





وزارة الإسكان والمرافق
والتنمية العمرانية



**A Model for an Economic and Environmental
sustainable City in Egypt**

Experts Workshop

North Coast, 18th – 19th May 2014



الهيئة العامة
للتخطيط العمراني



هيئة المجتمعات
العمرانية الجديدة



برنامج الأمم المتحدة
للمستوطنات البشرية (الموئل)

Achieving Sustainable Urban Development Priorities ASUD

***Support Programme for UN-Habitat's Medium Term Strategic
Implementation Plan***

EGYPT

Regional Office for Arab States

**Dyfed Aubrey
Senior Human Settlements Officer
UN-HABITAT Regional Office for Arab States**

Vision & Mission

Towards promoting and establishing sustainable urban development and securing adequate housing for all

United Nations Human Settlements Programme

Urban land /
legislation
and
governance

Planning
and Urban
Design

Urban
Economy

Basic urban
services

Housing and
slum
upgrading

Rehabilitatio
n and reduce
urban risks

Research
and
development
capacity

Earth

Urban and
Regional
Planning

Urban
finance and
local

Water and
Sanitation

Housing

Reduce
urban risks

Global
Urban
Observatory

Urban
legislation

Urbanization

Urban
productivity

Urban
energy

Developmen
t of slums

Rehabilitatio
n of basic
services

Background
reports

Urban
managemen
t and
governance

Planning and
medium-sized
cities with the
private
economy

Youth and
job creation

Mobility and
communicat
ion Urban

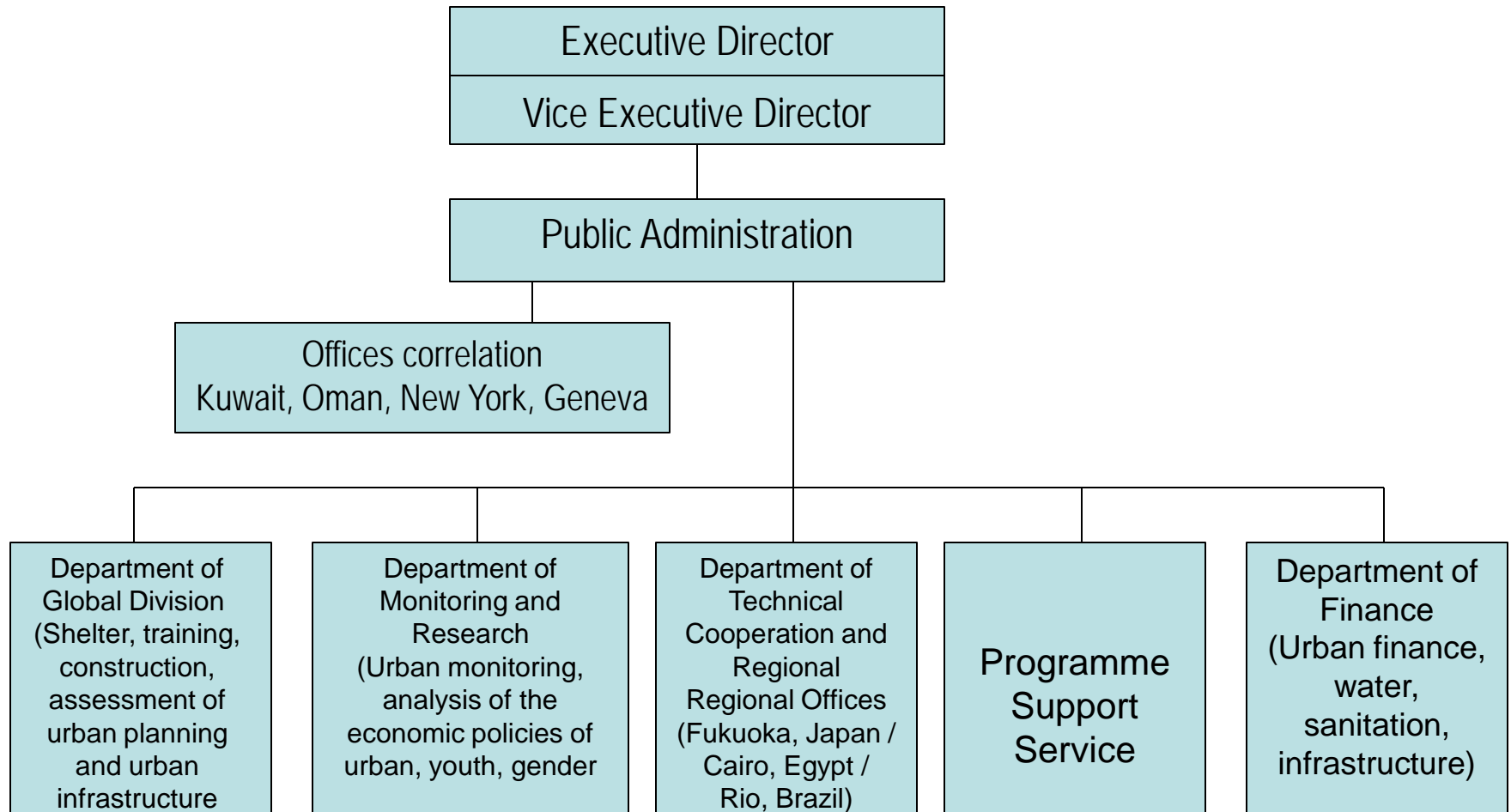
Housing
reconstructi
on

Climate
Change

Building
and
institutional
developmen
t

Waste
Managemen
t

United Nations Human Settlements Programme



United Nations Human Settlements Programme

Sub-regions

Maghreb:

Algeria, Libya, Morocco,
Tunisia

Mashreq:

Egypt, Iraq, Jordan,
Lebanon, Palestine,
Syria

Gulf Cooperation Council (GCC):

Bahrain, Kuwait, Oman,
Qatar, Saudi Arabia,
United Arab Emirates

Southern Tier countries:

Sudan, Yemen

United Nations Human Settlements Programme

Focusing on the environmental component by developing safe cities with green areas

Urban Areas



Collaborating with governments, city councils and civil society organizations for the establishment of cities without slums, And provide reasonable living conditions for the poor

Take the initiative to implement the Millennium Development Goals, which aim to improve the living conditions of slum dwellers, as well as post-disaster re-settlement.

Strategy

- Partnerships and ensure effective follow-up
- Inclusiveness in urban planning, management and governance
- Provide affordable housing
- The provision of infrastructure and services that are environmentally friendly in urban areas
- Promotion of finance systems for human settlements



United Nations Human Settlements Programme

United Nations Human Settlements Programme Is currently working on:

- Bahrain
- Egypt
- Kuwait
- Iraq (Jordan)
- Palestinian territories
- Lebanon
- Sudan
- Somalia
- Libya
- Morocco



Key areas of work

- Planning and Urban Development
- Reconstruction and construction (schools, housing, infrastructure, water, sanitation)
- Institutional framework of institutions and planning organizations at the central and local level
- Urban management

The program works effectively in 10 Arab countries through 30 projects with a total value of about \$ 100 million

Egypt Programme

- 1- Spatial Planning Urban Development; Environment & Climate Change Programme
- 2- Urban and Regional Policies, Governance, and Legislations Programme
- 3- Informal Settlements, Housing & Urban Regeneration Programme

Egypt Projects

- Urban Law Reform Assessment;
- Strategic National Development Support Project;
- Strategic Urban Plans for Small Cities in Egypt;
- Safe Cities for Women and Girls in Greater Cairo Region;
- Strategic Development Plan for Greater Cairo Region;
- Human Security through inclusive socio-economic Development in Upper Egypt
- **Achieving Sustainable Urban Development Priorities - ASUD**

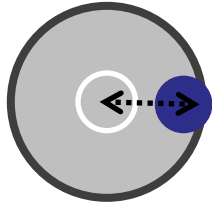


ASUD Egypt

improved planning, implementation and monitoring practices for urban development in Egypt

city extensions

existing secondary cities



theme

Ministry of Housing and Urban Communities (MoHUC)/
General Organisation for Physical Planning (GOPP)
Ministry of Local Development (MoLD),
Sector Ministries, Local Authorities

counter-
parts

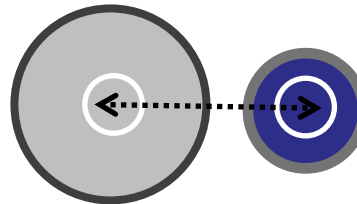
**Participatory and Inclusive
Land Readjustment (PiLAR)
&
Community Contracting**

tools

**Implemented Detailed
Neighbourhood Plan**

outcome

new cities



Ministry of Housing and Urban Communities/
New Urban Communities Authority (NUCA)

**“Green Cities”
&
Local Economic Development**
(urban patterns for a green economy –
leveraging density)

**Strategic Urban Plan & Action
Plan for Implementation**

link to existing projects/ new pathways for future collaboration

Lessons
Learnt/
Best
Practice

Knowledge
Management

Policy
Recommendation

Focus of ASUD Egypt

- Improve planning, implementation and monitoring practices for urban development in Egypt;
- Systematized knowledge for enhanced management of urban growth in Egypt;
- National and regional institutions in close partnership with local government better manage growth in Egypt.

Incorporation of themes/ tools

- Green Cities – especially for the development of new settlements;
- Land Readjustment was mentioned as a means to look into preserving valuable agricultural land from being dwelled on;
- Amendment of urban legislation and the respective enforcement based on lessons learnt from implementation of projects;

ASUD Objectives

- **Support GoE to possess professional and development methods and sources of information related to The development of New Urban Community Through new planning processes AND applying the GREEN planning methods.**
- Support to progress the *New City's* development document;
- Enhance the project performance to achieve strategic objectives;
- Obtaining Best practices and lessons learnt directly linked to the project policy goals;
- Capacity Building that serve professional management for similar mega and critical Project.



Thank You!

شكراً جزيلاً

نحو مستقبل حضري أفضل

UNHABITAT
FOR A BETTER URBAN FUTURE



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برنامج الأمم المتحدة
للمستوطنات البشرية (الموئل)

Introduction

- **A proposed development for Global New Urban Communities: Reflections from International Experience**
- **Professor David Shaw- University of Liverpool**
 - **Context**
 - Chameleon nature of planning
 - New towns, urban extensions and the rhetoric and reality of sustainability- cases from around the world
 - **New Towns and Garden Cities**
 - 19th Century new towns and the Garden cities movement
 - Post war new towns and reflections on 50 years of experience
 - Re-emergence of the Garden cities debate
 - **Some thoughts on potential guiding principles**

Challenges and Opportunities of Comparative Planning

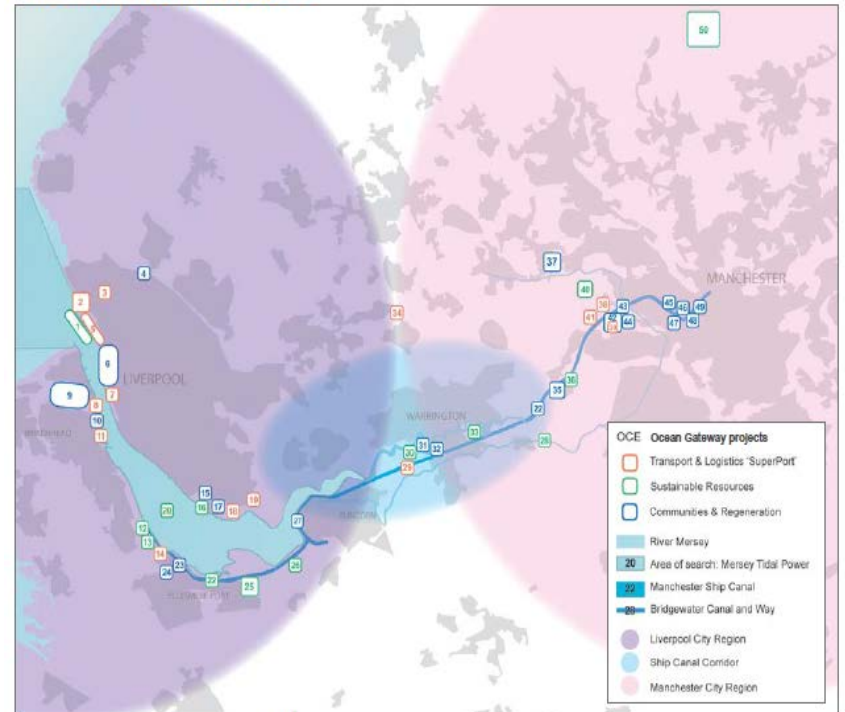
- Planning has a curious chameleon like quality whose colour depends ultimately on the particular social, political and cultural **context** in which it is found



Temporality and Planning

- Immediate v Long term challenges?
- 50 year time horizon
- Political stability and consensus
- Public or private sector led

The 50 Ocean Gateway projects



- | | | | |
|---|---|--|--------------------------------|
| 1 Mersey Wind Farms | 14 Port Wirral | 28 Bridgewater Canal and Way | 43 Trafford Quays |
| 2 Royal Seaford Post-Panamax Container Terminal | 15 Liverpool International Business Park | 29 Port Warrington | 44 Trafford Centre Rectangle |
| 3 Port of Liverpool Surface Access | 16 Speke Garston Coastal Reserve | 30 Arpley Landfill | 45 Media City UK |
| 4 Switch Island | 17 Land adjacent to Liverpool John Lennon Airport | 31 Arpley Meadows | 46 Salford Quays |
| 5 North Liverpool Docks and River Terminal | 18 Liverpool John Lennon Airport | 33 Woolston Deposit Ground | 47 Trafford Wharfedale |
| 6 Liverpool Waters | 19 Liverpool John Lennon Airport Surface Access | 34 Haydock Park | 48 Combrook and Pomona |
| 7 Prince Dock and Cruise Terminal | 20 Mersey Tidal Power | 35 Partington Village | 49 St. Georges and Castlefield |
| 8 Birkenhead Docks and Twelve Quays | 21 Merseyside Biomass | 36 Carrington Wharfedale | 50 Scout Moor Wind Farm |
| 9 Wirral Waters | 22 Manchester Ship Canal | 37 Salford West and Wigan | |
| 10 Woodside | 23 Ellesmere Quays | 38 Port Salford | |
| 11 Cammell Laird | 24 Pioneer Business Park | 39 Western Gateway Infrastructure Scheme | |
| 12 Bromborough Recovery Facility | 25 Ince Resource Recovery Park | 40 Salford Forest Park | |
| 13 Eastham Waste Management and Biofuel | 26 Frodsham Deposit Grounds | 41 City Airport | |
| | 27 Runcom Waterfront | 42 Sports Village and City Reds | |

What type of new development is required?

- **Where is the focus?**
 - **New Towns**
 - **Urban Extensions**
 - **Multifunctional**
 - **Polycentric development**
- **Sustainability**
 - **A marketing brand or reality**

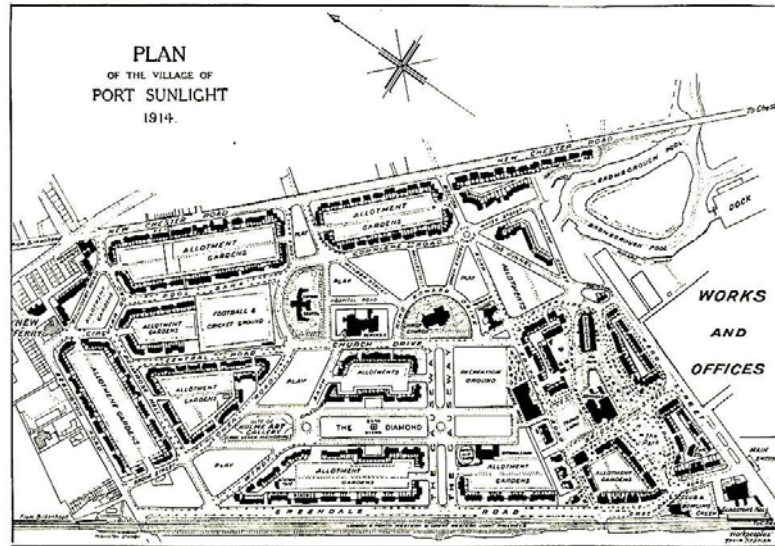


Focus on UK but similar experiences elsewhere

- **Almere New Town, Netherlands**
 - Long term phased development
 - State led
 - Land free
 - Infrastructure in anticipation of population
 - Not sure it would be replicable today



Early New Towns: Private Sector Led



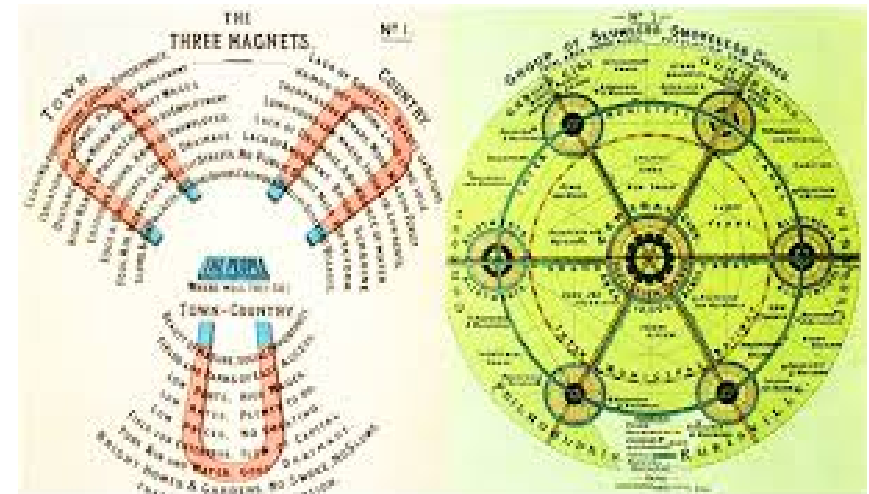
Critical characteristics of the Garden City

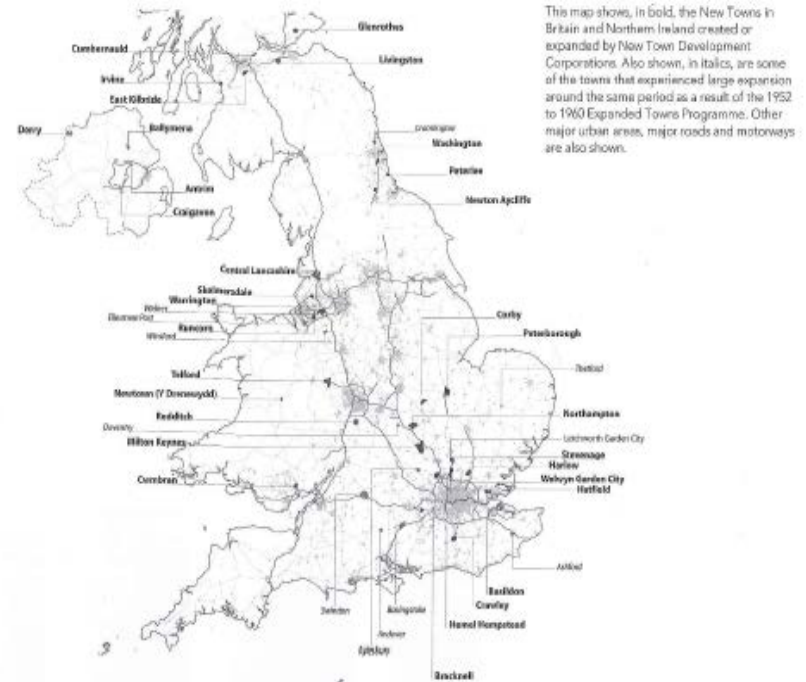
Box 2

What makes a Garden City?

