planning and implementation. Nevertheless, it is hard to achieve for instance economic resilience in a community without studying and analysing the political situation, socio-culture aspects, natural environment, capacity building and human skills, knowledge as well as experiences.

Accordingly, holistic interdisciplinary studies are essential for basic community understanding as well as grasping community challenges and responses. This thesis triggered operationalizing the concept of community resilience in planning process. Yet, the researcher would like to encourage future researchers to study more on operationalizing resilience with focus on:

- Building community resilience for resilient cities
- The importance of resilience in planning and implementation
- Stimulating community resilience and bottom up methodological planning process
- The impacts of community resilience on planning: implementation timeframe, consumed energy and projects' cost

Since we are living in the age of changes, systematic evaluation mechanisms would be highly recommended to be developed as attempts to quantify and assess community resilience. Also, proposing projects and strategies to spiral the community up to the state of equilibrium and development would be highly appreciated. The following question is a food for thought for future researchers: How to promote for community resilience?

## 9.2. Conclusion

Building community resilience needs interdisciplinary studies for development. It was shown clear in the last chapters that there are many challenges in each capital which are being faced by the community. Thus, a national resilient city initiative should be started. This initiative will require support for advanced education programs, and active collaboration among the city planning, design, and construction professions. Meanwhile, increasing the pool of human resources to prompt future engineers, scientists, planners, and emergency managers to enter practice and become educators and researchers is a critical issue. Therefore, education and training are needed to be strengthened and resilient urban systems needed to be constructed and well managed. So that an integrated sustainable development would be reached.

Nevertheless, the Discussions and recommendations in this thesis will not solve all the problems in Nuweiba city. Yet, the study provides some insights and a framework for understanding community dimension to establish a base for community resilience. Hence, this thesis offers guidance to stakeholders and all community members to articulate a sharp resilient vision and suggest ways to generate region-specific alternative plans. In that way, this study is part of an ongoing urban transformation and more widespread effort to address issues of integrated sustainable development in a time of rapid various challenges and risks in Nuweiba and the peninsula.

Though, community resilience is important and crucial for planning sustainable cities. Simultaneously, planning for resilience is a harder task which requires designing cities that combine contradictory characteristics, including "redundancy and efficiency, diversity and interdependence, strength and flexibility, autonomy and collaboration as well as planning and adaptability" (Godschalk, 2003).

In the end, the researcher assumes that Bedouin community are willing to change, looking for a better quality of life. They just need a guide or a support system to go on the path of development such as political will and financial support. They don't like being powerless hopeless spectators who don't participate in developing their place of origin and history. But then again, they want to bounce back to be coping actors. Now the time has come to kick off community resilience campaign to establish resilient cities. The start will be from the land of turquoise " Sinai" and the resilient city will soon be Nuweiba.



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# List of Interviewees

Ali, Habiba Beach Lodge, 26th February 2017

Amr El Tahan, Head of Hemaya NGO, 3rd March 2017

Atia, migrant from delta- waiter in Helnan Resort, 6th March 2017

Eng. Ahmed Sadek, from EEAA, researcher and Natural conservation biologist,  
10th March 2017

Eng. Ahmed samy, Sinai development Authority, 4<sup>th</sup> March 2017

Eng. Hassan, head of desalination plant, 4<sup>th</sup> March 2017

Eng. Islam, Agriculture association, 28th February 2017

Eng Mohamed, Desalination plant, 4th March 2017

Eng. Mohamed Nasr, Director of Engineering unit - City council, 9th March  
2017

Eng. Seham, responsible engineer in GOPP of Nuweiba city planning, 10th  
March 2017

