

## **Urban System Approach: Context and Issues from Nepal**

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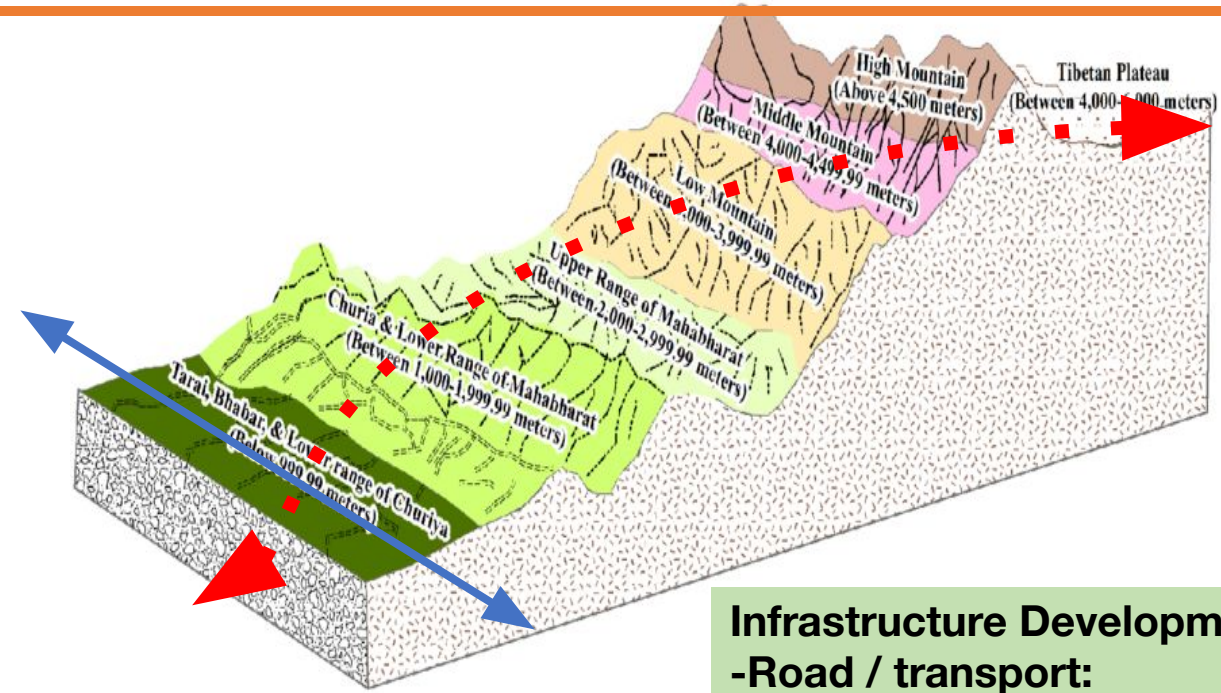
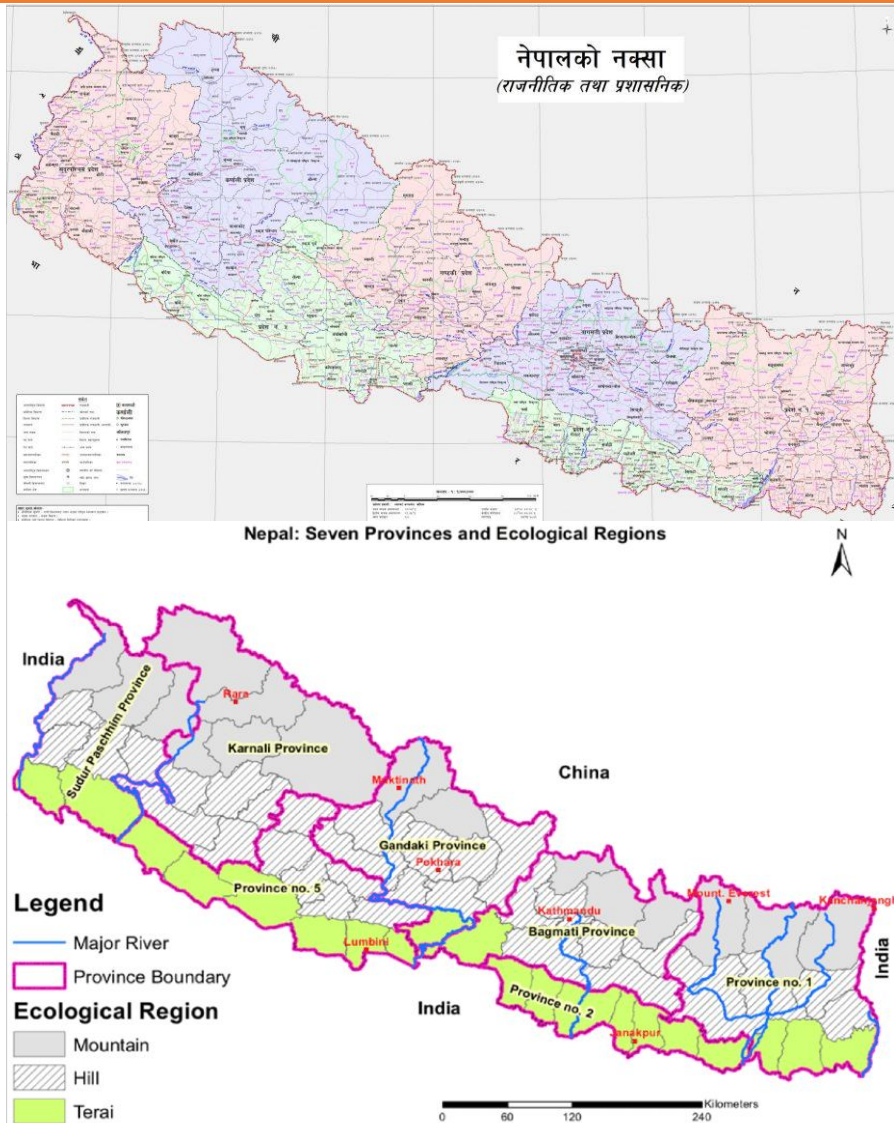
**Lessons from Spatial Planning Platform:  
Enhance wellbeing in urban and rural  
areas**

# **1. OVERVIEW OF THE PRESENTATION**

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- 1. Nepal: Introduction and Urbanization Trend**
- 2. Urban System – Introduction**
- 3. Historical Development of Urban System in Nepal**
- 4. Urban System- National Urban Policy**
- 5. Urban System- National Urban Development Strategy**
- 6. Initiatives in Nepal based on Urban System**
- 7. Challenges and Way Forward**

## 2. NATIONAL SPATIAL PLANNING AND FEDERAL STRUCTURE



## Federal Structure

**3 tiers of governments (w/ executive and legislative authority) - Federal, 7 provincials, and 753 Local governments**

## 77 districts (admin. units)

## Infrastructure Development

**-Road / transport:**

Ministry of Physical Infrastructure  
and Transport (F/P)

