

## SCENARIO BUILDING: THE FUTURE OF EGYPTIAN URBAN CONTEXT WITHIN THE SUSTAINABLE PLANNING CHALLENGES

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### Abstract

Scenario building is a technique for future foresight developed in the late 1960's by Shell company. It started as a strategic military sector to draw war scenario of war and no war status quo. Then it goes into business and commercial development to foresight future of commercial and business companies. By the end of the late 20th century it has applied in almost every aspect in sciences. Yet it has been important tool for future social and economic models. Utilizing scenario building in social studies such as urban planning and design field has many attempts ranging from national to detailed spatial scales. Egyptian cities have many urban issues concerning sustainable urban context, and the future of Egyptian new cities that take in consideration creating vibrant sustainable urban environment. With the great urban movement nowadays in Egypt many changes could occur to the urban system with the new capital city and many of urban housing developments taking place in many different urban corridors that in need of a systematic evaluation and auditing to draw various future scenarios to predict the future pros and cons of all these new developments whether these developments will achieve a sustainable lifestyle or the vice versa . In these cases scenario building could help to foresight the future urban directions. social and physical characteristics of current Egyptian urbanism has always been in debates for the last 50 years, chaotic spatial land use distribution, commuting, and economic activities spatial allocation are some major aspects of that debate, these aspects are shown in traffic congestions in most cities especially in metropolitan areas such as Greater Cairo and Alexandria, mainly in Nile Valley. Overloaded population densities, lack of jobs and economic activities and building regulations are considered as major symptoms in Egypt's mega cities. Future scenarios provide an answer to these problems with careful assumptions and guidelines. A scenario has been prepared for dealing with current Egyptian urbanism in 2012 by the researcher to understand and provide new approaches to the characteristics of future Egyptian urbanism. This paper is an attempt to draw the future of Egyptian urbanism in both social and physical changes that plausible to occur. It explores in details the methodological framework of creating future scenario for re spatial distribution of Egyptian urban communities out of the Nile valley in order to prospect new urban concepts and ideas. The scenario discusses both social and physical realities for the future of Egyptian spatial distribution. The paper main objectives are as follow; 1. Explore the possible changes in social and physical characteristics of future Egyptian urbanism.2 Discuss the possible assumptions, driving forces, and main actors of the future scenario.3 Discuss the methodology of social and physical future city for the Egyptian urbanism.4 Philosophy of the scenario. 5 Narration of the proposed scenario outcomes in both social and

physical aspects. The paper main conclusions are description in details the assumption and methodology to create possible and plausible future scenarios for urban growth in Egyptian communities.

### **Key words**

Sustainable Urban Development, Scenario Building, Future Foresight, Urban Development

## **1. Introduction**

*The future city* competition conducted by the British University in Egypt BUE was one of the famous competitions held after the Egyptian revolution in 25<sup>th</sup> of January 2011. The greater goal of the competition “which is labelled with a vague title Taking Leave” is finding a way out of the urbanized Nile Valley. However, leave from what and where and when? This is the ultimate question we are trying to search for an answer in this hard and chaotic reality we live in right now in Egypt. Many mega urban development projects are in implementation phase right now by the government. However, urban policy still accountable of large population new settlements and high rise mixed use building. This paper is throwing another approach and alternative to achieve small sized population, yet more effective form the sustainability point of view. Take leave from the long inherited political which corrupted our social, economic and environmental aspects long time ago, and what are all these but our current Egyptian urban DNA that left us with nothing but a burden in our shoulders that slows us down every time we take step ahead, until the 25th of January’s dawn came over with people roaring for food, freedom and justice, yes it is the Egyptian revolution turning the statuesque upside down and start a new chapter of the Egyptian history that is written right now, the new beginning of a better life. However a new chapter of Egyptian history has to get rid of the old urban DNA and construct a new socio-economic and environmental DNA that embraces a more sustainable urban development and creates an urban DNA that provides a place to live, move, work, entertain in a suitable urban environment. This goal will not be achieved right now, we have to work out our path right through it so we can see it in the near future. This paper discusses how the authors utilize scenario building technique to recreate the future social reality and its implications on the physical reality of future Egyptian city.