Fadya Salem, Tarabin Tribe- American diploma, 2nd March 2017

Faragalla sallam, Tarabin Tribe, 5th March 2017

Farag soliman, Muziena tribe- Sinai trail, 26th February 2017

General Sabry El Waziri, Head of city council, 2nd March 2017

## References

- Hassan Hemed, Muziena tribe- head of agriculture CBO, 27th February 2017
- Hemed Freg, Tarabin Tribe – live in government buildings, 8th March 2017
- Ibrahim, Muziena Bedouin driver, 25th February 2017
- Ibrahim soliman salama, Migrant from north Sinai, 27th February 2017
- Mahmoud, migrant from upper Egypt- waiter in Helnan resort, 6th March 2017
- Mohamed el Ahmar, Tarabin Tribe- financial manager of agriculture CBO, 28th February 2017
- Mohamed serag, Dayra Camp, 6th March 2017
- Mr. Abdel Moneim, Financial Manager - City council, 9th March 2017
- Mr. Osama Tawfek, Head of Banque du caire, Nuweiba branch, 4th March 2017
- Mr. Ramadan, Helnan Resort, 5th March 2017
- Old women "El Jada" (Tarabin Tribe- wadi Malha, 1st March 2017
- Om Abdallah, Muziena tribe, 7th March 2017
- Om Eid, Muziena tribe, 27th February 2017
- Om zeinab, Tarabin Tribe- wadi Malha, 1st March 2017
- Prof. Ayman Ashour, Dean of Faculty of Engineering and professor of Architecture and urban planning, 11th May 2017
- Salama el Fahd, Tarabin Tribe- musician, 5th March 2017
- Salma, pink Camel, 8th March 2017
- Sandro, Italian philosopher/ Architect by practice, 7th March 2017

## References

Sheikh Eisheish Eliesh, Komkom 3 owner - Tarabin Tribe, 28th February 2017

Sheikh Mohamed, Muziena tribe, 27th February 2017

Shiekh Mordy, Muziena tribe-Garden man in Helnan Resort, 7th March 2017

sheikh sallam, Muziena tribe, 28th February 2017

Sheikh soliman, Tarabin Tribe- wadi Malha, 1st March 2017

Sherief El Ghamrawy, Owner of Basata Ecolodge, 10th March 2017

Technician Ayman, technician Mechanical department- City council, 10th March 2017

Yousef El sayed, sub-owner of Habiba Beach Lodge, 26th February 2017

## Focus Group Discussions:

Bedouin teachers in Tarabin kinder garden (Gawaher, Fadya, Slema, Basma, Salema)

Hassan, Farag, Ibrahim

Migrant Teachers in Mezeina kindergarten

Om Eid family (Husband, son, daughter, 2 friends)

Sallam family (son, daughter)

Sandro, Ibraim, Hassan

Sheikh soliman, son, Nephew



# Appendix 1: Survey

## Survey Questions

1. Name:

2. Gender:  Male  Female

3. Age :

4 .Education:

Not Educated Kindergarten  primary school  preparatory  
 secondary  university Degree  MScs  PhD

5 .Do you wish to complete your studies? why?

No  yes

6 .Do you have kids:

No  yes

7 .Marital status:

Single  married  divorced  widow

8 .Are you from Sinai ?from where?

Yes  no, from.....

9 .Which tribe do you belong to?

Tarabin  Muzeina  Jablaya  Haywat

10 .Which tribes are you working with?

Tarabin  Muzeina  Jablaya  Haywat

Economic Aspect: (Human, Financial capital)

11 .What is your job?

Fisherman  farmer  driver  Handmade products  Others...

12 .Is it expensive to live here? Does your income cover your needs?

No  yes

13 .Do you own any place for tourist?

No  yes

14 .Do you work in tourism?

No  yes

15 .What is your dream job?

.....

16 .Do you still practice traditional activities (herding)?

No  yes

17 .Do you still practice any seasonal movement? When?

No  yes.....‘

18 .Is there any collaboration between Bedouin tribes?

No  yes

19 .Did you use to deal with non-Bedouins?

No.....  Yes.....

20 .The majority of Bedouins are .....

Very poor  poor  middle income  higher middle  high income

21 .What are the factors that affect Bedouins livelihood?

.....

22 .Do your children go to school?

No.....  yes

23. Do you mind giving your land to government for further investment?

No.....  yes

Social Aspect: (social, cultural capital)

24 .How many languages do you speak?

One  two  three  four

25 .Have you ever been to Cairo?

No.....  yes.....‘

26 .Have you ever been to any other town or city not in Sinai? What are they?

Why ?

No.....  yes.....‘

27 .How do you know news that are going on in Egypt and worldwide?

