

Session Name [Efficient Land Use: Tools and Practices]

Enhancing Land Management, Land Development and Construction

Impacts of the Land Use Development Policy on Unplanned Human Settlement Growth in Assiut Governorate, Egypt.

Mahmood Abdelkader
m.m.abdelkader@utwente.nl

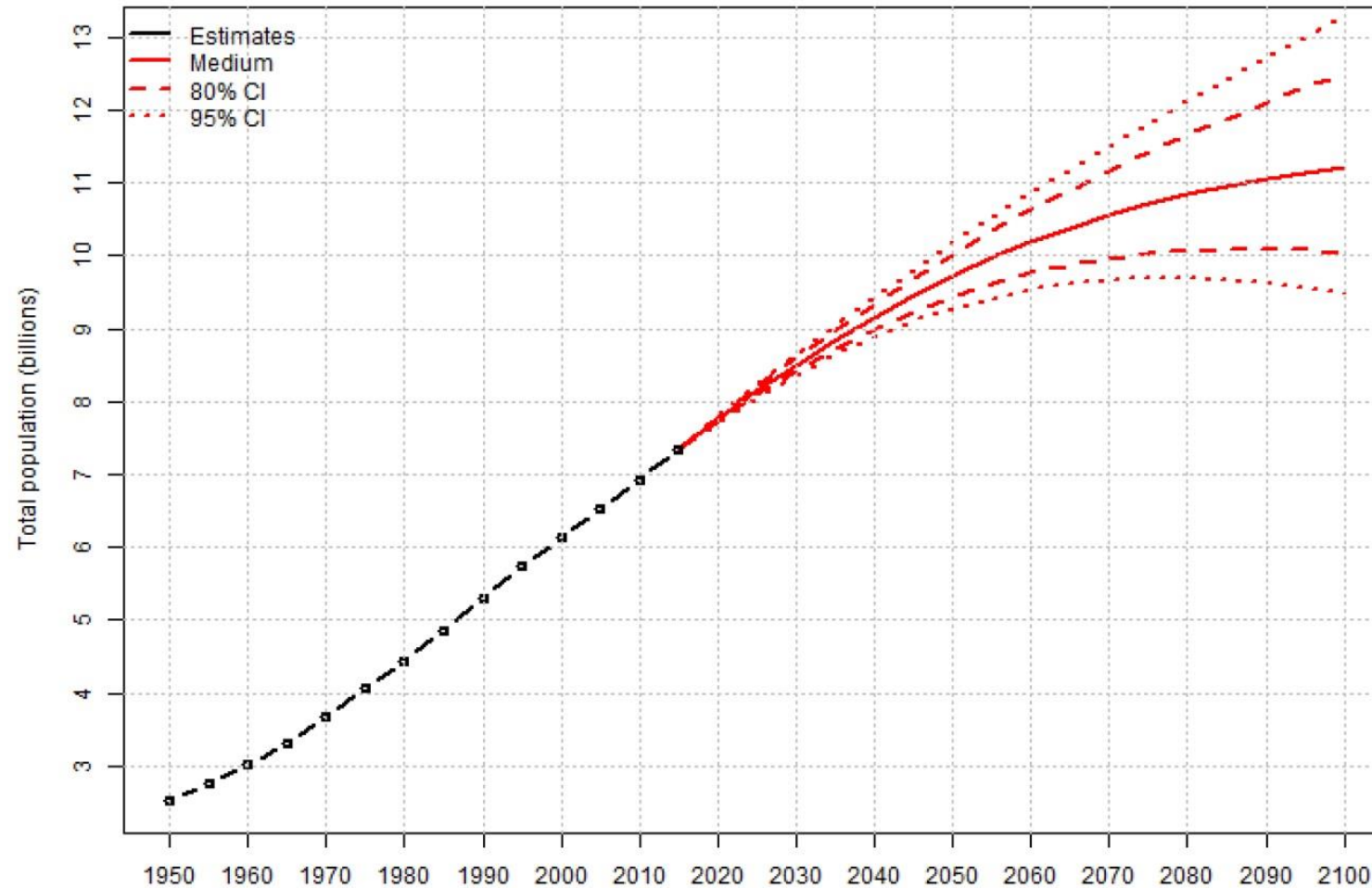


المؤتمر العربي
الثاني للأراضي

Second Arab Land
Conference

22-24 FEBRUARY 2021
CAIRO, EGYPT

Global Population Growth