The Garden City idea was conceived by Ebenezer Howard, to combine the very best of town and country living and so create healthy homes for working people in vibrant communities. Garden Cities were the original 'sustainable developments'. The Garden City principles include:

- Strong vision, leadership and community engagement.
- Land value capture for the benefit of the community (see Box 3).
- Community ownership of land and long-term stewardship of assets.
- Mixed-tenure homes and housing types that are affordable for ordinary people.
- Beautifully and imaginatively designed homes with gardens in healthy communities.
- A good range of local jobs in the Garden City itself and within easy commuting distance of homes.
- Opportunities for residents to grow their own food, including allotments.
- Generous green space, including a surrounding belt of countryside to prevent sprawl, well connected and biodiversity-rich public parks, high-quality gardens, tree-lined streets, and open spaces.
- Strong local cultural, recreational and shopping facilities in walkable neighbourhoods.
- Integrated and accessible transport systems.





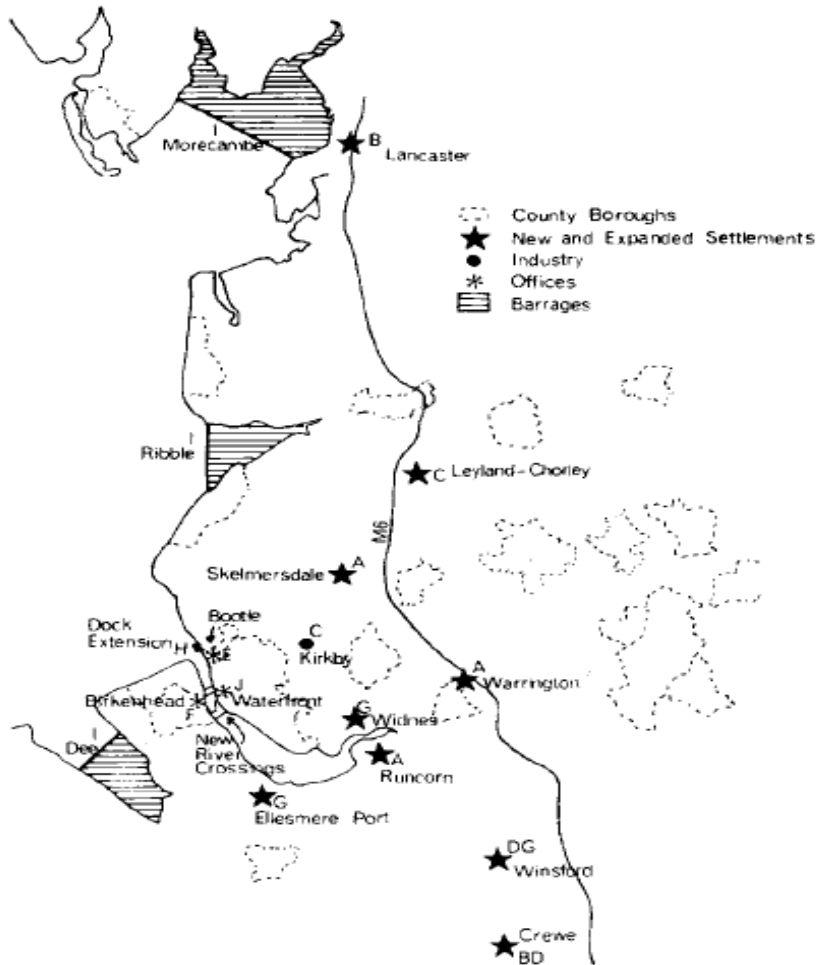
New Towns Legacy

Some Basic Facts

- 32 New towns designated between 1946 (Stevenage) and 1970 (Central Lancs)
- Many built on existing settlements (Milton Keynes 40,000 rising to 184,000 in 2007)
- 87,000 hectares gifted to Development Corporations
- 2001 about 6000 hectares undeveloped worth £914 mill

BUT NOT ALL WERE/ARE
SUCCESSFUL

New Towns Near Liverpool



Success and failure

- Skelmesdale

- 1961 original pop 10,000
planned 73,000, 36,000 by
2007

- Warrington

- 1968 122,000, planned
160,000, 2007 193,000)

- Runcorn

- 1964, 28,000, planned
73,000, 2007 61,00

The return of the new settlement debate

The scale of the housing crisis

- Population projections suggest 5.8 million new households by 2033
- 232,000 new houses per annum.
- Where will they all go?



Town and Country Planning Association- advocates for new towns

Advocacy

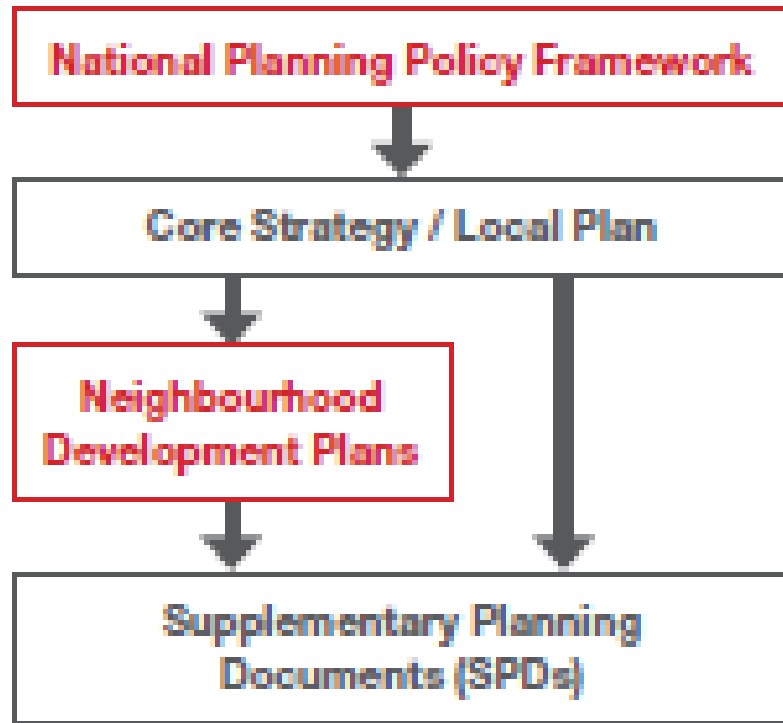
- Re-imaging Garden cities for the 21st century (July 2011)
- Creating Garden Cities and Suburbs Today: Policies Practices, Partnership Model Approaches (May 2012)
- Creating Garden Cities and Suburbs Today- A Guide for Councils (March 2013)
- New Towns Act 2015 (February 2015)

Political Party Buy-in

- All three political parties commit to New Towns
- March 2014 Osborne announces Ebbsfleet – North Kent as a new town
- April 2014 bidding opened for ‘Locally-led Garden Cities’ – (closing date 29th August 2014)

Coalition's Approach to Housing (2010-2014)

Localism



But

- **Garden City or garden suburb**
- **Community or private housing led**
- **Appropriate scale or simply 'greenwashing'**

Rhetoric of Garden Cities lives on- Some reflections

1. Changing role of the state

- Planning is an inherently political process with important technical aspects
- Role function and purpose of the state is changing
- What is the public interest?

2. Partnership working and trust is key

- New settlements require long term vision and commitment of 30-50 years
- Are we patient enough?
- Public led or private led or an arms length agency which has powers but semi-independent

Reflections Continued

3 Scale of planning is important

- Regional
 - To what extent is the new settlement functionally dependent
- City Scale
 - To what extent is the settlement as a whole planned and can critical infrastructures be provided in anticipation of population growth
- Neighbourhood.
 - How do the individual blocks fit together

4. Who captures the uplift in land value?

- How are 'public' facilities delivered and maintained (including the aspiration for balanced mixed development)
- Can demand management principles be built into the design processes and at what cost

- **Context is important**
- **Insights can be learnt from international experience**
- **Similar global challenges abound**
- **But specific solutions need to be adapted to specific circumstances.....**

Thank You !!!!

- **Professor David Shaw**
- **Department of Geography and Planning**
- **University of Liverpool**
- **daveshaw@liv.ac.uk**



UN - HABITAT



Economical And Environmental Sustainable City Model Egypt

Expert Workshop

North Coast
18- 19 May 2014



General Organization
For Physical Planning

New Urban Communities
Authority

Ministry of Housing, Utilities
and Urban Development

RE-THINKING NEW CITIES IN EGYPT

DR. SAHAR ATTIA

*Professor of Urban design & Urban Planning
Faculty of Engineering – Department of Architecture
Cairo University*

Introduction : raising questions.

1- Background/ flash back

2- New Cities in Egypt : The current outcome

3- The gaps/ issues

4- The misperception about who designs cities?

5- The shift - raison d'être

Raising questions

1- What is The kind of city El Alamein wants to be or to become ?

2- Do we have a model ?

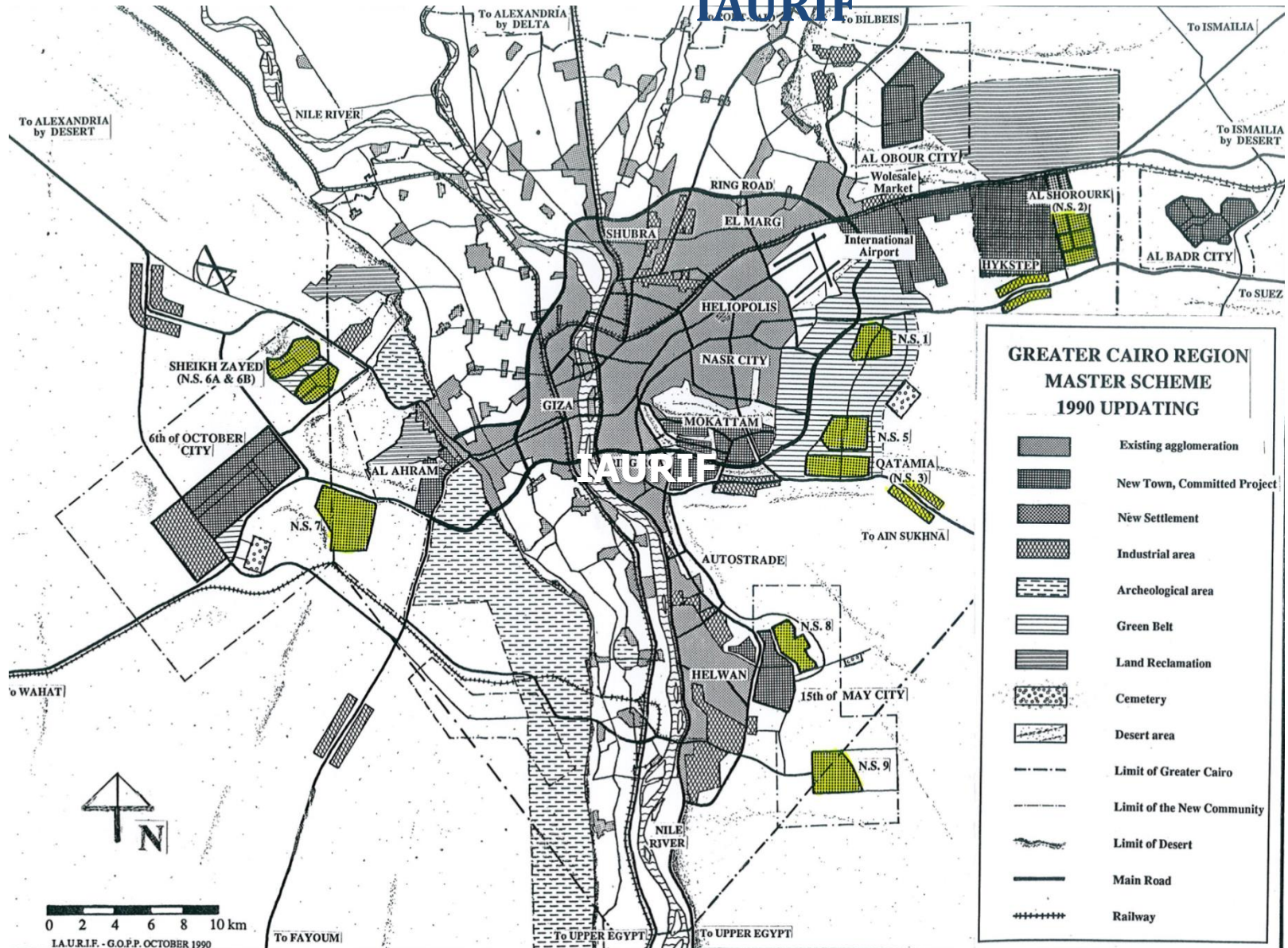
3- What can be the *raison d'être* of a Sustainable city?

4- *Can we do a shift ?*

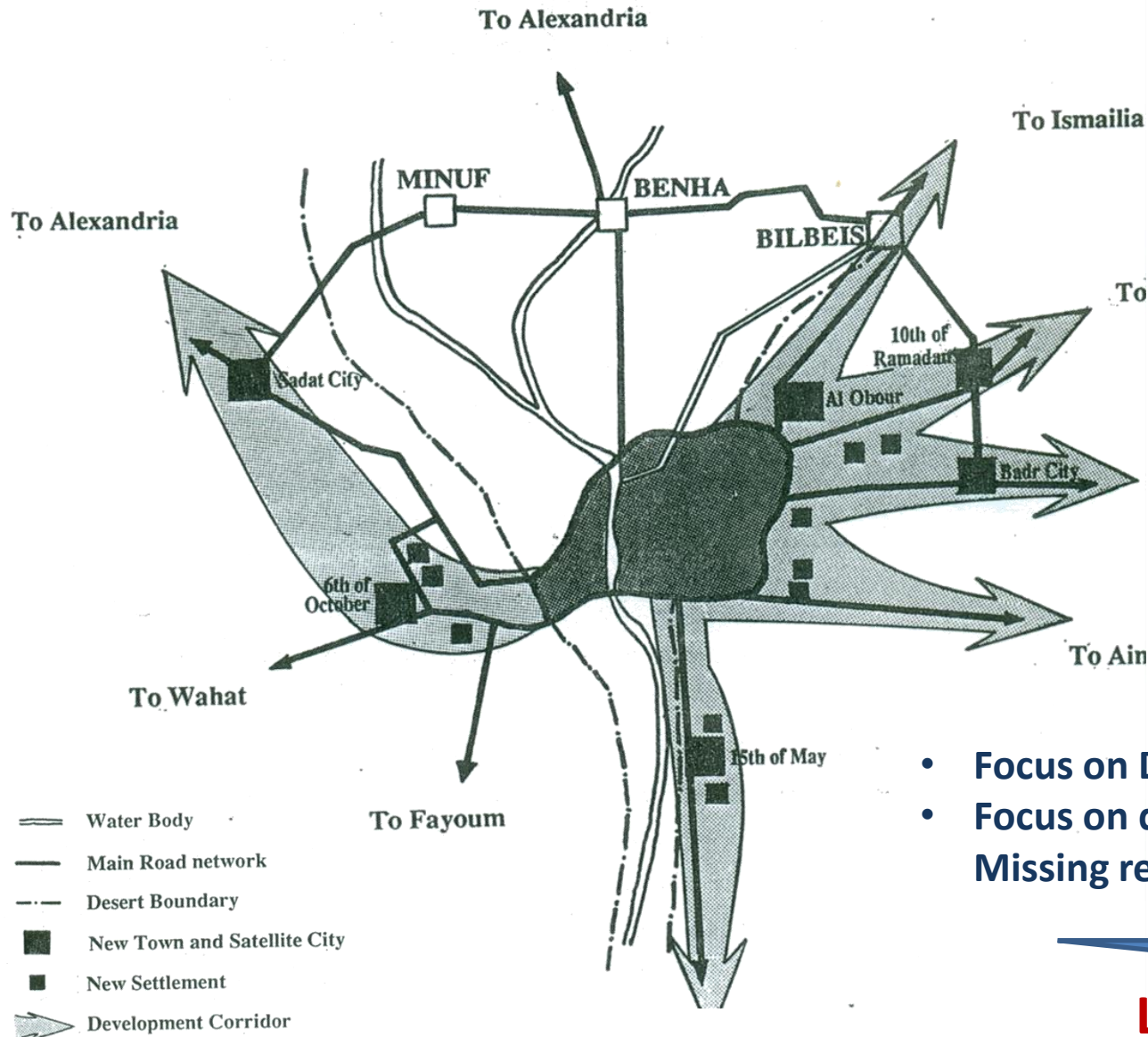
We need to be digging deeper into understanding how cities actually can be designed and built.

