

REPUBLIC OF RWANDA



Ministry of Environment

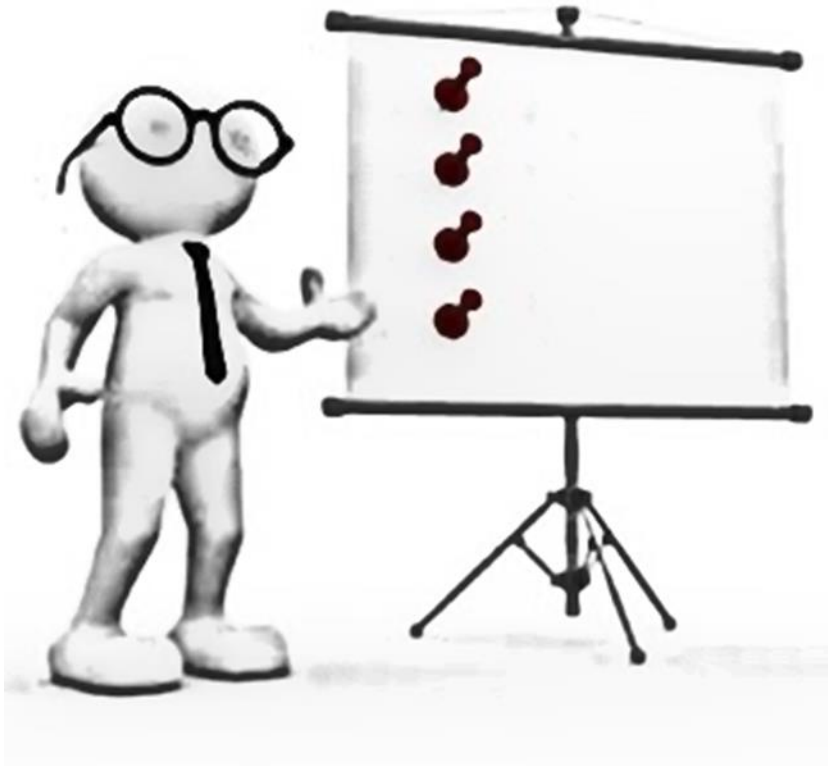
ROLE OF THE SPATIAL PLANNING IN LAND USE MANAGEMENT

Briefing to the NUF3,
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Kigali, 6 February 2019





PRESENTATION OVERVIEW



1. Spatial Planning vs Land Use Management •
2. Role of Spatial Planning in National Development •
3. Challenges and solutions •



Spatial Planning vs land use planning

Land resources are used for a ***variety of purposes*** which ***interact*** and may ***compete*** • with one another; therefore, it is desirable to plan and manage all uses in an ***integrated manner***

Spatial planning involves '*critical thinking about space and places as the basis for* • *action or intervention*

The ***broad objective of land management*** is to facilitate allocation of land to the • uses that provide the ***greatest sustainable benefits*** and to promote the transition to a sustainable and integrated management of land resources.

What is Spatial Planning?

Spatial Strategic Planning,

the art of integrating and synchronizing

5 Strategic Factors into a coherent development
Strategy.



HOUSE
HABITAT

Strategic Factor 2: Human Habitat



Strategic Factor 1: People
& Society

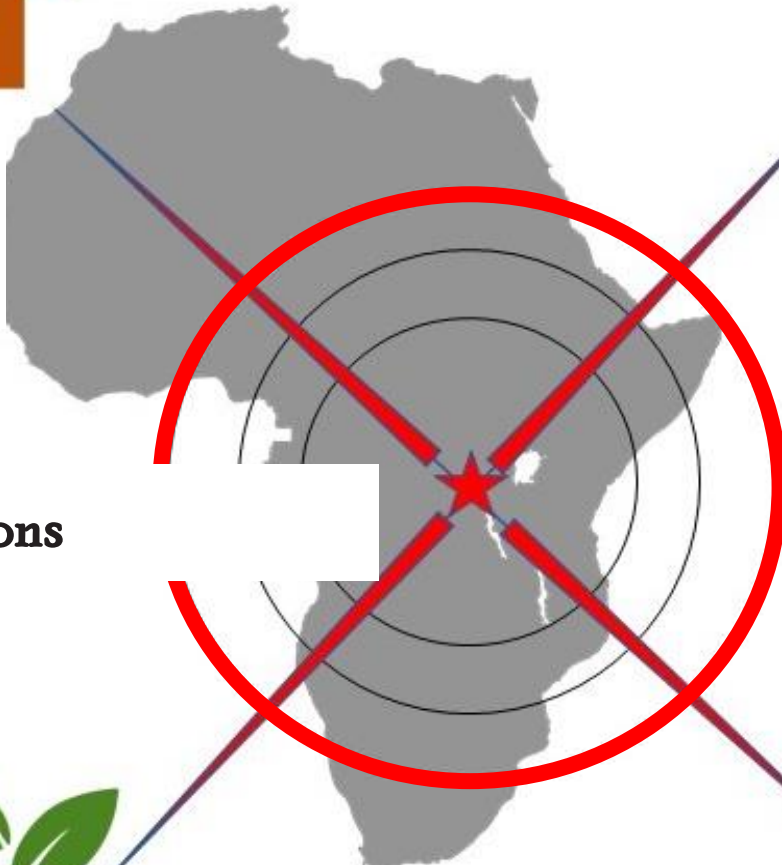
Strategic Factor 5: External relations



Strategic Factor 3: Natural Habitat:



Strategic Factor 4: Economy.



SP is responsible for making Room & Provisions for

- Housing
 - Urban & Rural wealth creating sectors.
 - Town centers & Services
 - Health and safety
 - Transportation
 - Infrastructure
 - Natural environment
 - Cultural facilities
 - Resources exploitation

SP has **Full Control** over:

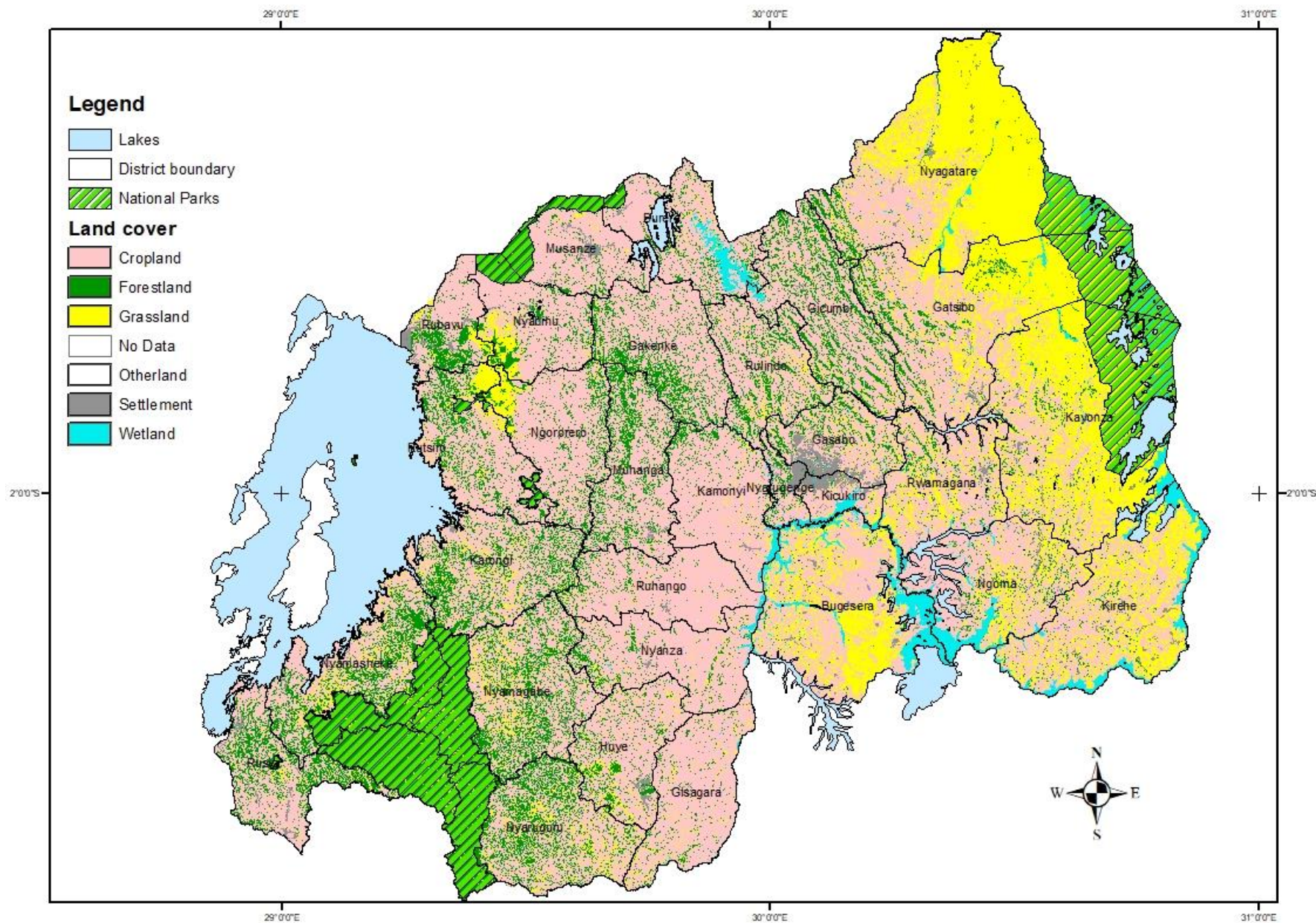
1. Space requirement for Activities

2. Land Allocations for Activities

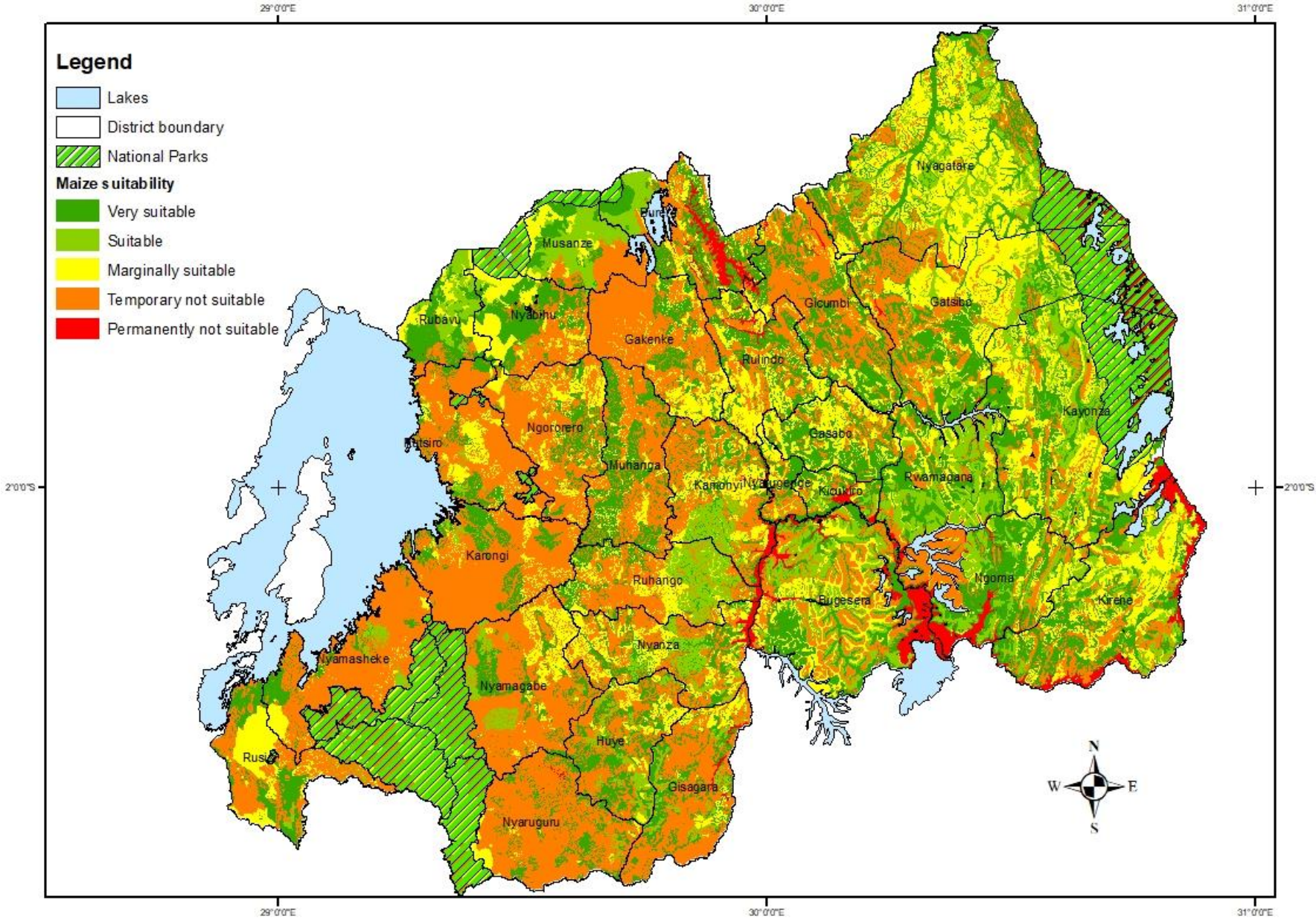
3. Movement patterns between Activities

4. Infrastructure Networks

Spatial Analysis examples- Land cover



Spatial Analysis examples- Agriculture Land suitability





SP in Analysis of growth pillars

Economy

Urbanization

National Density

Environment

Transportation

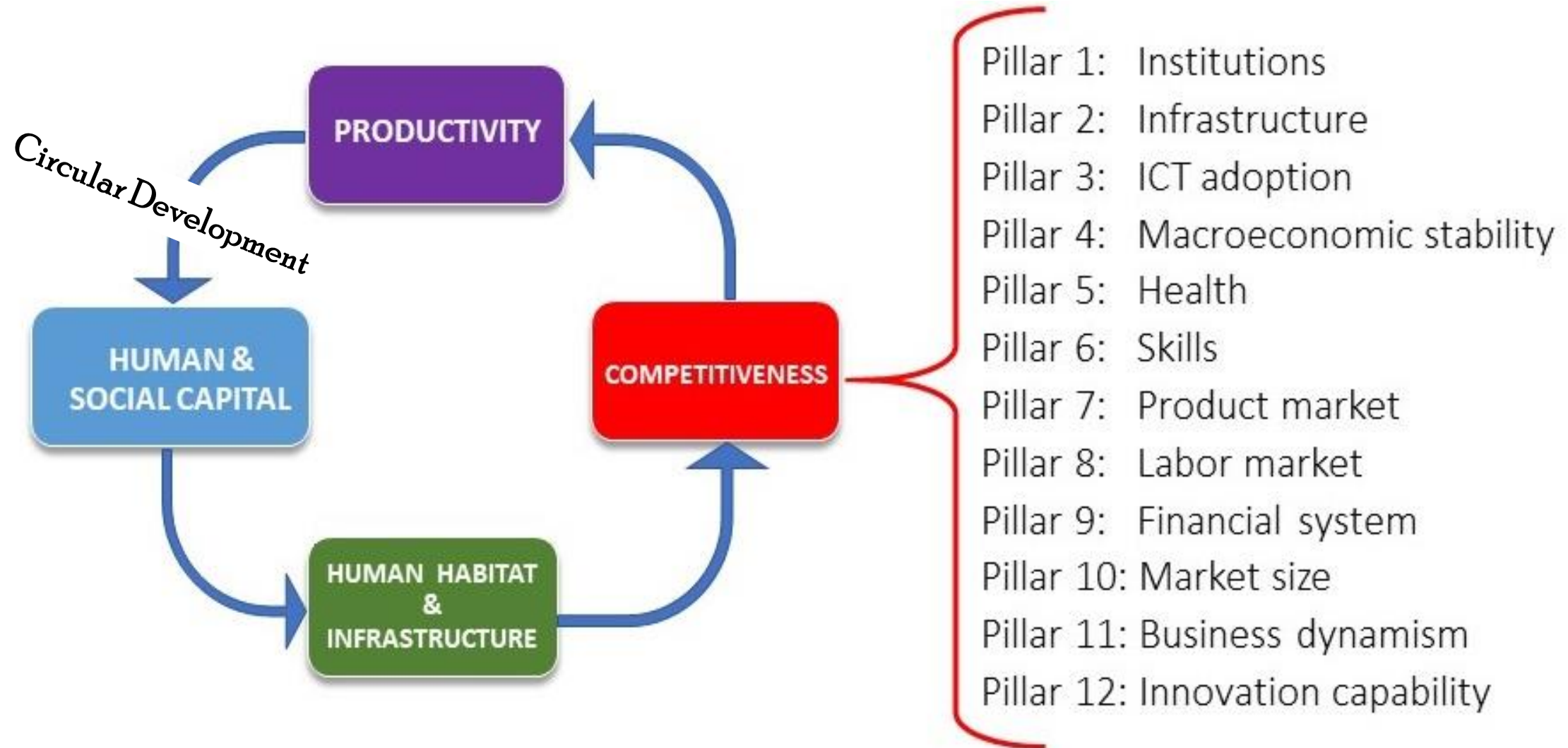
External connectivity

Tourism

Social Policy & social protection analysis

The Main Goal of Spatial planning

Improving National Competitiveness



The **GCI – Global Competitiveness Index** **annual report**
ranks Rwanda in the **5th very rewarding position**, within the
African countries.

SP Supports the 6 Drivers of Growth in Rwanda

The

Hexagon of “E’s”