Land Demand for Food and Urban Expansion

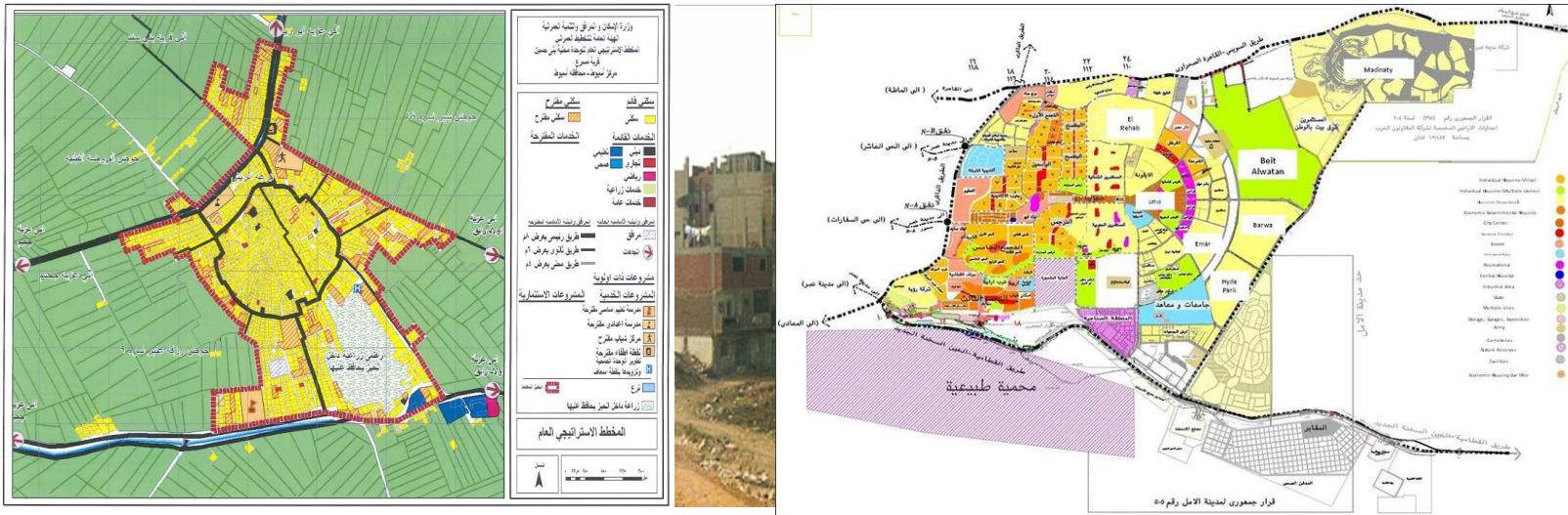


Source: <https://phys.org/news/2014-09-reforestation-urban-areas-ozone.html>



Source: <https://phys.org/news/2014-09-reforestation-urban-areas-ozone.html>

Research Problem

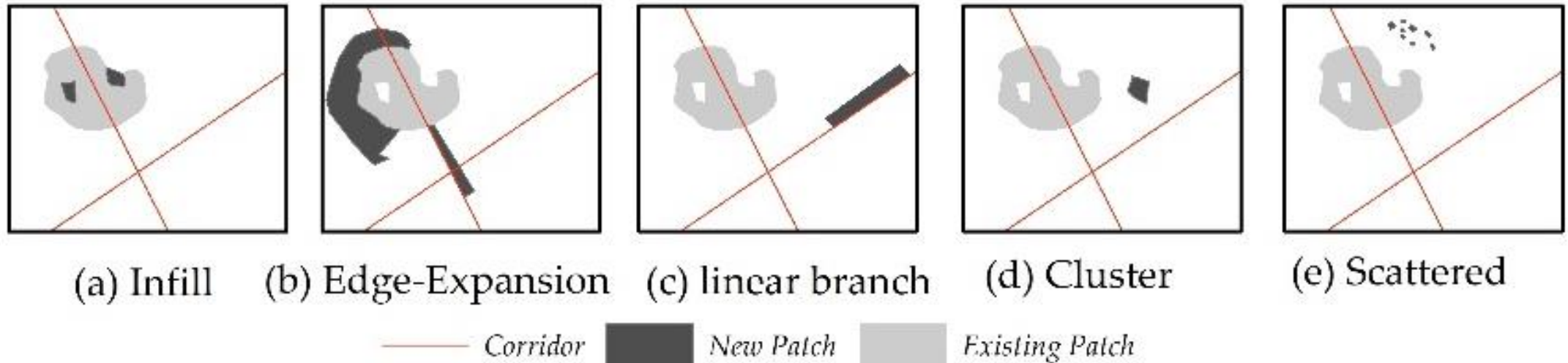


Research Objective

- To get the full perspective about unplanned human settlement growth in the Nile Valley, Egypt (Who, When, Why, What, Where)