1- Background/ flash back - The Starting Scheme -

LAURIF



Development Corridors

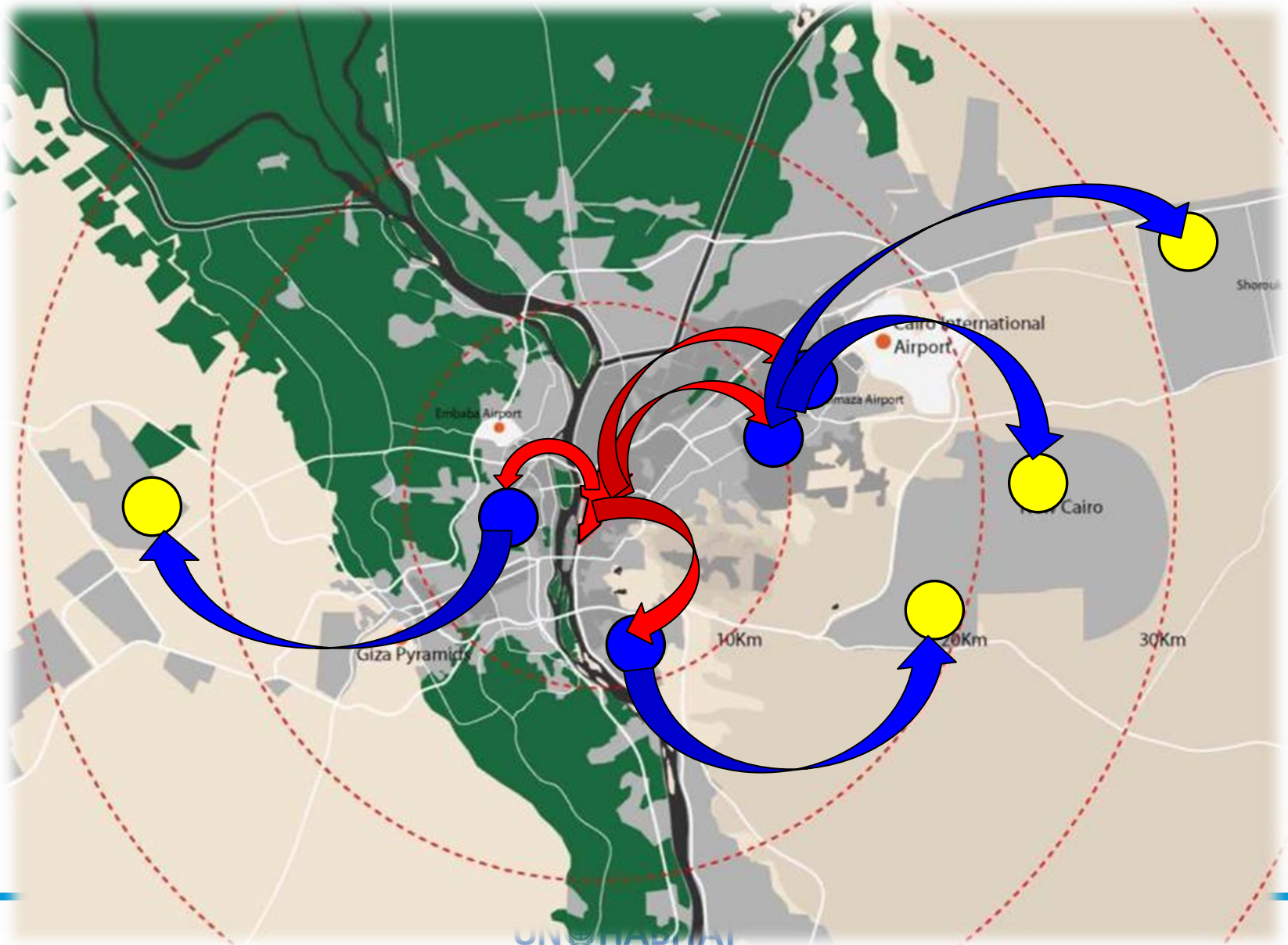


What will happen else where ??

- Focus on De-concentration of GCR
- Focus on development corridors - Missing related transportation projects

Localized vision

Pattern Of Population Movement



Concept Evolution Of New Cities In Egypt

3 GENERATIONS OF CITIES (22 CITIES)

1977-1982

1st Generation

7 Cities

10th of Ramadan

6th of October

Borg El Arab

15th of May

Sadat

New Salheya

New Damietta

+

The Touristic Cities On The

Mediterranean

1982-2000

2nd Generation

8 Cities

New Cairo

Sheikh Zayed

Badr

El Shorouk

El Obour

New Nobareya

New Beni soueif

New Menia

+

Suez Area

2000 - present

3rd Generation

7 Cities

New Assiout

New Aswan

New Kena

New Tiba

New Sohag

New Fayoum

New Ekhmim

CURRENT CONCERNS

From 2000

2 Cities

Tochka

El Owainat Eastern City

From 2010

3 Cities

New Luxor

Port-said Eastern City

El Alamein

New regions map ??
Bottom up or top down
approach??

● 1st Generation cities (8)

● 2nd Generation cities (9)

● 3rd Generation Cities (7)

● Proposed Cities Plan
(2017)

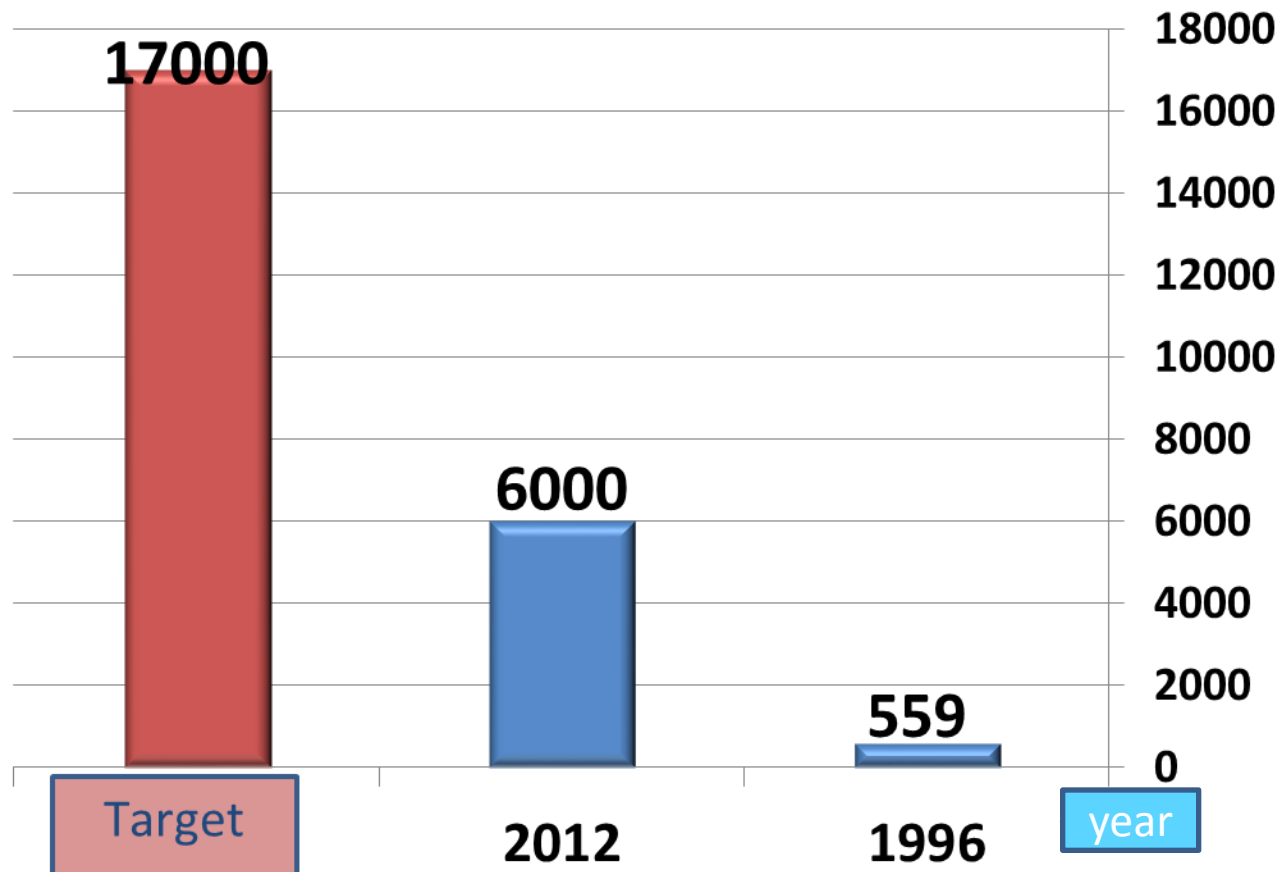


3- New Cities in Egypt : The current outcome

Population

بالألف نسمة

1000



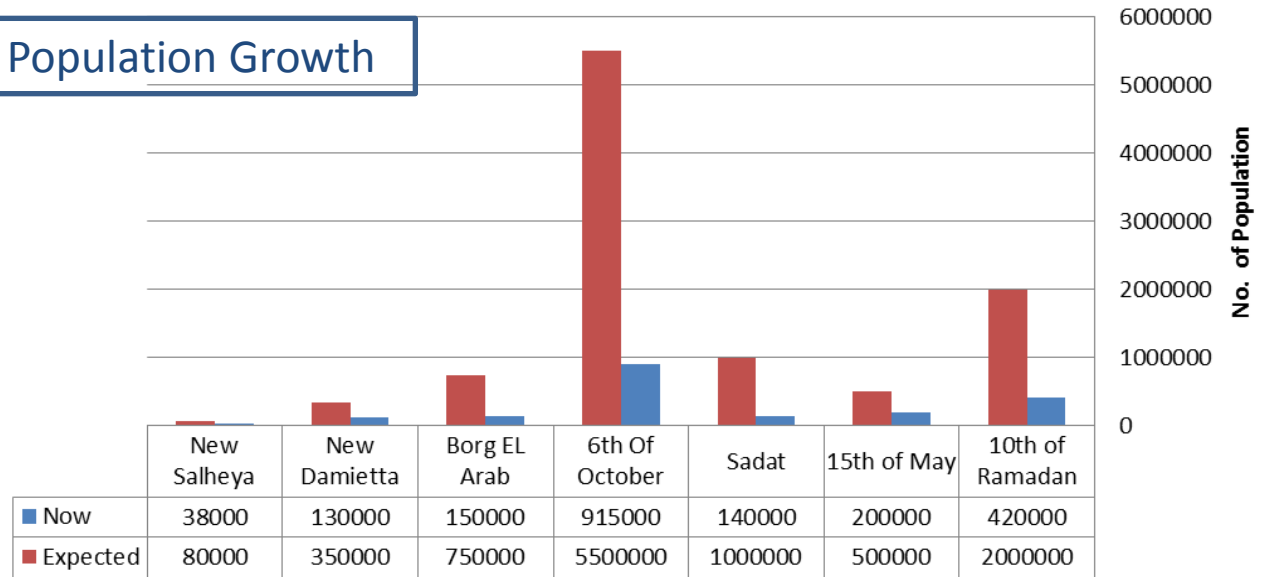
New Cities in Egypt : The current outcome