**-Land Administration:** Ministry of Land (F/P) and also local levels for administration

**-Urban Infrastructure: F/P/L**

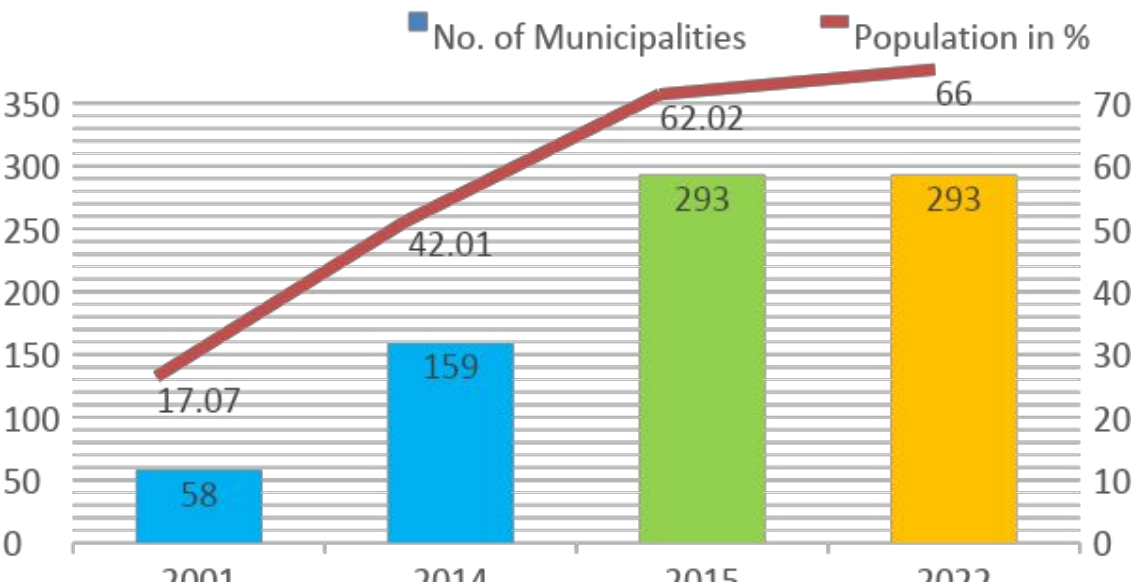
**-Social infrastructure: F -**  
Sector ministry; /P/Local

( Image Source: Survey Dept. Nepal )

## 2. URBANIZATION SCENARIO

National Census 2021

- Total Population: 29,164,578
- Population Density: 198 per sq.km
- Population Growth Rate: 0.93%
- Houses: 56,43,945
- Families: 66,66937
- Family Size: 4.32



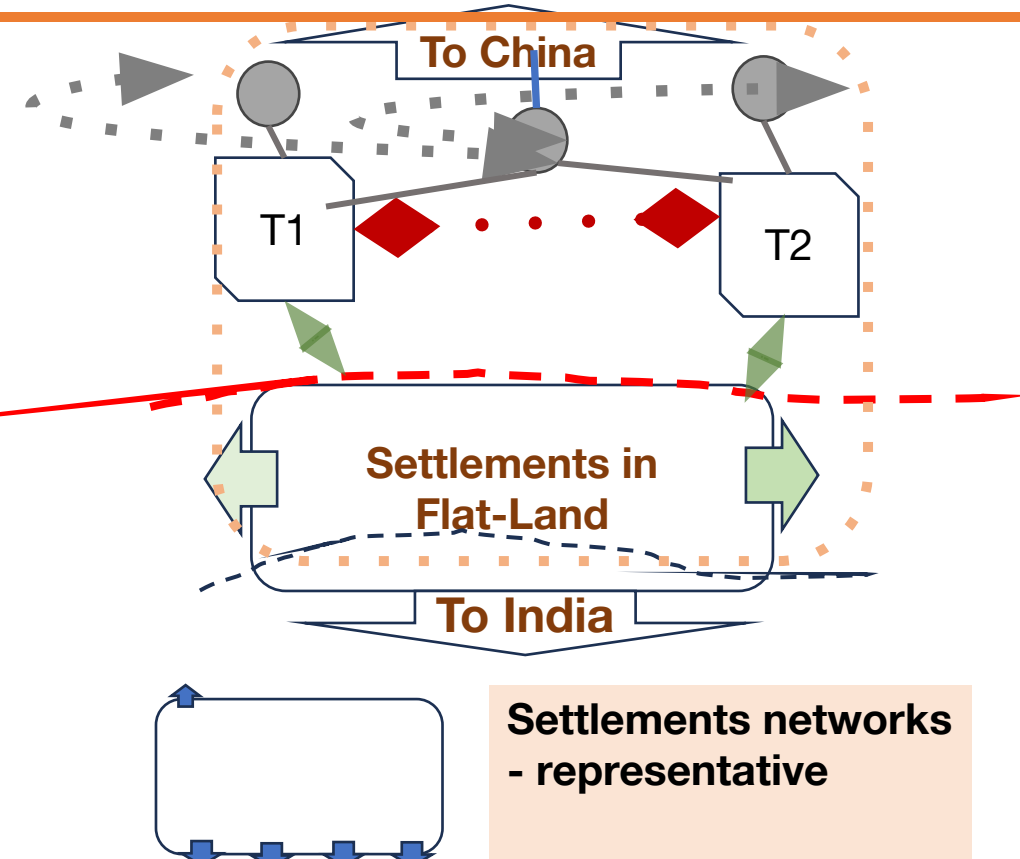
- 2021 Census - 66.17% residing in 293 municipalities
- Degree of Urbanization study based on threshold of population, population density, rasterized built-up area and contiguity of the characteristics shows urban population @ 27 %, peri urban population @40% and rural population @ 33%.
- Huge difference in Urban Infrastructure Condition Index, Kathmandu 91%, Gulariya16%(NUDS 2017)
- Negative Population growth rate in 34 hilly districts

Geographical Region	Area (%)	Population(%)		Settlement Type
		2011	2021	
Mountain Region	15	6.73	6.08	Compact
Hilly Region	68	43.01	40.31	Disperse
Terai region	17	50.27	53.61	Compact

### 3. URBAN SYSTEM: AN INTRODUCTION

Based on Central place theory

A Set of Urban Centers of different hierarchic order interlinked by sets of relationships within each hierarchic order and also between hierarchic orders



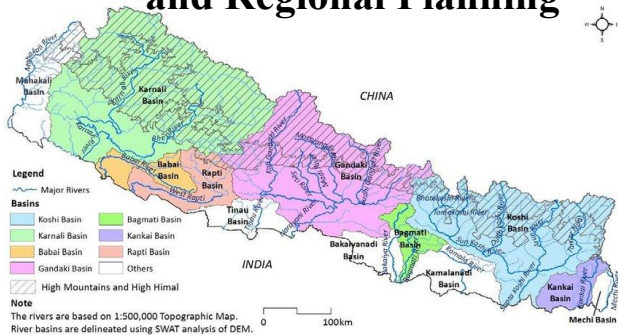
- Creation of a well articulated national urban system comprising of National capital, provincial capital, major cities, intermediated towns, small towns and rural centers.
- National development should be seen in its spatial context as defined by national urban system and its articulation through the functioning of urban centers of different hierarchies.

(Source: DUDBC &NUDS, 2017))



# 4. URBAN SYSTEM AND ITS EVOLUTION

## Third Plan (1965-1970) and Regional Planning



Early Spatial Planning Effort at National level introduced in 1960s.

Division of nation of **Functional Regions** was conceptualized-based on **topography** and **river systems** found prominence.

The river Corridor following **Koshi, Gandaki, Bagmati and Karnali**. The river corridor serves as source of power and eases road development.

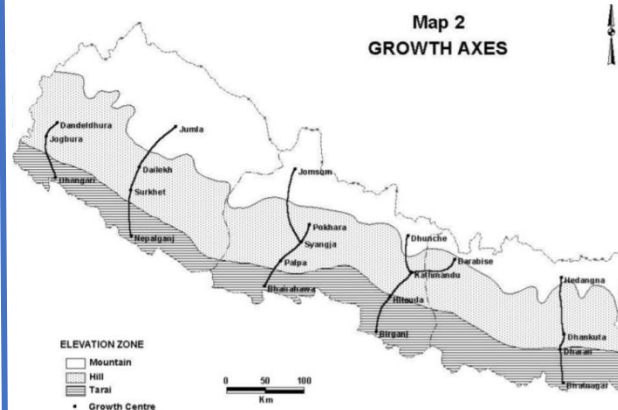
## Fourth Plan (1970-1975) and Growth Axis

To reduce inter regional disparity and integration of National economy.