## **2. Future City Approach**

In search for future city and to recreate new urban DNA that is taking into considerations the old urban problems with new urban philosophy embedded in the new one such as sustainable urban development and transit oriented development approaches. To approach the completion requirements there was two main concerns. First, the concern of how long it will take and what is the necessary tools that will encourage people to move towards new urban sites, these engaged looking at the future with more methodological approach such

as future sciences and scenario building techniques which labelled as the social reality of Egyptian future city. Second, is concerned with the spatial configurations of the new city how it looks like, what sort of activities and how land uses are spatially distributed according to new planning approaches such as transit oriented development and sustainable urban development. "Social Reality" is simply deals with social movement and how people move from the current urban DNA to the new proposed future city. The methodology adopted in this competition which is suitable for the purpose of Egyptians taking leave of the valley and spread all over Egypt inhabited land is back casting scenario. The rationale of this technique is, researcher is looking for a desired situation in the future and back casting is serving well in this case, back casting scenario usually starts with a desired situation in the future, in our case the desired future is reaching to the embryo of new urban DNA that is based on sustainable communities and green architecture principles, diagram 1 articulates the philosophy of back casting scenario.

### 3. Scenario Building Technique

Futures research has its origin in early systems thinking in the 1940s, where it was linked mainly to safety issues and strategic analysis (Berkhout and Hertin, 2002). The scenario planning concept first emerged following World War II, as a method for military planning. The big transformation point for scenarios as an organisational or institutional model for clarifying ideas about the future goes back to the Department of Defence in the 1950s (Daum, 2001). Herman Kahn, in the 1960, refined scenarios as a tool for business applications. Kahn's states that there are distinct variations or stages of what may occur between 'war' and 'no war' under different circumstances (Schwartz, 1996). Kahn describes dealing with different circumstances having detailed accounts on how they may arise, be responded to, and resolved to create a new terminal or baseline situation, which can only be done by dealing with complexity. Therefore, the great value of a scenario is being able to take complex elements and weave them into a story that is coherent, systematic, comprehensive, and plausible (Mietzner and Reger, 2005).

In the early 1970s, scenarios reached a new dimension, with the work of Pierre Wack, who was a planner in the London office of Royal Dutch/ Shell in a department called 'Group Planning' (Tellis, 1997). The wave of interest in scenario planning can be explained by the traumatic effect of the oil crisis in 1973 that draw attention to the possibility of major unexpected changes in the international economic system (Berkhout and Hertin, 2002). Pierre Wack realised that Arabs could demand much higher prices for their oil and there was every reason that they would. Pierre Wack and his team wrote up two scenario stories about the future, with tables of projected price figures (Neilson and Wagner, 2000). The first story presented the usual opinion at Shell: that the oil price would stay somehow stable. Nevertheless, in order for that to happen, a miracle would have to occur such as new oil fields might have to appear in non-Arab countries. The second scenario looked at another future

which is an oil price crisis started by the Organization of the Petroleum Exporting Countries (OPEC). In October 1973, war started in the Middle East between Egypt and Israel, and there was an oil price shock. Not one of the major oil companies, except Shell, was prepared for the change. “The company’s management responded quickly and in the following years, Shell moved from one of the smallest of the seven large oil companies to the second in size and the number one in profitability” (Tellis,1997).

The example of Shell should make clear the purpose of scenario planning: to help decision makers to change their subjective view of reality, to match it up more closely with reality as it is and possible futures. The end result is not an accurate picture of forecast, but better decisions about possible futures, which is then called ‘foresight’ (Daum, 2001). Then Scenario-building and planning was further developed for management purposes, for instance through the works of Peter Schwartz and colleagues from the Global Business Network and other authors (Van der Heijden, 1996).

### **3.1 What is Scenario?**

“Scenarios often describe particular sets of events or variables” (Van Der Heijden, 2000). Many authors define a scenario as a hypothetical sequence of logical and plausible (but not necessarily probable) events, constructed for focusing attention on causal processes and decision-points. Scenario-based planning falls within the class of conjectural forecasting methods and is commonly associated with future research (Van Notten et al. 2003). Bezold however, understand a scenario as a description of a future situation and the course of events which allows one to move forward from the original situation to the future. Scenarios can then be described as “Narrative description of a possible state of affairs or development over time (Bezold, 1999). It can be very useful to communicate speculative thoughts about future developments to elicit discussion and feedback, and to stimulate the imagination. Scenarios generally are based on quantitative expert information, but may include qualitative information as well” (Youssef, 2007)

### **3.2 The Philosophy of Future Scenario**

Scenario may be considered from a philosophical point of view. When Jouvenel, 2000 discusses scenario-building, he refers to it by using the wider term prospective. He explains that scenario-building is not a Biblical prophecy or prediction, and does not aim to predict the future, but rather unveils some prefabricated future that offers an approach that helps us build the future. He argues that: “it enables us to consider the future as something that we create, rather than something already decided, like a mystery that simply needs to be unraveled” (Rotman and Rijkens, 2000). There has been a shift in philosophical thought from the idea of a self-regulated system (a system regulated by God) dominated according to its own logic and with man a subject in that system, to a system in which man is a key player, if not the master



(Jouvenel, 2000). Nevertheless, man is still faced by unpredictable and unexplained catastrophic natural disasters that contradict the philosophy of man who became God. Most religions agree that Man's fate is neither totally free nor totally predestined.