Forces driving growth
Relation to initial plan

6 October

Population Growth

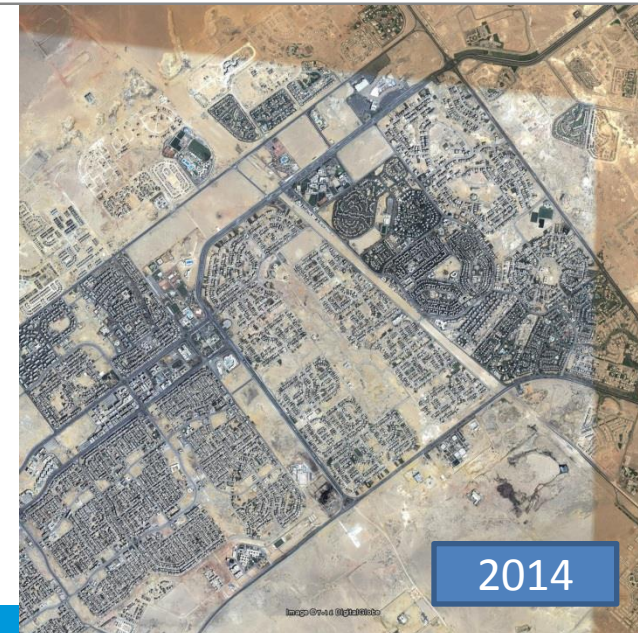
1ST GENERATION



2003

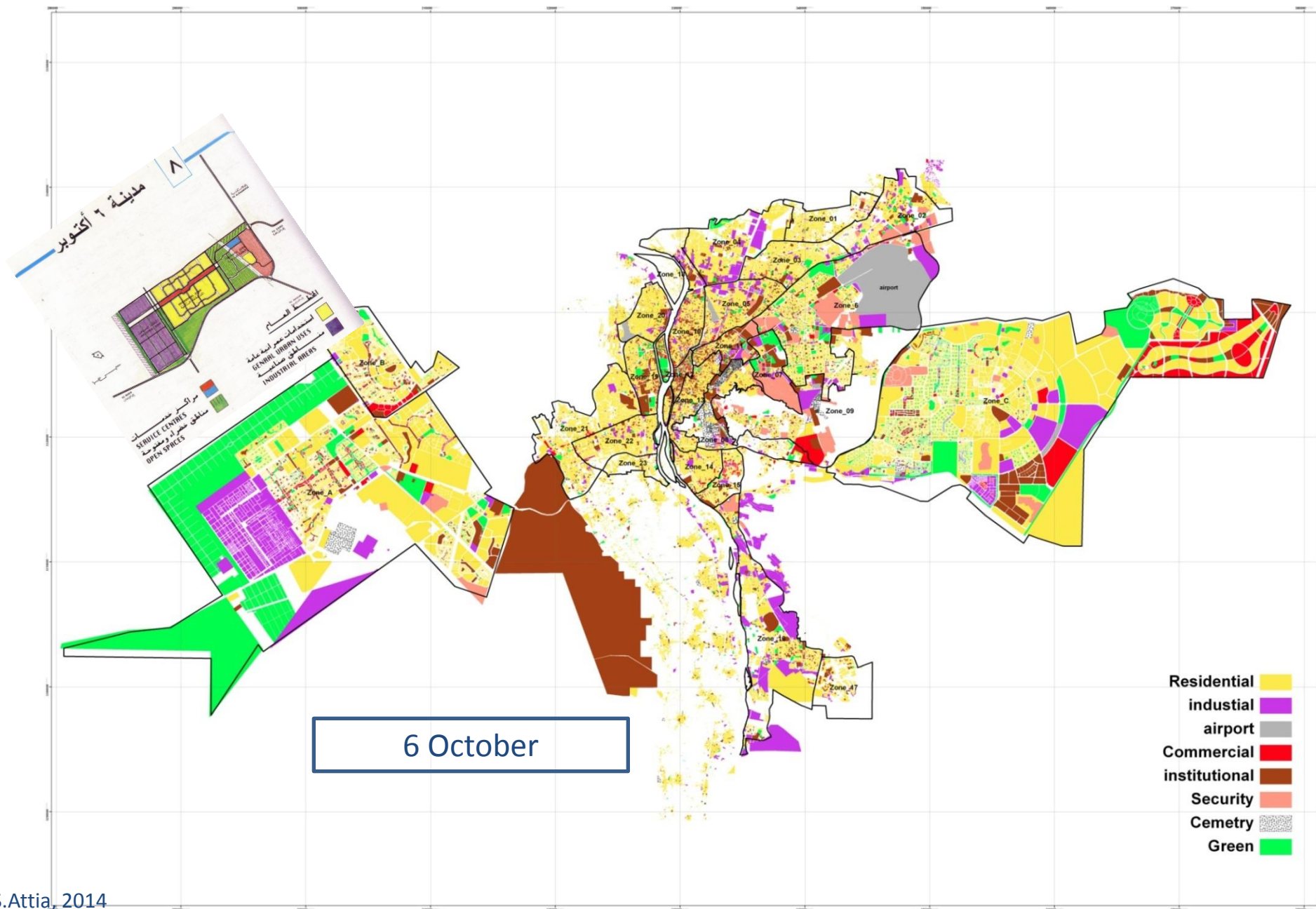


2007

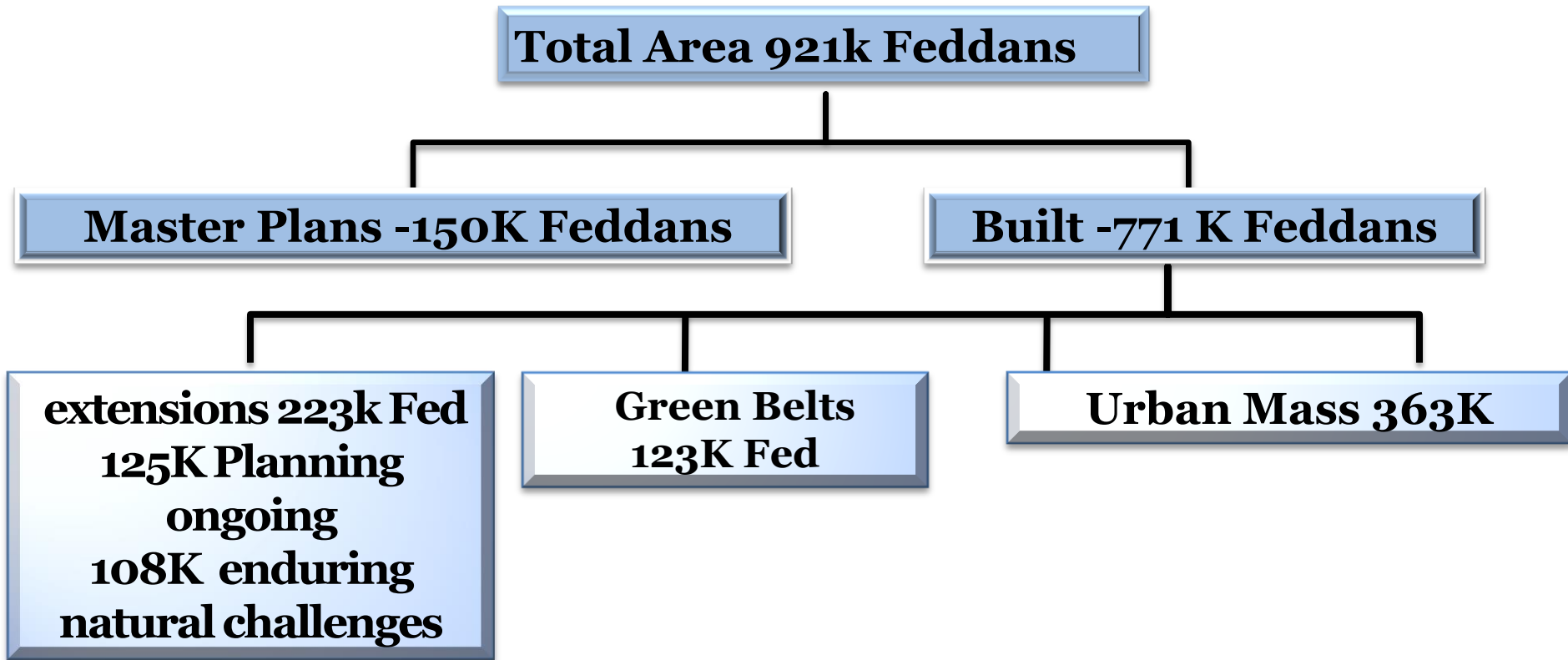


2014

2- New Cities in Egypt : The current outcome

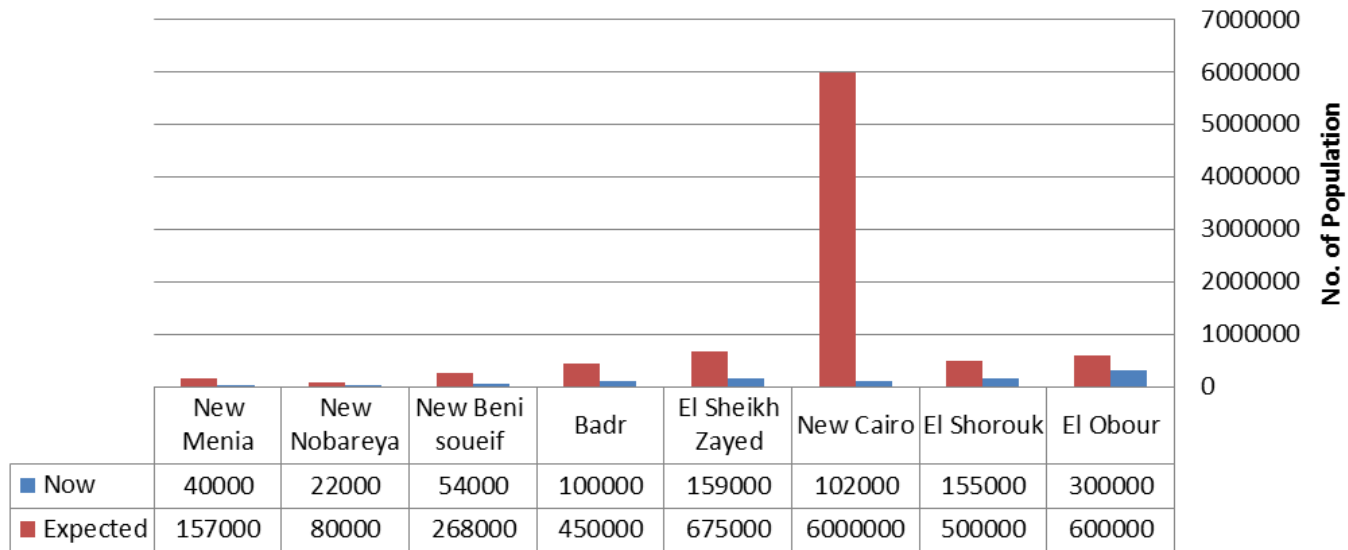


2- New Cities in Egypt : The current outcome

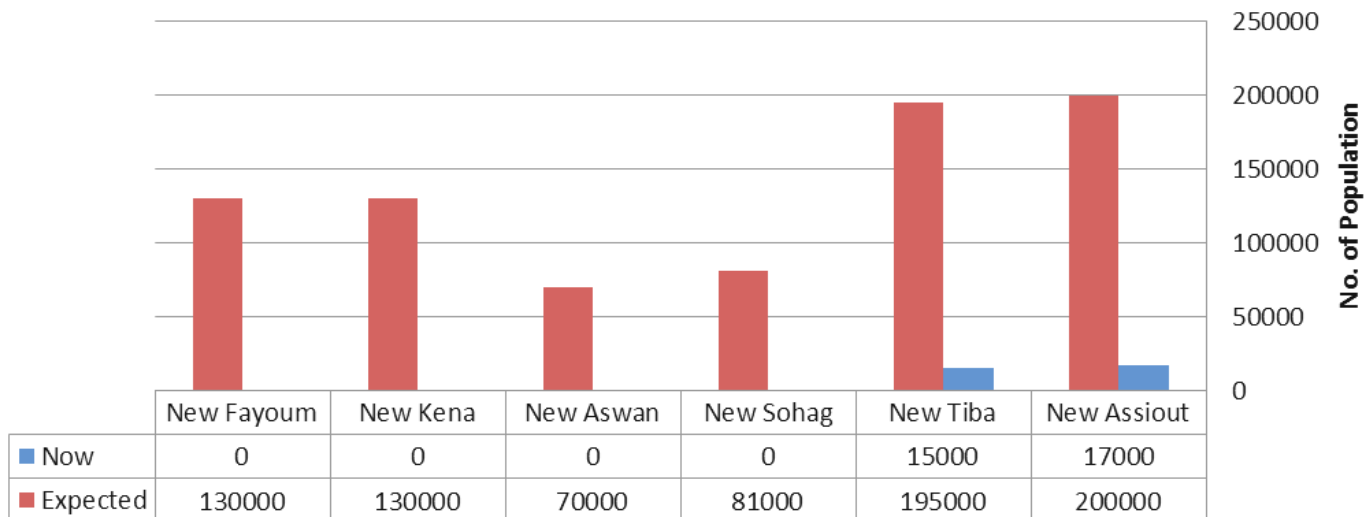


Population growth rate

2nd Generation



3rd Generation



3- Issues/Gaps

1. **Lack of coordination between urban, services and industrial development.**
2. **No Clear division of roles and responsibilities within and between the relevant institutions.**
3. **Building regulations contributes in weakening the visual image of the city. And their development**
 1. **Lack of basic services in many neighborhoods.**
 1. **Adequate and relevant training programs for internal capacity building.**



3- Issues/Gaps

Missing

Sustainability

- An integrated development planned city with deep understanding of sustainability, competitive cost of living, environmental aspects and attractiveness

Connectivity

- An efficient and well integrated multi modal public transport system with high capacity roads

Good Governance

- World class industrial areas of growing

Specific value proposition for each city

- A specific set of value propositions for the city for investors and residents, cities are missing the regional role

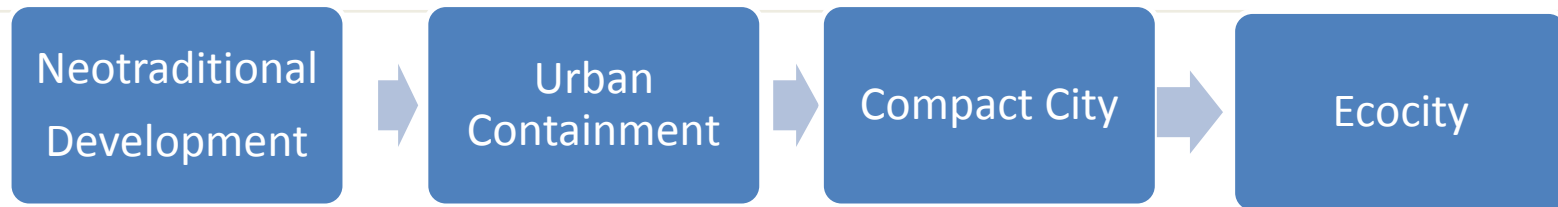
Population Density distribution – Urban Sprawl

- Densities are to be revisited, and adapted to the cultural, and patterns of Egyptian life style

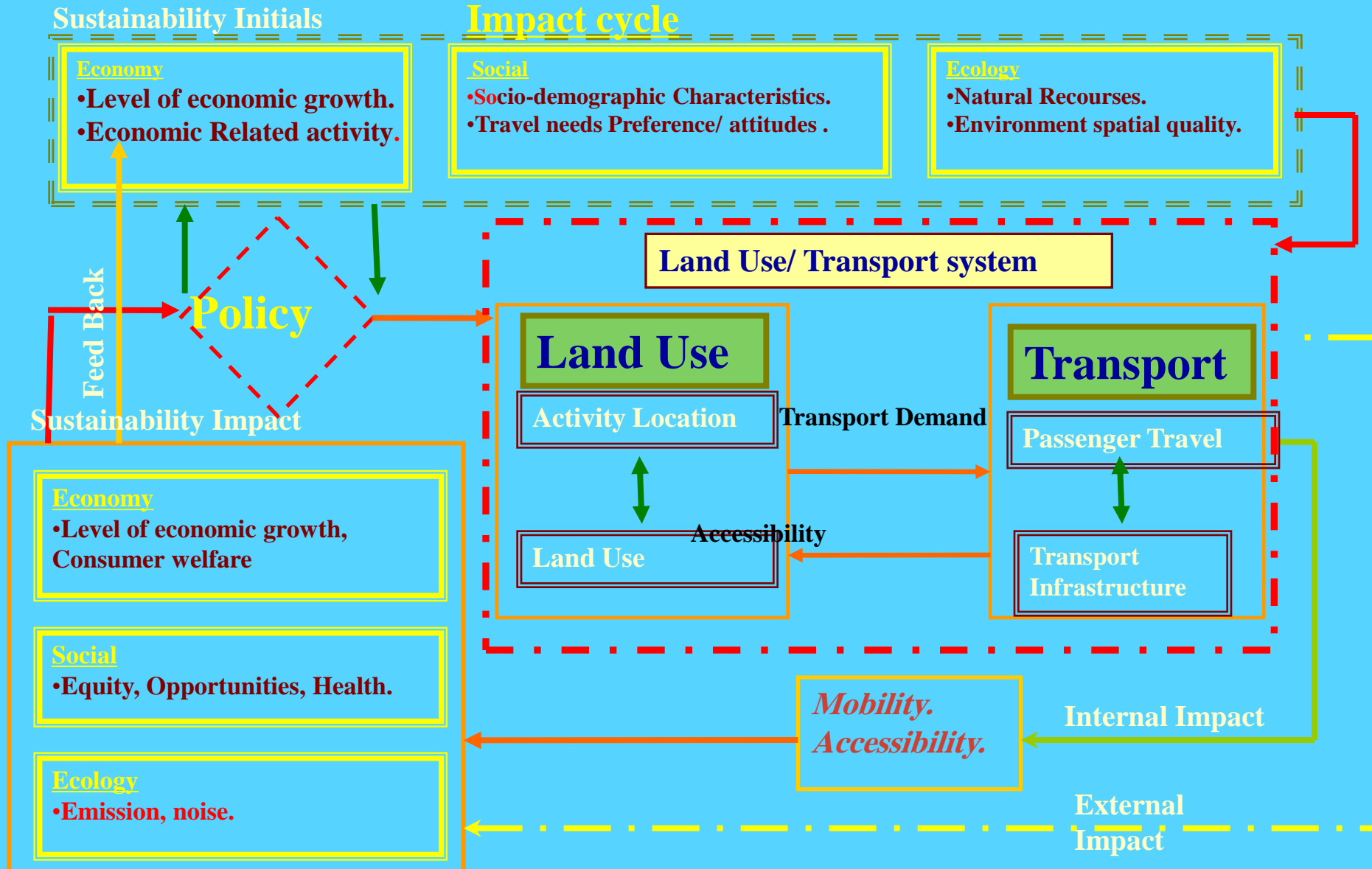
Quality of life

4- The misperception about who designs cities?

- Sustainability is a big theme, it is not only about planning it is a lifestyle, people still want to live a life of consumption
- Is planning the conventional way the problem ? Or is it the understanding of the conventional practice and how to fit in the sustainable design?
- We must be sensitive to cultures, and work as experts in examining the forces that shape cities in each region, and choose the adequate model.

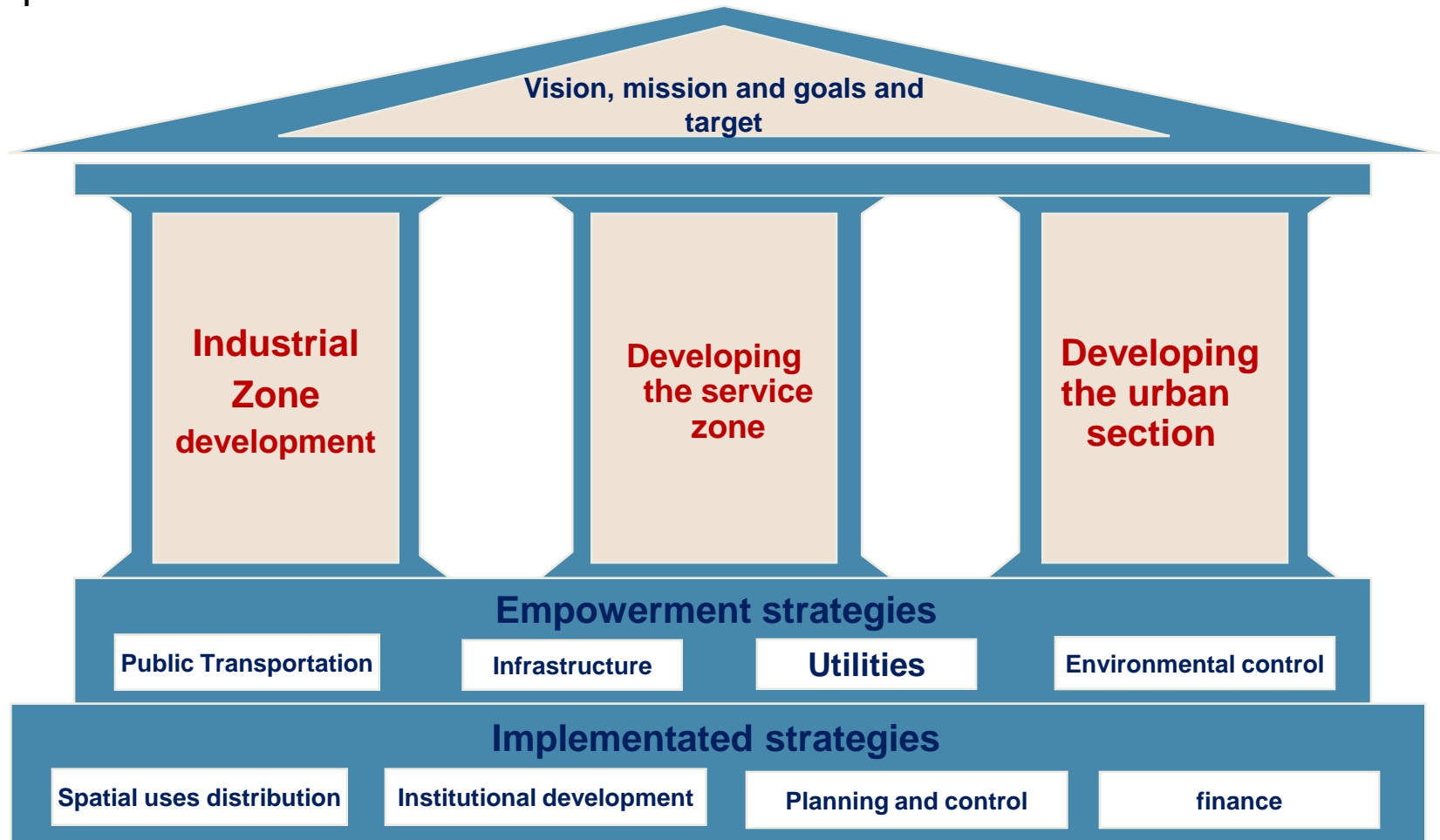


Sustainable Design



5- The Shift

Development planning strategies includes essential plans for the industrial sector, the service sector, Urban Development, empowerment strategies and implementation.