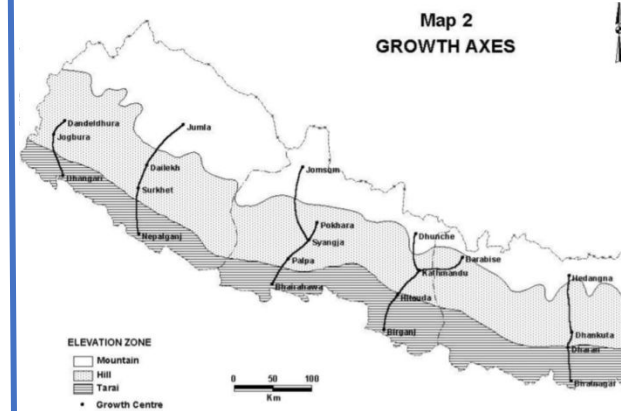
Development Activities to be promoted along major growth axes Koshi GA, Kathmandu GA, Gandaki GA, Karnali GA & Dhangadi- Dadeldhura GA

These GA are to serve as **ribs**, while East- West Highway as **spinal cord**. East West link was conceived for hills

4 **Development Region** conceived in 1972 – that became five in late 1970s



## Fifth Plan (1970-1975) and Growth Centers



Objective of “*polyfunctional settlements to cater to the diverse needs of the hinterland.*”

**Biratnagar, Birgunj, Bhairahawa and Nepalgunj** are example of Terai towns **Dharan, Dhankuta, Hetauda, Palpa, Syangja**, etc models for hilly areas.

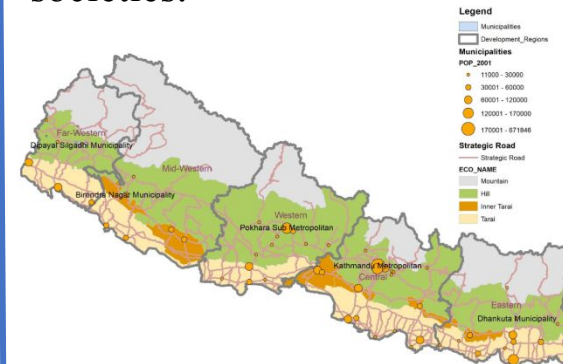
**Hedangma, Dhuncha, Jomsom and Jumla** are examples of remote areas in the Himalayan region

## Sixth Plan (1975-1980) and Regional Balance

Aim is to remove disparity between ecological & development regions

**Principle of disaggregation** at the national level and **aggregation** at the regional level for productive linkages.

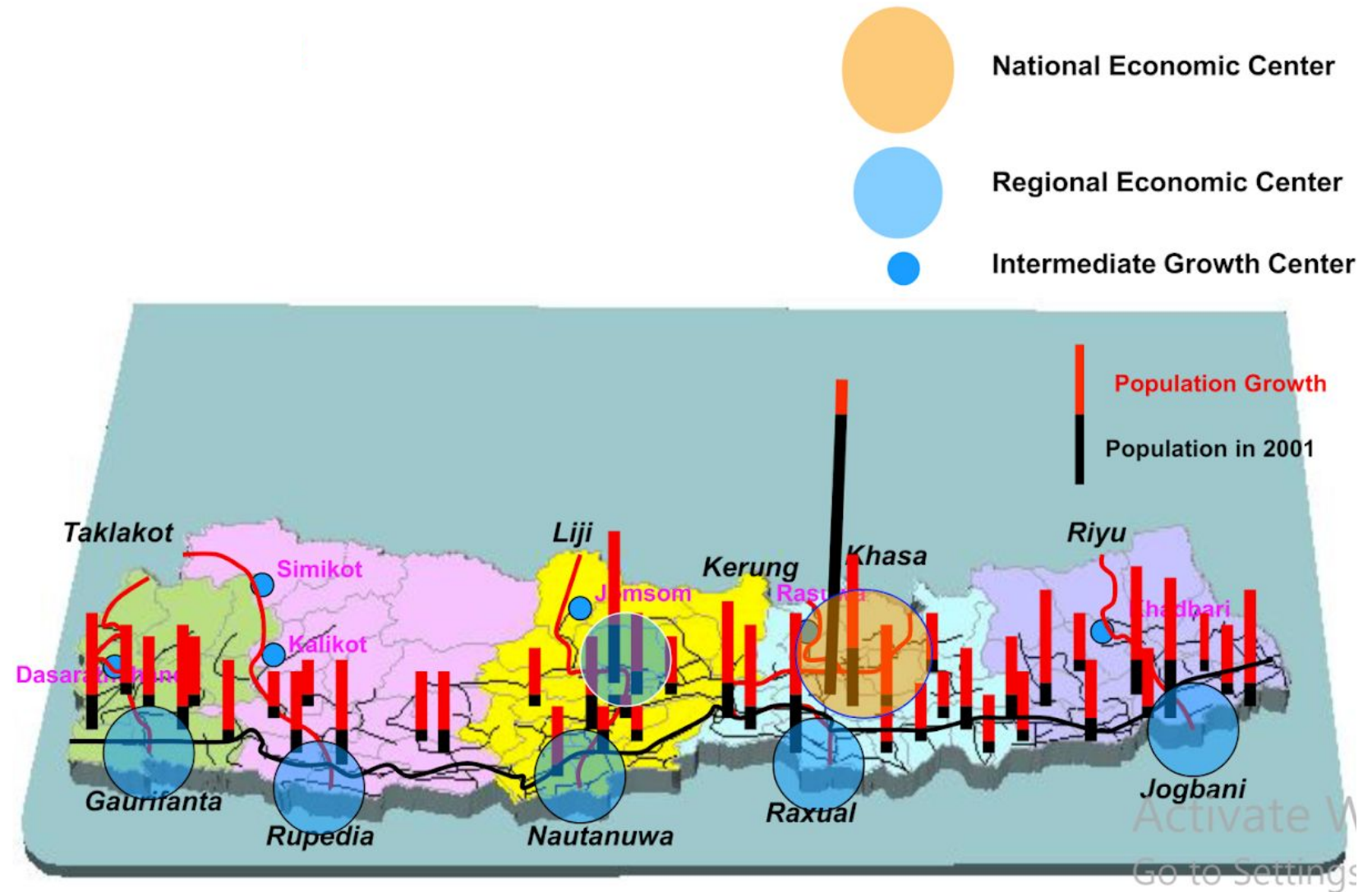
**Regional policy** is to maximise national income through an investment pattern that mobilizes inherent resources of region and societies.