A distinction can be made between scenario-building and forecasting by defining three essential traits. First, forecasting focuses on a sectorial approach to a certain problem, but scenario-building uses an integrated approach based on the principle that problems we face cannot be correctly understood if we reduced them to one dimension. Scenario-building is capturing realities in their totality (Rotman and Rijkens, 2000). In that respect, phenomena must be considered on the basis of studying all the factors and their interrelations. Second, whereas a forecast is a quantification-oriented method, scenario-building combines quantification and a qualification approach, which allows it to deal with variables of great inertia, for example, with ecosystem and technological innovations (Schwartz, 1996). Third, forecasting follows the continuity principle, while scenario-building allows integrations of breakdowns. Consequently, rather than hypothesize that change is permanent, scenario-building takes into account the phenomena of breakdowns or breakthroughs and the consequences of factors. In conclusion, from Jouvenel's point of view, scenario-building can be described in five stages: (1) defining the problem and choosing the horizon; (2) constructing the system and identifying key variables; (3) gathering data and drafting of hypotheses; (4) exploring possible futures, often with the help of a tree structure; and (5) outlining strategic choices (Rotman and Rijkens, 2000).

#### 4. Scenario Types

There are different scenario types and many classifications associated with scenarios<sup>10</sup>. Scenario types are varied, but basically different types of scenarios are based on four assumptions:

- The future is not only a continuation of past relationships and dynamics but can also be shaped by human choice and action
- The future cannot be foreseen, however, exploration of the future can inform the decisions of the present.
- There is not one possible future only, uncertainty calls for a variety of futures mapping a 'possibility space'
- The development of scenarios involves both rational analysis and subjective judgment; it therefore requires interactive and participative methods (Neilson and Wagner, 2000).

However, to classify scenarios, as a conclusion, scenarios can be classified into four main types:

*First*, forecasting and back casting scenarios: Forecasting is forward-oriented and explores the future based on a sequence of assumptions. Back casting scenarios are backward-oriented and they start from an assumed final state and work backward to explain the condition that could lead to this final state (Bezold, 1999).

*Second*, descriptive and normative scenarios: Descriptive scenarios state and ordered set of possible events irrespective of their desirability or undesirability (Roubelat, 2000).

Normative scenarios take values and interest into account, by reasoning specific targets to be reached (Van Der Heijden, 2000).

*Third*, quantitative and qualitative scenarios: Quantitative scenarios are those involved in building mathematical and computer models and often used by engineers and scientists. Qualitative scenarios are descriptive and have a narration approach that involves brainstorming, expert workshops, and are usually conducted by social scientists (Van Notten et al., 2003).

*Fourth*, participatory and expert scenarios: Participatory scenarios, (where different stakeholders play active roles in the building of scenarios), the diversity of knowledge, perspectives and interest increase scenarios' richness. Expert scenarios are developed by a group of technical experts who are responsible for their design and development (Jouvenel, 2000).

## **5. Taking Leave Scenario Building Methodology and Components**

Back casting scenario usually starts with a desired situation in the future, in our case the desired future is reaching to the embryo of new urban DNA that is based on sustainable communities and green architecture principles, diagram 1 indicate the philosophy of back casting scenario (Youssef, 2007).

So basically our first assumption is Egyptian people already spread all over the country, then worked our way back tracing, analysing and rationalizing the circumstances and events that can drive Egyptians to leave the valley and spread all over the country. The visionary scenario we are proposing is constructed over these main four steps;

- 1: determine a time horizon.
- 2: defining factor, actors and sectors.
- 3: events and consequences of certain assumption.
- 4: description of the impacts and factors that intersect in the scenario through a narrated storyline (Youssef et al. 2015).

## 5.1 Scenario Actors

The major actors of this scenario can be summarized as follow;

1. **The 25<sup>th</sup> of January generation** and new born after this event, this generation by the time of scenario initiation will be the youth and young government structure, the people that will make the real change and their voice will change government and policies in different sectors.
2. **Political body** is the major key player to boost this scenario, politicians with the knowledge and vision towards the future of urban development is essential in this scenario.
3. **Academic and researcher**; *“I wish I lived in a time when academics and research advice will not be an opposition to the government”* as the late great scientist Alkqassas mentioned before in on one of his famous quotes. Research and academic scientific advises will be taken seriously in a time after the stabilization of the new government and finally research will contribute to the daily life and to the various national policies.
4. **Non-governmental organizations NGO**, syndicates and local community’s bodies will take part of this scenario as a lead provider of learning and providing knowledge to the local community and job seekers.
5. **Private sector** is another actor who will provide the research budgets, various projects financing, private sector will be a major partner with public sector to boost the urban planning strategy for Egypt 2052.
6. **Public sector** will be a key player in this scenario to initiate the sustainable urban communities’ strategies to create the new Egyptian urban DNA (Youssef, 2015).

