

# SUSTAINABLE URBAN DEVELOPMENT IN INDONESIA

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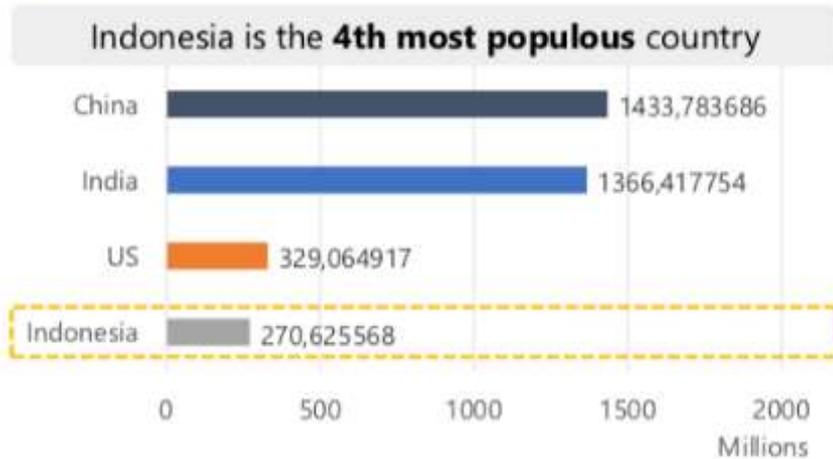
High Level Roundtable on Asian Cities  
Fostering growth and Inclusion in Cities

**Jakarta, 30 September 2019**

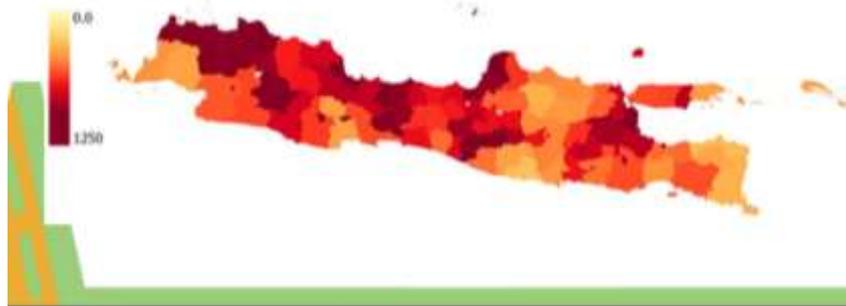
# I BACKGROUND

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# INDONESIA: THE URBANIZING ARCHIPELAGO

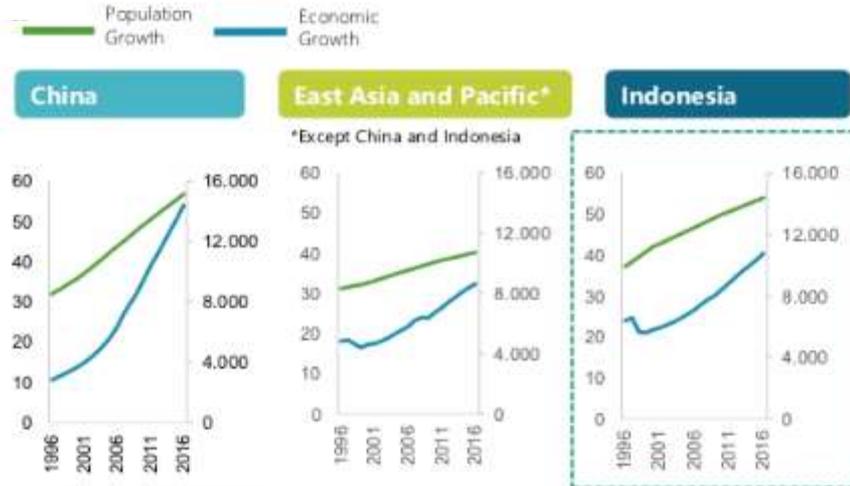


Java's population density in 2045 (per km<sup>2</sup>)



- In 2045 Indonesia's population will increase by **80.4 million** from 2010, and **72.8%** will live in cities
- **Without serious intervention**, most of Indonesia's population will live in Java (**currently 56.56%**)
- Almost all areas in Java will be urbanized leaving fertile Java with no area for **food production**

# URBANIZATION: ISSUES AND OPPORTUNITIES



In China 1% increase of urban population, per capita GDP increase by 3%

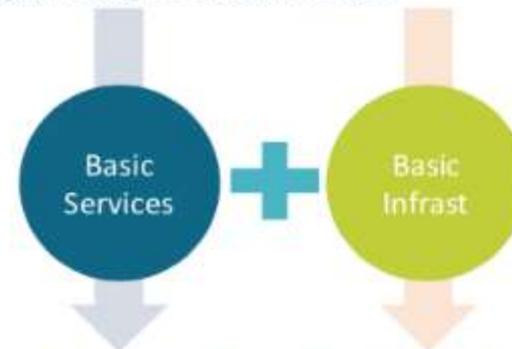
In EAP 1% increase of urban population, per capita GDP increase by 2.7%

In Indonesia 1% increase of urban population, per capita GDP increase by 1.4%

With this idea, we have to be careful in developing urban areas so that **sources of deadweight** from urban development can be **identified** and **anticipated**

Sources: World Urbanization Prospects (2018)

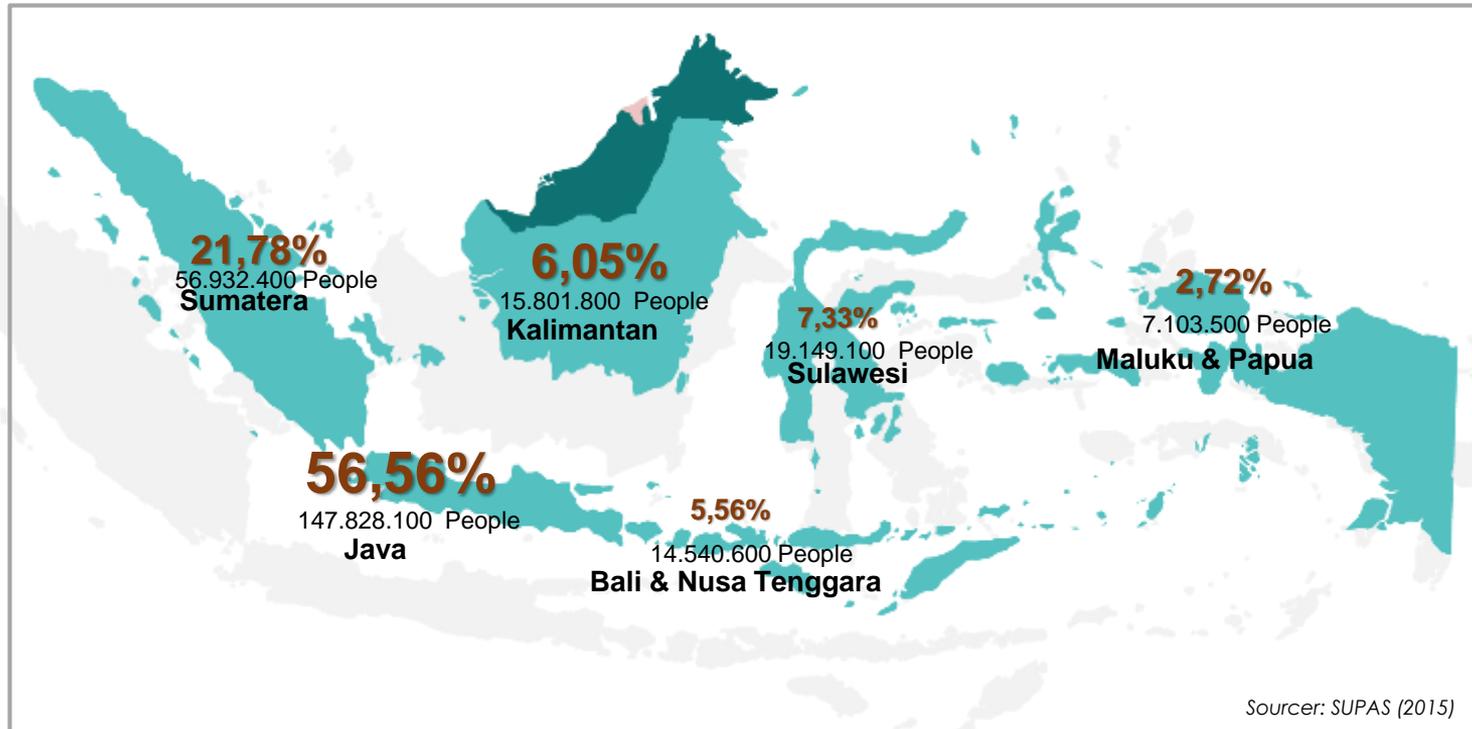
Shortages of access to **basic services** such as health, education and **basic infrastructures** such as piped water, sanitation, and housing contribute significantly to **urban issues**