Driver 1: **E**ducation

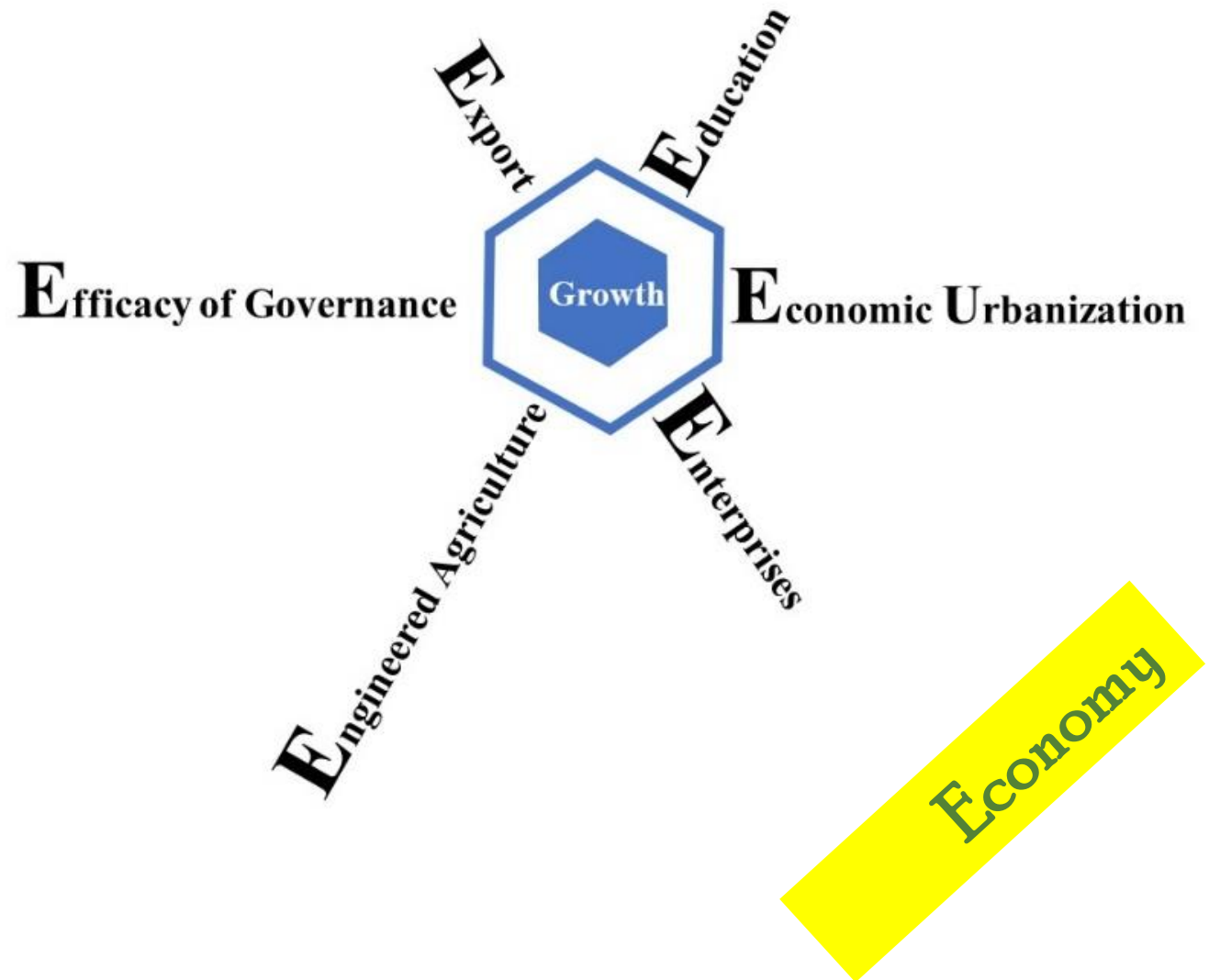
Driver 2: **E**xport

Driver 3: **E**conomic Urbanization

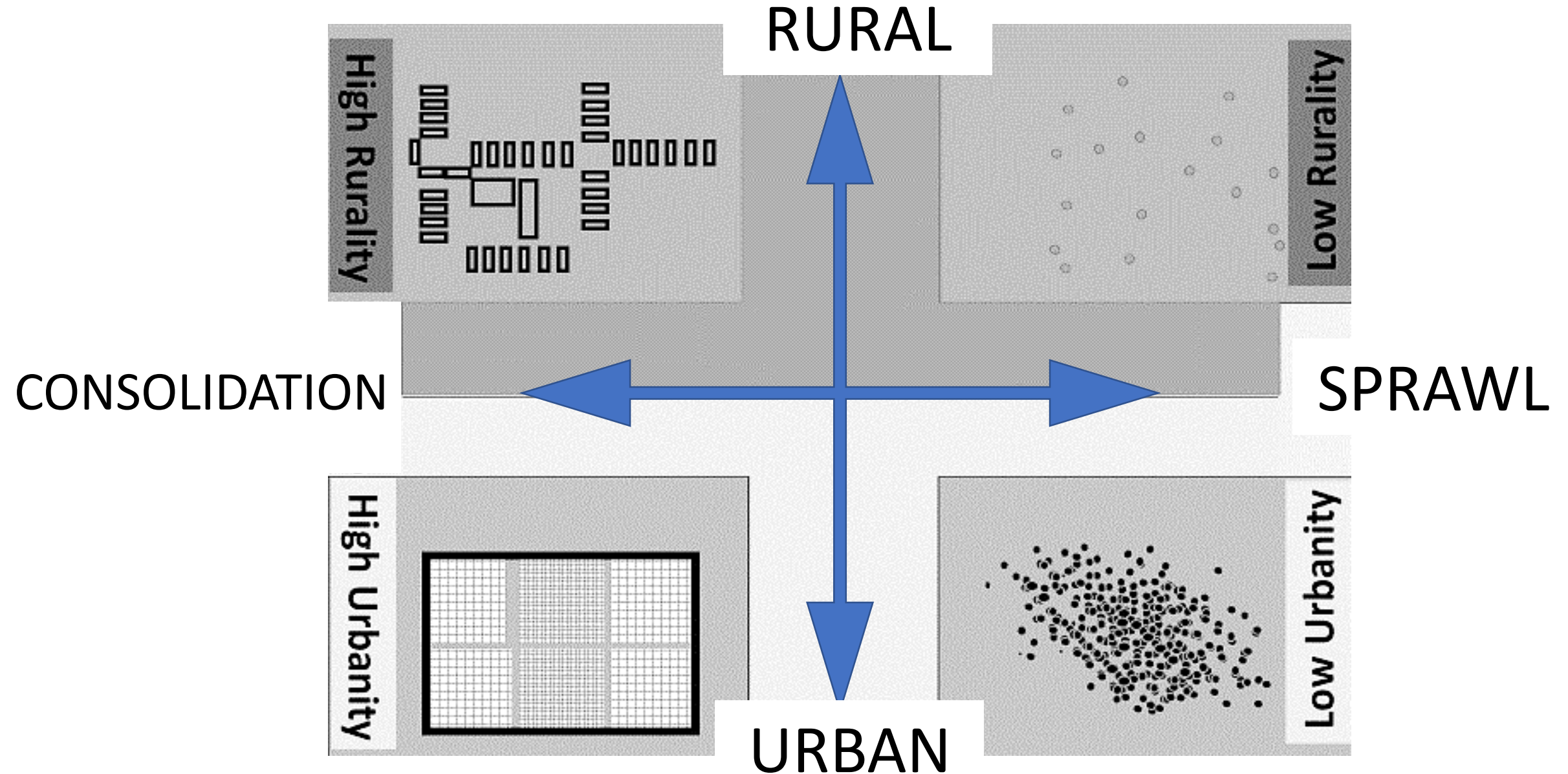
Driver 4: **E**nterprises

Driver 5: **E**ngineered Agriculture

Driver 6: **E**fficacy of Institutions and Governance



Many faces of the Settlement System



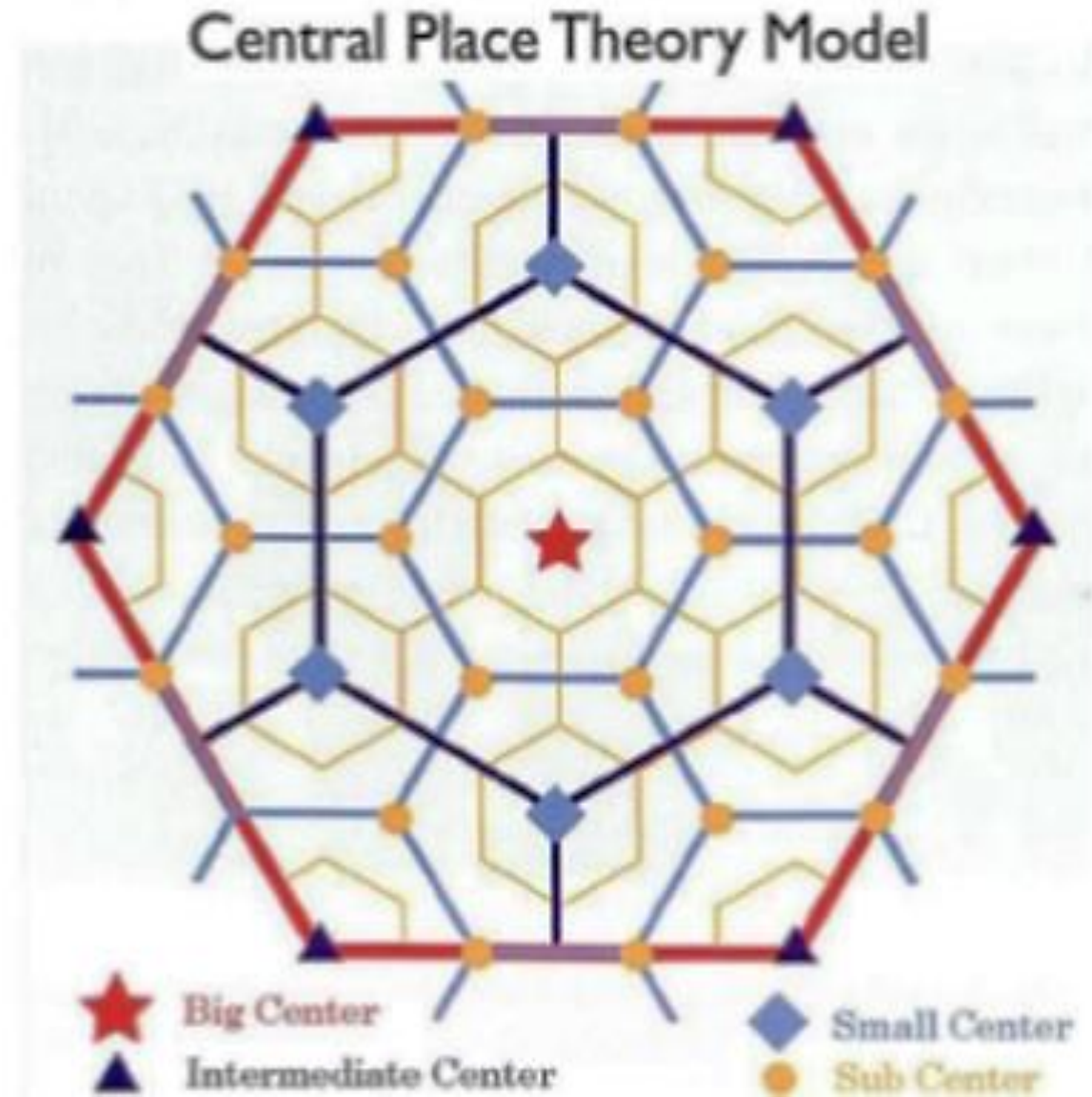
An aerial photograph showing a dense forest landscape. A road or path winds through the trees. In the upper left, there is a small cluster of buildings. In the lower right, there is a larger, more organized settlement. The text 'The Risk of Sprawl' is overlaid in large red letters. Two labels, 'yarurama' and 'Colline Kalembole', are placed on the image.