## 5.2 Scenario Factors and Sectors

The scenario factors and sectors are the very fundamental of urban DNA, and the DNA we are looking for is the components of sustainable communities that will avoid the weak old Egyptian urban DNA and provide the brave new world with the new Egyptian urban DNA, if discussing sustainable communities it’s undeniable to mention factors such as;

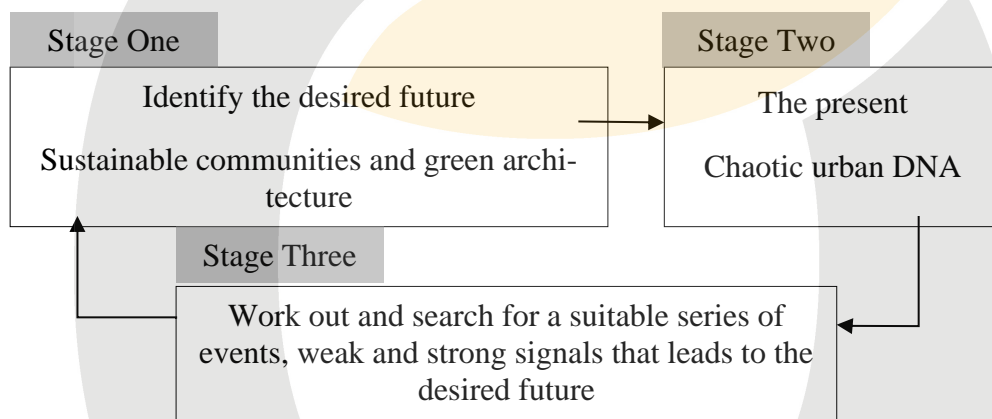
1. **Employment** is the essential component as an economic structure of urban environment
2. **Accessibility** is the back bone of urban development and which is the incentive for development.
3. **Equity** is the heart sustainable communities’ philosophy that works out to sustain the rights of current generations to live and to take into consideration the future generation to come.

4. **Environment** is one leg of a tripod of sustainable development that seeks balancing with economic growth.
5. **Civic participation** the active drivers for accomplishing sustainable development because fundamentally development must start and ends with serving the public interest.

Taking into considerations the previous factors then by deduction logic the major sectors we are talking about here in the scenario are housing, transportation, environment economic and central and local government (Youssef, 2015)

### 5.3 Fundamentals and Process Stages of the Proposed Scenario

**a. Desired future** As it described in Figure 1, the back casting scenario is fundamentally based on the desired situation we all seeking in the last 10 years of sustainable communities best practice which are spreading all over the globe in both developed, united states, united kingdom...., and developing countries such as Brazil, Curitiba city Indonesia, Malaysia...., these practices have been proved that, urban planning can provide a healthy urban environment through applying the principles of sustainable development into the urban planning process of creating sustainable communities that provide a suitable place to live, work, move and entertain in a way that taking into account the present and future generation rights to live healthier life.



**Fig. 1: Back Casting Scenarios are Backward-Oriented and they Start from an Assumed Final State and Work Backward to Explain the Condition that Could Lead to this Final State (Youssef, 2015).**

The team's brainstorm sessions has developed a consensus that the starting point is sustainable communities is our target future that this scenario seeks to look for the series of events and signals that can move the old Egyptian urban DNA into the team's vision of the brand new Egyptian urban DNA that takes into account the what we believe as urban planners "*achieving social*



*justice, balancing economic growth and the environment by creating sustainable cities and places”* this is the heart of urban planning process and the team’s philosophy in this competition.

**b. Present Situation: What’s Wrong with our Current Egyptian Urban DNA.** In Egypt, a chaotic urban context has existed for over 35 years; the urban government handles urban growth management as piecemeal solutions. The absence of any long-term vision for urban growth and urban policies integration has always been the case in the Egyptian urban planning process formula. This chaotic situation has generated complex urban problems, manifested in the form of vast urban growth on agricultural land, daily commuting to the inner city, increased rate of private automobile dependency, and increased rate of air and water pollution. The socio-economic and environmental aspects of integration have been neglected although there is an urgent need for such an approach in Egypt between land-use planning, transportation and the environment. Since the release of the first urban policy in 1970, followed by updates in 1986 and 1998, the Egyptian urban government has responded to its urban problems without fully taking into account the consequences of current decisions on present and future generations. In addition, the Egyptian urban government envisioned sustainable urban development from a very acute perspective, which is summed up into environmental considerations, without fully understanding the strong involvement of the social, economic, built environment and the political aspects embedded within the sustainable urban development framework. The difficulties are accentuated by the fact that, in the past 30 years an authoritarian regime and which places undue emphasis on maintaining the status quo in political terms.