**Inclusive Urbanization is Priority**

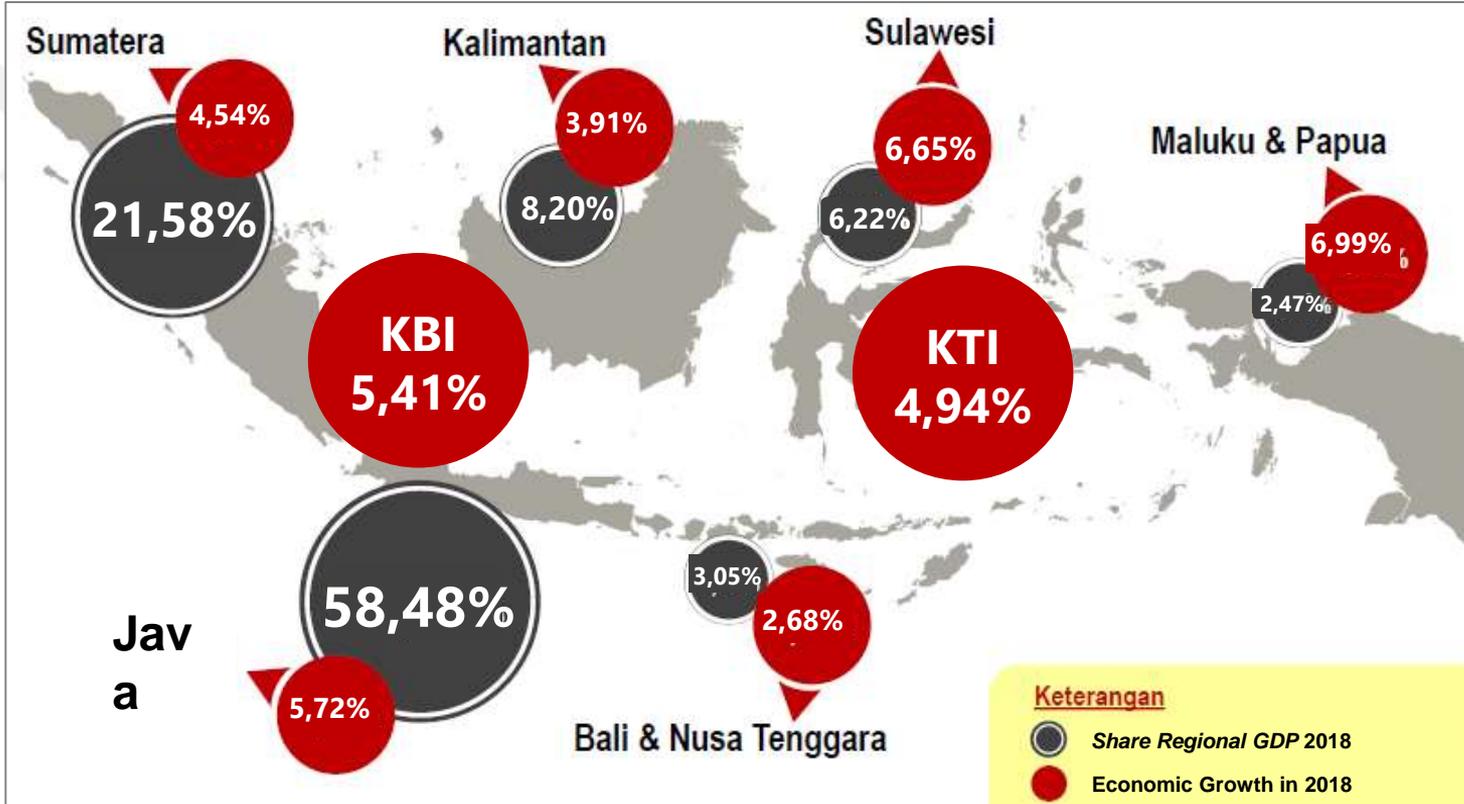
Ensuring **all citizen** have **good access** to basic services and basic infrastructure

# APPROXIMATELY 57% OF INDONESIA'S POPULATION IS CONCENTRATED IN JAVA



Java Island has the highest population, **56.56%** of the total population of Indonesia, while other regions have a very low population (<10%) except Sumatera Island

# ECONOMIC ACTIVITY IS HIGHLY CONCENTRATED IN JAVA



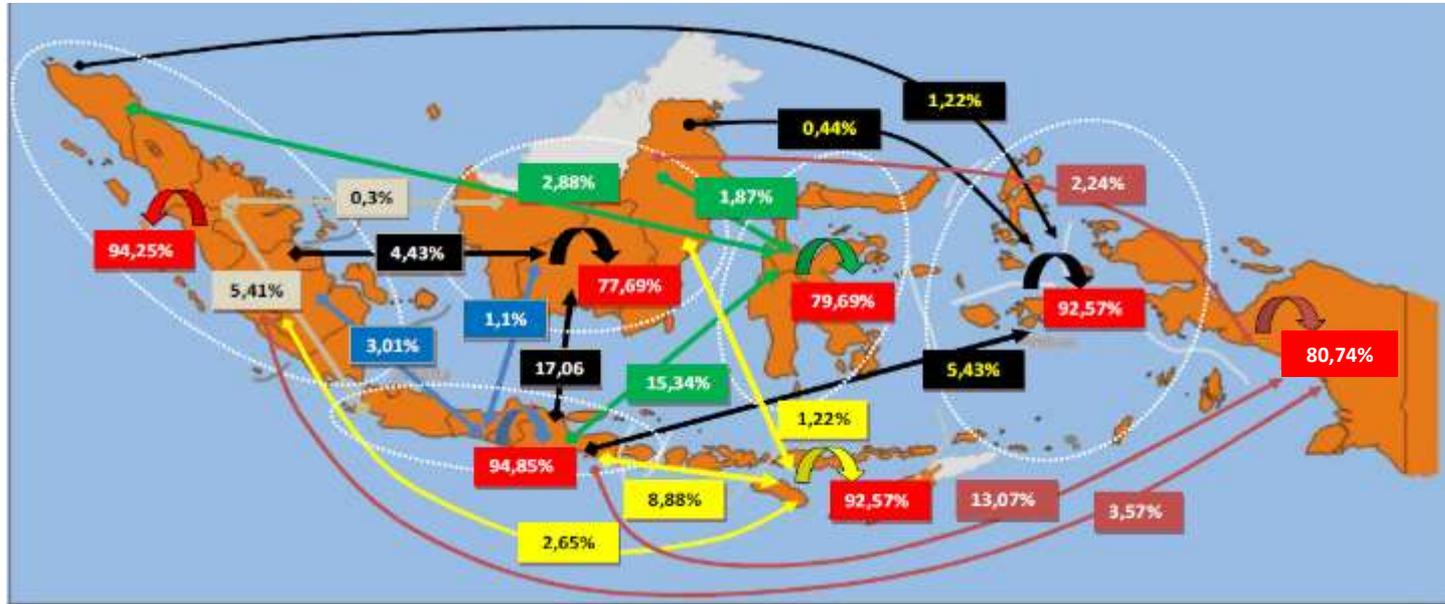
- Economic activity is still **concentrated in Java**, reflected in the share of **Regional GDP 58.48%**

- Economic Growth in **Western Indonesia 5.41%**, higher than **4.94% in Eastern Indonesia**

Source: Badan Pusat Statistik (2018)