The Risk of Sprawl

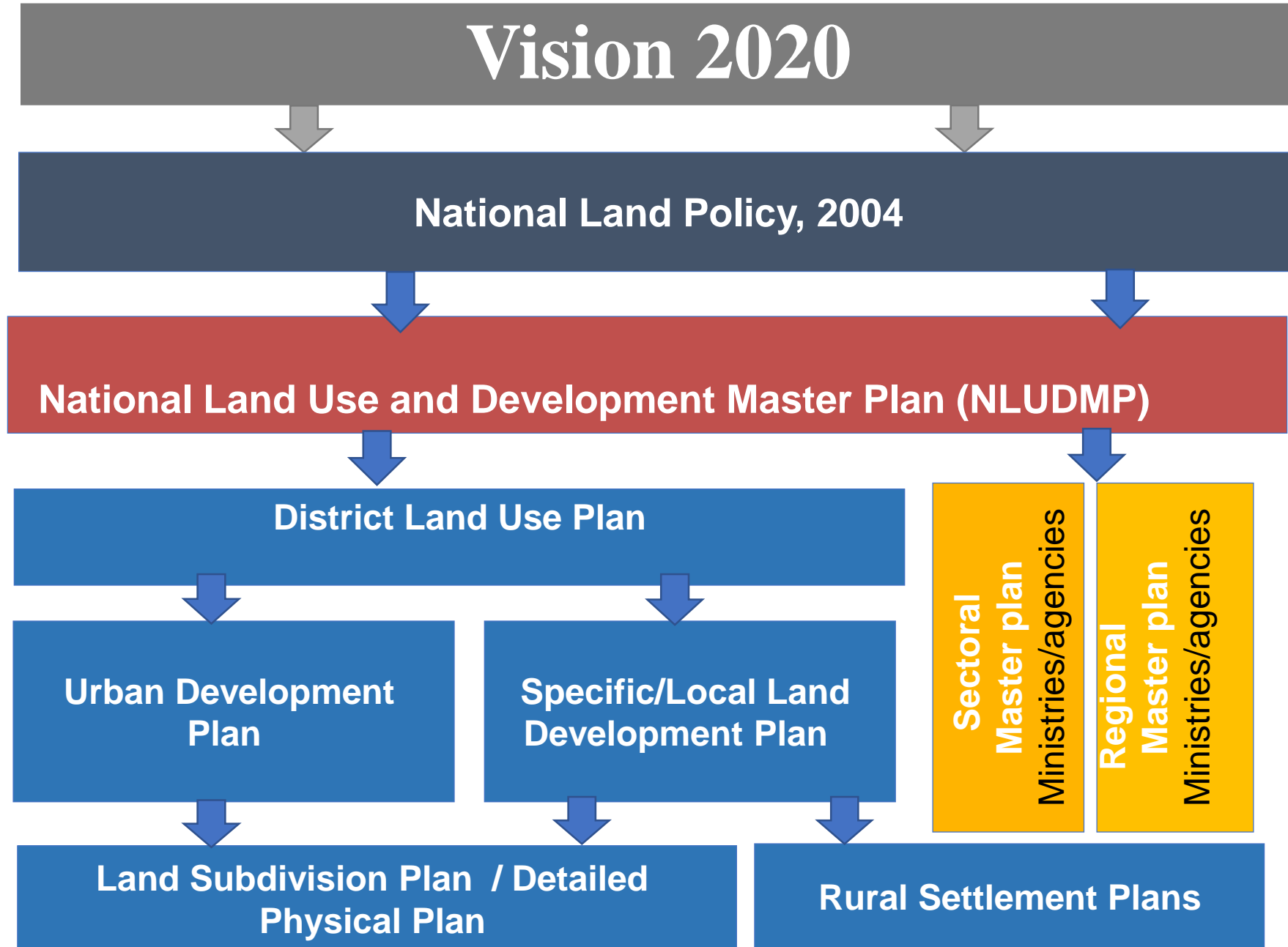
yarurama

Colline Kalembole

The need for Hierarchy Of spatial plans



Spatial planning in Rwanda-Existing tools



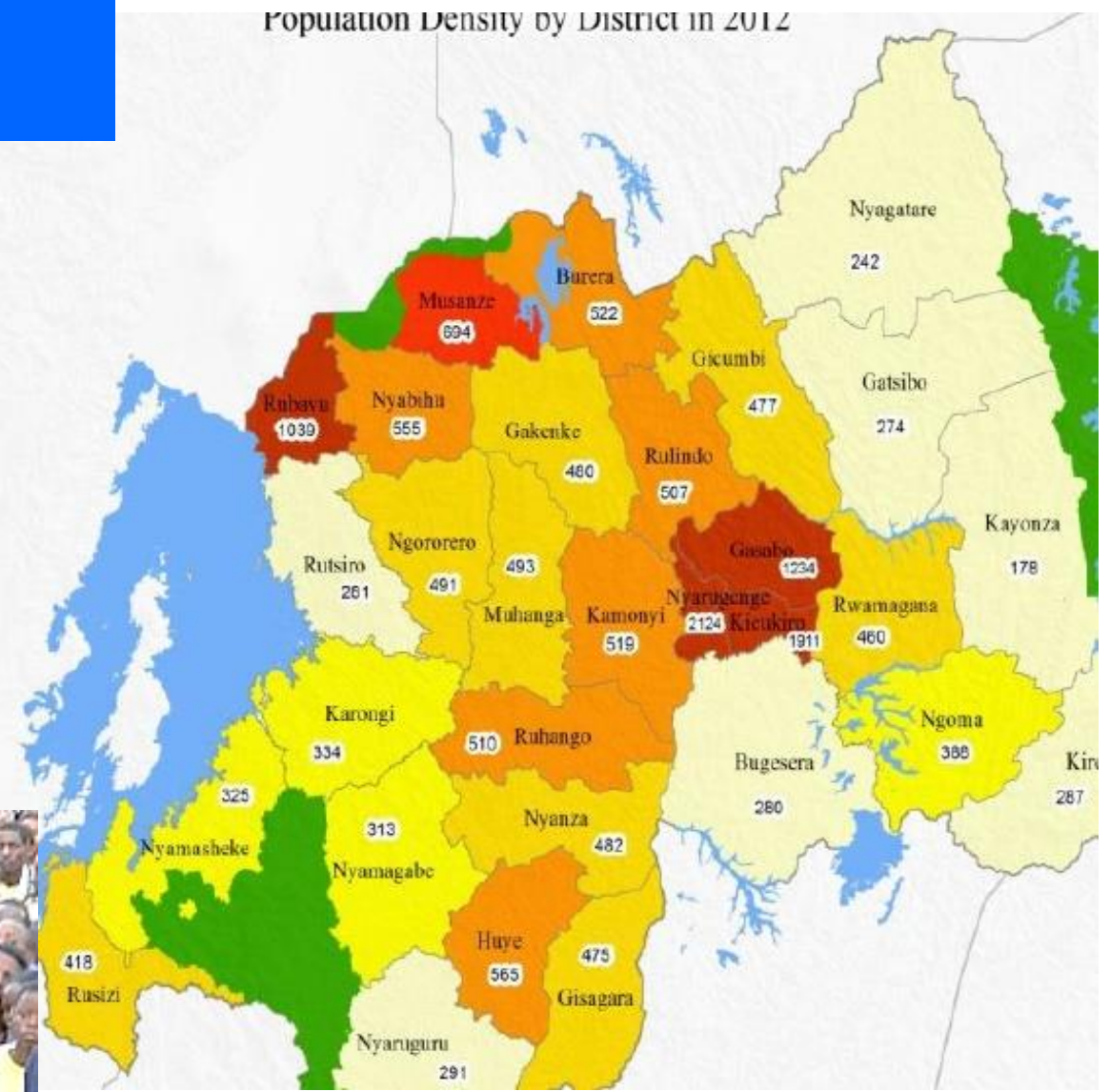
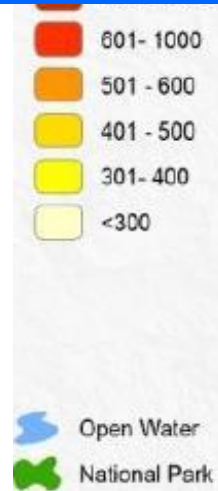
Uncoordinated Planning – No SP No Structure and Chaos.