**c. Working our way to bridge the current chaotic Urban DNA with desired future of New Egyptian Urban DNA** in this analytical stage lies the factors, sectors and actors that will play their critical roles in order to build the series of events and to follow them in tree analysis, cause and effect analysis that leads the team to crystalize the scenario events and consequences. A great potential of what’s going on right now in the urban planning kitchen of the so called Egypt Strategic Plan 2052 Proposal.

It has some great potential analysis and new directions that take into consideration what might serve the team as a core or starting point to develop in the scenario. The proposed strategy concentrated in seeking the potentials of new area developments outside the Nile valley, in addition for the first time in Egyptian urban strategy terms like knowledge based cities, clean energy, gate communities, sustainable urban development and sustainable communities.

## 6. Scenario narration technique: Brave New World Scenario of Future City “Social and Physical Reality”

### 6.1. Setting the Scene Prologue

The scenario begins with describing a particular essential moment the day is 11 February 2011, the day a tyrant set back off the scene vanishing over the horizon of long days of tyranny and open the view to a brand new horizon, towards days and freedom and the epilogue of new democratic Egypt. Dramatic scenes floating over the horizon “democracy is precious and the stakes are high”.

It's the call for justice, freedom and social justice, the strike has reached the point of no return between chaos and brave new world. Yes we want it to be a brave new world, but the road to hell is full of good intentions, the price of democracy is not cheap, and the power is not in the right hand so far, it took a Long struggle between different political parties and stakeholders that finally reach the country into stabilization state both socially and politically. This stabilization state had been reached in 10 years after a long struggle between different political powers. The urban development at this point is a minor interest; still the political agenda has got the top priority in the senate and government members.

The urban DNA of the Egyptian cities got worst in this period as urban chaos and random constructions increased by the chaotic political state. The economic situation is shaky and gets up and down regularly.

- People and government bodies send many warnings about the worse condition of the built environment and get worst day after day. Socio-economic condition decrease to critical conditions, no jobs offered, low income rates, places are not suitable for living specially in generally outside the valley and specifically in Upper Egypt and remote areas. The urban DNA became so weak, and these weak signals are pretty obvious in the following;
- The total population increased rapidly
- Greater Cairo still attracting more people from north and south of Egypt
- The agriculture and industrial sectors are decreasing from 45.2 to 38 %
- People living in slum areas reached from 37 % to 50 %
- The urban concentration reached 5.7 % of Egypt total area
- Decrease of agriculture land and reached 13 thousand hectare per year
- Decrease of living standards
- Unemployment reached 20 %
- More than 22 % of total population living under the line of poverty

It's now the year 2022 the urban situation is about to explode, the peak of an old urban DNA is about to end and a new embryonic urban DNA is being born. many urban giant projects had been discussed, projects such as reconstruction corridors and many other ideas about how we take leave from the valley but nothing concrete so far, until the release of Egypt strategy for the year 2052, by this time the youth who made the change in Tahrir Square ten years ago has reached 30-35 years old and they became the body of the new government, now they can make critical decisions and they can lead the country to new horizons and people will follow. People will follow because they believe in these young men who were able to make the change in Tahrir Square they still can do it again, the new urban strategy has many potentials and starting points that encourage these young government bodies to take advantage from its potentials which can be summarized as follow;

- The new urban policies provided an integrated analysis of the natural and physical potentials that not yet be developed in the northern coast, the new Valley, Sinai peninsula
- Ideas of knowledge based communities, gated communities and sustainable communities have been discussed and it pretty obvious the inevitability of such approach otherwise a catastrophe will happen soon.
- Alternative green energy such as solar, wind and biogas resources became major study in this strategy
- The inevitability of Sinai development as a matter of national security
- Coupled with this strategy, a new interest has been developed in the research academic domain, research has took new directions into technology and solutions that contribute to daily life such as solar energy, wind and biogas energy applications in various spatial level, sustainable solutions that affect the life style of new Egyptian generations, concepts such as saving energy, green energy, alternative transportation means such as buses, trains, mobility in general, seeking jobs outside the metropolitan areas.

## 6.2. The Revelation

Dramatic changes occurred in the body of political government that leads to a number of essential changes in terms of;

- Adopting an effective urban policy that focuses on spreading the urban realm into new horizon invading the no man's land 95 % of Egyptian inhabited land.
- Encourage people to settle outside the valley in new cities by adopting new economic incentives tools such as low taxes and free public transportation etc.