Economic Growth in 2018

# DISTRIBUTION OF INTERMEDIATE INPUT TRADE 2010



Source: Bappenas, Interregional Input-Output Table 2010

Perdagangan IntraWilayah	OUTPUT	Demand on Intermediate Input						
		Sumatera	Jawa+Bali	Kalimantan	Sulawesi	Nusa Tenggara	Maluku	Papua
Perdagangan Antarwilayah Ke Sumatera	INPUT							
Perdagangan antarwilayah ke Jawa+Bali	Sumatera	94,25	3,01	4,43	2,88	2,65	1,22	3,57
Perdagangan Antarwilayah ke Kalimantan	Jawa+Bali	5,41	94,85	17,06	15,34	8,88	5,43	13,07
Perdagangan antarwilayah ke Sulawesi	Kalimantan	0,30	1,10	77,69	1,87	1,22	0,44	2,24
Perdagangan antarwilayah-Nusa Tenggara	Sulawesi	0,02	0,36	0,52	79,69	0,81	0,12	0,33
Perdagangan antarwilayah ke Maluku	Nusa Tenggara	0,01	0,27	0,22	0,03	86,29	0,06	0,04
Perdagangan anatar wilayah ke Papua	Maluku	0,00	0,04	0,03	0,14	0,11	92,57	0,01
	Papua	0,01	0,37	0,04	0,04	0,05	0,16	80,74

# PASSENGERS MOBILITY IN INDONESIA(%)

Percentage of Passengers Mobility According to Destination (%)								
TUJUAN		TUJUAN						Oi
ASAL		P. Sumatera	P. Jawa	P. Bali & Nusa Tenggara	P. Kalimantan	P. Sulawesi	P. Maluku & Papua	
ASAL	P. Sumatera	55.28	37.53	1.71	2.80	2.25	0.43	100.00
	P. Jawa	8.07	86.95	1.77	1.60	1.40	0.21	100.00
	P. Bali & Nusa Tenggara	7.61	22.09	50.20	7.23	11.40	1.47	100.00
	P. Kalimantan	19.67	30.76	11.02	26.09	11.22	1.23	100.00
	P. Sulawesi	7.23	12.12	8.04	5.14	64.12	3.35	100.00
	P. Maluku & Papua	14.43	19.01	11.08	6.00	35.83	13.65	100.00
Jumlah		15.50	74.80	3.08	2.33	3.87	0.41	100.00

Percentage of Passengers Mobility According to Origin (%)								
TUJUAN		TUJUAN						Oi
ASAL		P. Sumatera	P. Jawa	P. Bali & Nusa Tenggara	P. Kalimantan	P. Sulawesi	P. Maluku & Papua	
ASAL	P. Sumatera	55.12	7.75	8.58	18.53	8.99	16.08	15.45
	P. Jawa	40.57	90.56	44.67	53.38	28.22	39.17	77.90
	P. Bali & Nusa Tenggara	1.00	0.60	33.21	6.32	6.00	7.25	2.04
	P. Kalimantan	1.63	0.53	4.59	14.34	3.71	3.81	1.28
	P. Sulawesi	1.43	0.49	7.97	6.74	50.58	24.74	3.06
	P. Maluku & Papua	0.25	0.07	0.98	0.70	2.51	8.96	0.27
Jumlah		100.00	100.00	100.00	100.00	100.00	100.00	100.00

- On 2011 pergerakan penduduk dari Sumatera sebagian besar di wilayah Sumatera (55,28%) dan menuju Jawa (37,53%).
- Di sisi lain, penduduk yang melakukan perjalanan menuju wilayah Sumatera sebagian besar Sumatera (55,12%) dan Jawa (40,57%).
- Mobilitas penduduk akan semakin meningkat dengan pembangunan jalan tol dan jalan Trans Sumatera.
- Tantangan ke depan mengembangkan konektivitas daerah kepulauan (Kepulauan Riau dan Bangka Belitung), dan dengan wilayah Kalimantan, Malaysia, Singapura dan Thailand.

# WATER SUPPLY CRISIS IN JAVA



**WS Water Availability based on water availability classification per capita**

Source: Ministry of Public Works and Public Housing (2016)



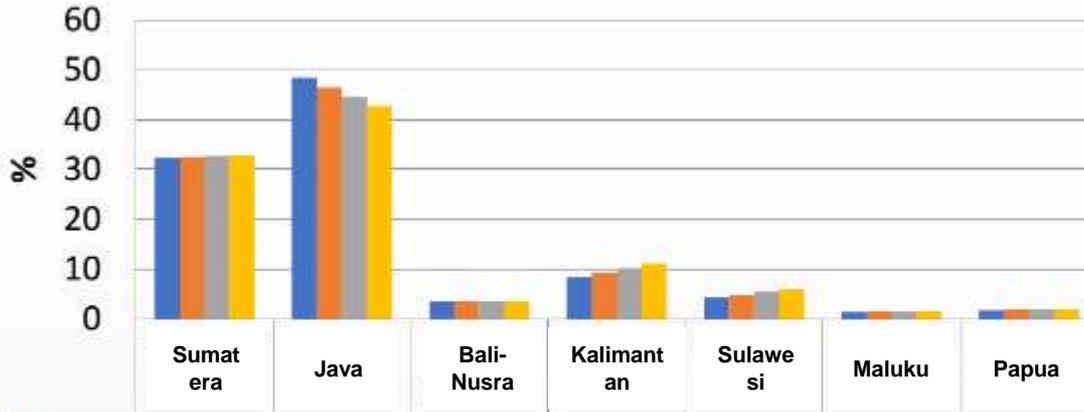
**Carrying Capacity and Water Capacity of Java Island**

Source: Ministry of Environment and Forestry (2019)

Most areas of Java have experienced a crisis in the availability of clean water.

# LARGEST LAND CONVERSION IN JAVA

Proportion of Build-up Land Consumption among Islands



	Sumatera	Java	Bali-Nusra	Kalimantan	Sulawesi	Maluku	Papua
2000	32.34	48.41	3.48	8.38	4.30	1.37	1.71
2010	32.54	46.49	3.52	9.29	4.88	1.46	1.82
2020	32.71	44.64	3.56	10.18	5.42	1.56	1.94
2030	32.87	42.79	3.59	11.08	5.96	1.66	2.06

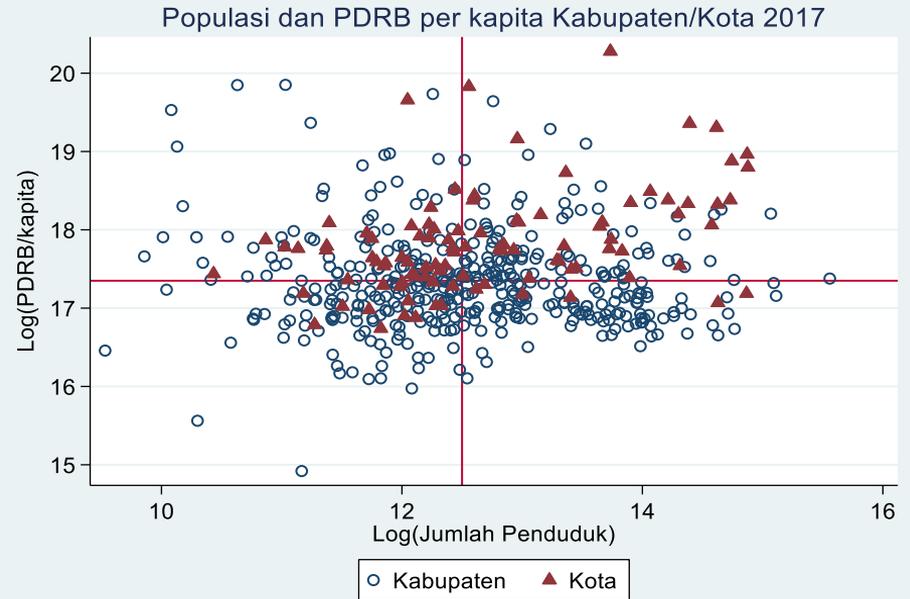
- During the period 2000-2030, the **largest amount of built-up land use was found in Java** with a downward trend, whereas in Sumatra the conditions tend to be static. This indicates a **decrease in the carrying capacity of built land**, especially in Java.
- There was a **decrease of the agricultural land area** by 0.93% (in 2013-2016).

Source: KLHS Modelling, Bappenas, 2019

# Cities as engine of growth

Cities in Indonesia generally serve as growth centers and are more productive than rural districts. 78 out of 98 cities have per capita GRDP above national median (79 percents), while the figure for districts (kabupaten) is 180 out of 416 (43 percents).