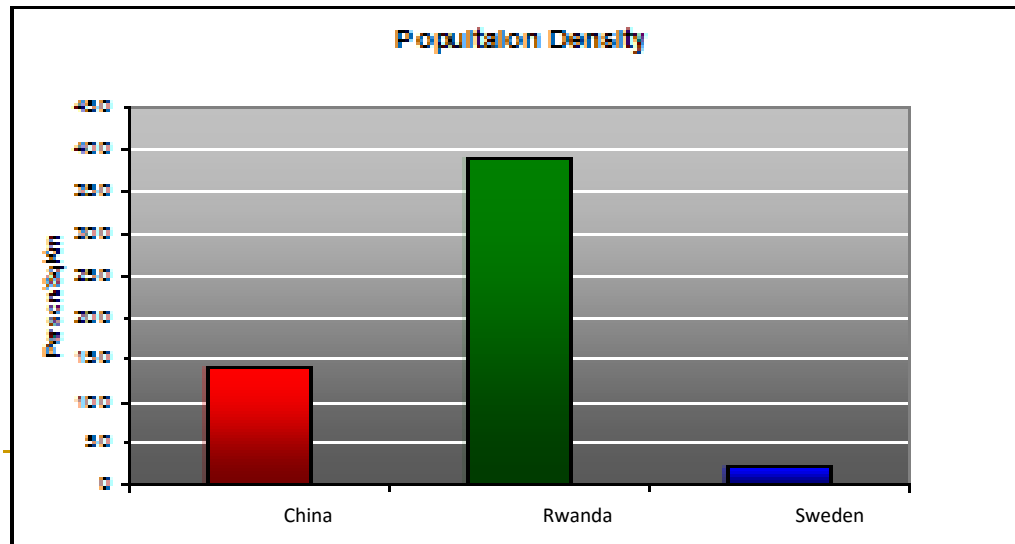
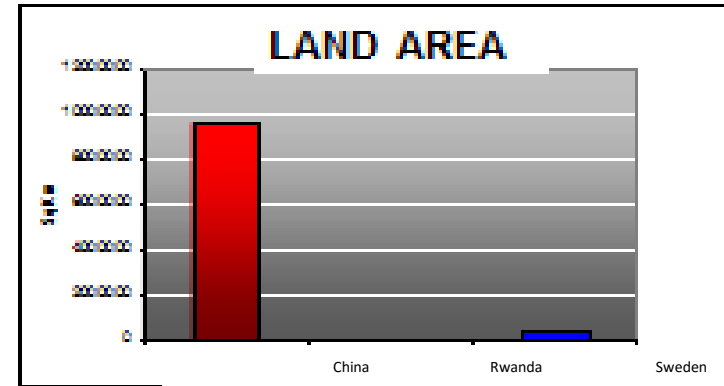
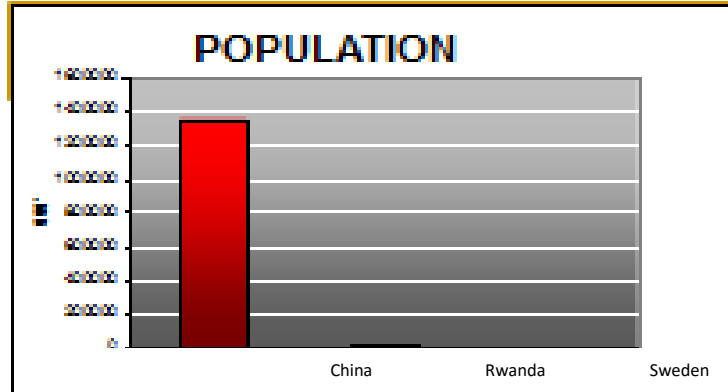
The need for Spatial & functional Order



