

JaJakarta

An exploration of future Jakarta

P4 Presentation

Sander Bakker

Rik Lambers

Mark van den Ouden

Jonathan de Veen

pre-P4 data

Resume of research

Fascination

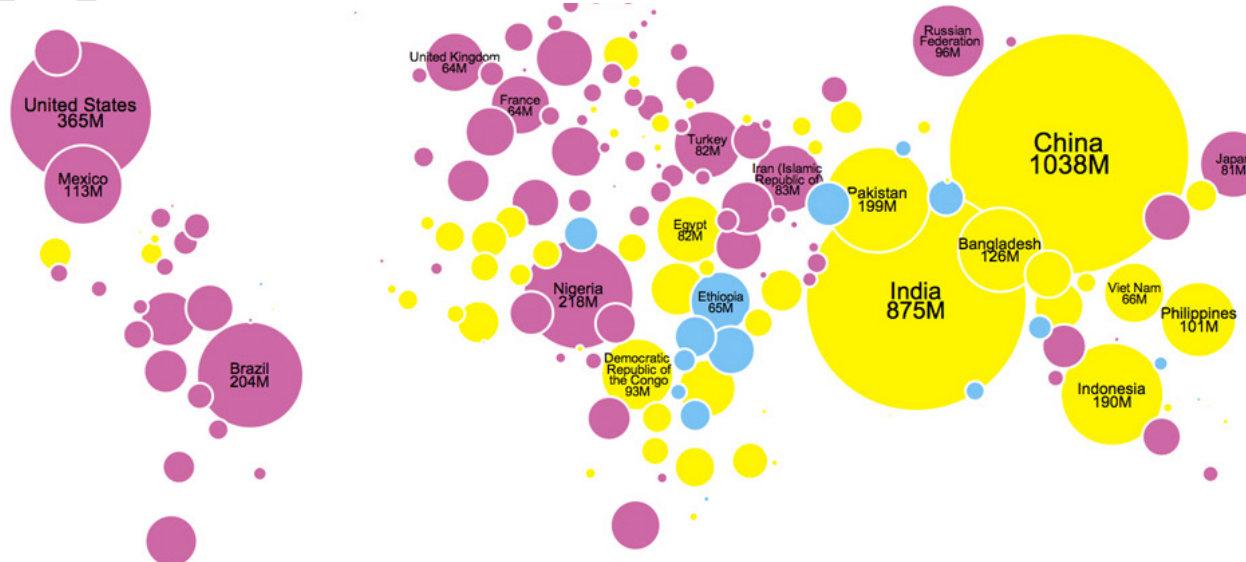
Urban growth

2000



Cities will contain a majority of the world population, estimates are around 75%

2050