INDIKATOR	KOTA	KABUPATE N
Population (average)	601.798	487.775
Per capita GRDP (Rp m, average)	73,95	43,73
Economic growth 2013-2017 (annual, average)	5,91	5,65



# Agglomeration economies in cities

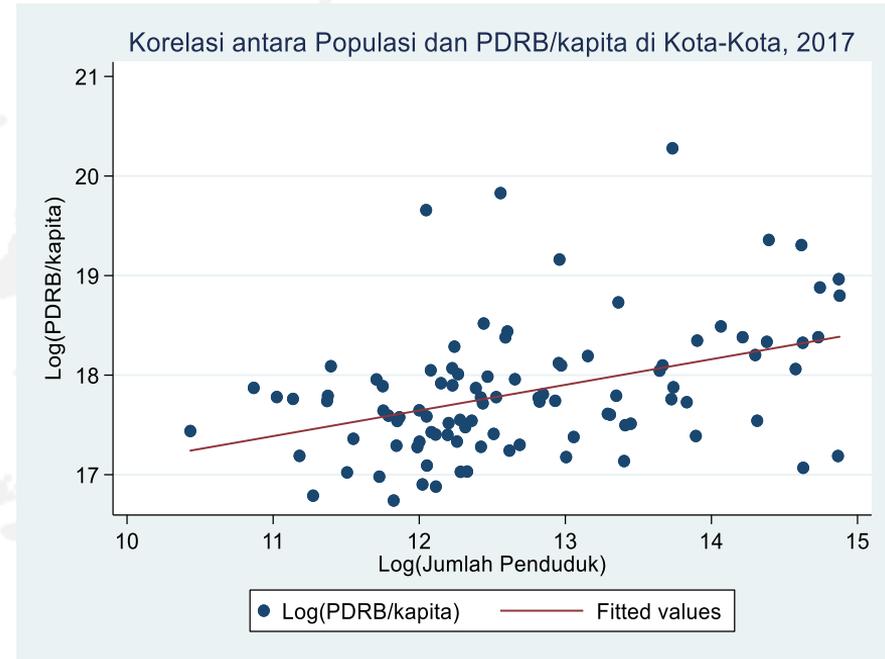
Cities enjoy agglomeration economies in various forms:

Firms and workers are concentrated in cities, allowing them to match skills and industry requirement, leading to specialization and improved productivity.

Firms that are located close to each other enjoy spill over in know-how and technology, as well as exploit advantage if a more efficient supply chains.

A cluster of related industries also enables the development of inter-industry linkages in production/value chains.

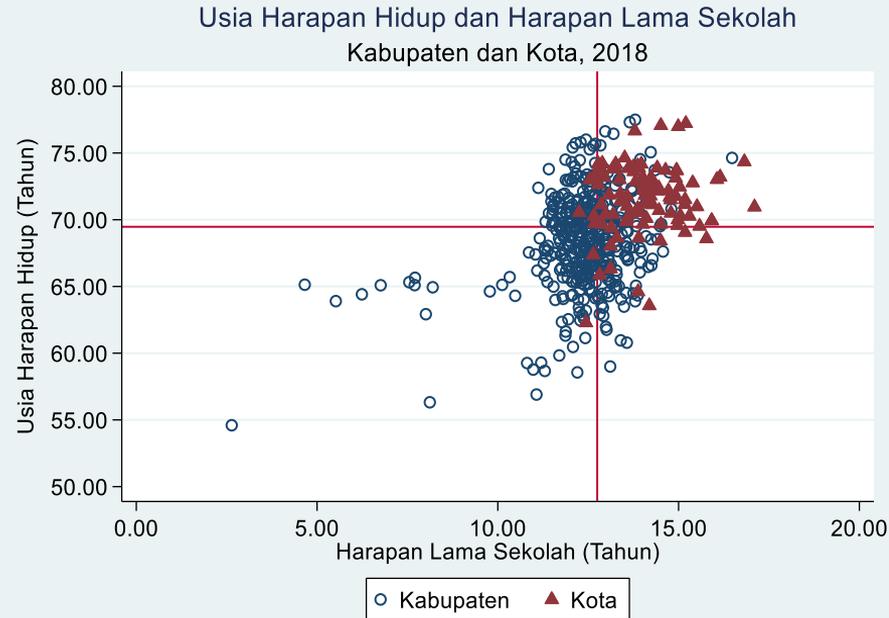
And, firms can exploit directly greater market access in dense cities.



# Cities and living standards

Cities also offer better quality of life. In most cities in Indonesia, life expectancy and expected year of schooling are above national median of Kabupaten/Kota.

INDIKATOR 2018	KOTA	KABUPATE N
Usia Harapan Hidup (tahun, rata2)	71,69	68,53
Rata2 lama sekolah (tahun, rata2)	10,35	7,56
Harapan lama sekolah (tahun, rata2)	14,18	12,49
IPM 2018 (rata2)	77,11	66,93



# Pace of urbanization

Indicator: change in the percentage of population living in urban areas.

Sources: natural growth, rural-urban migration, and rural reclassification into urban area due to development (in-place urbanization)

National level of urbanization (projection based on the 2010 Census, BPS):

2010: 49,8 percents

2015: 53,3 percents

2020: 56,7 percents

2025: 60,0 percents

2030: 63,4 percents

It is expected that in 2020 the urbanization level in four provinces will exceed 70 percents: DKI Jakarta, Jawa Barat, DI Yogyakarta, dan Bali. On the other hand, Sulawesi Barat and NTT have the lowest urbanization with less than 25 percents.

# However, cities in Indonesia are still facing big challenges to achieve inclusive, sustainable growth

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- Spatial imbalances → over concentration in Java
- Costs of congestion
- Internal inequality and urban poverty
- Urban unemployment
- Fiscal capacity of cities to support urban development

# Spatial distribution of cities in Indonesia

REGION	CITIES WITH POPULATION LESS THAN 1 MILLION	CITIES WITH POPULATION 1-2 MILLIONS	CITIES WITH POPULATION MORE THAN 2 MILLIONS
Sumatera	29	4	1
Jawa-Bali	23	4	8
Kalimantan	9	0	0
Sulawesi	10	1	0
NTB, Maluku, Papua	9	0	0

Java and Bali altogether make up only 7 percents of total land area but home to 8 big cities with population above 2 millions, some of them build metro area with surrounding cities.

# Congestion costs

Congestion and over density will offset the benefits offered by urban agglomeration :

High density ignites land price spike, and workers live far away from working place in urban center

Transport costs and commuting time increase and reduce the real income of the workers.

Pollution of air and water threaten people's health.

Excessive use of ground water cause land subduction.

Increased waste generated by households are not matched by local waste management, and not yet fully treated in sustainable approaches (landfill, waste for energy)

# Urban poverty

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Contribution of non food spending in poverty line is relatively high in urban (28,4 percents), compared to that in rural (23,5 persen).

As a whole, the biggest contributors are rice, cigarettes, and housing expenditure.

Poverty rate are relatively high in small and medium cities:

8,03 percents in cities with population less than 1 million

5, 87 percents in cities with population between 1 and 2 millions

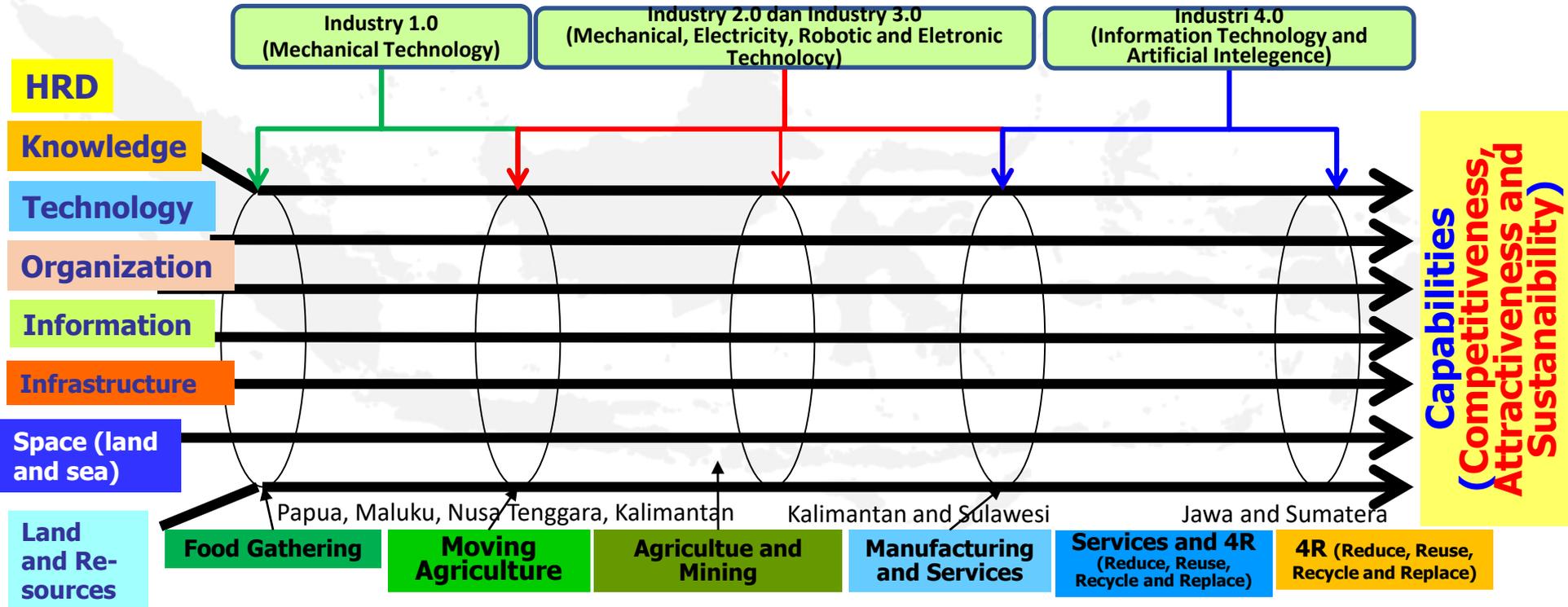
4,52 percents in cities with population above 2 millions

# II

## DEVELOPMENT STRATEGIES OF FOSTERING GROWTH AND INCLUSION

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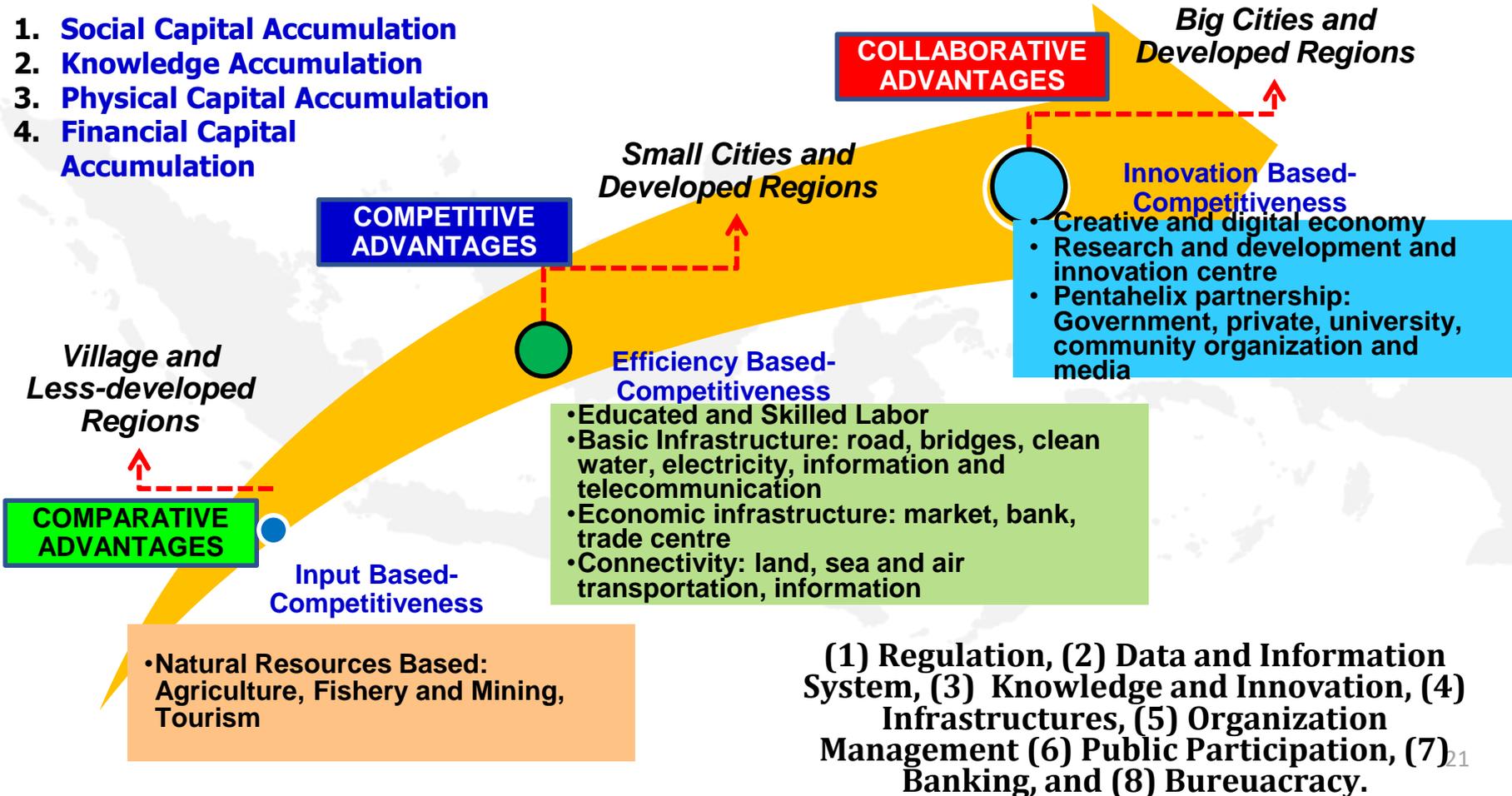
# TRANSFORMATION OF SOCIAL, CULTURAL AND ECONOMY OF THE REGIONS



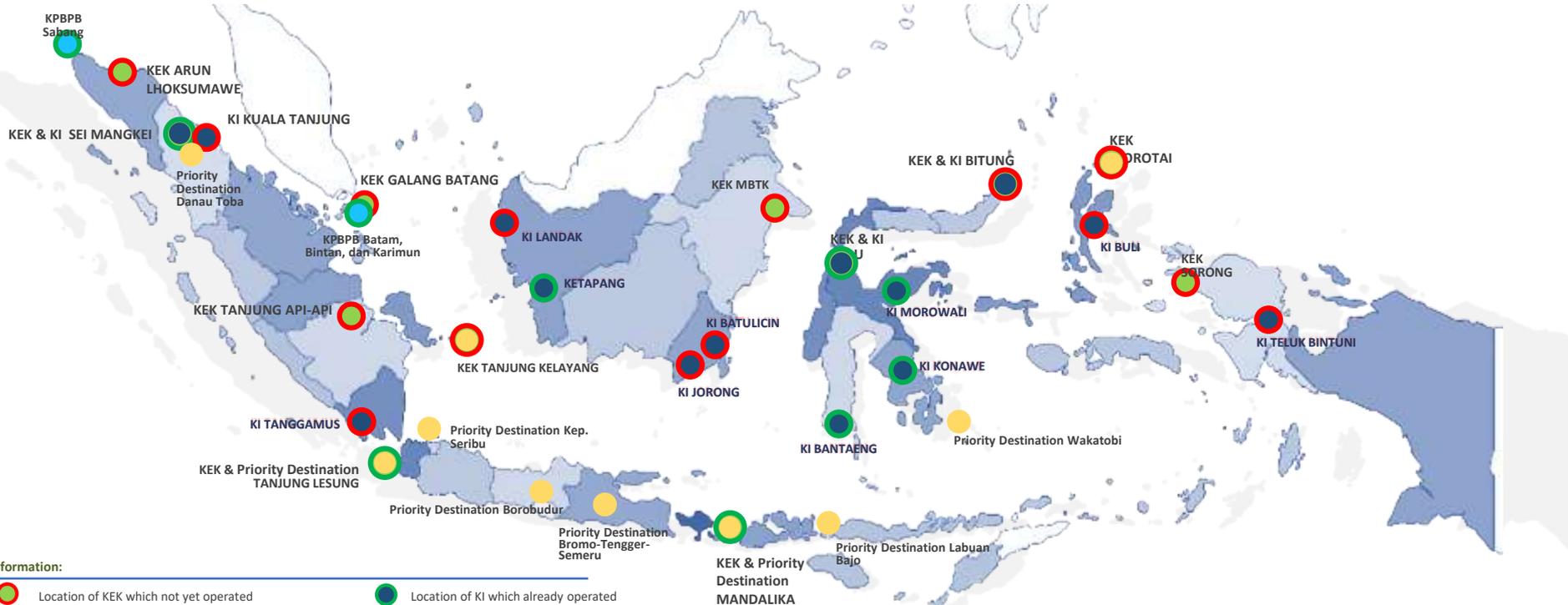
**Different on Direction, Magnitude and Speed of the Transformation.**