Mixed Method Approach

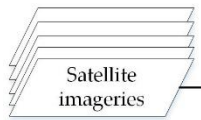
A: Spatiotemporal Analysis



Mixed Method Approach



A: Sp



Untitled Project - QGIS

Project Edit View Layer Settings Plugins Vector Raster Database Web Mesh Processing Help

Layers

Project Templates

GrowthClassifier

Parameters Log

output folder

intermediate data

Minimum Cluster Area

0,000000

Patch Width

0,000000

Patch Height

0,000000

0%

Run as Batch Process...

Run Close

Processing Toolbox

Search...

- Recently used
- Cartography
- Database
- File tools
- Graphics
- Interpolation
- Layer tools
- Network analysis
- Raster analysis
- Raster terrain analysis
- Raster tools
- Vector analysis
- Vector creation
- Vector general
- Vector geometry
- Vector overlay
- Vector selection
- Vector table
- GDAL
- GRASS
- Growth Classifier Algorithms
 - GrowthClassifier
- Models
- SAGA
- Scripts

Browser

- Favorites
 - C:\Users\abdelkadermm\Documents
 - D:\PhD\AST_HSG\QGIS Maps
- Spatial Bookmarks
- Home
- C:\
- D:\
- GeoPackage
- SpatialLite
- PostGIS
- MSSQL
- Oracle
- DB2