TV  mobile Internet  Newspaper  radio stations

28 .How do you get in touch with people?

Internet  mobile phones  landline phones

29 .Do you like the social mix "diversity" in Nuweiba? why?

yes.....  no.....‘

30 .Is there any local initiatives or support in Nuweiba?

No  yes

31 .What are the things that threatens your culture and traditions?

Globalization  Modernization  social Mix  others:.....

32 .Are you satisfied with the role of sheikh in your tribe?

No.....  yes

Environmental Aspect: (Natural & Built Capital)

33 .What are the reasons behind limited legal ownership land ?

No legal contact  high cost  non-sufficient offered lands [  
]complicated procedures

34 .Do you have legal documents for your belongings?

No  yes

35 .What are building materials of your house?

Wood  concrete blocks  red bricks  other, specify...

36 .Who built it for you?

delta migrants     upper Egypt migrants     others, specify.....

37 .What are the major environmental risks in Nuweiba?

.....

Political Aspect:

55 .Is it safe to live here in Nuweiba? why ?

No .....     yes.....

56 .Is there any kind or collaboration between Bedouin community and the government?

No.....     yes.....

57 .How would you like to see Nuweiba city?

Urbanized area     rural area     touristic area     other, specify...

59 .Do you have national identity card ?

No     yes

60 .Would you like to enter the Egyptian army?

No.....     yes.....

61 .Would you like to be an employee in the Egyptian government?

No .....     yes.....

63 .When can Bedouin be considered resilient community. Arrange from descending order.

In the 1960s     1967 till 1982     1982till 1990     1990 till2011

2011 till 2017

Measures:

64. Evaluate Nuweiba community based on the following 7 community capitals before Occuptaion

- Natural

0     1     2     3     4     5     6     7     8     9     10

-Physical

0 1 2 3 4 5 6 7 8 9 10

-Human

0 1 2 3 4 5 6 7 8 9 10

-social

0 1 2 3 4 5 6 7 8 9 10

-Cultural

0 1 2 3 4 5 6 7 8 9 10

-institutional

0 1 2 3 4 5 6 7 8 9 10

-Economic

0 1 2 3 4 5 6 7 8 9 10

65. Evaluate Nuweiba community based on the following 7 community capitals during occupation period

-Natural

0 1 2 3 4 5 6 7 8 9 10

-Physical

0 1 2 3 4 5 6 7 8 9 10

-Human

0 1 2 3 4 5 6 7 8 9 10

-social

0 1 2 3 4 5 6 7 8 9 10

-Cultural

0 1 2 3 4 5 6 7 8 9 10

-institutional

0 1 2 3 4 5 6 7 8 9 10

-Economic

0 1 2 3 4 5 6 7 8 9 10

66. Evaluate Nuweiba community based on the following 7 community capitals after Sinai Liberation

-Natural

0  1  2  3  4  5  6  7  8  9  10

-Physical

0  1  2  3  4  5  6  7  8  9  10

-Human

0  1  2  3  4  5  6  7  8  9  10

-social

0  1  2  3  4  5  6  7  8  9  10

-Cultural

0  1  2  3  4  5  6  7  8  9  10

-institutional

0  1  2  3  4  5  6  7  8  9  10

-Economic

0  1  2  3  4  5  6  7  8  9  10

67. Evaluate Nuweiba community based on the following 7 community capitals after Arab Spring

-Natural

0  1  2  3  4  5  6  7  8  9  10

-Physical

0  1  2  3  4  5  6  7  8  9  10

-Human

0  1  2  3  4  5  6  7  8  9  10

-social

0  1  2  3  4  5  6  7  8  9  10

-Cultural

0  1  2  3  4  5  6  7  8  9  10

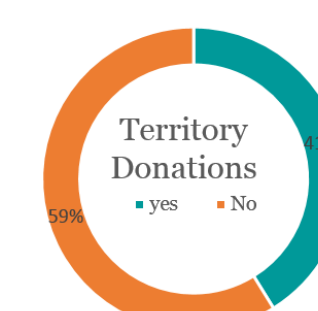
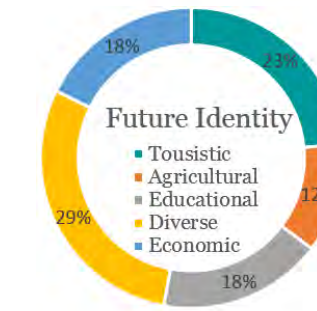
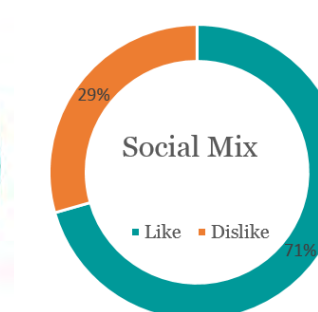
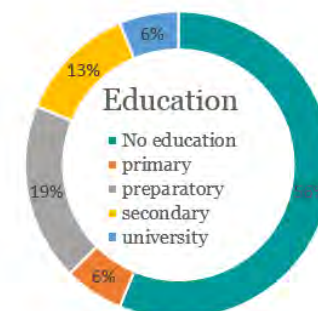
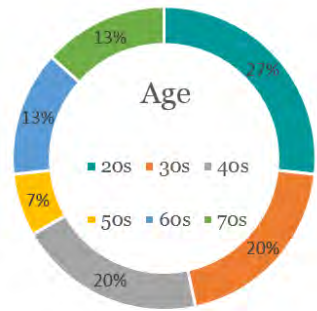
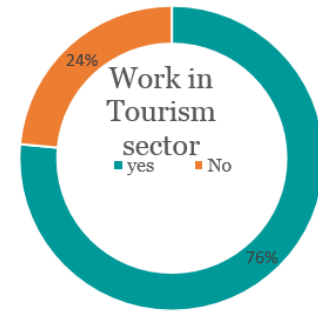
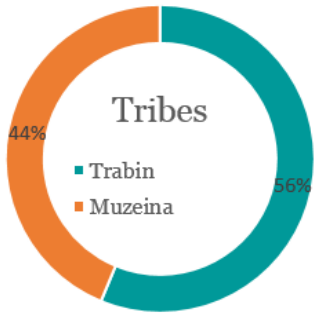
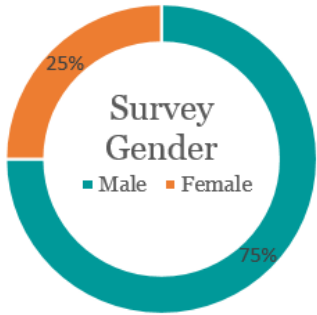
-institutional

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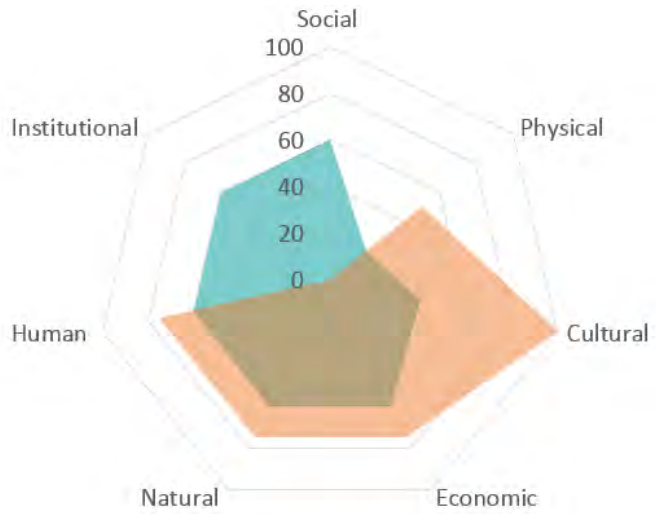
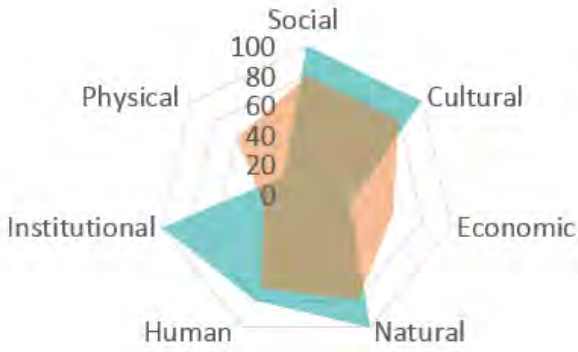
-Economic