- Initiate policies to adopt new technology and new direction of environmental economic based technology such as renewable energy, environmental based economy, knowledge based
- Increase of public awareness of the essentiality of moving towards new areas in Egypt in order establishes the new based environmental economy.

With the initiation of some mega projects from Egypt strategy 2025 such as the free zone in east of Suez canal branch (shar' Eltafre'a) new ports and gate communities in west northern coast..... The people started to accept the idea of moving seeking for better life, quality of in urban environment and above all, opportunities for jobs, the new generation that has been raised on the principles of democracy and free of speech, the children who were 10-12 years old at Tahrir Square big event in 2011 these are the generation that we mean, by now they became 20-25 years old, fresh graduate.

The development figures has increased population almost 100 million with steady growth rate 1.5 %, new communities had been developed by the help of transportation means that are developed to tie up Egypt's regions from west to east borders, some important national roads had been such as the international road along the north coast, the railway from port said crossing down the Sinai peninsula along the red sea coast reaching Saudi Arabia, that was in the back of urban planners minds as Egypt-Israeli political tensions been up and down, threats form Israeli sides concerning Sinai and weapons smuggling business.

Initiation of urban development of Sinai has been inevitable, which encouraged urban government to rethink of the urban policy in Sinai as a national security area of high value. The Egypt urban strategy 2025 mentioned great potentials in Sinai area that are varied from natural, touristic, eco industrial resources.

The government urban planning corridors believed that protecting Sinai as a matter of national security will not be achieved by military defence but the best way to protect our borders with Israel is by urban development of that area because of the highly natural resources value. The young planners are whispering among each other's, very enthusiastic about the notion of Sinai has been long not under the urban development scope, many reasons were behind that neglecting some are political, some are for old beliefs that it's a national security matters, and some because of lack of traditional natural resources, but now many new natural resources can be adopted, the wind and solar potentials technology is been at hand right now. Figures 2, 3 and 4 demonstrate the rationale of proposing new transit urban strategy and the location of future city in Sinai Peninsula.



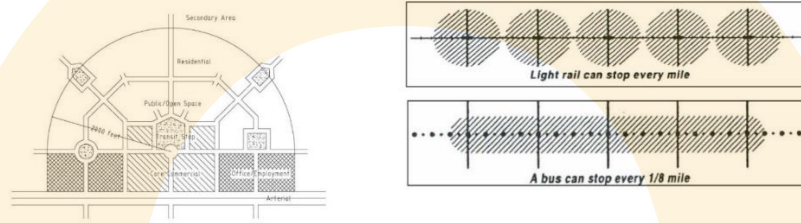


Fig. 2: Transit Oriented Development Theoretical Framework (Calthorpe, 1993)