National Density Management



SP in National density management



**China population: 1.4 B.
Density 151 P/Km²**

**Sweden: 9.98 M.
Density 24.2 P/Km²**

**Rwanda: 12.5 M.
Density 507 P/Km²**



Population density vs agriculture land

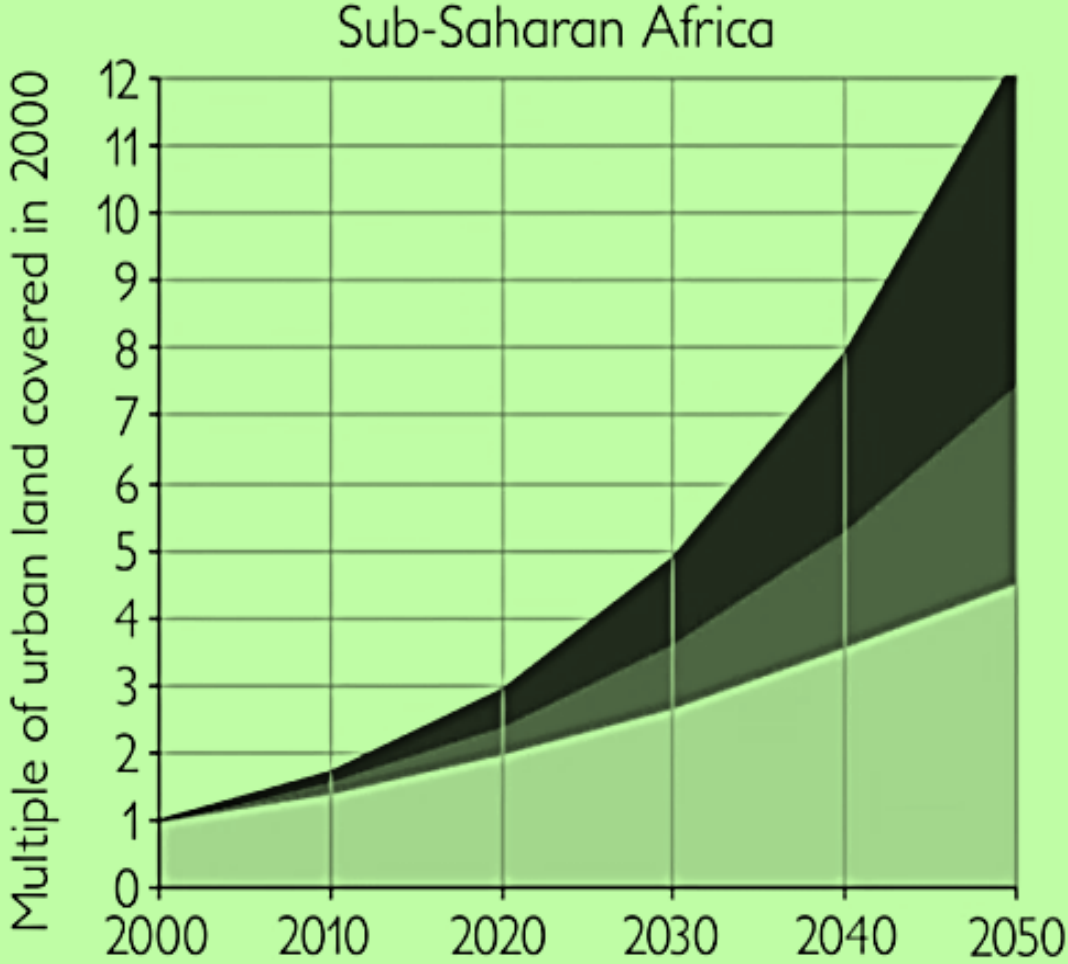
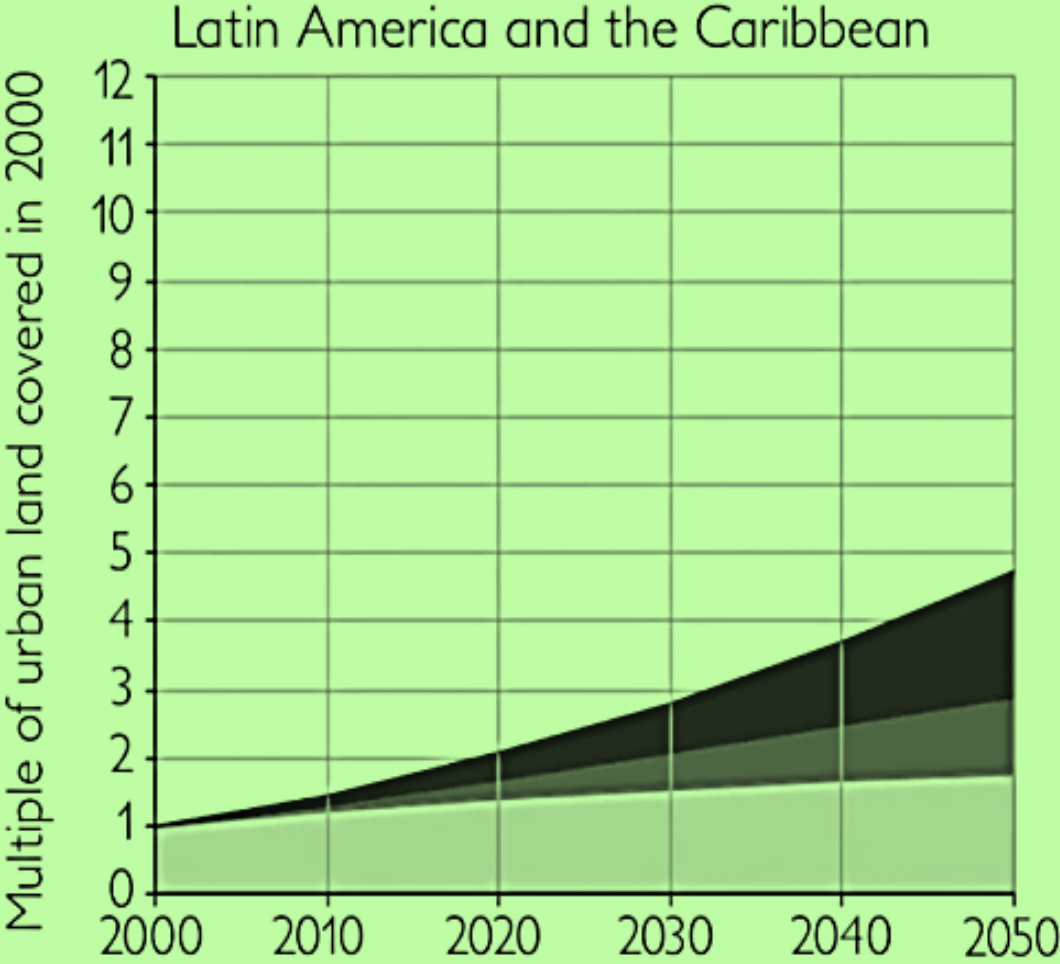
High Population: 12M (2017), ➤
Density: 500 habitants per sqkm

Pop. growth rate 2.8% (around ➤
300.000 people added annually)

Additional land required for ➤
settling annual new population
(60,000HH) is estimated around
2400 Ha per year.



HOW MUCH LAND WILL CITIES NEED?



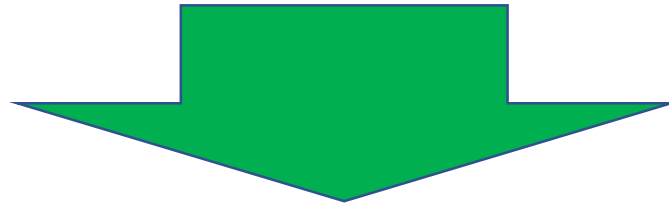
■ No density decline ■ 1% density decline ■ 2% density decline

Without control
Population may top the
33.3 million in 2050

Gross density: 1,266 p/sq.km.

0.10 ha of land per person

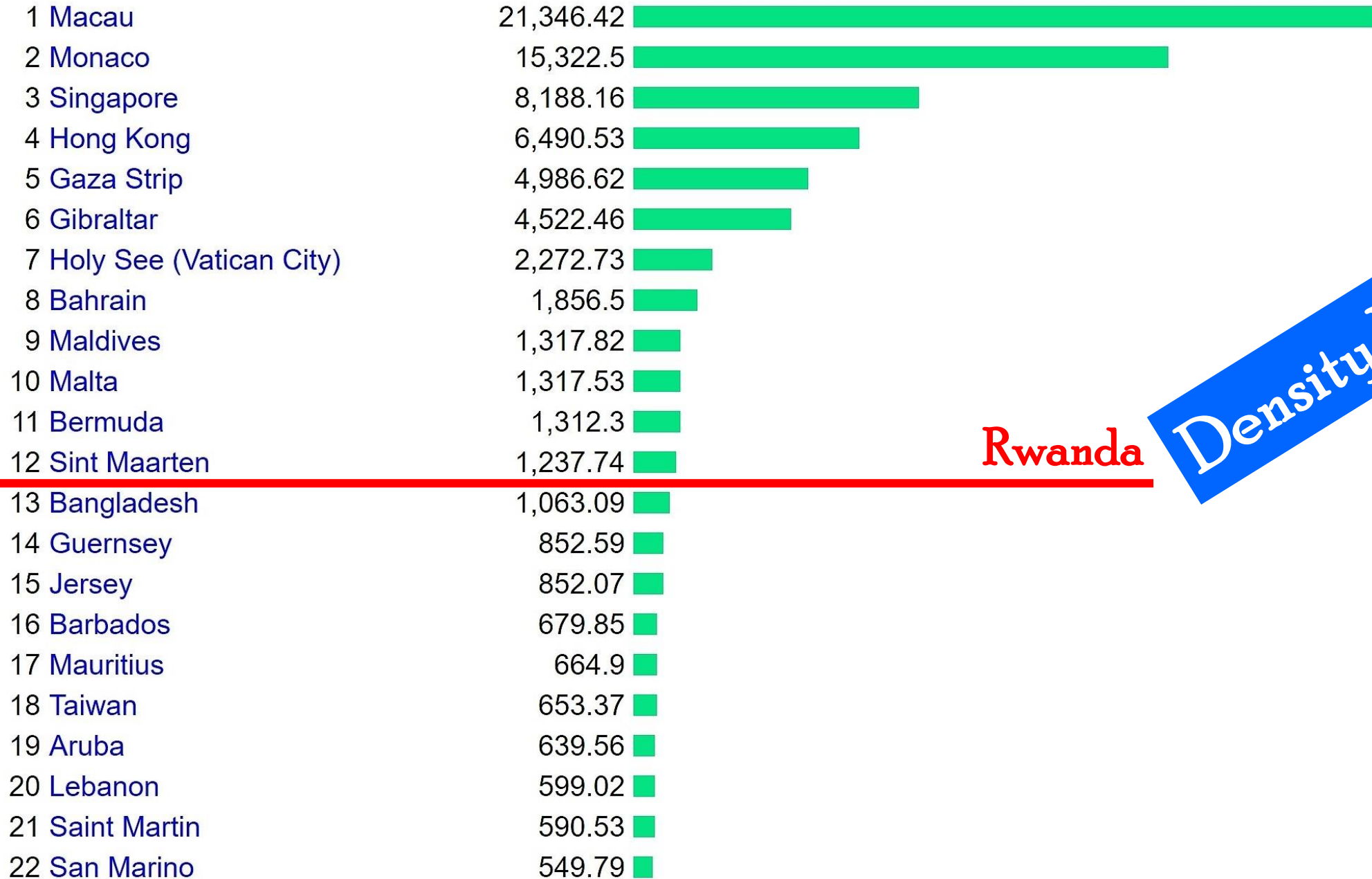
the highest on the African mainland.