0  1  2  3  4  5  6  7  8  9  10

### Some Important Survey Results

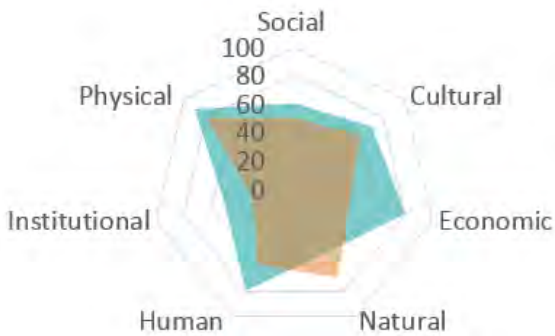


■ Primary life    ■ Israeli Occupation



■ Bedouin Responses    ■ Investors Responses

■ After Liberation    ■ After Arab Spring



# Appendix 2: Interviews Questions

## Interviews Questions

- Name:
- Gender:
- Age:
- Education:
- Tribe:
- Where originally did you come from?

Before 1967:

South Sinai was untouched or addressed by any development plans or even community development. There were no roads nor transportation, no utilities, services nor facilities.

1. How did you use to make your living (basic needs)?
  - Sustenance: Food and Water
  - clothes
  - Shelter
2. What was your livelihood at that time?
3. What were the major challenges in the 1960s?
4. How did you use to deal with health, environmental, social, economic risks?
  - Health:
  - Environmental:
  - Social:
  - Financial:

5. Who used to secure the area in the era of Mohmed Naguib and Gamal Abd El Nasser?
6. How did the family look like? did you use to move together?
7. Did you use to settle down near the coast? Where exactly? Why?
8. How was the society looked like? What was the role of sheikhs?
9. What was the role of women and men?
10. Was there any collaboration between Bedouin tribes? Why?
11. Were Bedouins in need of cash money? Why? From where?
12. Do you wish to go back to those days? Why?

From 1967 till 1982:

During the occupation period, profitable tourism industry had started. some Bedouins worked in the Israeli kibbutz. Mutual benefits started between both sides because, the Israeli forces availed some economic activities for Bedouins either in tourism, agriculture sector and others.

13. How did you use to make your living (basic needs)?
  - Sustenance: Food and Water
  - clothes
  - Shelter
14. What was your livelihood at that time?
15. What were the major challenges during the Israeli occupation period?
16. How did you use to deal with health, environmental, social, economic risks?
  - Health:
  - Environmental:
  - Social:
  - Financial:
17. How was the society looked like? What was the role of sheikhs?
18. What was the difference between the role of women and men?
19. What were the types or kinds of collaboration between Bedouin tribes and Israeli forces?
20. What are the effects on the community that have been left from the Israeli?
21. Is there any buildings or construction from that period in Nuweiba now? Where?
22. Were there any restrictions for Bedouins from the Israeli forces? What are they?

23. Why Bedouins became modernized or semi urbanized during this period?
24. Where did you use to live/ settle down?
25. What were the houses/buildings prototypes?
26. Did you feel more secure during Israeli occupation or after?
27. Do you think the system can be restored to its original state "nomadic life"?

From 1982 till 2000:

Israel left Sinai. The Egyptian ministry started to direct attention towards Sinai by providing basic services, constructing houses, building infrastructure and setting up development plans for the peninsula. Nuweiba port was established in 1985 which connects Egypt with Jordan and Saudi Arabia. The government encouraged Bedouins sedentrization.

28. How satisfied were you with the Egyptian government actions?
29. What are the advantage and disadvantages after opening Nuweiba port?
30. How did you use to make your living (basic needs)?
  - Sustenance: Food and Water
  - Clothes
  - Cook: gas?
  - Shelter
31. What was your livelihood at that time?
32. What were the major challenges in Nuweiba?
33. Was drug dealing started during Israeli period or after? Since when?
34. How did you use to deal with health, environmental, social, economic risks?
  - Health:
  - Environmental:
  - Social:
  - Financial:
35. How sedentrization process was organized among bedouins?
36. Do you think the system can be restored to the previous state?