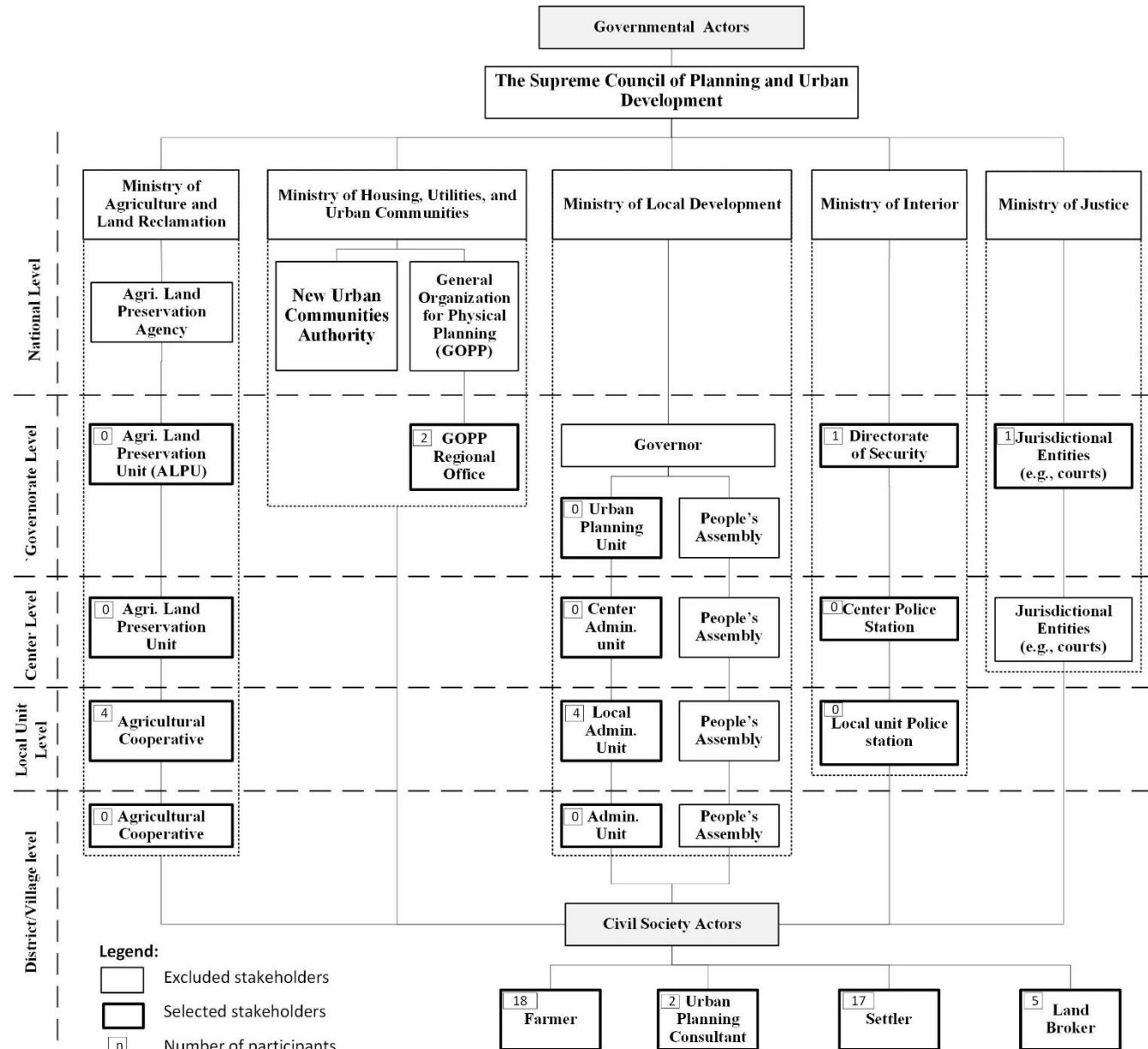
Type to locate (Ctrl+K) Ready

Coordinate Scale :44781436 Magnifier 100% Rotation 0,0 ° Render EPSG:4326

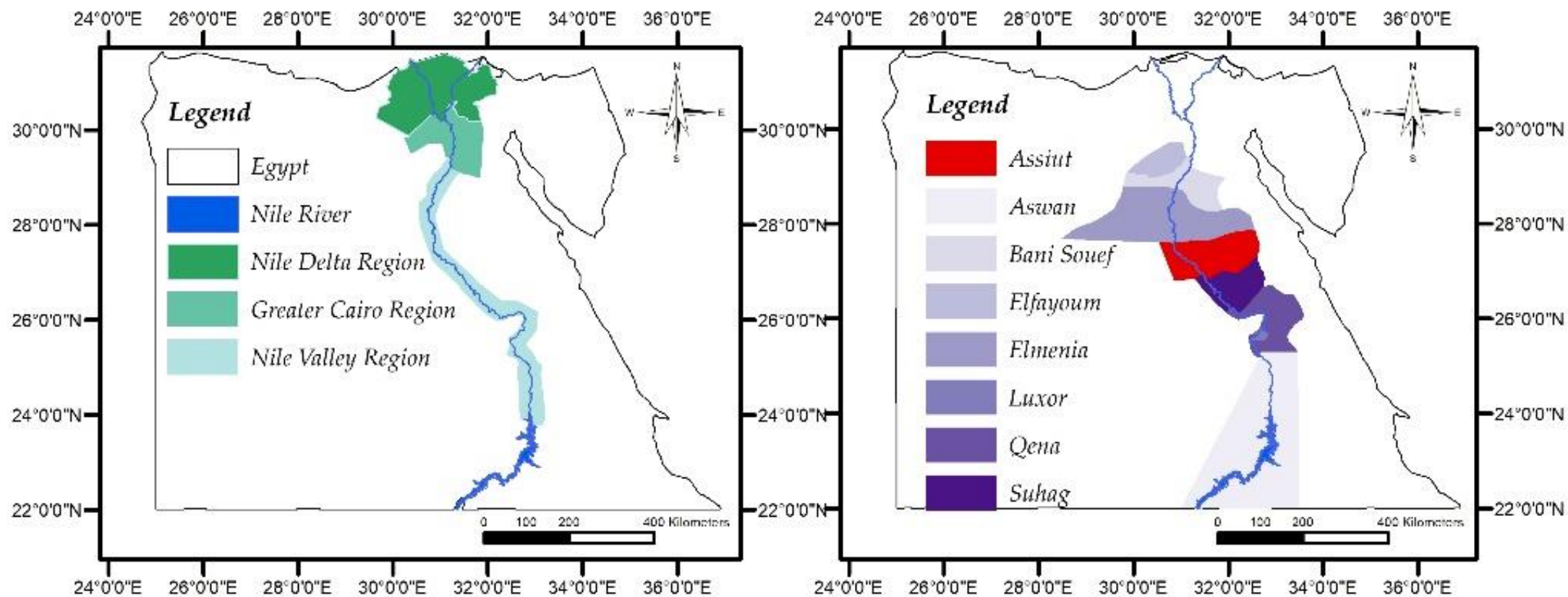
Expansion

Mixed Method Approach