5- The Shift

Vision, Mission, and Target

**National
development
objectives**

**City development
objectives**

Key elements of the new city vision

- **Balance** – across various sectors' development
- **Sustainability** – of the city's development
- **Inclusivity** – with regards to various social and economic segments
- **Attractiveness** – of the city
- **Quality** – of life for its residents
- **Adequacy** – of services, infrastructure, utilities and other civic amenities

What new cities did right ??

5- The Shift

Where we go from here ??

Set the principles that should guide design of future city, and include in the process

PARTNERSHIPS

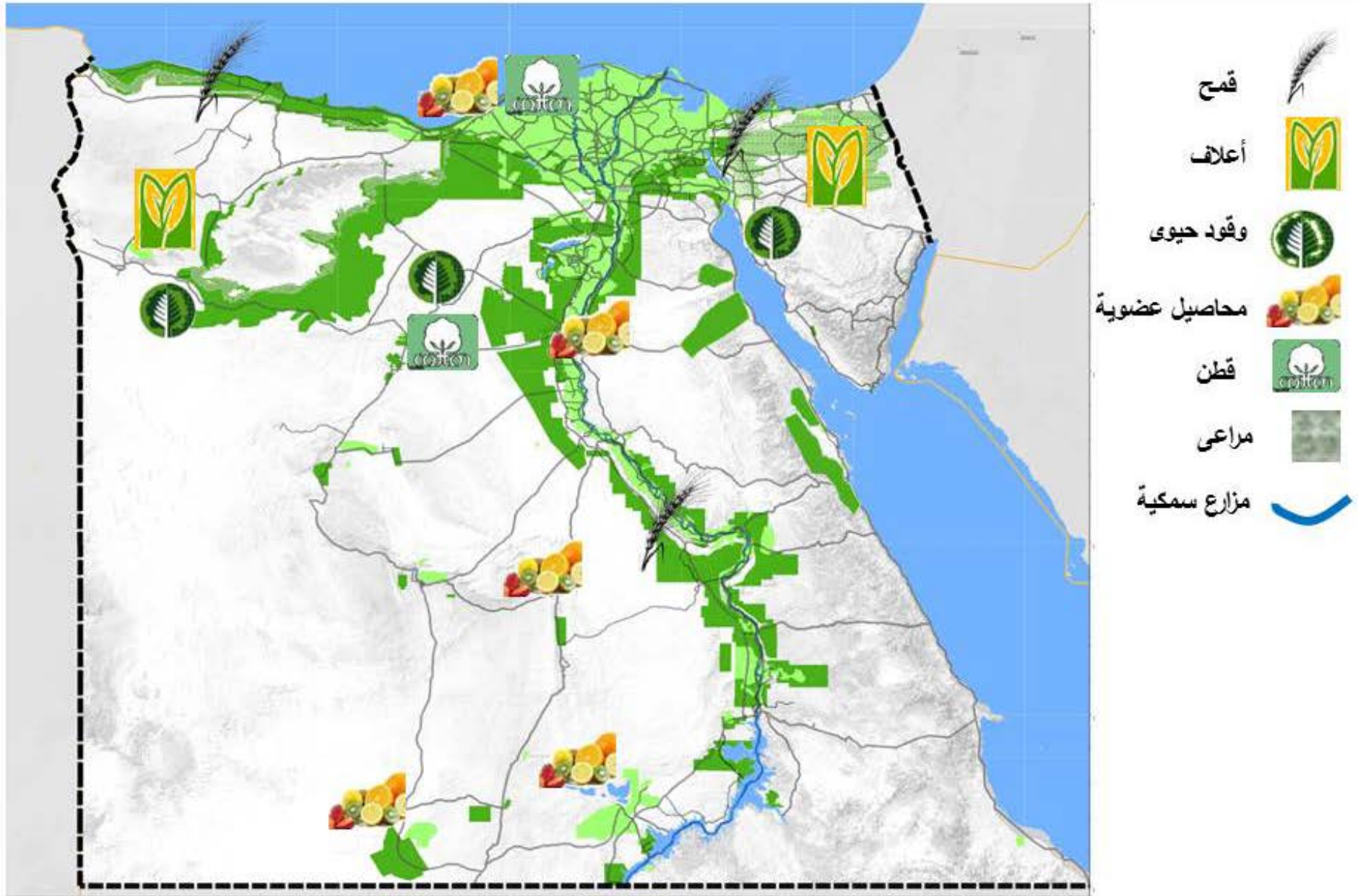
STRATEGIC ACTION

.....

.....

Thank you

خريطة رقم (3/2) توزيع المحاصيل بالأراضي الزراعية المقترحة



خريطة رقم (3/6) الأراضي الصالحة للتنمية في مصر (وفقاً للمخاطر)

مناطق صالحة للتنمية
مناطق تتطلب إجراءات حماية واشتراطات خاصة لتنميتها
مناطق صعب تنميتها (قمم جبلية / بحر الرمال / غرود رملية / مناطق فوالق وصدوع)

الخصائص الطبيعية المؤثرة على صلاحية الأراضي

مراكز الزلازل

خطورة شديدة

خطورة متوسطة

الزلازل

مناطق متوسطة التأثير بالزلازل

مناطق شديدة التأثير بالزلازل

كثبان الرملية وطفلة

سيكات

الغرود والكثبان الرملية

نطاقات الفوالق

فالق كلابشة

نطاق الصدوع الشمالية والجنوبية

نطاق صدوع البحر الاحمر- الشوبيا

نطاق صدوع البحر الاحمر- خليج السويس والعقبة

نطاق صدوع البحر المتوسط

مخارات السيول والافدية الرئيسية

نطاق تأثير المحطات النووية

مناطق معرضة لارتفاع منسوب مياه البحر

الطبوغرافيا

١٥٠٠ - ١٢٥٠

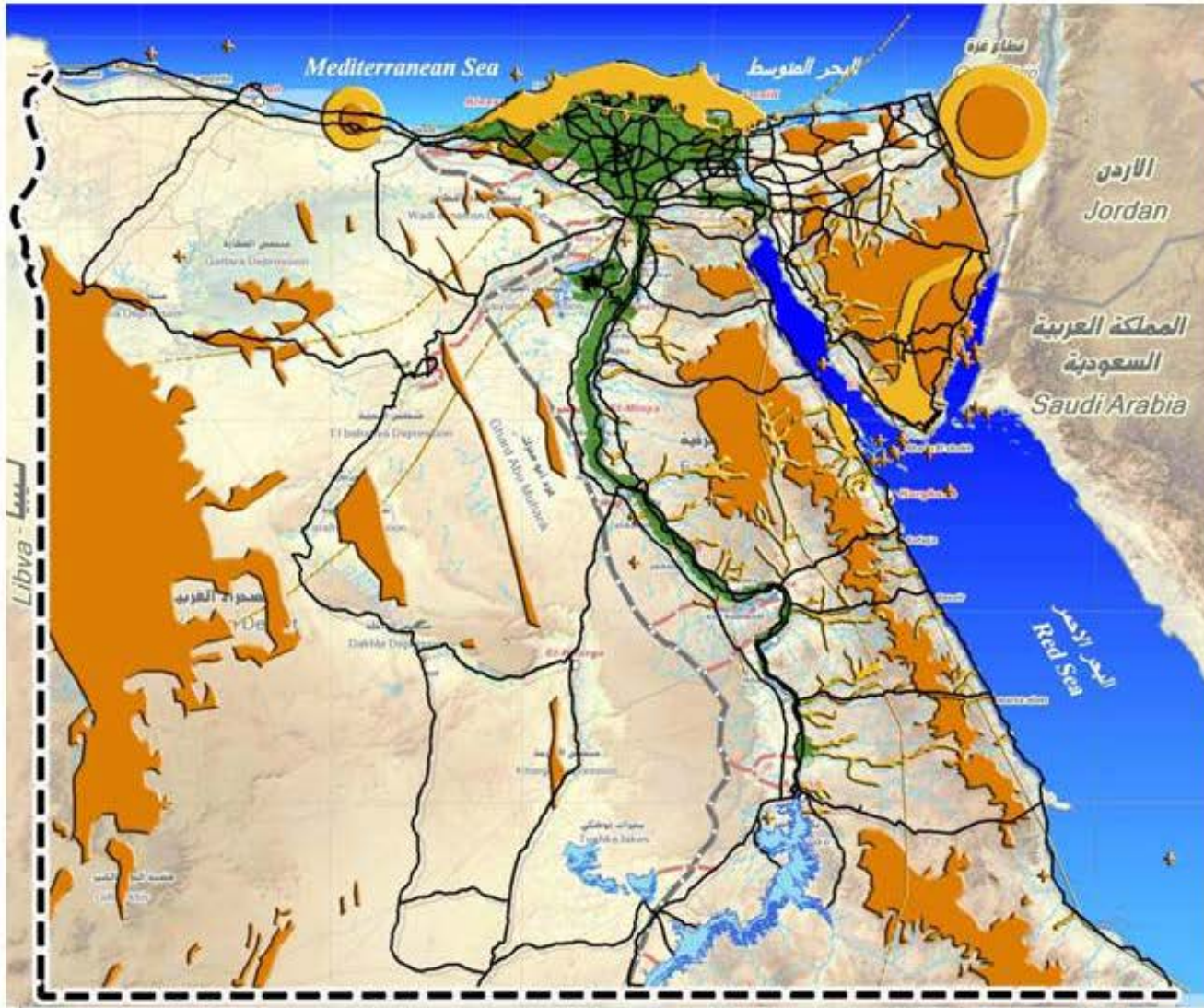
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١٠٠٠ - ٧٥٠

٧٥٠ - ٥٠٠

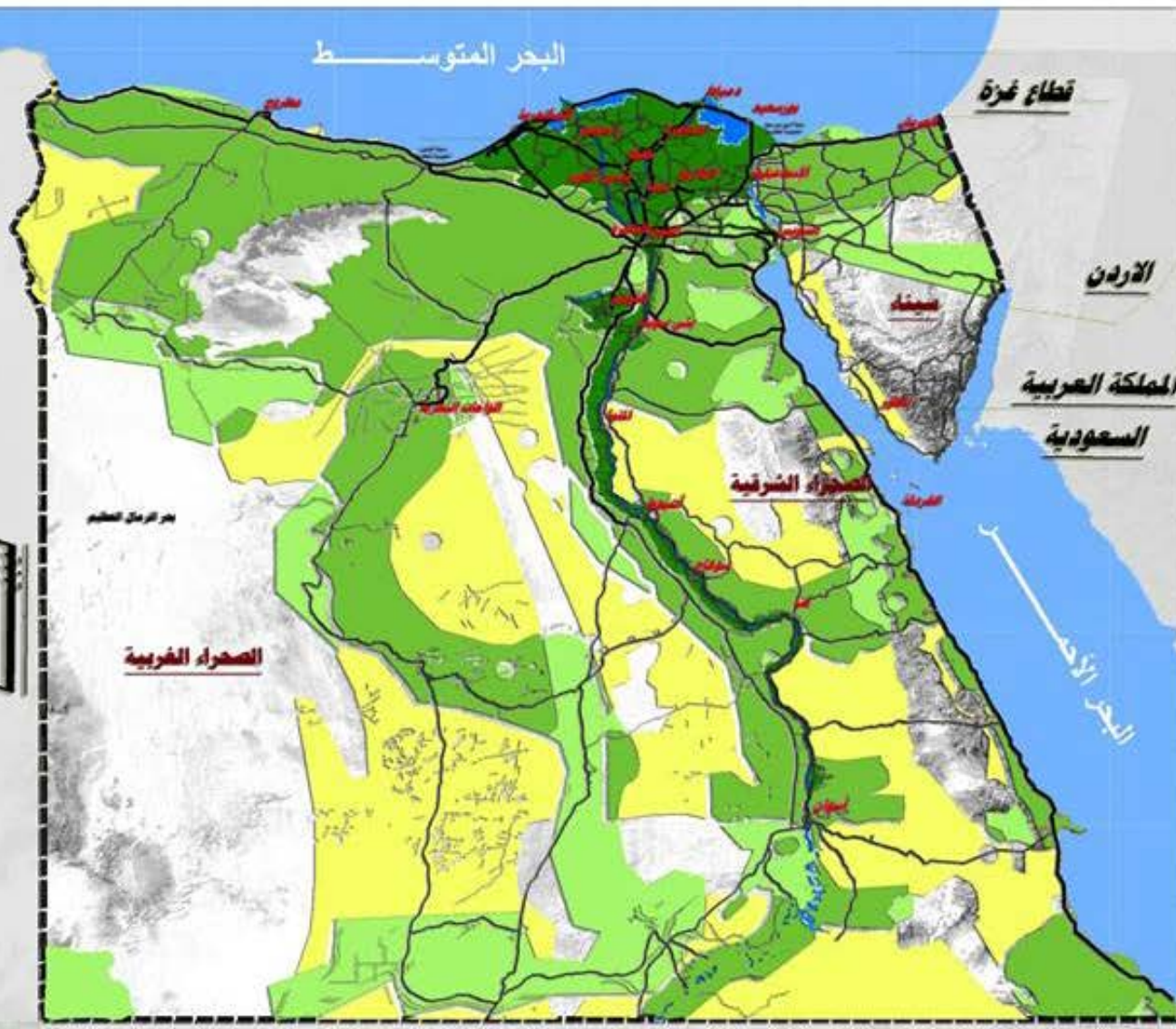
٥٠٠ - ٢٥٠

٢٥٠ - ٠



خريطة رقم (3/7)

خريطة تجميعية للأراضي الصالحة للتنمية في مصر



٦ %	المساحة المأهولة	
٢٤ %	الأراضي الصالحة وفقاً للموارد بدون محددات	أولوية أولى
١٦ %	الأراضي الصالحة وفقاً للموارد وبعض المحددات	أولوية ثانية

٤٠% من مسطح مصر
يمكن تنميته في المنظور
القريب

النظام التنموى للجبهة الشمالية الغربية

- ٢١.٩ % من جملة مساحة مصر
- يستهدف تحقيق التعاون الدولى مع أوروبا.



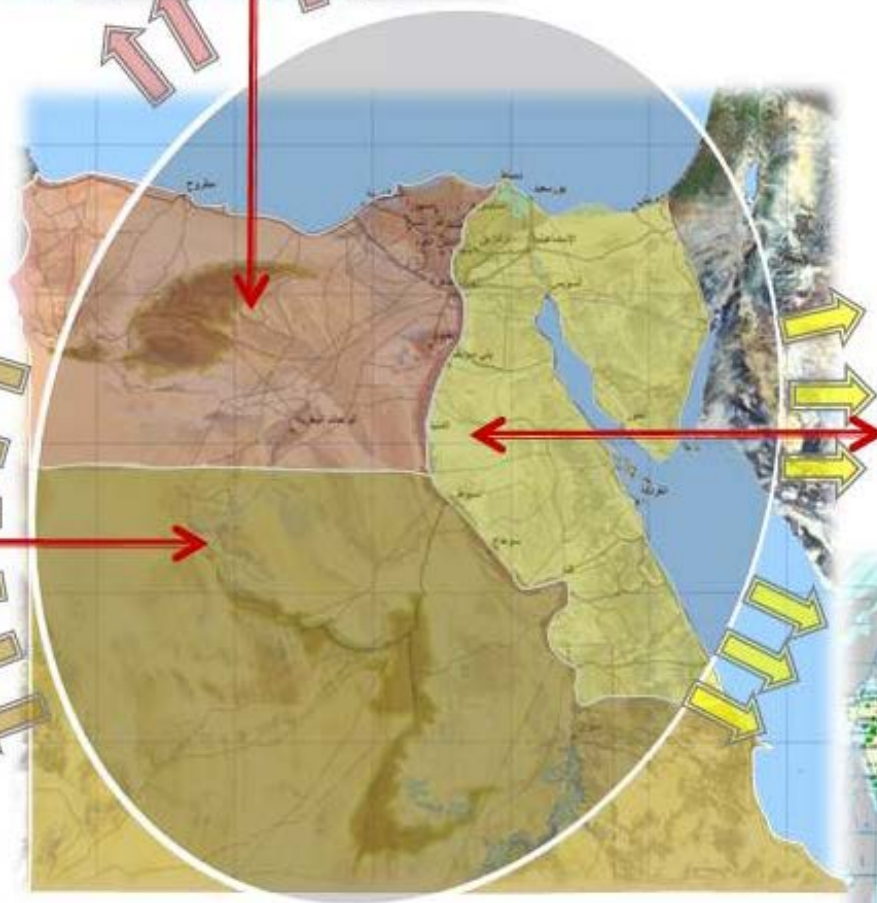
النظام التنموى للجبهة الجنوبية

- ٥٨.٨ % من مساحة مصر
- يستهدف تحقيق التعاون مع دول العمق الإفريقى.