## 5. NATIONAL URBAN POLICY OF BALANCED URBAN SYSTEM

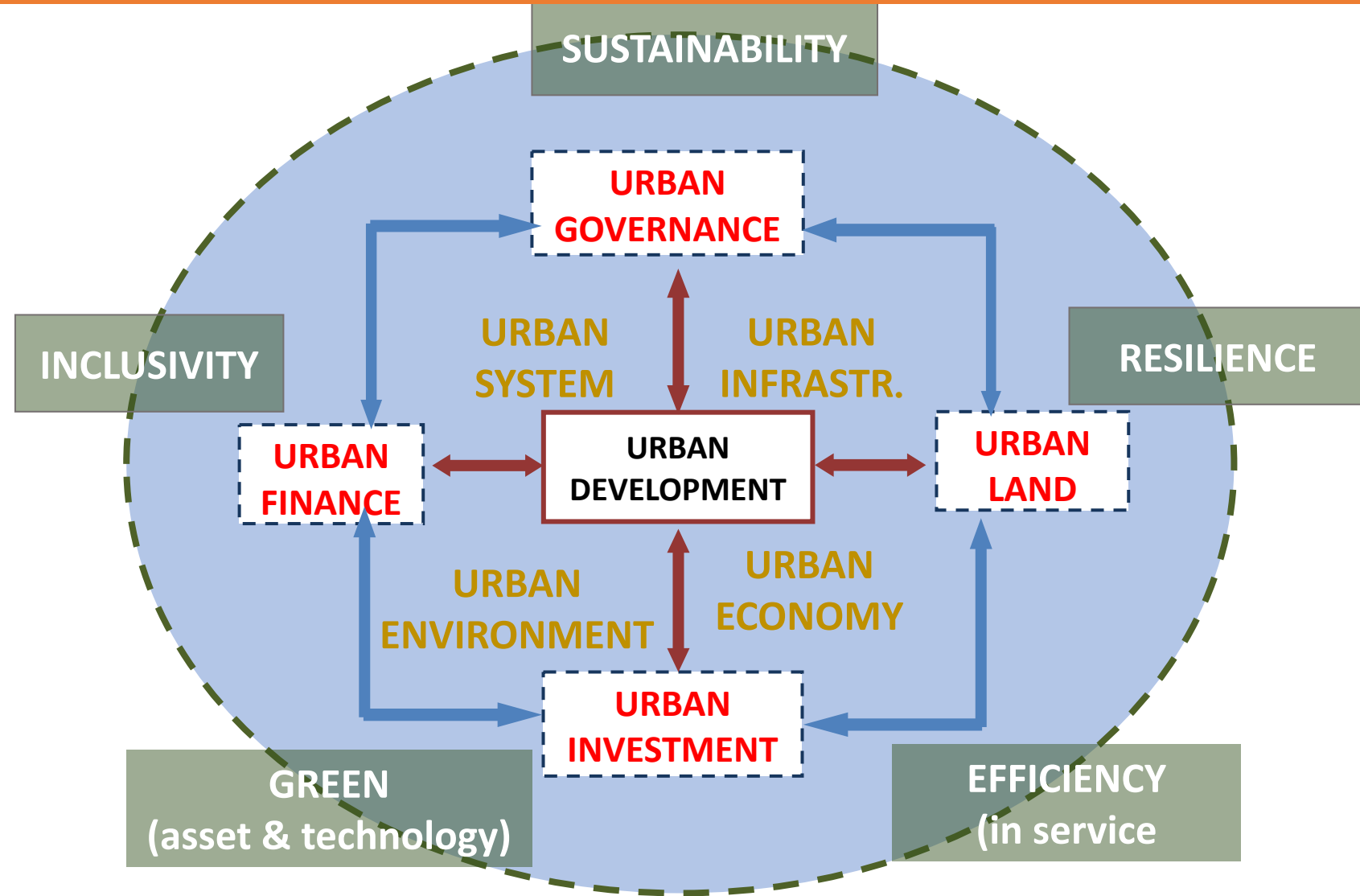
### Functional Economic Regions

- Transform **development region** into self contained and self reliant **economic region** through strengthened network of cities & towns of the NS Highway corridor
- Network is to be built around the **first-order** gateway city at Terai and inteconnected to **second-order** secondary townas at the Chure-foothill and **third-order** towns of hill and mountainous regions-feeding to smaller towns and market centers of their catchement areas.



## 6. NATIONAL URBAN DEVELOPMENT STRATEGY (NUDS)

- The objective of national urban development is to achieve a balanced national, provincial and regional urban system that strengthens economic and functional base of urban centres through enhanced inter-urban and urban-rural linkages, establish effective and efficient infrastructure delivery system and maintain a healthy physical, natural and social environment.
- Provide Strategic Direction to MOUD



NUDS approaches urban development as **4 thematic sectors** and **4 mechanisms** for implementation, with 5 Principles

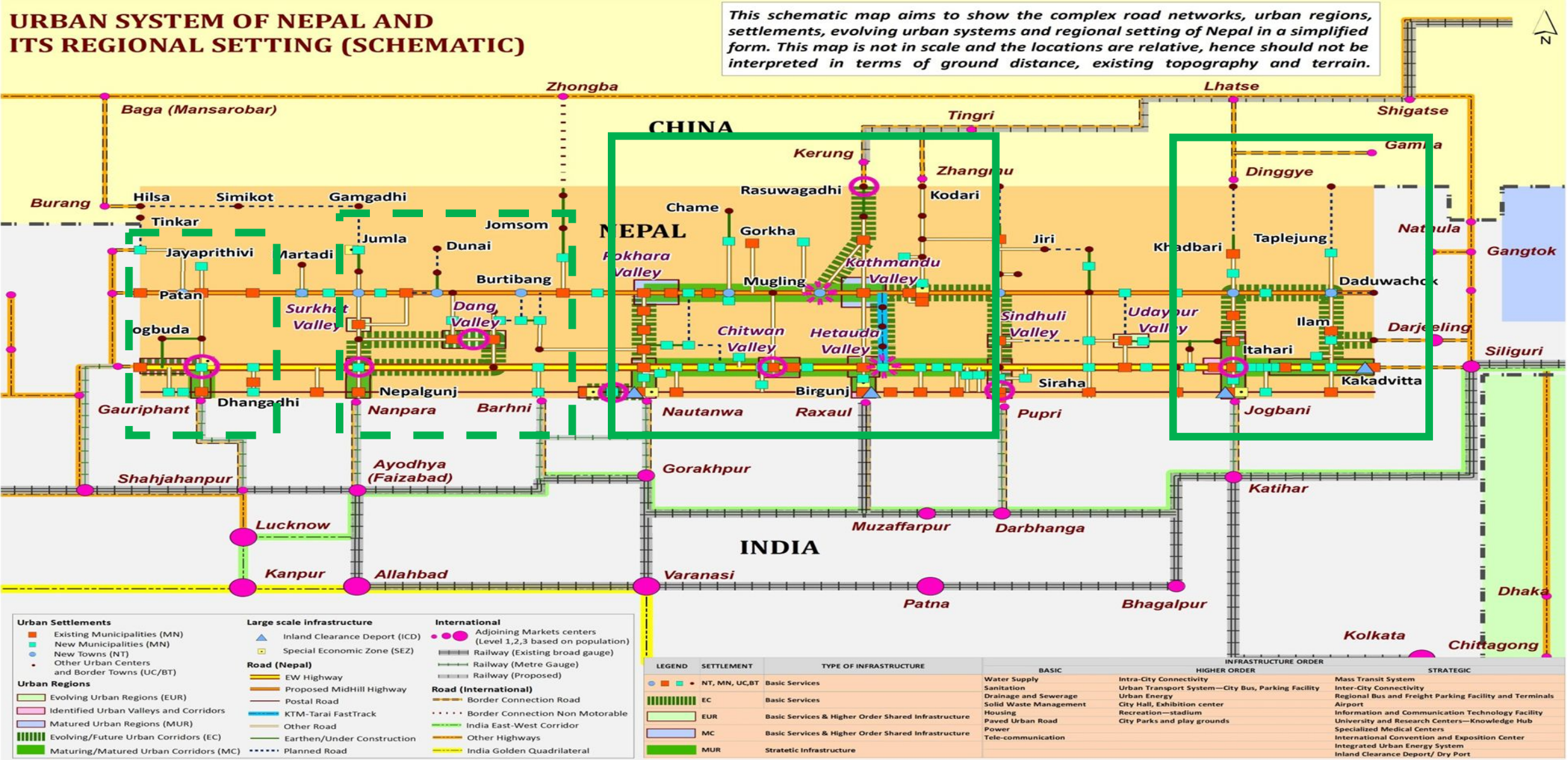
(Source: NUDS, 2017))



# 6. NATIONAL URBAN SYSTEM ENVISIONED IN THE NUDS

URBAN SYSTEM OF NEPAL AND ITS REGIONAL SETTING (SCHEMATIC)

This schematic map aims to show the complex road networks, urban regions, settlements, evolving urban systems and regional setting of Nepal in a simplified form. This map is not in scale and the locations are relative, hence should not be interpreted in terms of ground distance, existing topography and terrain.