B: In-depth Interviews



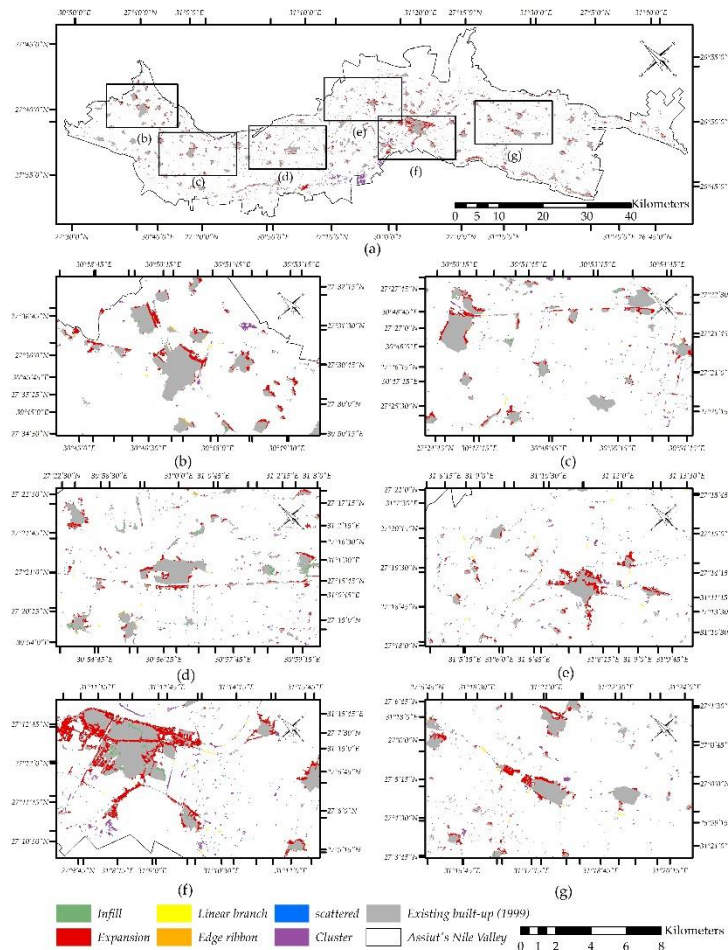
Study Area



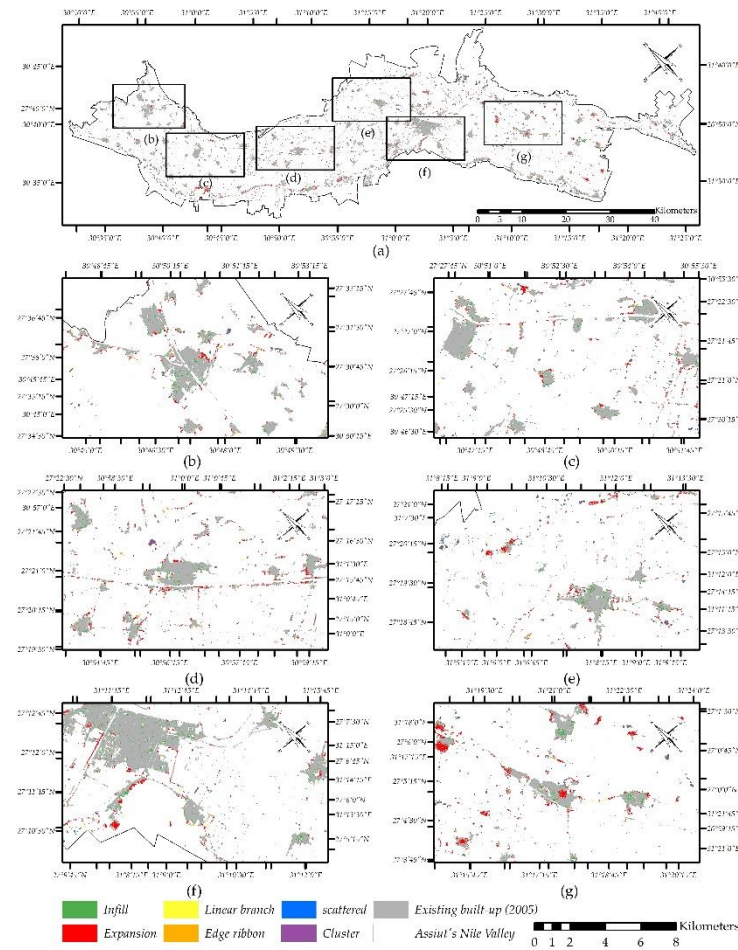
(a) Densely settled regions in Egypt (98% of the population) (b) Governorates subdivision of the Nile Valley region