النظام التنموى للجبهة الشرقية

- ١٩.٣ % من مساحة مصر
- يستهدف تحقيق التعاون الدولى مع دول المحيط الهادى وآسيا.



خريطة رقم (3/10)

تعظيم موقع مصر الجغرافي إقليمياً ودولياً

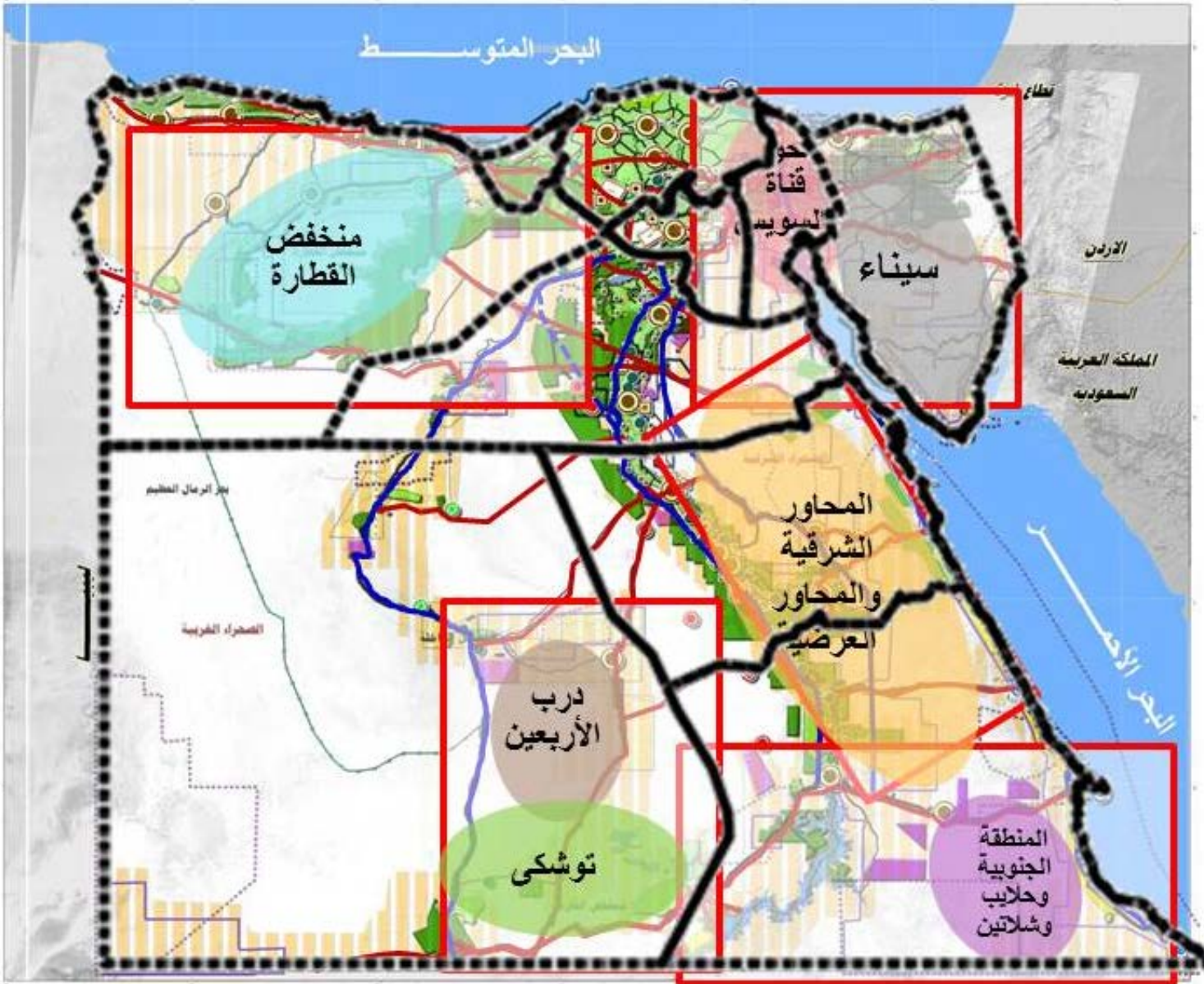


مقترح شبكة الطرق الأفريقية السريعة

خريطة رقم (3/12) المناطق الصالحة للتنمية



خريطة رقم (3/14) تحديد نطاقات الأقاليم التنموية



نطاقات التنمية

التجمعات العمرانية

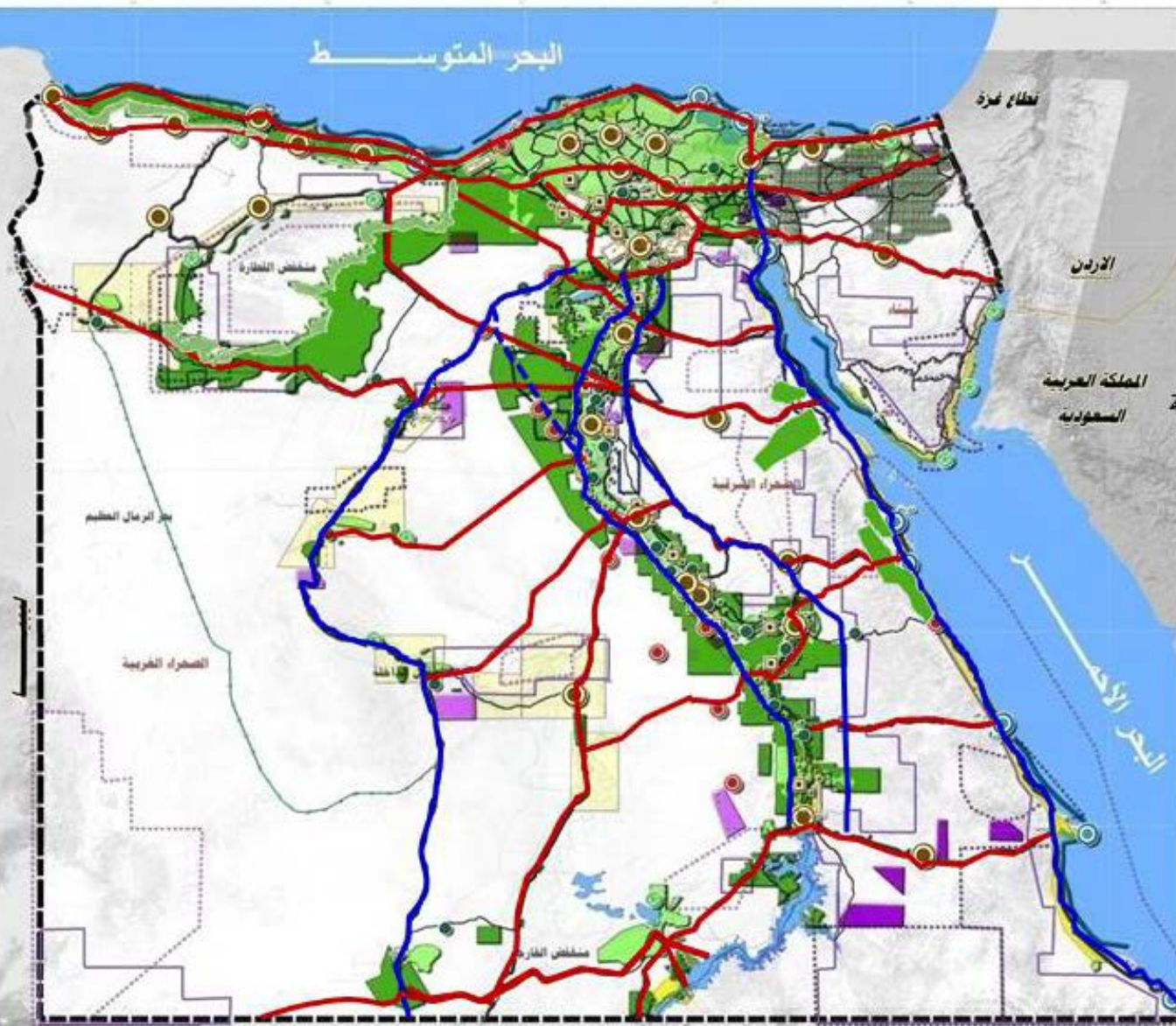
أراضي الأنشطة الاقتصادية

شبكة الطرق والمحاور
العرضية والطولية

مناطق التنمية ذات الأولوية
والمشروعات القومية

التقسيم الإقليمي المقترح

خريطة رقم (3/17) توزيع الأنشطة بالمخطط المقترح



التجمعات العمرانية

- مراكز تنمية إقليمية ٢٠٥٠
- مراكز ٢٠٥٠ Gate
- مراكز بنية متطورة
- مراكز تنمية سياحية
- مراكز تنمية ريفية
- مدن وأقطاب صناعية
- مدن مليونية مقترحة

الزراعة

- الزراعة القائمة
- إستصلاح مقترحة وزراعة بامياة المالحة
- مراعي مقترحة
- مزارع سمكية

الصناعة

- صناعة معتمدة
- صناعة مقترحة
- أراضي للأنشطة التعدينية
- مواقع مزارع الرياح لأنشطة الطاقة الجديدة والمتجددة

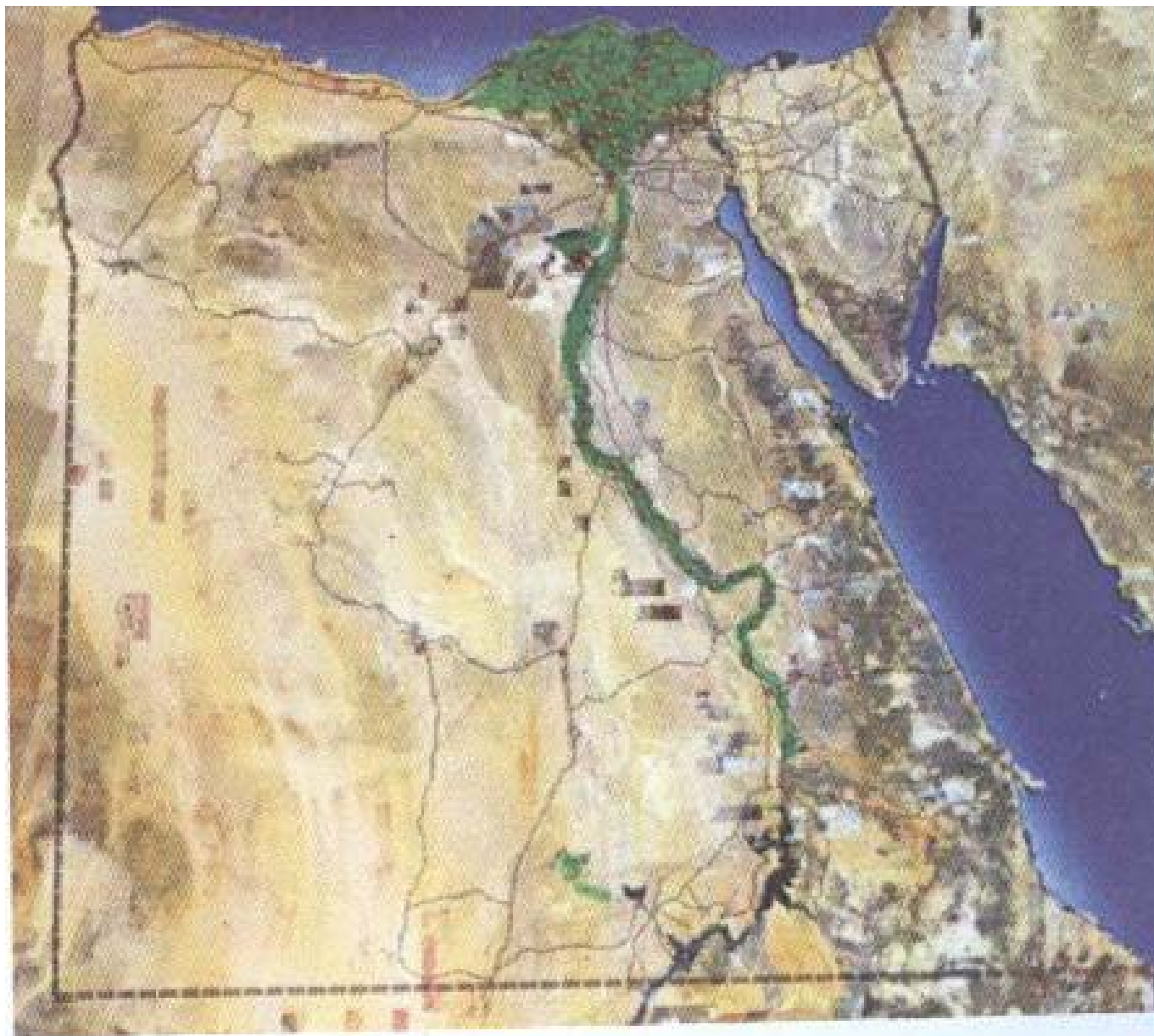
السياحة

- أراضي للأنشطة السياحية
- أراضي سياحة السفاري
- مسار مقترح لسياحة السفاري
- محميات طبيعية صدر قرارات بتحديد ها
- محميات طبيعية تحت الدراسة