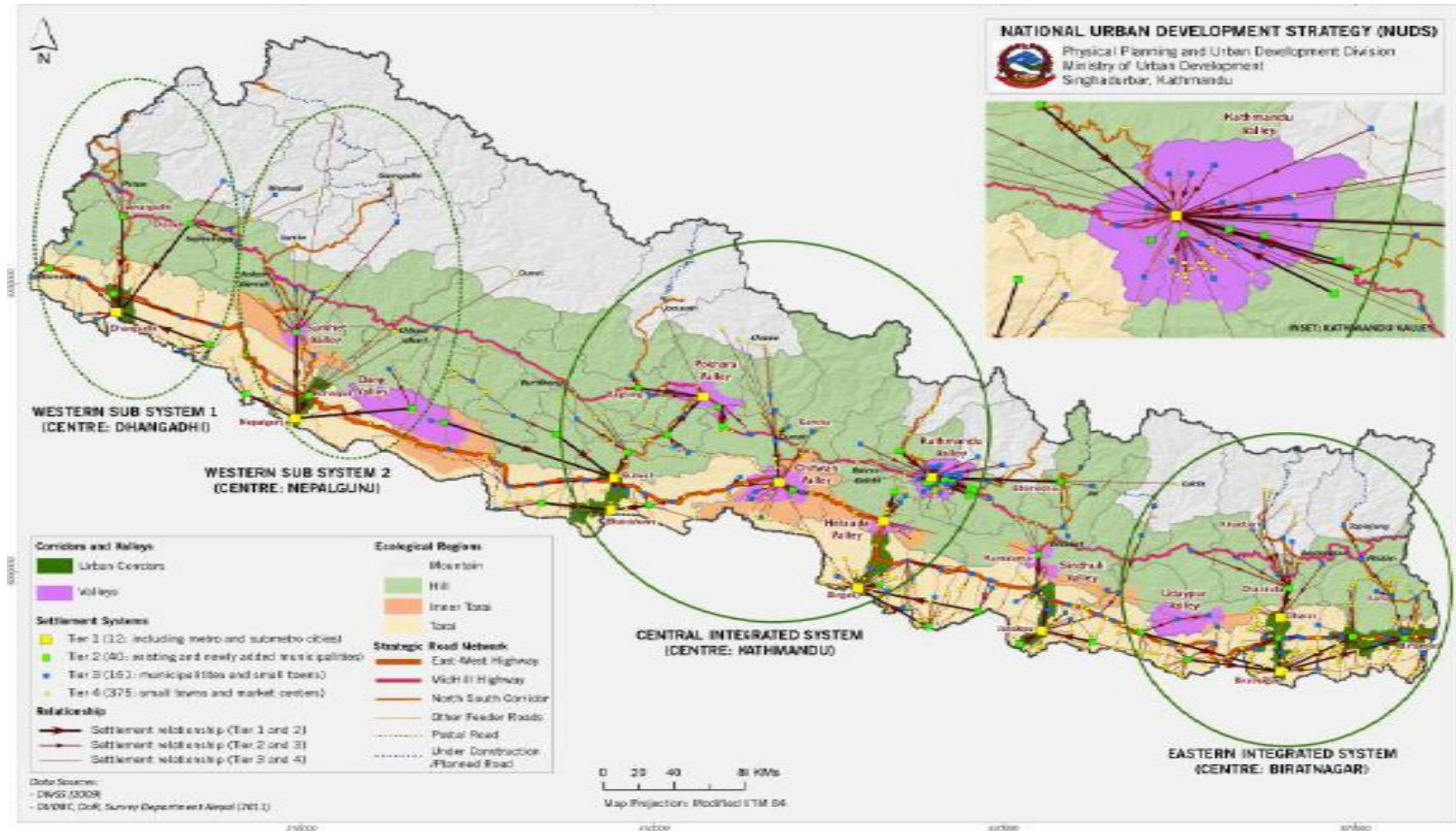


(Source: NUDS, 2017))



## 6. NATIONAL URBAN SYSTEM ENVISIONED IN THE NUDS

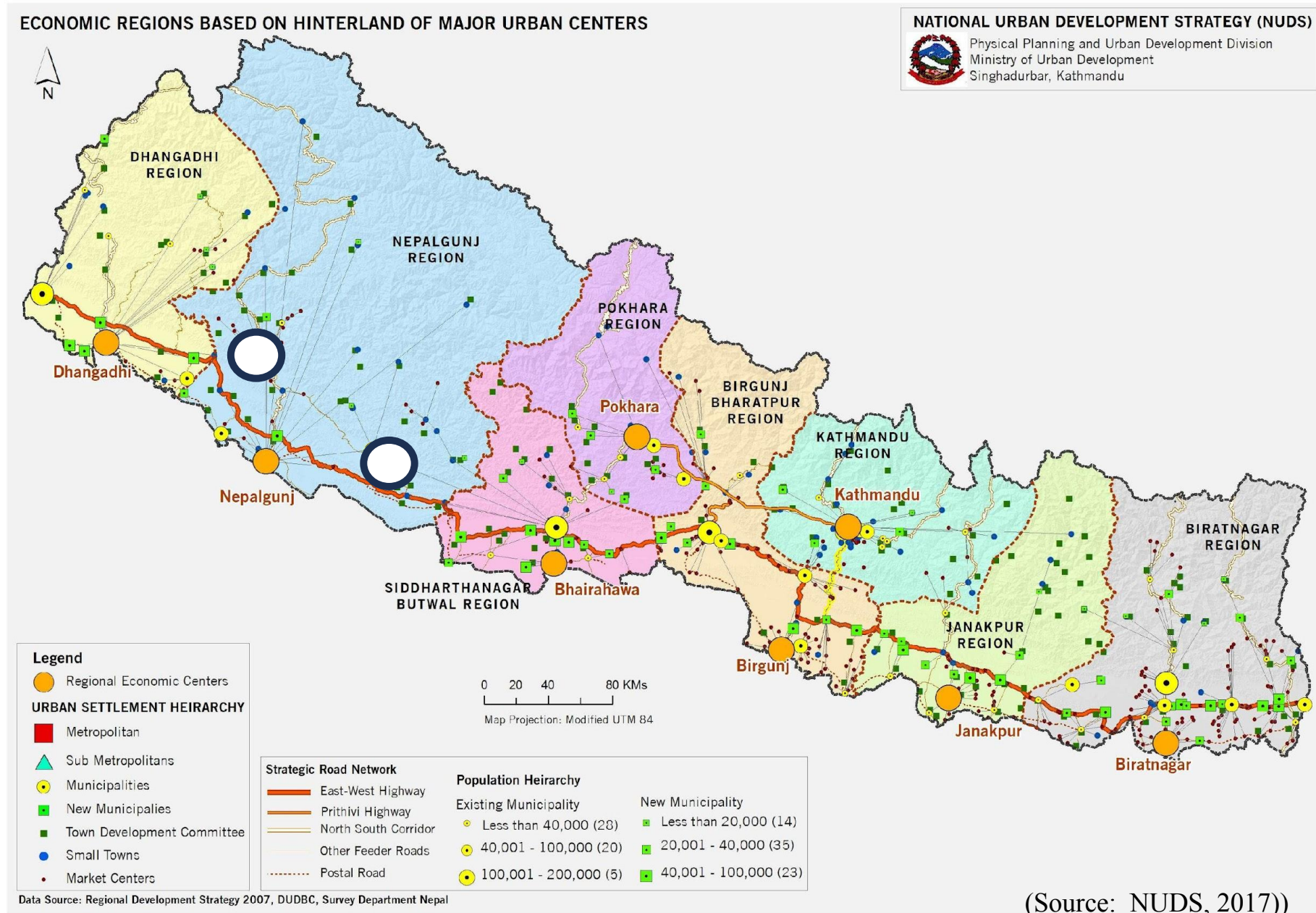
- S1: Facilitate higher level functions and services in major regional urban centers and provincial capitals
- S2: Improve connectivity standards
- S3: Promote environment, heritage and tourism friendly economic functions in KV and deconcentrate incompatible functions outside the Valley
- S4: Integrate provincial capitals with the development of (sub)national urban system





## 6. MAJOR ECONOMIC REGIONS ENVISIONED BY NUDS

- 8 Economic regions with its command area in the country (6 in the flat land and 2 (KTM and Pokhara) are in Hill – the valley)
- 8 valleys – major settlement area
- 5 provincial capitals are in these identified economic centers
- 6 corridors for industrial, trade and export promotion connecting Indian Border and rail head
- Municipality as center of service delivery