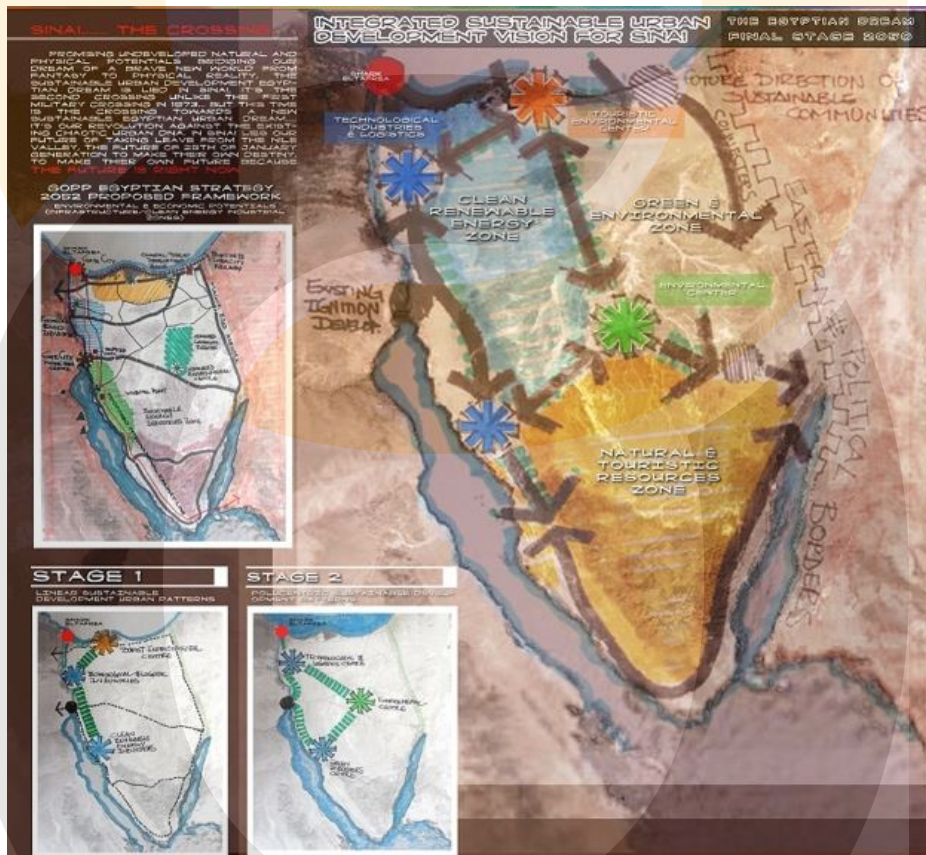


Fig. 3: Proposed Transit Regional Urban Strategy for Sinai Peninsula (Youssef, 2015)





**Fig. 4: Social and Economic Potentials in Suez Canal Area for Future City Proposed Location (Youssef, 2015)**

According to the urban strategy the northern coast of Sinai has great potentials of clean energy (wind and solar energy) touristic potentials, industrial areas that can ignite the proposed development, the north west are has environmental sensitive areas that has the potentials to be developed as an environmental beneficial sub region, the south of Sinai has the touristic characteristics , in addition minerals resources are discovered there and with help of transportation and new railroad which has been be constructed between Sinai and Saudi Arabia , development booming can shake Sinai upside down. With help of the media, research centers and above all the private sectors ability to finance such giant projects, the cause became a national matter and in our subconscious it is the time, it is the time for crossing, it is the time of a new breed of urban development, it's the time for New Egyptian Urban DNA, *We need to make our crossing, unlike the famous military crossing in 1973 but this time it's the urban crossing, new beginning, new urban DNA towards a brave new world .*

The political regime has been supporting the cause because this is what they need right now, adopting a plausible cause, that will provide a 2.8 million jobs with 8 million total population according to the urban strategy, it's a political end to the Sinai case and urban development beginning, the notion has been widely spread and now the government rethink of turning Sinai to new sustainable socio-economic Capital of Egypt and why not, it has the resources, the driving forces and the potential of development boom. The notion became the root of preparing the master plan for a series of sustainable communities that will be the salvation from the tight populated Nile valley, with the help providing transportation means (railways) and government tax incentives and providing new jobs in this national project. And what better name than 25<sup>th</sup> of January city to begin with! The name reminds everyone with day of democracy the day of the new beginning of all Egyptians. That

day that started all this new thinking towards a better life and a new urban DNA that salvage everyone from the inherited urban chaos we lived before.

the people from the valley found it very precious opportunity to move the new world, the inhabitants of the new world are migrating from all over the country and the existing Sinai inhabitant, it's an opportunity for job and better life seekers, every one heading for this new community is making his/her own crossing, the mental crossing from old urban DNA to the new one, crossing the new dream of social justice in its basic idea job, house, education and healthy life. It is a crossing to everyone with different purposes but one heading, a heading to a better life.

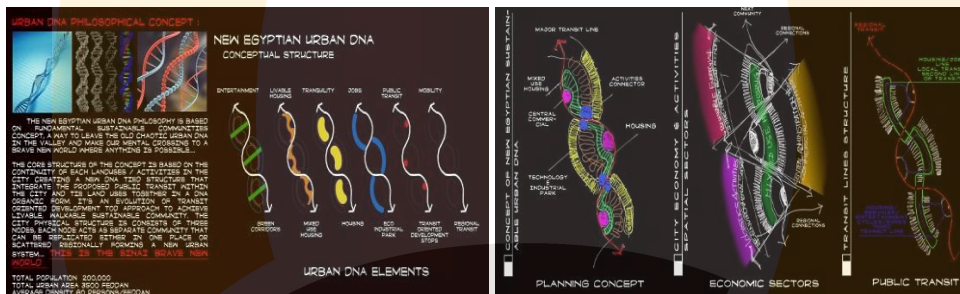
### 6.3. Epilogue

It's now 2050, The 25th of January City has been implemented and operational, it's an example of a new series of sustainable communities, the new city can be reached in couple of hours from middle Egypt on a regular bases, through a regional transit system provided as core base of transit oriented development that has been developed in the regional strategy, the major transit stop in the visual entrance of the city combined by the commercial and administration activities promote a visual rich image of the new urban DNA (figure 5). what makes the city successful is the efficient ecosystem transportation provided by the city administration and make accessibility provided to various activities and land uses very easy, in addition other ways of transportation designed through the city's arterial roads such as bicycles and even walking for services is a pleasure trip because of the beautiful townscape and landscape . The city has developed a new breed of urban DNA that mixes housing with commercial activities along with green corridors spreading all over the city (figures 6 and 7 ), even the green industrial activities are designed as an industrial parks to function as the major source of economy and recreation as well.