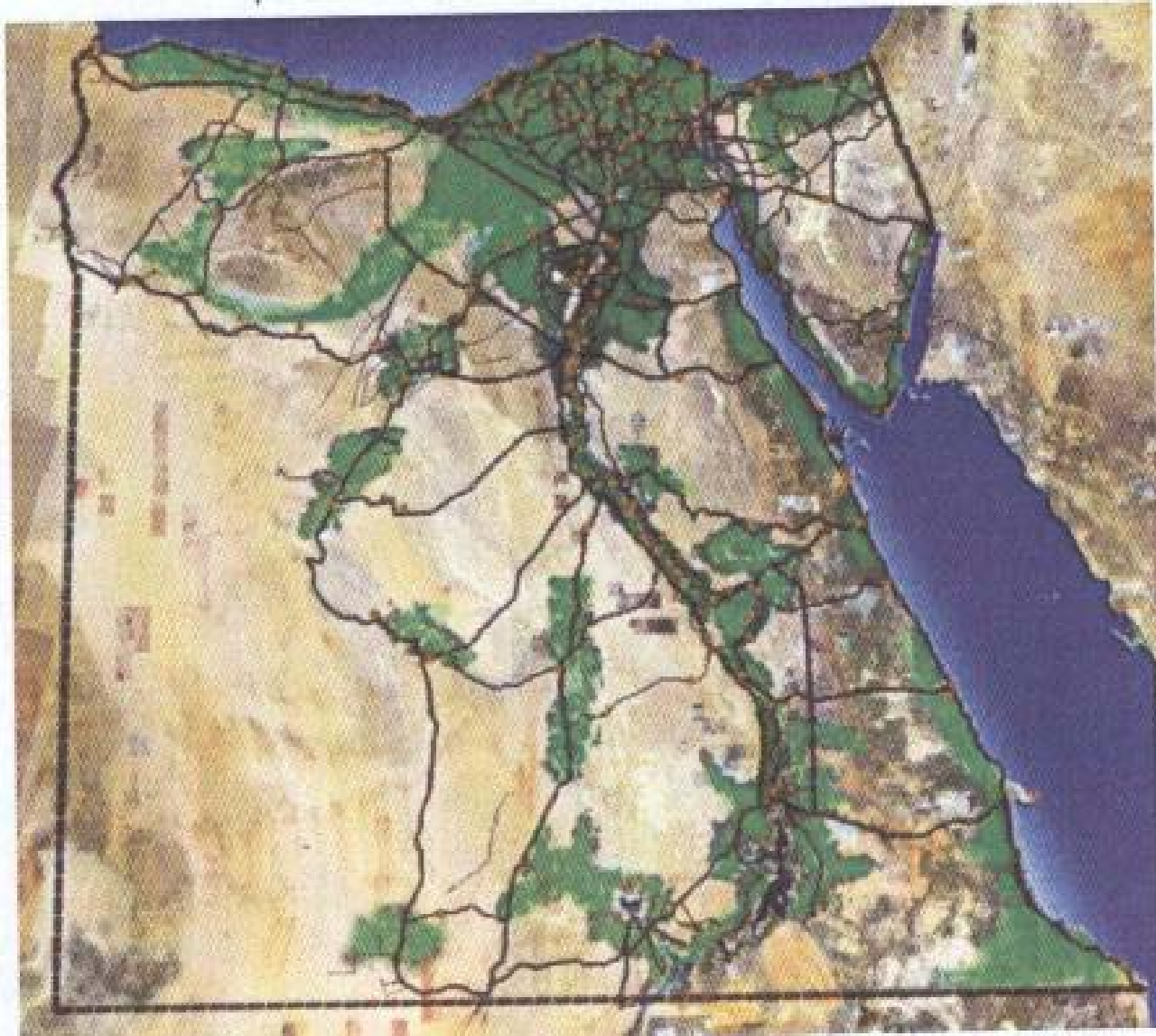
إمكانية الوصول

- محاور دولية وإقليمية
- محاور رئيسية
- المحاور العرضية المقترحة

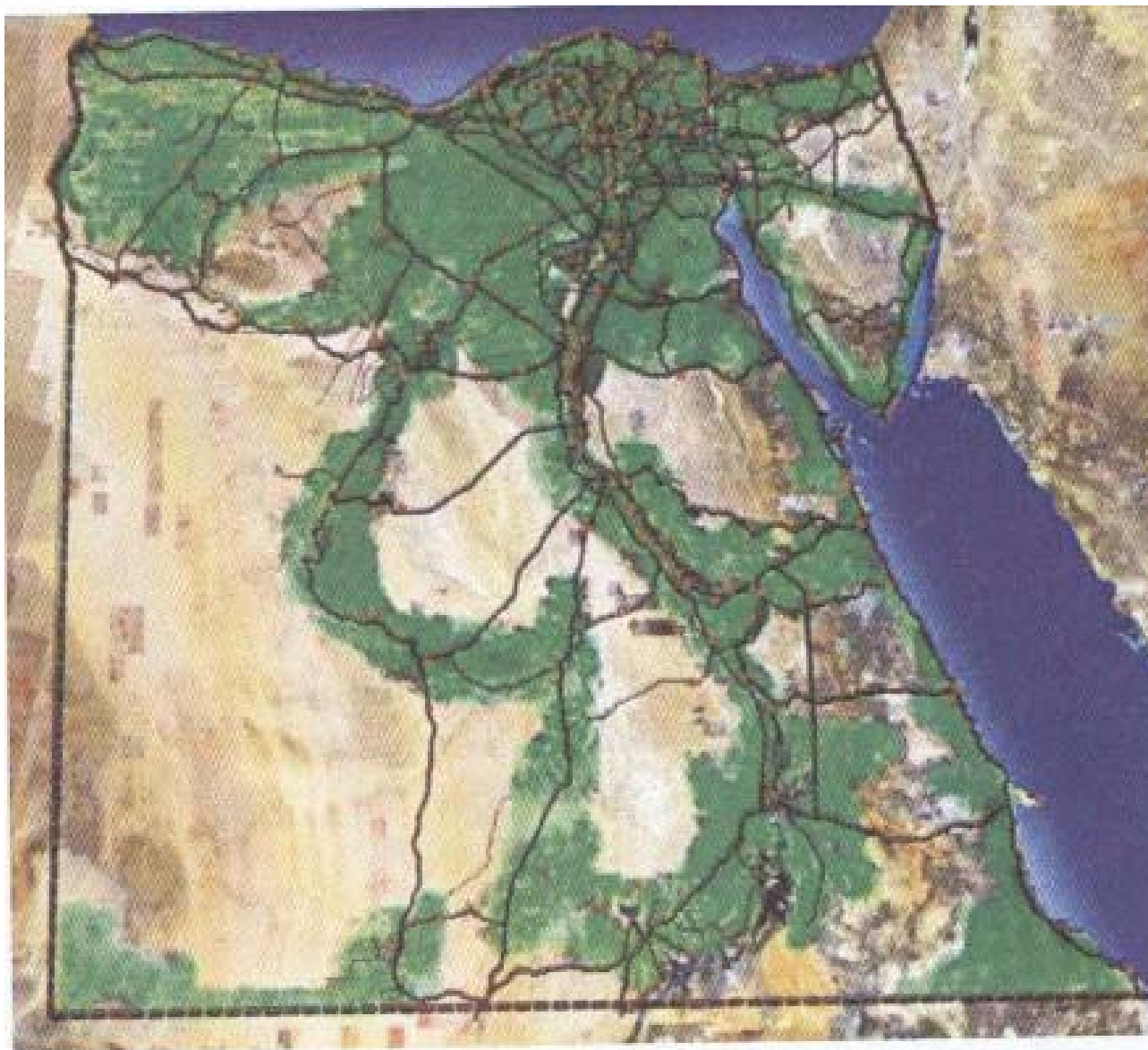
محاور الطولية المراد تقويتها ————— محور طولي مقترح



خريطة رقم (3/21) مصر بعد 40 عام



خريطة رقم (3/22) مصر في القرن 22





برنامج الأمم المتحدة
للمستوطنات البشرية (الموئل)



**A Model for an Economic and Environmental
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Experts Workshop

North Coast, 18th – 19th May 2014



الهيئة العامة
للتخطيط العمراني



هيئة المجتمعات
العمرانية الجديدة



وزارة الإسكان والمرافق
والتنمية العمرانية

Al Alamein Development New Approach

Issues/ Opportunities

Presented by: Dr. Maher Stino

Outline

ملخص العرض

- Objectives

الأهداف

- Givens

المعطيات

- Vision

الرؤية

- Issues & Opportunities

التحديات والفرص

- Site and Context الموقع العام

- Sustainability الإستدامة

- Livability

- Targeted Population & Economic Base/ Investors السكان والمستثمرين المستهدفين

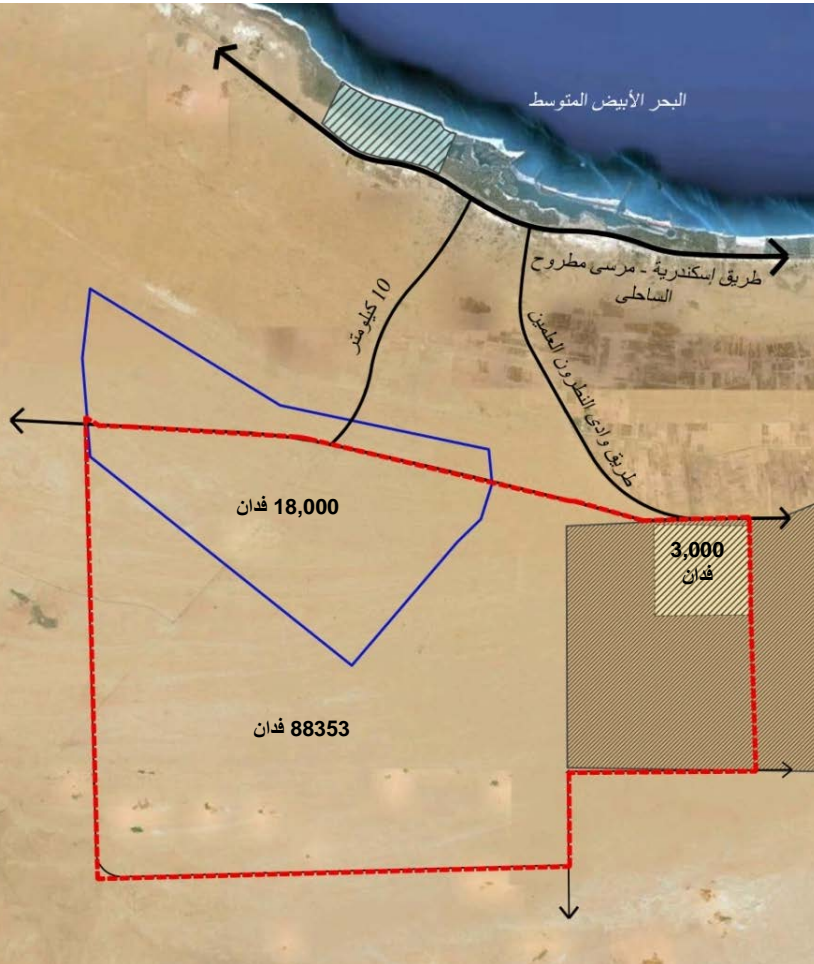
- Innovative Planning Approach

نهج التخطيط الغير تقليدي

- تهدف الوزارة إلى إقامة مجتمعات عمرانية جديدة مبنية على أسس التنمية المستدامة **Green/ sustainable community**
- إنشاء مدينة متوافقة بيئياً توفر مستويات مرتفعة من جودة حياة وتطبق أفضل الممارسات البيئية وخاصة عند الإمداد بمرافق البنية الأساسية :
 - استخدام مصادر جديدة ومتجددة للطاقة
 - استخدام تكنولوجيا تحلية المياه وإعادة الاستخدام
 - توفير قدر مناسب من المناطق مفتوحة وخضراء
 - إعادة تدوير المخلفات الصلبة
 - خلق بيئة عمرانية متطورة
 - إنشاء منطقة صناعية صديقة للبيئة

Site & Context الموقع العام

- مساحة الموقع: 88353 فدان
- شبكة الطرق
 - طريق وادي النطرون العلمين
 - طريق إسكندرية-مرسى مطروح الساحلى
- المناطق التى تم تطهيرها من التعاون الدولى
- محمية العميد



Vision

الرؤية



Vision

الرؤية



Vision

الرؤية



Issues/ Opportunities

Site and Context

الموقع العام

Inland site versus waterfront sites

- موقع المدينة كموقع غير مطل على البحر
 - What would attract people and investors to this site?



Issues/ Opportunities

Site and Context

الموقع العام



**Landmines & site clearance:
sequence, shape & implication on
phasing development**

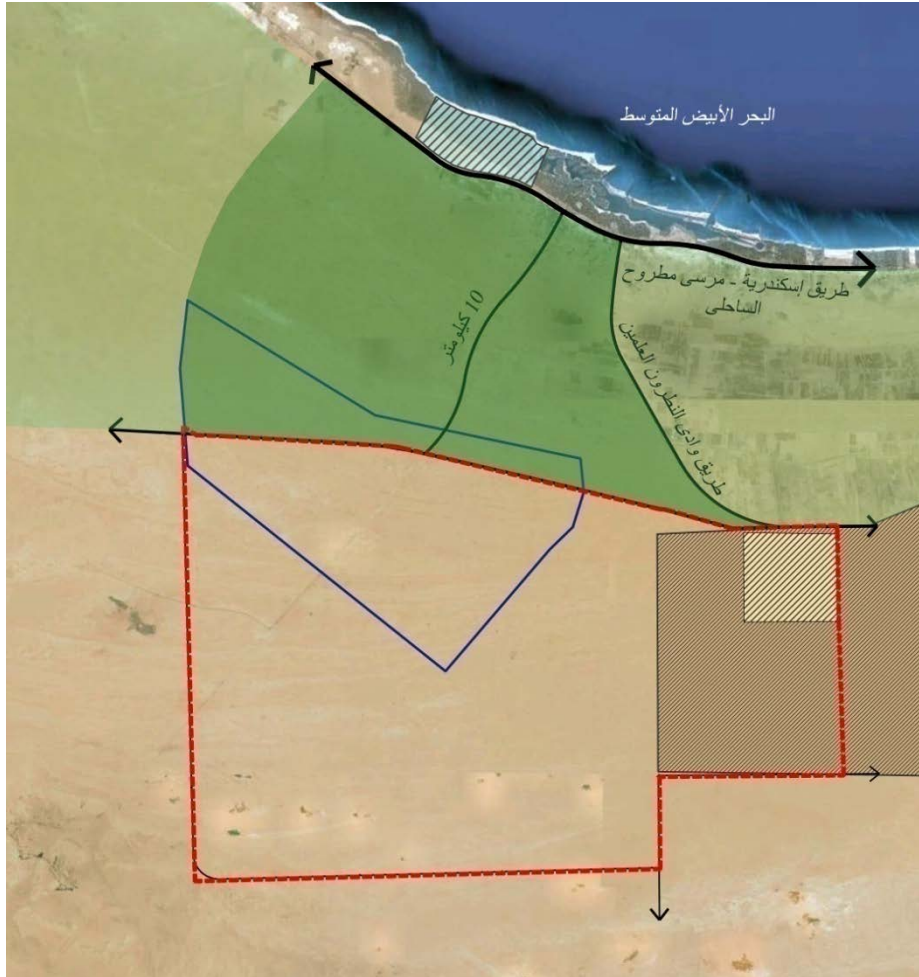
- مراحل تطهير المناطق الألغام
- تسلسل وشكل مراحل التنمية وتأثرها



Issues/ Opportunities

Site and Context

الموقع العام



Agriculture Belt

الحزام الزراعي

– مخاوف من نمو مناطق عشوائية

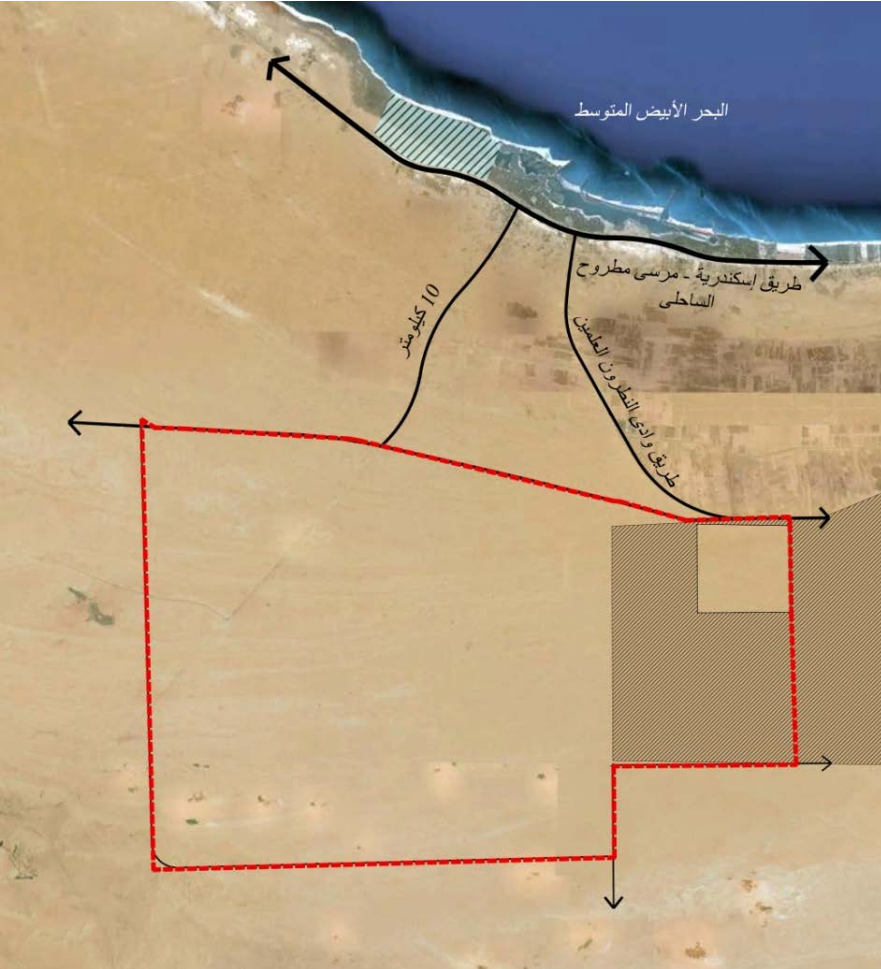
Issues/ Opportunities

Site and Context

الموقع العام

Alameed conservation within the city boundaries محمية العميد

- المساحة: 705 كم²
- تمتد من أمام علامة الكيلومتر 70 على طريق الإسكندرية مطروح الساحلى
 - بطول 30 كم جهة الغرب
 - بعمق 23.5 كم من شاطئ البحر المتوسط جهة الجنوب
- التداخل مع حدود المدينة



Issues/ Opportunities

Sustainability

الإستدامة

- In the next 25 years, we will face serious shortages:
 - Shortage in electricity
 - Shortage in the drinking water
 - Shortage in the irrigation water
 - Shortage in gas/ natural gas

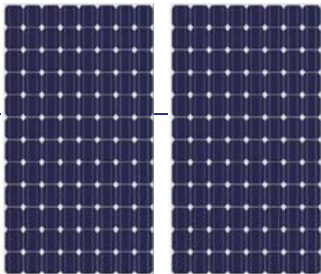
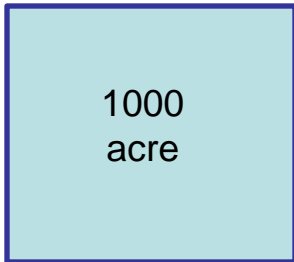
Issues/ Opportunities

Sustainability

الإستدامة

Can the new city generate its own electricity?

- A solar field of 1000 acres can provide an electricity of 100 MV; enough for feeding 10,000 residential units.



Issues/ Opportunities

Sustainability

الإستدامة

Can the new city produce its own potable water?