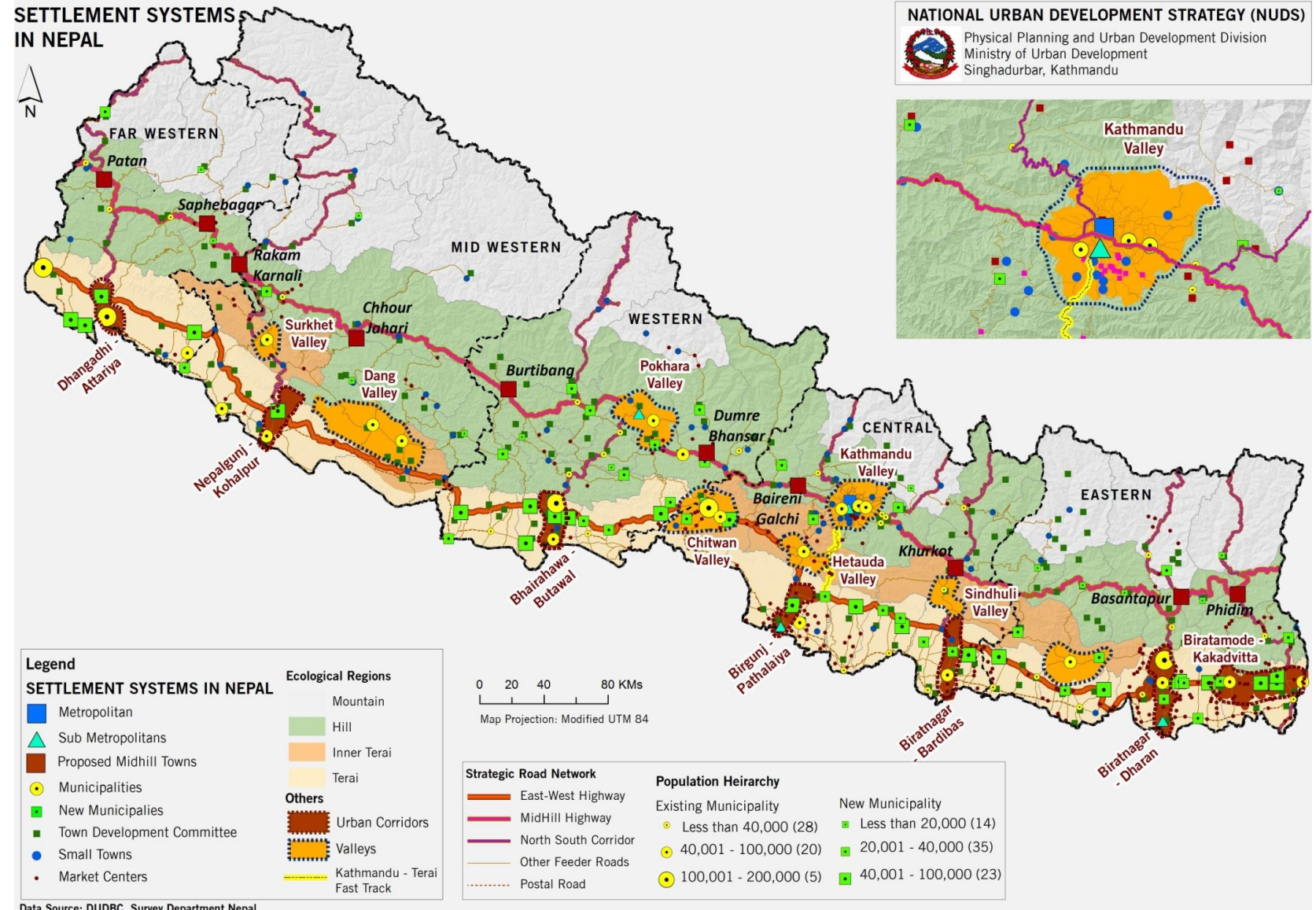
(Source: NUDS, 2017))



## 6. SETTLEMENTS HIERARCHY ENVISIONED BY NUDS

### Settlement system

- 50% plus in flat region – terai
- 8 valleys – major settlement area
- Urban region created by the major valleys
- Urban economic corridors connecting Indian Border and rail head
- Municipality as center of service delivery

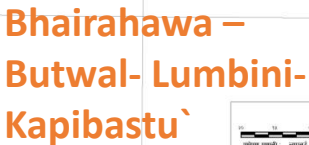


(Source: NUDS, 2017))



## Economi Corridors Initiative: Preparation of Sub-national Integrated Development Strategies.

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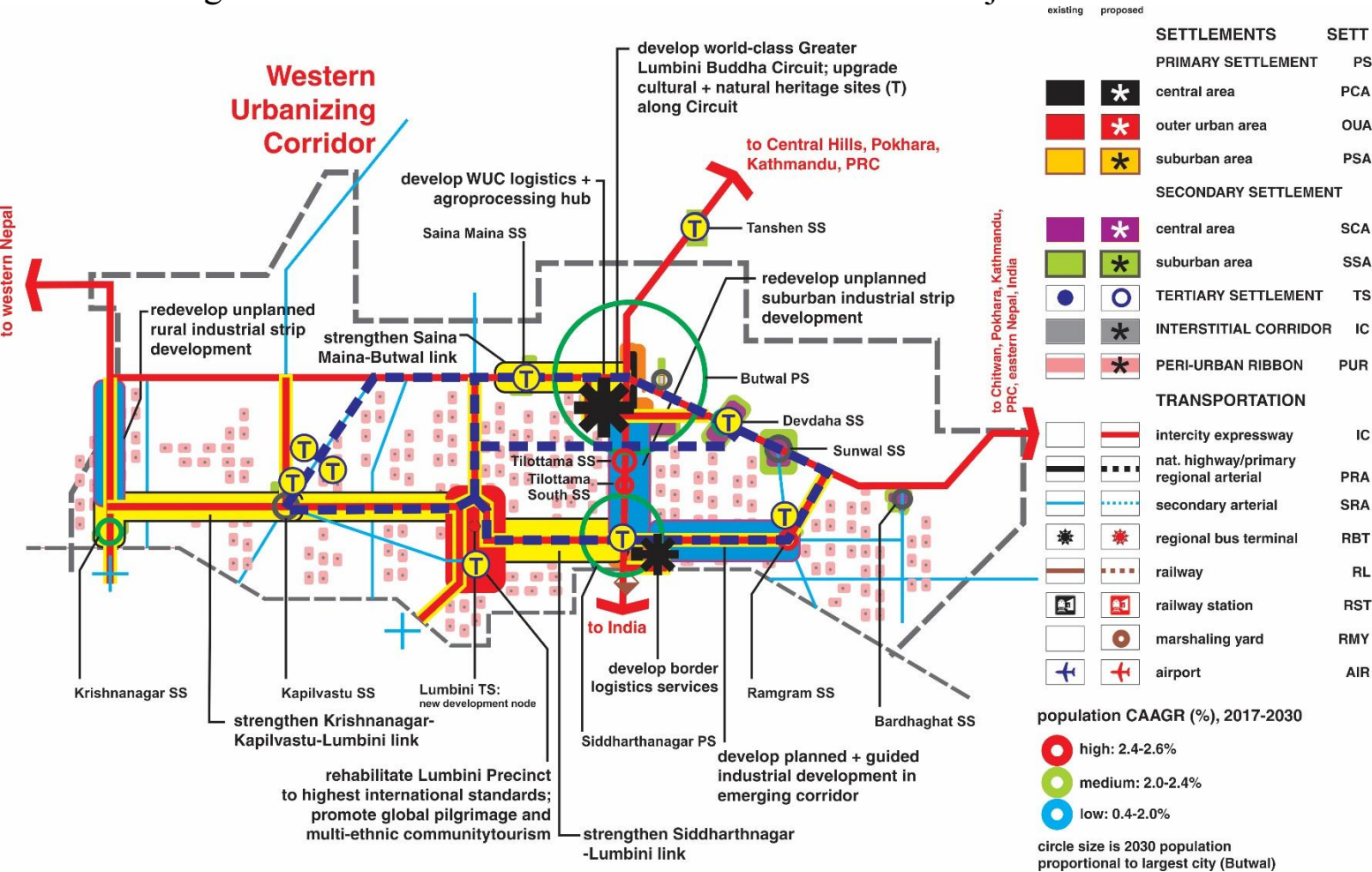
**Selection criteria:**

- (i) Regional growth potential,
- (ii) Local urban prosperity and
- (iii) Institutional capacity of the corridor municipalities

(Source: DUDBC, UPDC)

## 8. GON INITIATIVES- URBAN ECONOMIC CORRIDORS

IDS identified functional boundary rather than administrative regions through spatial analysis using GIS that identified a one-hour drive-time from major cities and towns in the corridor area.