Spatiotemporal analysis, Assiut Gov., Egypt

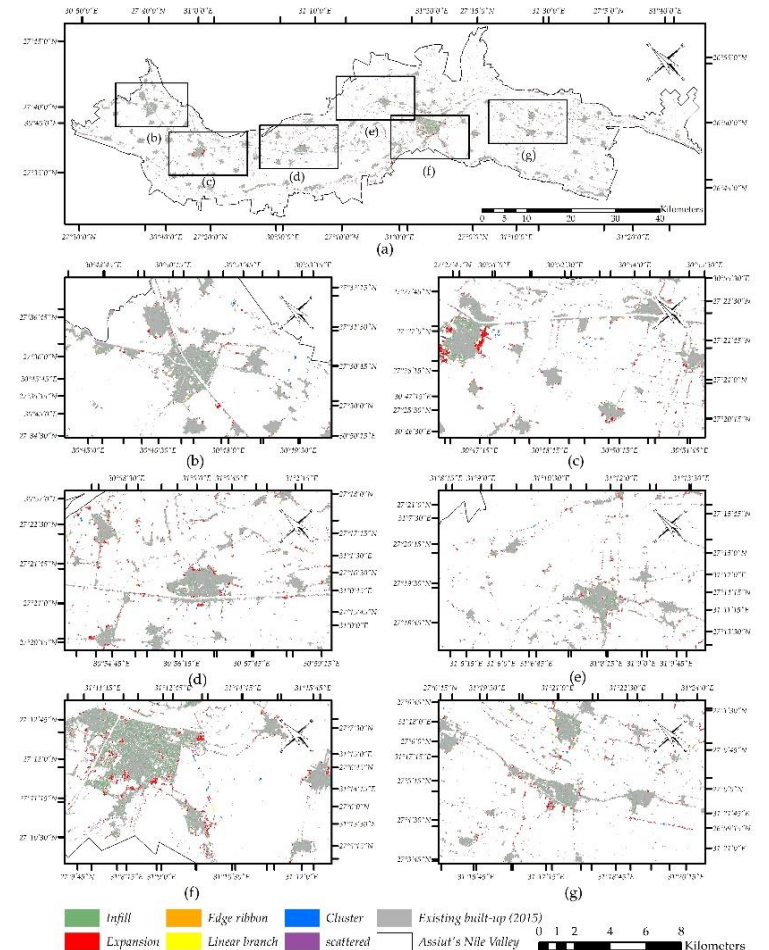
Results



A: 1999-2005



B: 2005-2010

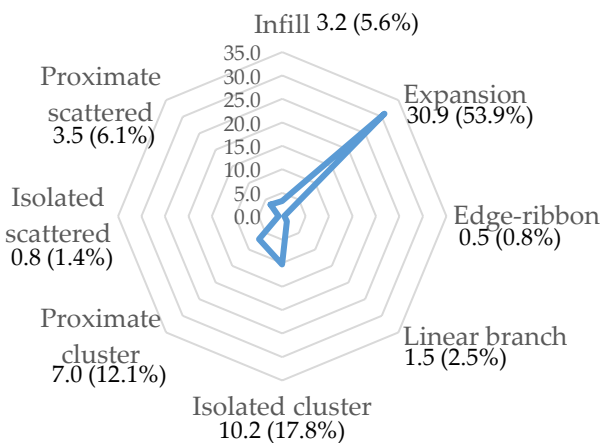


C: 2010-2020

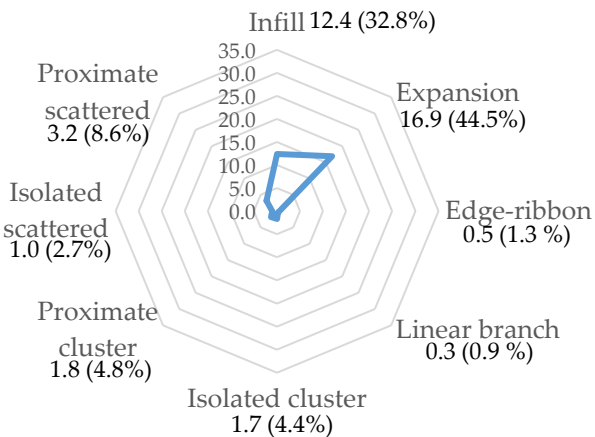
Spatiotemporal analysis, Assiut Gov., Egypt

Results

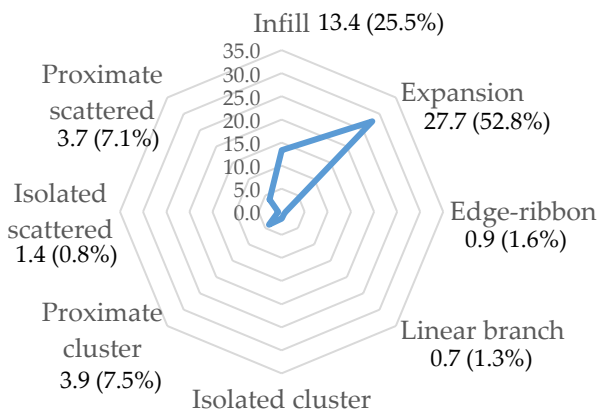
Growth Types Patterns



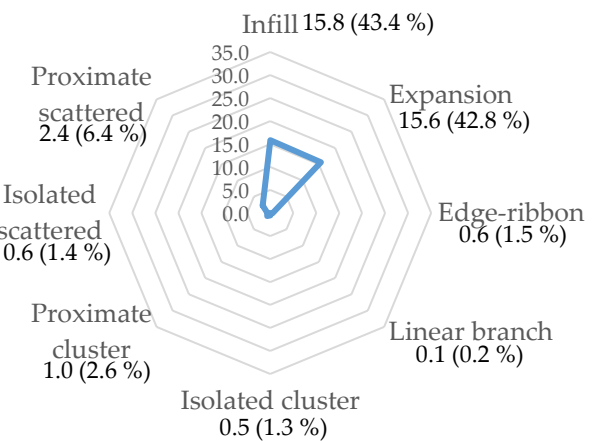
(a) 1999-2005



(b) 2005-2010



(c) 2010-2015



(d) 2015-2020

In-depth Interviews, Assiut Gov., Egypt

Results

Dimensions	Themes	Codes	No. of responses
Cultural	1	3	75
Demographic	2	5	88
Socioeconomic	3	8	150
Political and Institutional	3	15	254
Spatial	3	7	117

Successes

- Strategic planning approach's shift from the Master Planning approach was useful to address development growth from a multi-dimensional perspective.
- Investing in new settlements in the Nile Valley's hinterlands, which represents a reasonable alternative for unplanned growth in the Nile Valley. In Assiut, there are three ongoing projects in the hinterlands, which are: New Assiut City, which started in 1997, West Assiut City, and the Hinterland villages (*Korah Al-Zaher Al-Sahrawy*).

Failures

- A lack of successful rural development inside the Nile Valley that improves the quality of life for rural settlers as well as the quality of the agricultural land yield.
- The hinterland's new settlements lack proper incentives and economic structures to encourage the low and middle classes to leave their old settlements in the Nile Valley.
- Objectives of the new settlement are usually overestimated where no new cities and villages have reached their targeted population as planned. For example, New Assiut City targeted 130 thousand inhabitants in 2017. In contrast, the 2018 census by the Central Agency for Public Mobilization and Statistics (CAPMAS) reported that the New Assiut's population was approximately 35 thousand inhabitants.

Failures

- The strategic plan had achieved some reduction in the unplanned settlement growth rate, nevertheless, it lacked proper participatory practices during the planning phase, and its implementation was insufficiently funded. Moreover, the bureaucratic procedures for approving these plans may take years, leading to unplanned growth in the meantime.

THANK YOU FOR THE ATTENTION!

m.m.abdelkader@utwente.nl