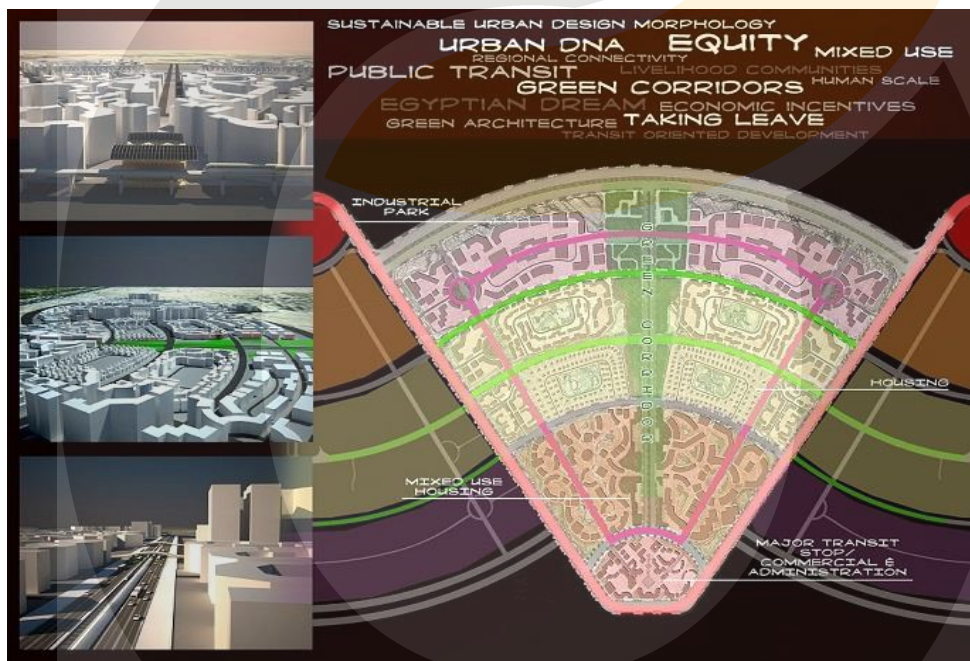
The regional transit system gave the opportunity to create the connection between the various communities in Sinai and worked and a major incentive for the first city created in Sinai 25<sup>th</sup> of January city by connecting the city with giant free zone logistic area in the coast (shar' Eltafre'a) the project that started all this development as it provided the economic base the urban dynamic in the region to spread vastly through the jobs and logistics services provided.

Now the infrastructure for the Sinai is ready to assess urban development, energy sources are based on green energy wind solar and biogas, water are supplied through the desalination technology that provide fresh water to the city. Economy is based on green industrial zones created through Transit Oriented Development, housing green architecture based spread in each community.

Now the country is ready to take leave from the Valley and spread all over Egypt but the path was cruel and full of diversions and we could not reached this point unless we started to think of the future 39 years ago, the moment we started thinking of the notion that future should be planned right away to be ready of the weak signals we meet along the way otherwise the fate is full of puzzles and mysteries can't be solved , but this time we were ready, ready because for the first time we were believed by our heart that *THE FUTURE IS RIGHT NOW*.....



**Fig. 5: Conceptual Planning and Urban Design Elements of the Proposed new Egyptian urban DNA ( Youssef, 2015)**



**Fig. 6: Conceptual Urban Design of Proposed TOD ( Youssef,2015)**





Fig.7: Conceptual Master Plan of New Egyptian Future City Urban DNA (Youssef, 2014)

## 7. Conclusion

The paper discussed the rational of using scenario building technique to promote sustainable urban development and transit oriented development to create a new Egyptian urban DNA, it is a new systematic approach as an alternative for new urban development booming accruing these days in the new capital and other regions in Egypt. The paper suggests that adopting a new regional approach for urban policy in Egypt that depends on small size population settlements and lined with urban corridors by using public transit that can achieve sustainable communities in remote areas such as Sinai and other unpopulated desert. By using foresight and scenario building technique can predict the factors and elements that effects the future Egyptian urban policy and can aid of formulating appropriate vision for the new Egyptian urban DNA. The new DNA characterized by mobility, quality of life, urban growth and utilization of natural resource in Sinai Peninsula. It can be argued that future sciences and scenario techniques developed by Shell Corporation can contribute widely in urban development field. Back casting technique helped the competition team to identify the weak signals in the future scenario of Egyptian migration in the next 50 years in order to leave the condensed Nile Valley and spread in undeveloped land within a strategy that is based on transit oriented development and sustainable urban development.

## 8. References

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