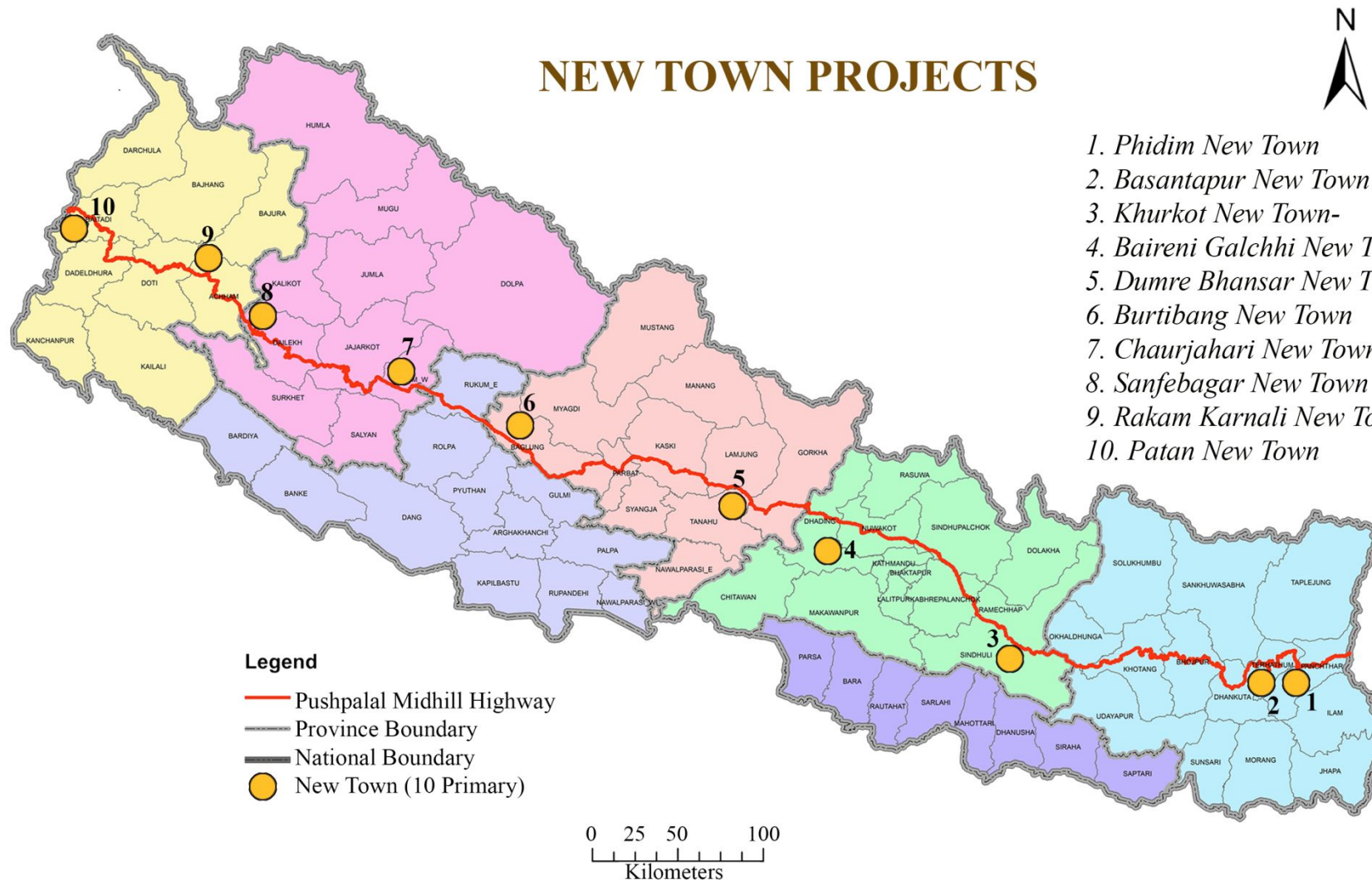
**Western Urban Corridor Spatial Strategy** (Source DUDBC, 2019)

- Assess economic and urbanization potentials of the corridor to 2030 and 2050;
- Identify hierarchy of settlements & defining optimal functional relationships
- Suggest priorities for economic nodes for development based on a recommended economic strategy;
- Develop a regional structural plan, including transportation networks and other major strategic infrastructure projects;
- Recommend policies and policy instruments for urban and economic development of the corridor;
- Formulate a capital investment plan for phased implementation;
- Conduct DPR of the prioritized projects
- Implementation



## 8. GON INITIATIVES- NEW TOWN DEVELOPMENT

### NEW TOWN PROJECTS



1. Phidim New Town
2. Basantapur New Town
3. Khurkot New Town-
4. Baireni Galchhi New Town
5. Dumre Bhansar New Town
6. Burtibang New Town
7. Chaurjahari New Town
8. Sanfebagar New Town
9. Rakam Karnali New Town
10. Patan New Town

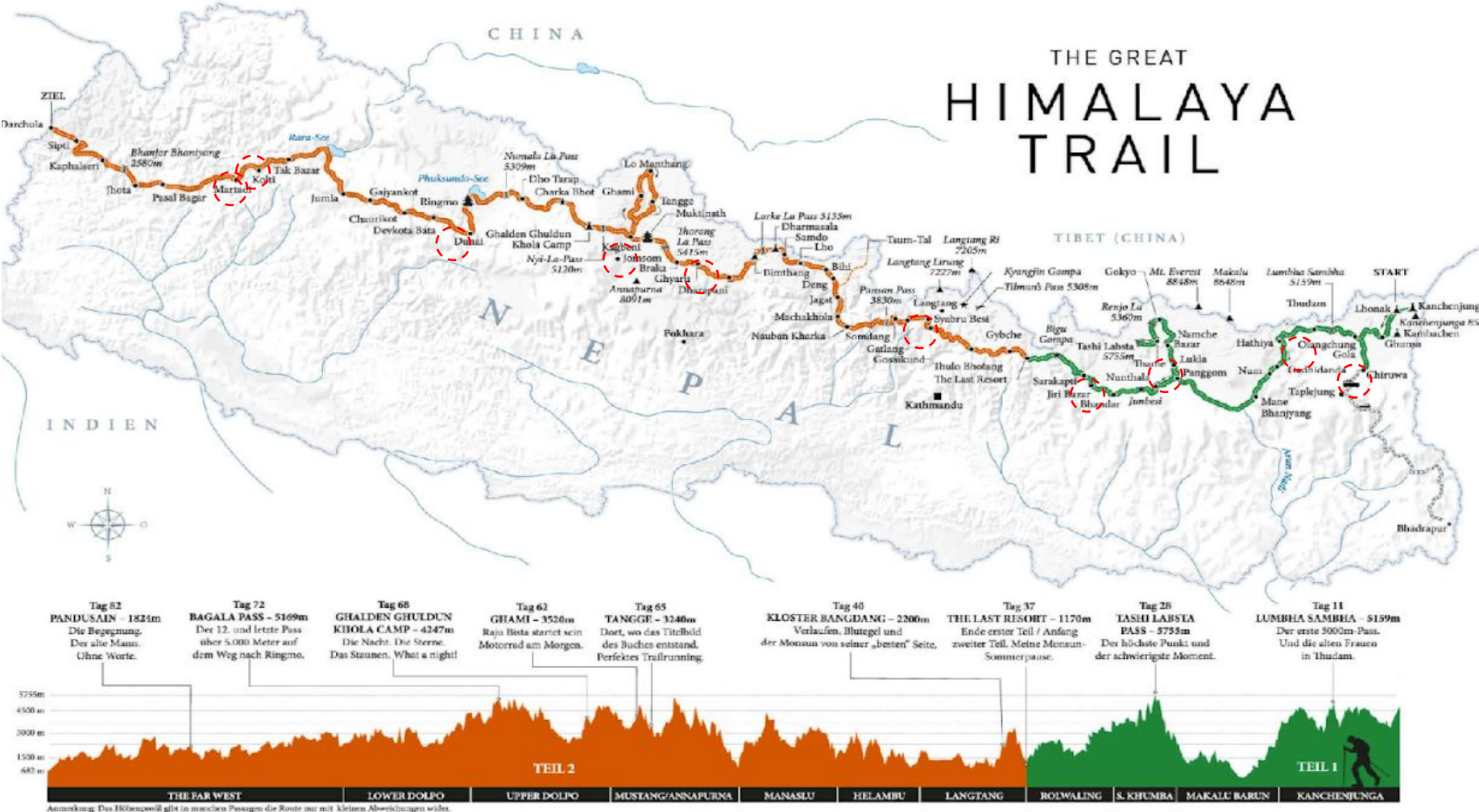
- Cater population of 1,00,000 people
- Land availability, population and density, potential for economic development, non-agricultural population, water sources, migration, state of government services, literacy and road access
- Facilitating links between urban and rural communities