From 2000 till 2010:

last 10 years of Mubarak period. Between Tourism boom and Terrorism attacks.

37. How tourism affected Bedouins life?
38. what was the situation of Bedouin in Sinai?
39. Who was responsible of terrorism in south Sinai?
40. What was the available livelihoods?
41. How did you use to make your living (basic needs) for you and the number of tourists?
  - Sustenance: Food and Water
  - clothes
  - Shelter
42. What were the major challenges at that time?
43. How did you use to deal with health, environmental, social, economic risks?
  - Health:
  - Environmental:
  - Social:
  - Financial
44. Do you think the system can be restored to the previous state?

2011: the 25<sup>th</sup> revolution

45. Have you participated in any protests? why?
46. what was the situation of Bedouin in Sinai?
47. What was the available livelihoods?
48. How did you use to make your living (basic needs)?
  - Sustenance: Food and Water
  - Clothes
  - Cook: gas?
  - Shelter
49. What were the threats/ challenges at that time?
50. Did community projects start to support Bedouins since then? or when?
51. Do you think the system can be restored to the previous state?

2012 till 2017: between Morsi, Egyptian military forces, Sisi period

52. Mention 5 things that Bedouins used to do / used to have in the past and they are extinct now.
53. What are the available livelihoods?
54. How did you use to make your living?
55. What are the strengths and weaknesses that you see in Nuweiba?
56. What are the significant challenges that you face nowadays in Nuweiba?
57. Who shall be considered community leaders?
58. Do you think the system can be restored to the previous state?

General Questions:

59. How are you attached to Nuweiba?
60. How your living is related to the natural context of Nuweiba?
61. What are the natural attractions in Nuweiba?
62. How does your origin as Bedouin affect your living?
63. Did you ever try to face the challenges or make good use of the strengths?
64. What are/ were local Bedouin knowledge?
65. What are the skills of Bedouin man/ women?
66. What are the projects that have been introduced to support the community?
67. What are the impacts of these projects on the community?
  - Environmental
  - Socio cultural
  - Economic
  - Political
68. What are the impacts of these projects on you?
69. What are the motivations behind implementing these projects?
70. What are the challenges that obstruct or threaten the implementation/running of these projects?
71. What are other projects that you recommend being implemented in Nuweiba for development?
72. What kind of local and traditional knowledge do you use to face challenges?
73. What are the reasons of retreating the role of sheikhs in the society?

74. what shall be the role of the government towards Bedouins? And towards nuweiba town?
75. What are the advantages/ disadvantages of being on the Gulf of Aqaba?
76. What are the advantages/ disadvantages of being in a remote peripheral area?
77. What are the advantages/ disadvantages of being near the country of Israel?
78. What do you recommend developing Nuweiba city center and Nuweiba region?
79. Who controls the use of Nuweiba resources?
80. To what extent do regulations and laws are applied in Nuweiba?
81. What do you miss in Nuweiba?
82. In which period, can you consider that Bedouin were more resilient/ adopted to changes? Why?

Specific Questions to Bedouins:

83. What is your role as an individual living in Nuweiba?
84. What should be the responsibility of Bedouins living in Nuweiba?
85. What are the customs and traditions that Bedouins famous for?
86. What are the relations between Bedouins and government?
87. What are the relation between Bedouins and investors?
88. What are the most effective projects that you benefit from in Nuweiba?
89. What are the relations between Bedouins and community organizations?
90. What are the relation between Bedouins and migrants?
91. Are there any types of frictions between the existing tribes?
92. What is your tribe famous for?
93. Is there any friction between migrants and Bedouins?
94. What do you usually do after work?
95. What kind of recreational activities you do in your spare time?

Specific questions for Migrants:

96. When did you move to south Sinai?
97. Why did you come to Sinai? Why Nuweiba specifically?
98. What are the relation between Bedouins and migrants?
99. What are the customs and traditions that Bedouins famous for?
100. What kind of recreational activities you do in your spare time?