# SHIFTING INTO COLLABORATIVE ADVANTAGES

1. Social Capital Accumulation
2. Knowledge Accumulation
3. Physical Capital Accumulation
4. Financial Capital Accumulation



# INDUSTRIALIZATION THROUGH THE DEVELOPMENT OF SPECIAL ECONOMIC ZONES (KEK) AND INDUSTRIAL ZONES (KI), AND TOURISM OUTSIDE JAVA



**Information:**

- Location of KEK which not yet operated
- Location of KEK which already operated
- Location of KEK/Tourism Destination which already operated
- Location of KEK/Tourism Destination which not yet operated
- Location of KI which not yet operated
- Priority Destination Location
- Location of KPBPB (Free Trade Zone and Free Port)

**Strategy:**  
 Economic growth through operationalization and increased investment in growth centers in strategic areas/regions outside Java

# METROPOLITAN AND NEW CITY DEVELOPMENT

- Currently most metropolitan areas are in Java. We plan to develop metropolitan areas outside Java Island.
- Our current priorities are metropolitan areas in Palembang in Sumatera, Denpasar in Bali, Banjarmasin in Kalimantan, and Makassar in Sulawesi.

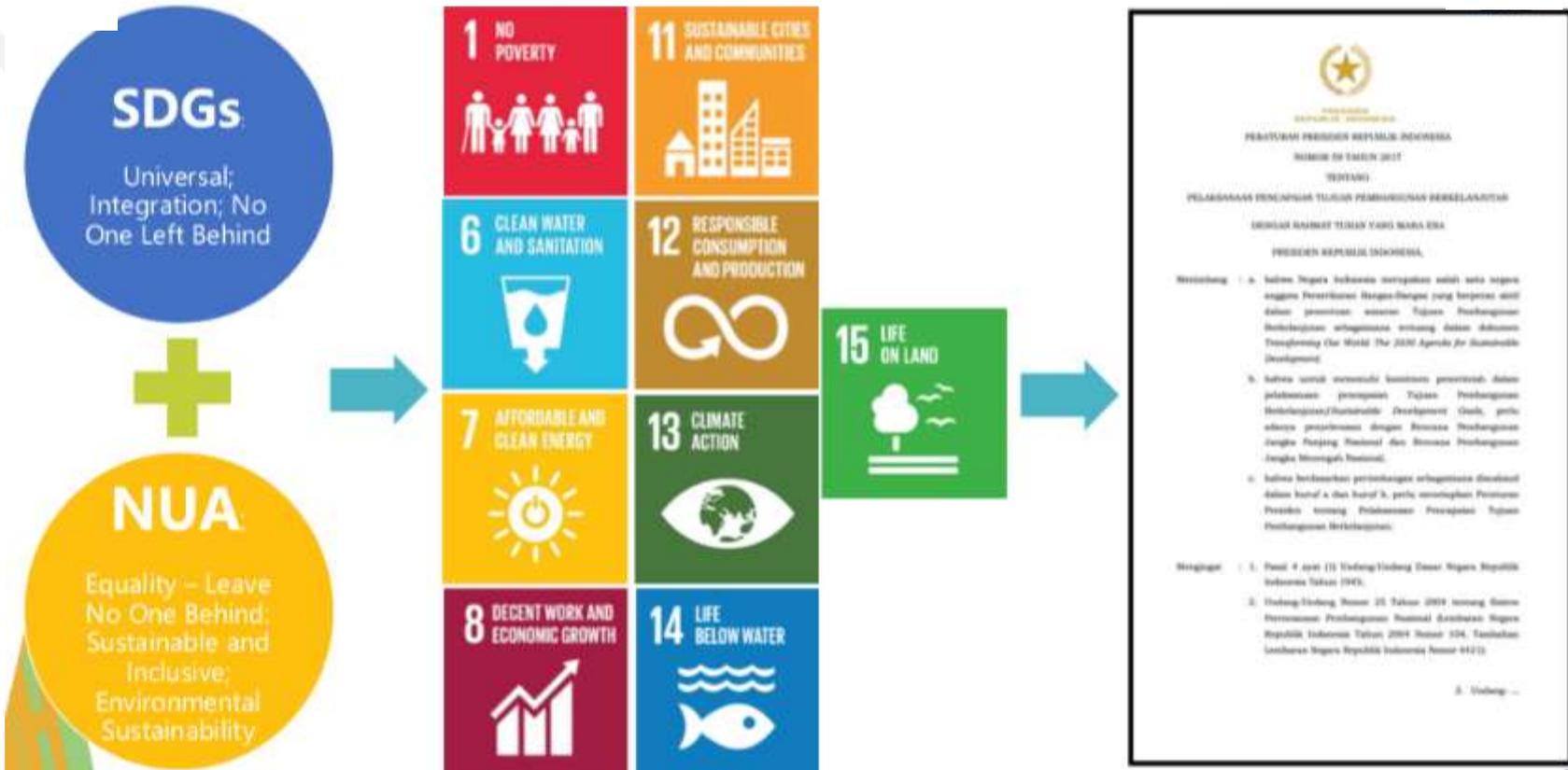


- New City Development
- Metropolitan Area Development

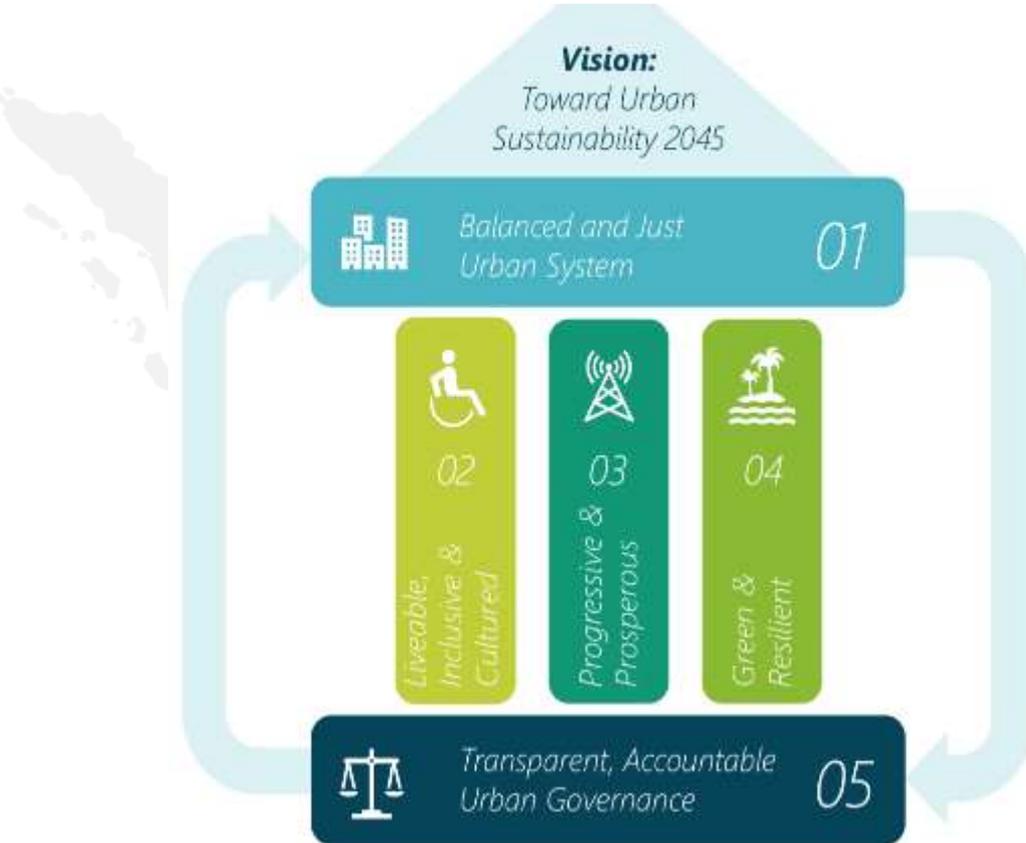
## Strategy:

- Encourage the role of Urban/Metropolitan National Strategic Areas (KSN) in supporting regional/island growth
- Development of strategic service sector investment plans for the new metropolitan area

# INTEGRATING SDG'S AND NUA IN INDONESIA



# VISION 2045: SUSTAINABLE URBAN DEVELOPMENT



- Currently we are in the process of developing Government Regulation on Urbanization where **National Urban Policy** is one of the attachment
- **2045 Vision** is Sustainable Urban Development with five missions:
  - **A Balance** and **equitable** national urban system among regions;
  - **Liveable, inclusive** with **progressive** urban culture;
  - **Prosperous** and **competitive** cities and metropolitan areas;
  - **Green** and **resilient** cities;
  - **Accountable** and **transparent** urban governance taking into account positive opportunities from global **digital transformation**

# Government focus in urban development (2020-2024)

Development of metropolitan areas will focus on the development of mass transportation and the arrangement of regional authority in urban public services (transportation, water and sanitation, waste management).

Priorities: Metro Palembang (Patungagung), Denpasar (Sarbagita), Banjarmasin (Banjarbakula), dan Makassar (Maminasata).

Development of small and medium cities will focus on acceleration of economic growth, strengthening foundation of sustainable development, and improvement of cities' liveability.

Development of 'new cities'.

Priorities: Kota Baru Maja (Kab. Lebak), Kota Baru Tanjung Selor (Kab. Bulungan), Kota Baru Sofifi (Kab. Tidore Kepulauan), Kota Baru Sorong (Kota Sorong).

# IMPLEMENTATION FRAMEWORK FOR SUSTAINABLE URBAN DEVELOPMENT

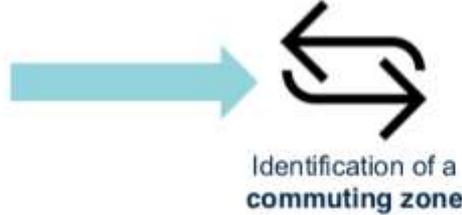


\*norms, standards, procedures, criteria

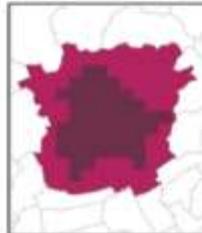
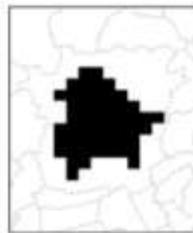
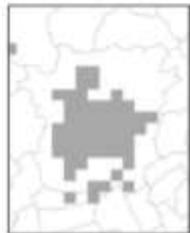


# DEFINING A METROPOLITAN STATISTICAL AREA

## ...FUNCTIONAL URBAN AREAS: A CITY AND ITS COMMUTING ZONE



- Bappenas with Indonesian Statistical Agency (BPS) work hand in hand to develop a method to determine **metropolitan statistical area**.
- We are using **mobile positioning data** to count proportion of commuter to population

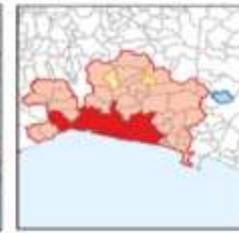
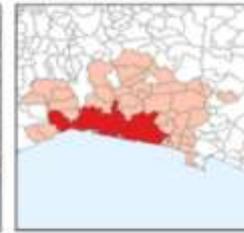


High-density cell  
( $>1.500$  inhabitants per  $\text{km}^2$ )

Urban centre  
(cluster of high-density cells with population  $>60.000$  inhabitants per  $\text{km}^2$ )

Commune  
 $> 50\%$  of its population in an urban centre

Source: eurostat, accessed 2018



City

Commuting area

Commuting area after including enclaves and dropping exclaves

City  
Commune

Commune with  $> 15\%$  of its employed population commuting to the city

Larger urban zone  
Added enclave  
Removed exclave

# METROPOLITAN MANAGEMENT

A	B	C	D
Inter-Municipal Forum (in fragmented governance situation)	Metropolitan/Regional Authority	Two Tier Metropolitan/Local Government	Consolidated Local Government
<p>Temporary or permanent <b>bodies for coordination</b> on broad-based collaboration or specific topics. Arrangement may take following forms:</p> <ul style="list-style-type: none"> <li>• Metro Council</li> <li>• Committee</li> <li>• Commissions</li> <li>• Working Groups</li> <li>• Consultative Platforms</li> <li>• Partnership</li> <li>• Association of Local Governments</li> <li>• Consortium</li> </ul> <p><b>Example:</b> <i>Metro Cebu Development Coordination Board, Council of Government (COG) common in the USA, Paris.</i></p>	<p>Authority established as an <b>independent legal entity</b>. Conceptually a voluntary organization (sometimes called special purpose district though a “bottom-up” approach)</p> <ul style="list-style-type: none"> <li>• Established by member local governments for broad-based planning and/or service delivery</li> <li>• Typically has full decision-making power &amp; accountability for sector (i.e. transport, water, sanitation)</li> <li>• May have authority to levy user charge and taxing power (i.e. utility company)</li> <li>• Council appointed or elected</li> </ul> <p><b>Example:</b> <i>Metro Manila Development Authority, Metro Vancouver</i></p>	<p>Often established by a higher-tier government, responsibilities for regional coordination and selective service delivery functions is vested with a <b>separate local government</b> (LG).</p> <ul style="list-style-type: none"> <li>• LG may or may not be hierarchically above the other LGs in the area (may be equal rank and legal status)</li> </ul> <p><b>Types:</b></p> <ol style="list-style-type: none"> <li>a. No substantial authority over them (<i>Dar es Salaam</i>)</li> <li>b. Limited authority (<i>Budapest</i>)</li> <li>c. Substantial authority over the area’s lower-level local governments (<i>London, Tokyo</i>)</li> </ol> <p><b>Example:</b> <i>Tokyo and Seoul Metropolitan Governments, London, Budapest, Chinese Municipalities</i></p>	<p>Formed though amalgamation of Local Governments (LG) or annexation of adjacent land (i.e. the <b>metropolitan area is the Local Government jurisdiction</b>).</p> <ul style="list-style-type: none"> <li>• Rare case as it tends to be politically controversial and requires active involvement of a national or a regional government.</li> <li>• While cost savings may occur through scale economies, service and salary level harmonization across the new LGs may be standardized based on the highest level LG resulting in higher costs.</li> </ul> <p><b>Example:</b> <i>Istanbul, municipalities in South Africa</i></p>