Population Pressure and **Shrinking Land Base** is crucial for
Rwanda's future

Rank Country

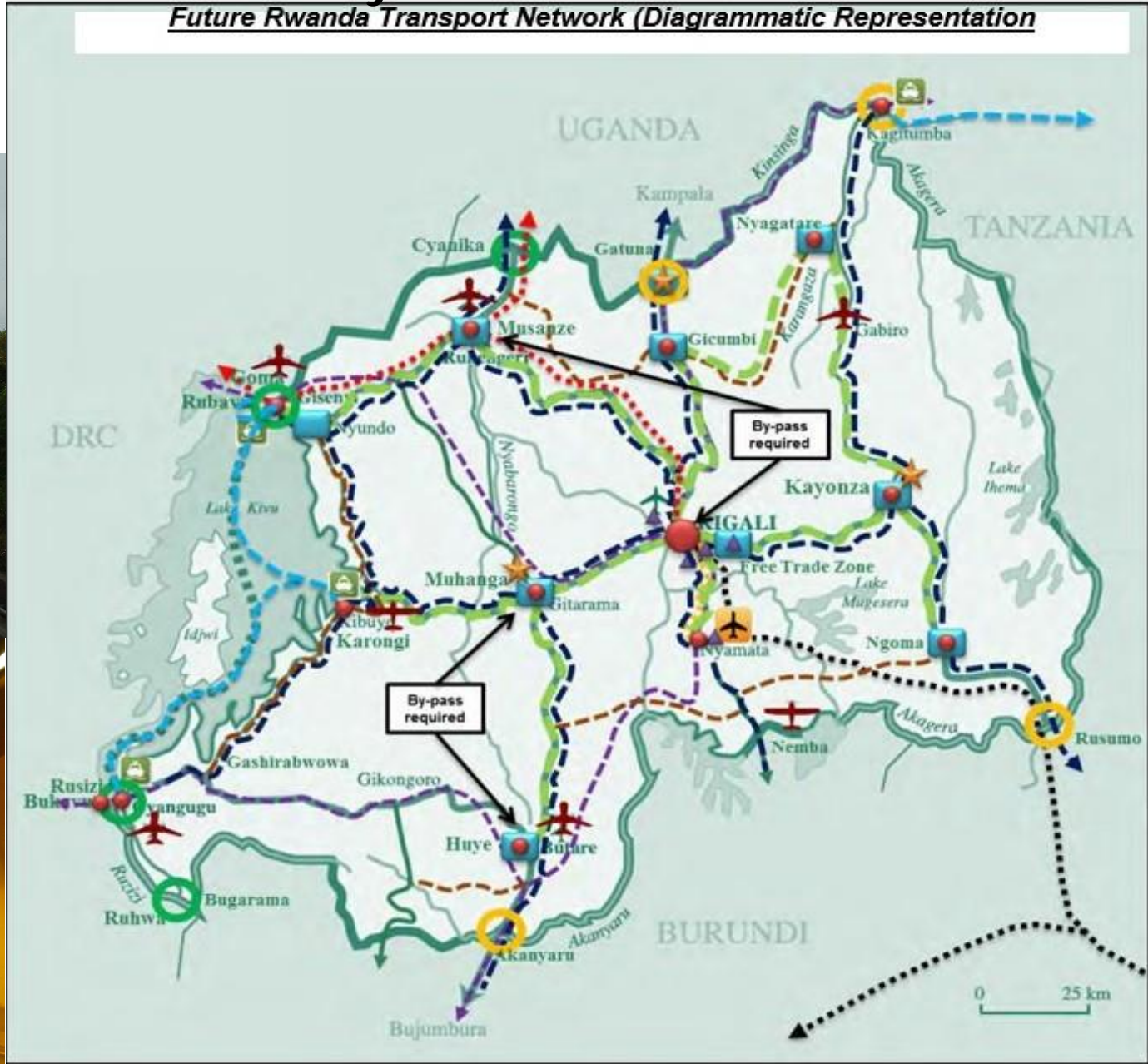
Population density (Number of people per square kilometer)



Rwanda

Density Risk

SP for National transport network system



Legend

- Key Node / Centres
- - - IWW Transport
- - - - Railway (Planned)
- - - - Railway (Extension)
- New Ferry Terminal
- ★ Weighbridges
- - - - Airport Flyer Bus
- - - - Road Upgrades
- - - - Quality Bus Service
- - - - Freight Network
- International Airport
- Regional Airport
- Local Airport
- - - - Pipeline (Extension)
- Multi-modal facility
- Truck Stop Study
- 1-Stop Border Post
- New 1-Stop Border Post
- Border Post Upgrade

Title:
Transport Network Vision 2020

Rwanda Strategic Transport Master Plan

aurecon

Optional Land Use Systems

Orientation 2: Sub Regional Equality.

Orientation 3: Agriculture

Orientation 5: Urbanization

Orientation 1: Economy/Agglomeration

Orientation 4: environment

Orientation 6: Connectivity



Synthesizing The Land Use National Scheme

Integration

- * **Comparing Options**

- * **Analyzing Compliances**

- * **Bridging differences**

What is Implementation?

1. **Horizontal Compliance** in National Planning

2. **Vertical Compliance** in Local Planning

3. **Mandatory State Approval of District Plans**

4. **Enforcement on the Ground**

5. **State Budgeting controlled by Proof of Compliance**

REPUBLIC OF RWANDA



MINISTRY OF ENVIRONEMENT

Rwanda Land Management and Use Authority



Thank you

For more information: <http://www.rlma.rw/>
www.environment.gov.rw
Twitter: *@Lands_Rwanda*
Email: fnteziryayo@environment.gov.rw