Specific questions for investors, entrepreneurs, initiatives:

101. What is unique in Nuweiba that is not in any other town or city?

102. What are the assets in Nuweiba?

- Social:
- Cultural:
- Environmental:
- Built:
- Economic:
- Political:
- Financial:
- Human:

103. What are the disadvantages in Nuweiba?

- Social:
- Cultural:
- Environmental:
- Built:
- Economic:
- Political:
- Financial:
- Human:

104. What are the responses from the individual to the previous challenges?

- Social:
- Cultural:
- Environmental:
- Built:
- Economic:
- Political:
- Financial:
- Human:

105. What are the responses from the community to the mentioned challenges?

- Social:
- Cultural:
- Environmental:
- Built:

- Economic:
- Political:
- Financial:
- Human:

106. What are the customs and traditions that Bedouins famous for?
107. What are the types of frictions between the existing tribes?
108. Is there any friction between migrants and Bedouins?
109. What is each tribe famous for? Tarabin, Muzeina, Haywat?
110. What do you offer to Nuweiba community?
111. How are these interventions benefiting the Bedouin community?
112. From where did you get fund for your project? is it profitable?
113. What are the core values that you see in Nuweiba local community?
114. What are the hidden assets in Nuweiba community?
115. What are the critical hazards or risks that threaten Nuweiba community?
116. What is the role of international organization in Nuweiba?
117. What should be the role of community organizations in Nuweiba?
118. What is the idea behind volunteerism in your project?
119. What is the price per meter for a land in Nuweiba?
120. Are there any regulations for building heights? Materials?

Specific questions for Government:

121. what is the role of the government towards Bedouins in general? And towards Nuweiba town?
122. What are the relations between the government and Bedouin community?
123. What are the relations between government and local investors?
124. What are the relations between government and community organizations?
125. Why are there limited lands to be purchased in Nuweiba?
126. Are there any restrictions for the Bedouins to own lands?
127. What is the price per meter for a land in Nuweiba?
128. Are there any regulations, restrictions for building heights? Materials?
129. Do you deal with Bedouins as tribes or just as a whole?
130. What are the types of frictions between the existing tribes?
131. What is each tribe famous for? Tarabin, Muzeina, Haywat?
132. Is there any friction between migrants and Bedouin

# Appendix 3: Photo Catalogue









Experiences from  
Past generations



to present and  
future aspirations

## ملخص الرسالة

تعد قدرة المجتمع على الصمود من أجل التنمية، قضية حاسمة خاصة في المناطق الطرفية مثل نوبيع. وتعتمد مرونة المجتمعات المحلية إلى قوة الواضحة لفهم الإنسان و احتياجاته المحلية. ومن ثم، ينبغي أن يبدأ تخطيط المشروعات من المجتمع المحلي. نوبيع هي واحدة من المناطق الاقليمية الساحلية حيث يوجد للمرونة أهمية كبيرة. نوبيع هي مدينة ساحلية صغيرة على خليج العقبة في جنوب سيناء والتي تعرف بثقافتها البدوية الأصيلة وطبيعتها البكر. في هذا البحث، يتم تقديم التحليل المحلي لإقليمي لدراسة حالة نوبيع على مدى أربع فترات مخرية. بالإضافة إلى ذلك، تم تحليل القوى الدافعة للتحويلات الحضرية وللإعلانات المجتمعية خلال هذه الفترات، لتحديد الجوانب المختلفة ذات التأثيرات كبرى التي تؤثر على صمود المجتمع. إلى جانب، اقتراح رؤية و توصيات طويلة الامد لتخطيط مرن.

قبل عام ١٩٦٧، عندما كان الألكان الألبليون من البدو متكيفون على الترحال و معتمدون على الرعي، كانت نوبيع بدائية ولم تمس بالتنمية. وأثناء الاحتلال الإسرائيلي، أثرت العولمة والحداثة على السكان المحليين الذين ما زالوا يواجهون التحديات دون التخلي عن مؤمنهم الثقافي والتقليدي. بعد تحرير سيناء، كان من المقرر البدء في تطوير شبه الجزيرة سيناء بأكملها ولكن لا تزال نوبيع لم تخطط بشكل كامل و لم تحظى باهتمام كبير. ومع ذلك، فإن ازدهار السياحة في مصر بعد عشر سنوات من التحرير أتاح مجالاً للتنمية المجتمعية. في حين بعد ثورات الربيع العربى، سببت الخطط نتيجة لعجز رأس المال الاقتصادى جنبا إلى جنب مع تراجع السياحة. ويجري حاليا استعراض الخطط وتطويرها من أجل تنمية حضرية انتقالية في نوبيع. ومع ذلك، ينبغي تنقيح الخطط لتنشيط وتحقيق رؤية التخطيط المرن.