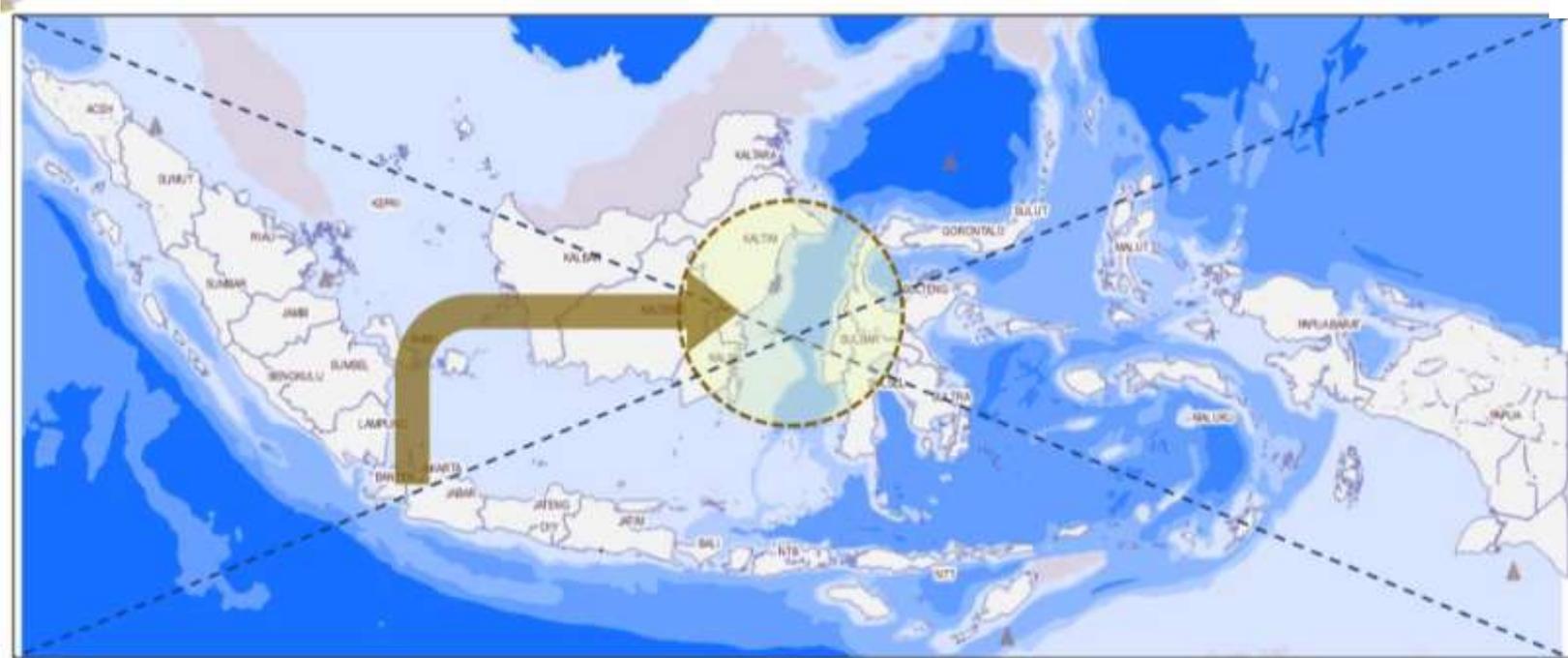
- We cannot apply “**One Size Fits all**” in metropolitan management
- **new initiative**, a breakthrough, is needed to ensure better coordination among local government within a **metropolitan area**

Source: UN-HABITAT, 2015. *Unpacking Metropolitan Governance for Sustainable Development*, Tokyo Metro Lab TDD “Metropolitan Governance”

# III CAPITAL CITY RELOCATION

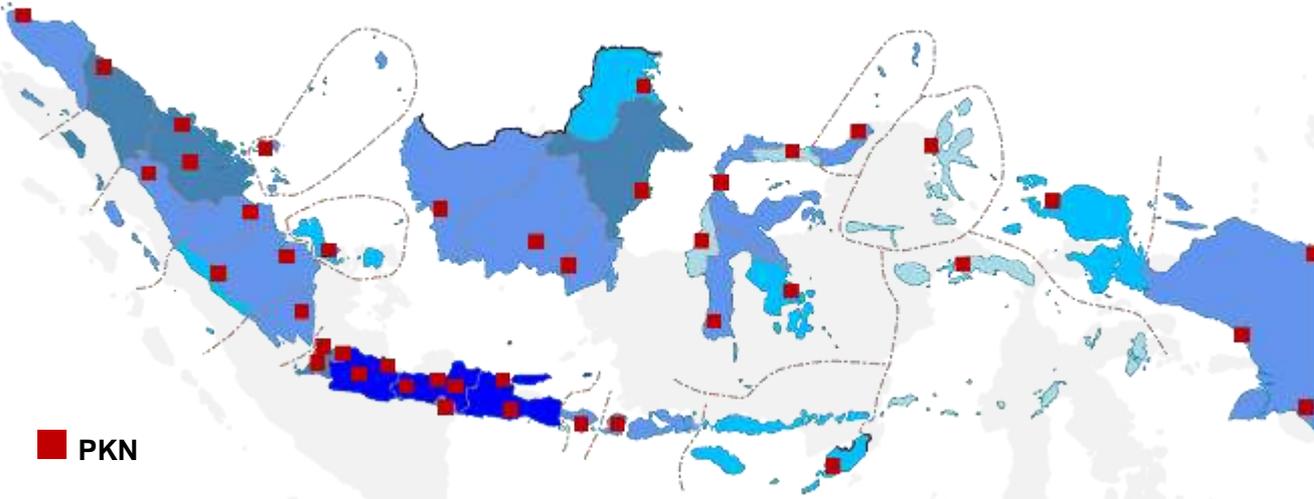
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# CAPITAL CITY RELOCATION: JAKARTA TO EAST KALIMANTAN



- President Joko Widodo has taken a very important decision to **relocate the capital city to East Kalimantan**.
- This decision is in line with the concept **to integrate the development** of Java with other large islands in Indonesia, especially Kalimantan, the center Island of Indonesia

# DEVELOPMENT OF THE NATIONAL URBAN SYSTEM



■ PKN

Source: PP 26/2008 ttg RTRWN as revised in PP 13/2017

- Functions of the National Activity Center (PKN):
- the main node of export-import activities
  - a center of industrial activity and services on a national scale or that serves several provinces
  - the main node of national scale transportation or serving several provinces
  - international hub port.

- Function of Regional Activity Centers (PKW):
- The second node of export-import activities that support PKN
  - The center of industrial and service activities serving provincial or several district scale
  - Transport nodes that serve provincial or several district scales
  - Coastal areas that support the national marine economy

Moving the capital city out of Java will strengthen the function of the National Activity Center (PKN) and Regional Activity Center (PKW) in the eastern region so that it can help reduce the gap between KTI and KBI.

## THE RELOCATION OF THE CAPITAL CITY TO OUTSIDE JAVA WILL ENCOURAGE EQUITABLE DEVELOPMENT



More than **50%** of Indonesia's territory will experience an increase in trade flows if the National Capital is moved to a province that has good connectivity with other provinces

Moving the capital to province outside Java will increase trade between regions:

- ❑ **Trade within the province** of the new capital city
- ❑ **Inter-provincial trade** in Indonesia:
  - ✓ From the Java Island to the Outer Islands Province
  - ✓ Between Provinces Outside Java

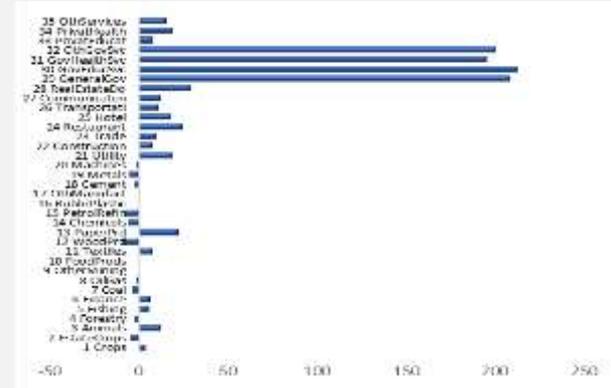


Trade between Regions in Indonesia will grow and encourage trade between Provinces outside Java

# RELOCATION OF THE NATIONAL CAPITAL TO KALIMANTAN WILL INCREASE INVESTMENT IN THE NEW CAPITAL CITY AND SURROUNDING PROVINCES



- **Relocation of the National Capital to Kalimantan will increase Investment** in the New Capital City and Surrounding Provinces
- The economic linkage of the new capital city province with other Provinces around it will be one of the drivers of investment in other provinces



## ▪ **Other than that.....**

The transfer of the national capital to Kalimantan will increase the output of a number of non-traditional sectors, especially the Service Sector, such as the government sector, the communications sector, hotels, trade, finance, and education.

## OTHER ECONOMIC IMPACTS OF MOVING THE NATIONAL CAPITAL OUTSIDE JAVA

01 Increase national economic growth by **0,1% - 0,2%**;

02 Reducing the gap between income groups, because:

*Increase in income from the labor-intensive sector > increase in income from the capital-intensive sector*  
**(1,37%)** **(0,23%)**

03 Reducing disparity between regions, because moving the capital outside Java will:

- **Encouraging trade between regions**, especially trade between Java and regions outside Java also between regions outside Java
- **Encourage investment** in the new state capital province and surrounding provinces.
- **Encouraging economic diversification**, so as to create an economic value added impetus in the non-traditional sector in the province.

04 New capital development investment will have a **multiplier effect on the national economy** around:

**Output Multiplier: 2,3\***

**Employment Multiplier: 2,9\***



**THANK YOU**