- Land Development Scheme, Bus park, Agriculture Market ( Haat bazar), Park, Water Supply Scheme, Road infrastructure are being developed in each New towns.

# 8. GON INITIATIVES- HIMALI TOWNS

## Morphological Retainment and Enhancement Approach

- Identify contextual identity and existing morphology
- Settlement patterns, networks, connectivity, hierarchies of spaces, path, nodes, boundary, neighborhood.
- Identify Interventions



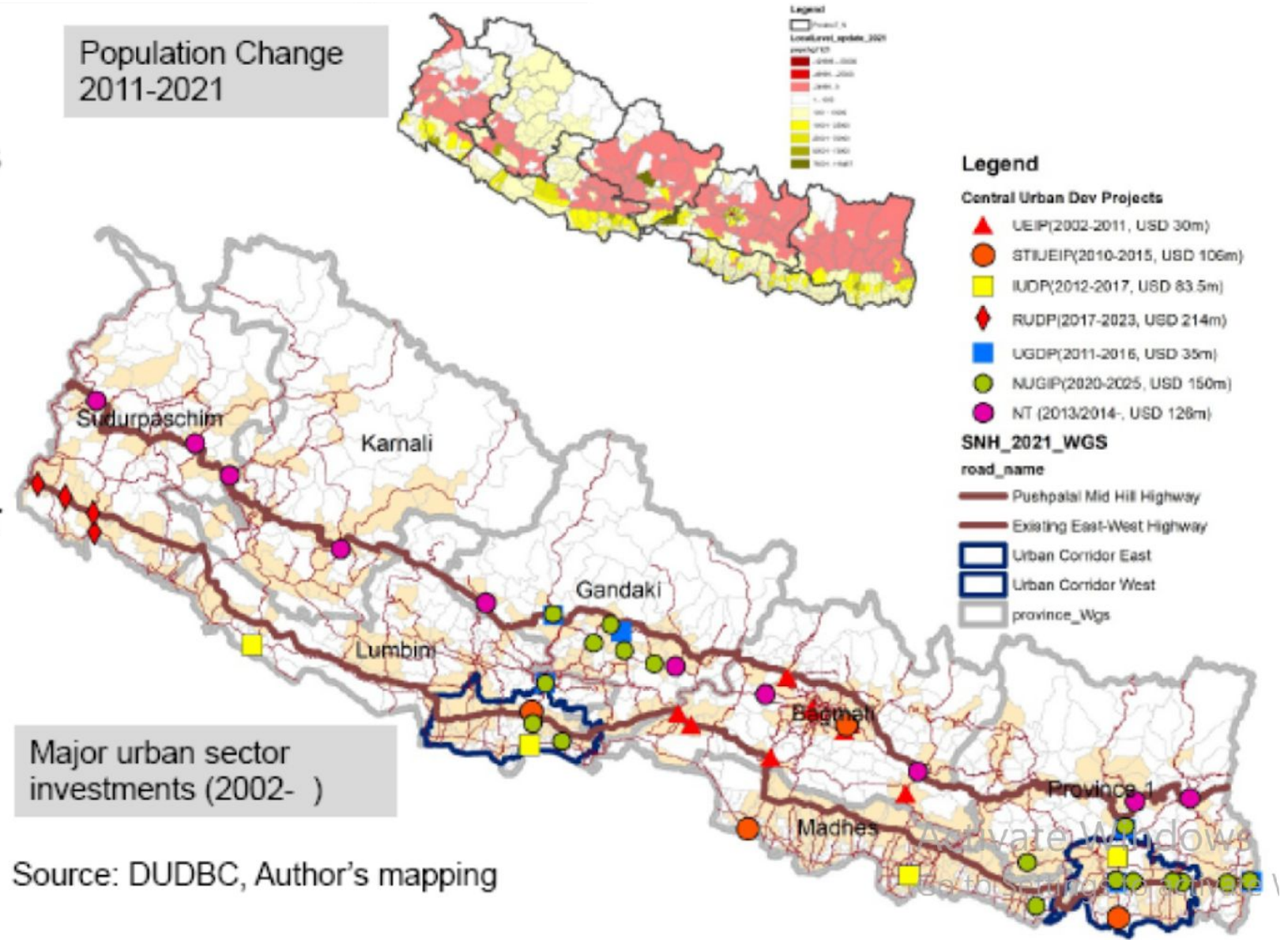


## 9. CHALLENGES AND WAY FORWARD

Average annual spending (2002-2023) of the Centrally Executed Strategic Projects is about USD 29m.

It is inadequate than the assessed budget of USD 1.6 b required per annum to suffice existing deficit and new infrastructure demand for the period of 2017-2031.

The Terai and Valley focused investment efforts appear to be not helping to reduce the migration from the hills and mountains.



# 10. CHALLENGES AND WAY FORWARD

## 1. Investments Deficit

- Overall investment requirement for 293 municipalities for the next 15 years -NPR 2,921 billion (USD 24.34 b)= NPR 195 billion per year (USD 1.62 b) for the next 15 years. Last year, for all 3 tiers of government, it was 80.1 billion
- The urban sector budget tends to be inadequate, fragmented, overlapped or uncoordinated, lagging guidance by plans such as IUDPs/PPs, and is less prioritized at provincial level.
- How to increase investment for urban infrastructures? Specially how to attract private sector investment: where will their role be likely and beneficial

## 2. Horizontal and Vertical Coordination

- Absence of or weak mechanism to forge coordination and collaboration between and at all three tiers of Governments
- MOUD ( Urban Development) vs MOFAGA ( Urban Governance)
- MOUD ( Urban Development) vs MOLCPA ( Land Administration)

## 3. Difficulty in Accessing to Urban Land

- How can production of “serviced” urban land be enhanced ?

## 4. Legislative provisions

- Legal status of plans
- Adequate legislative provisions to guide on spatial planning, approval, development, and growth management of the clustered city region

## 4. Inadequate institution for spatial planning and development

How can we build/strengthen necessary organizational structure, capabilities, and mechanisms to operationalize national policies and strategies?

## WAY FORWARD

- Investment
- Town Development Act ( Existing) - Urban Development Act (Proposed)
- Settlement Policy
- Guidelines and manuals to guide province and local level in urban policies, planning, and implementation
- Prepare adequate legislative provisions to guide on spatial planning, approval, development, and growth management of the clustered city region

Thank You