تقترح هذه الرسالة إطاراً لفهم واستيعاب عوامل المرونة لتجاوز التخطيط التقليدي. وتنقسم الدراسة إلى ثلاثة أجزاء. يركز الجزء الأول على الفهم العام لمنطقة نوبيع وشبه جزيرة سيناء. ويؤكد الجزء الثاني على الفترات الانتقالية وآثارها على المجتمع البدوي. ويعرض الجزء الثالث محاولة للربط بين قدرة المجتمعات المحلية على الصمود والتخطيط في مصر من خلال ربط جميع الشركاء المعنيين من البدو والمهاجرين والمستثمرين والمخططين وصناع القرار للوصول إلى النتائج المستهدفة. أولاً، من خلال تحديد السبع عناصر لالاولالايه للمجتمع ثم تقييم كل عنصر على حدى. بعد ذلك، تحليل نقاط المرونة في كل عنصر. ثم، ايجاد التحديات والقيود التي تهدد المجتمع المستهدف لى يوضع لى الاعتبار في تخطيط الأتلام الألبى المستقبلى. وأخيراً، اقتراح أفكار وتقديم توصيات لتعزيز كل عنصر اساسى وبناء قدرة المجتمع على الصمود. وفي الختام، فإن قدرة المجتمعات المحلية على الصمود هي موضوع واسع يذ بغير مناقشته وتحليله خاصة عند التعامل مع السكان الأصليين المهمشين على مدى عقود طويلة ويكافحون من أجل البقاء. ومن ثم، فإن الفهم العميق وإشراك مجتمع نوبيع ضروري على الأقل قبل تنفيذ أي خطط للتنمية.

الكلمات المفتاحية: مجتمع السكان الألبليين، البدو في سيناء، صمود المجتمع، نوبيع، التخطيط المرن.



## إقرار

هذه الرسالة مقدمة في جامعة عين شمس وجامعة شوتجارت للحصول على درجة العمران المتكامل والتصميم المستنداً من العمل الذي تحويه هذه الرسالة قد تم إنجازه بمعرفة الباحث سنة...

هذا يقر الباحث أن العمل المقدم هو خلاصة بحثه الشخصي وأنه قد اتبع لإلإل وبالعالم السليم في الإشارة إلى المواد المؤخوذه من المراجع العلمية كل في مكانه في مختلف أجزاء الرسالة..

وهذا إقرار مني بذلاله،،

التوقيع: 

الثحاب: مها أحمد فتحي عبد العزيز باشا

التاريخ: ٢٤ / ٠٧ / ٢٠١٧



# مرونة المجتمع لتطور المناطق الهامشية الساحلية في نويج، مع بوب سيناء

نحو تنمية مستدامة متكاملة فيويبع، شبه جزيرة سيناء

رسالة مقدمة للحصول على درجة الماجستير في العمران المتكامل والتصميم المستدام  
أعداد: مها أحمد فتحى عبد العزيز باشا

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## التوقيع

## لجنة الحكم

تاريخ المناقشة:

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الدراسات العليا

اجيزت الرسالة بتاريخ  
موافقة مجلس الجامعة ..../..

ختم الإجازة  
موافقة مجلس الكلية ..../..

جامعة عين شمس



جامعة شتوتجارت



MM/DD/YYYY



# مرونة المجتمع لتطور المناطق الهامشية الساحلية في نوجنو، عبيب سيناء

نحو تنمية مستدامة متكاملة في نويبع، شبه جزيرة سيناء

رسالة مقدمة للحصول على درجة الماجستير في العمران المتكامل والتصميم المستدام

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