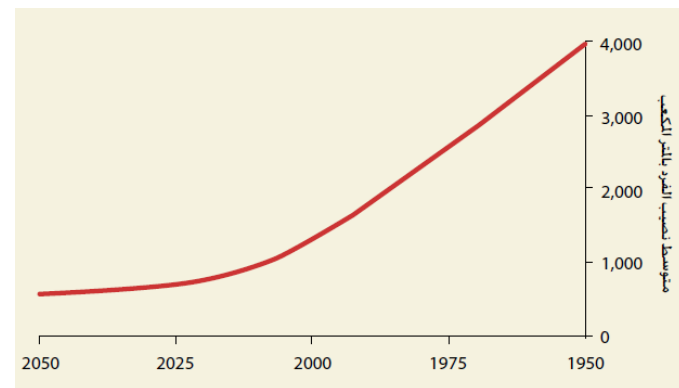
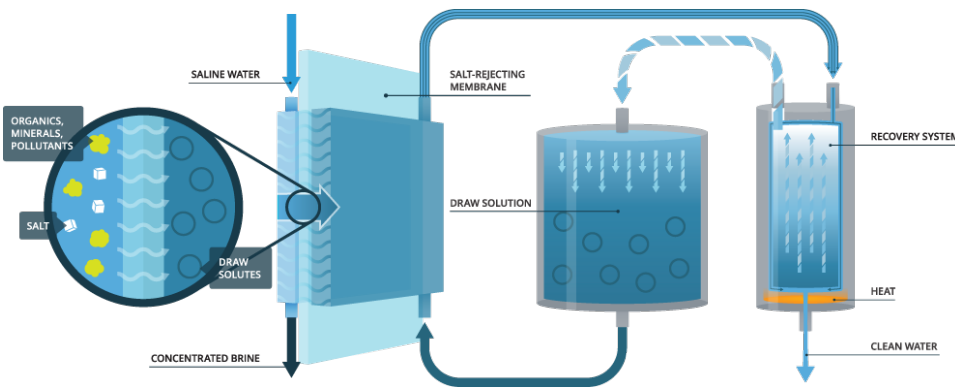
• الإهتمام بإمكانيات الطاقة المتجددة

– تحلية مياه البحر

- عدد السكان المقترح في الفدان = 50,000 نسمة
- متوسط نصيب الفرد من موارد المياه = 200 متر مكعب/يوم
- توفير مياه شرب = 10,000,000 متر مكعب/يوم

• التحديات

- منطقة الشرق الأوسط وشمال أفريقيا هي أكثر مناطق العالم شحة في المياه.
- ارتفاع متزايد في عدد السكان
- تناقص متوسط نصيب الفرد من موارد المياه المتجددة بنسبة تتجاوز 75%
- بحلول عام 2030 ، سيصبح نقص المياه المتوفرة عائقاً صعباً أمام التنمية الصحية والاجتماعية والاقتصادية



المصدر: منظمة الأغذية والزراعة، حالة الأغذية والزراعة: أنواع الفقد الأحيائي: الأفاق والمخاطر والفرص (روما: منظمة الأغذية والزراعة، 2008).
<http://ftp.fao.org/docrep/fao/011/i0100e/i0100e.pdf>

Issues/ Opportunities

Sustainability

الإستدامة

Can the new city produce its own irrigation water

10,000
acre

- A city of 1,000,000 inhabitants can produce Treated Sewage Effluent (T.S.E) irrigation water for 10,000 acres.
- تدوير مياه الصرف المُعالجة بنسبة 100% لاستعمالها في ري الحدائق
- تحقيق خفض بنسبة 60% في استهلاك المياه لكل متر مربع مقارنة بالاستهلاك المعتاد
- استخدام النباتات والأشجار المحلية قليلة الاستهلاك للمياه



Can the new city recycle its own solid wastes

• الإهتمام بإمكانيات الطاقة المتجددة

– استراتيجية إدارة النفايات الصلبة

- الحد من كمية النفايات التي يتم إرسالها إلى المكبات
- الارتقاء بسوية الحفاظ على الموارد عبر إعادة تدوير واستخدام هذه النفايات، وتحويلها إلى سماد، واسترداد الطاقة منها



• التحديات

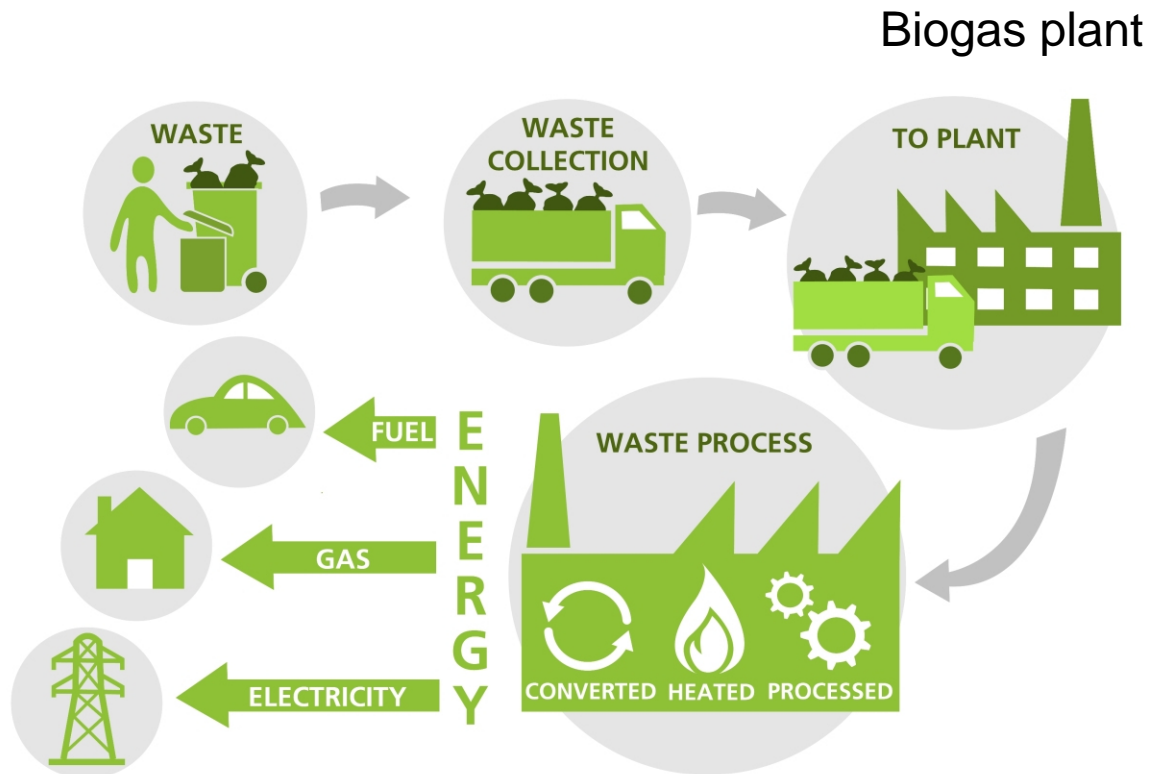
- تمثل عملية تجميع والمعالجة السليمة والتخلص من الكميات المتزايدة من المخلفات الصلبة تحدياً يومياً للمحافظات والبلديات
- التخلص غير محكم وعن طريق حرق المخلفات الصلبة والذي يمثل مشكلة بيئية رئيسية
- مواجهة هذا التحدي بإعداد خطط استراتيجية وبرامج تشغيل وإرشادات عملية للإدارة المتكاملة للمخلفات الصلبة وتنفيذ برامج تدريبية ومشروعات إرشادية في هذا المجال مع جميع الجهات المعنية

Issues/ Opportunities

Sustainability

الإستدامة

Can the new city produce Biogas



• تصميم وحدة الغاز الحيوى

– متوسط الإنتاج اليومى
من الغاز الحيوى
18.81 م³

– الطاقة التى يمكن
الحصول عليها تعادل
451400 كيلو
جول/اليوم

– محتوى الغاز الحيوى
من الميثان 66.3%

Issues/ Opportunities

Livability

Affordable Housing

• إسكان متوسط السعر



Issues/ Opportunities

Livability

Mass Transmitt

• الطرق والمواصلات



Issues/ Opportunities

Livability

Walkable Urban Environment

• بيئة تشجع السير على الأقدام

- المشي واستخدام وسائل النقل ذاتية الدفع وسيلة النقل الأمثل للوصول إلى العديد من الأماكن في المدينة.
- إنشاء الكثير من الأرصفة والممرات الواسعة المظللة في جميع أنحاء المدينة.



Issues/ Opportunities

Livability

Attractive Urban Character

• الطابع المتميز



Issues/ Opportunities

Targeted Population & Economic Base/Investors السكان والمستثمرين المستهدفين

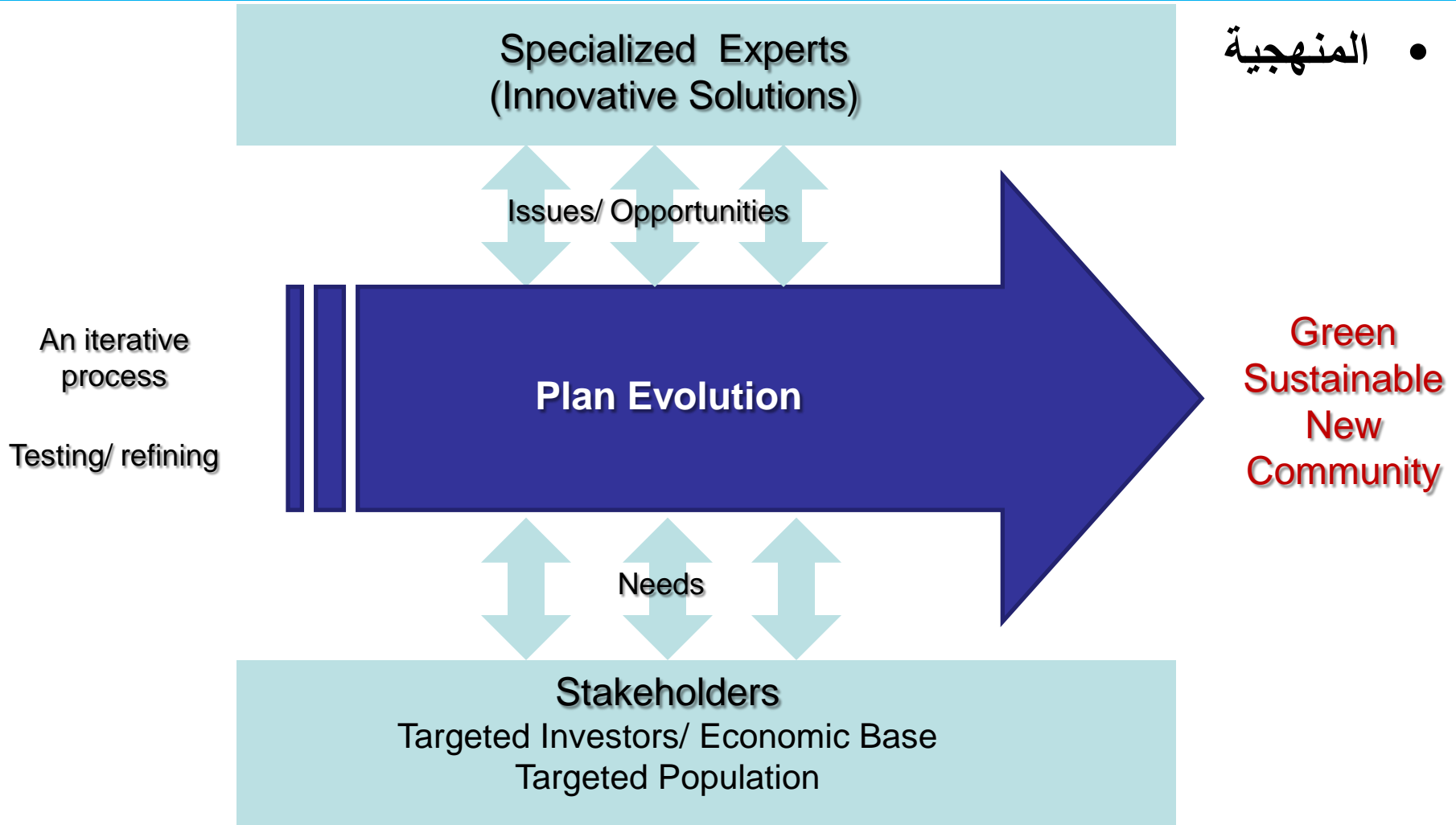
Which mix of socio-economic groups? • أي مزيج من الفئات الاجتماعية والاقتصادية؟

Targeted Economic Base/Investors:

- **Green industry**
- **Services**
- **Recreation**
- **Tourism**

Innovative Planning Approach

نهج التخطيط الغير تقليدي



Innovative Planning Approach

نهج التخطيط الغير تقليدي

Build a small nucleous development within the next 3 years



- **Street of dreams**
- **Green community**







وزارة الإسكان والمرافق
والتنمية العمرانية



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الهيئة العامة
للتخطيط العمراني



هيئة المجتمعات
العمرانية الجديدة

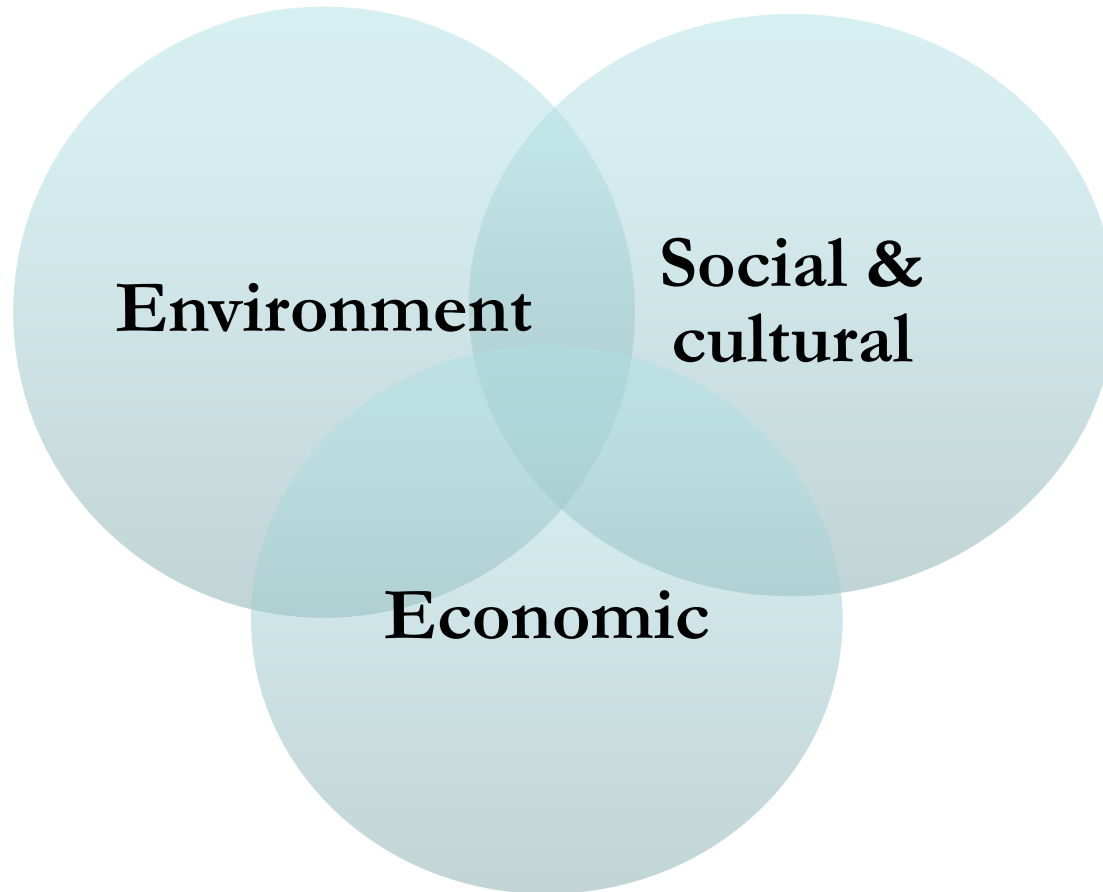


برنامج الأمم المتحدة
للمستوطنات البشرية (الموئل)

A Model for an Economic and Environmental Sustainable City in Egypt

Working Group One
Sustainability Consideration in the application of
NUC models
Hussein Abaza

Sustainable Planning & Design



Cultural & Social Dimension

- Involvement of beneficiaries
- Empowerment, build trust
- Integration of marginalized communities
- Reflects cultural values and traditions
- Inter & intra generational equity
- Quality of life
- Social cohesion
- Access to health, education & sanitation
- Creates jobs (decent)
- Poverty reduction



Environmental Dimension

- Maintains resilience of the ecosystem
- Respects/conserves natural environment
- Resource efficiency (Energy, water)
- Renewable Energy
- Use of recyclable and eco friendly building material
- CO₂ emissions reduction
- Waste reduction, recycling, reuse
- Waste separation & composting
- Reuse of water
- Sustainable building practices and design



Economic Dimension

- Support to economic activities & enhanced competitiveness
- Efficiency in use of factor inputs & increased output/unit of input
- Reduced waste, CO₂ emissions, sound pollution
- Maximizing use of local material/renewable material
- Affordability and Accessibility
- Economic viability/return on capital (initial/operational cost/externalities..)
- Diversification & revitalization of the economy
- Contribution to GDP
- Number of new jobs created/health impacts

Sustainability Assessment Tools

- Integrated sustainability assessment that integrates environmental & social externalities
- Full Life Cycle Assessment
- Resource efficiency projections/modeling
- System dynamics analysis that takes full consideration of the inter linkages & dynamics between physical, social/cultural, environmental & economic aspects
- Cost benefit analysis that goes beyond the narrowly focused short-term economic & financial aspects incorporating as well the social & environmental considerations