Fascination

Friction of local and global

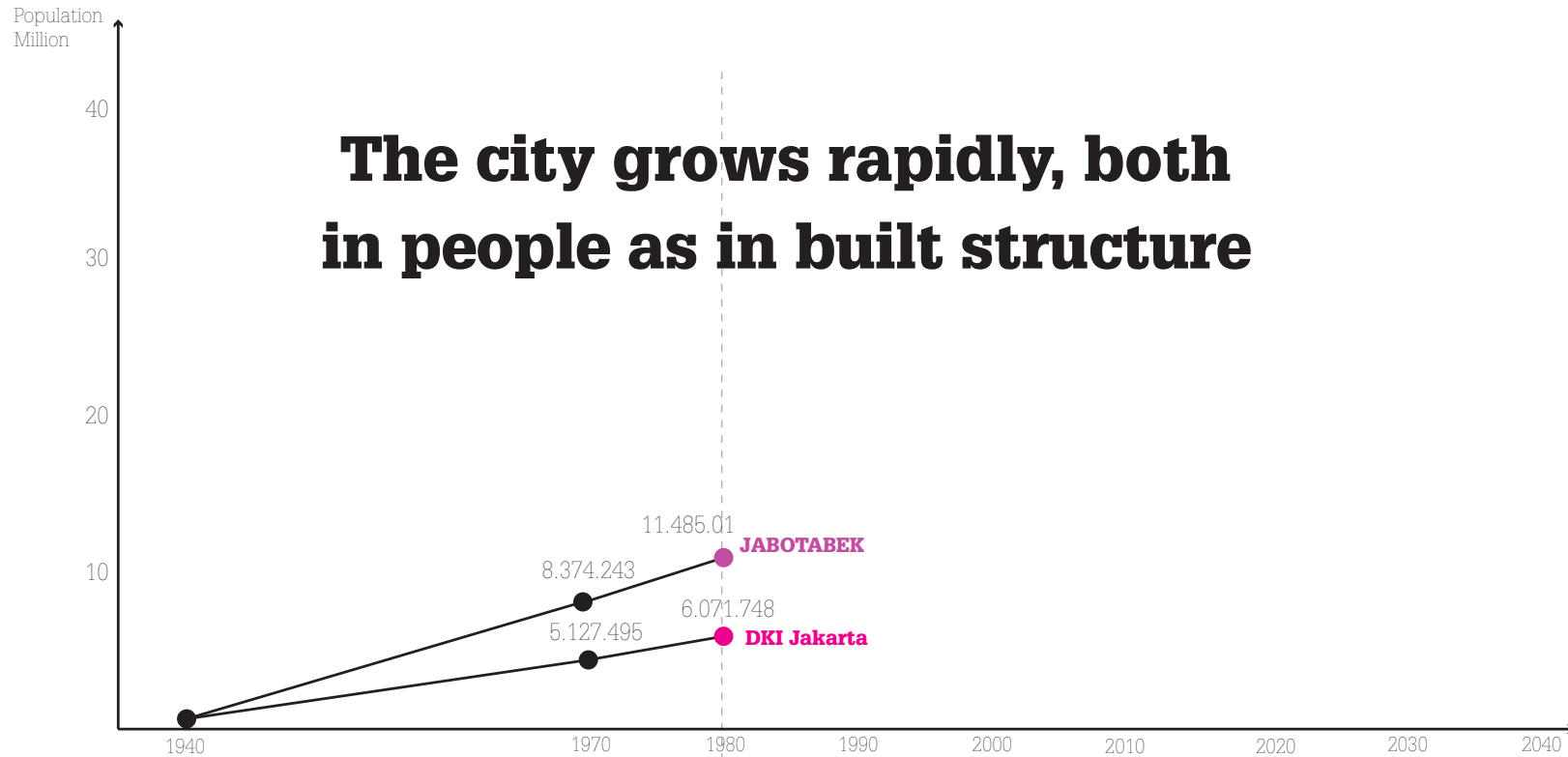
The tension between standardized urban models and existing fabrics has sparked a common interest within our group



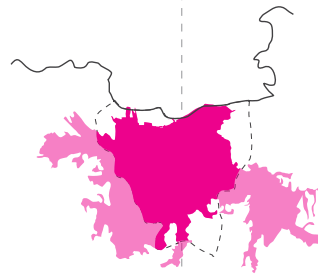
Jakarta

Why Jakarta?

City of Growth



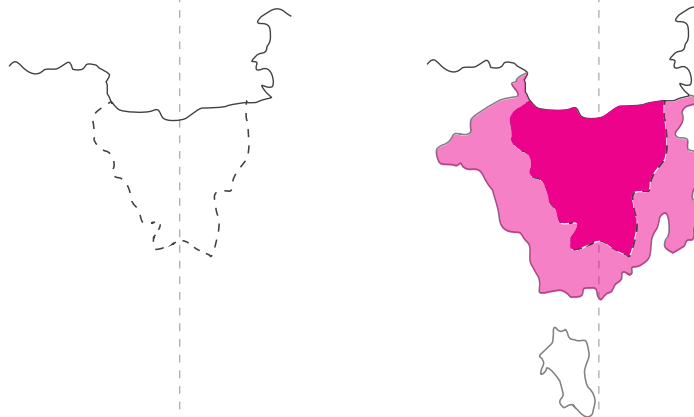
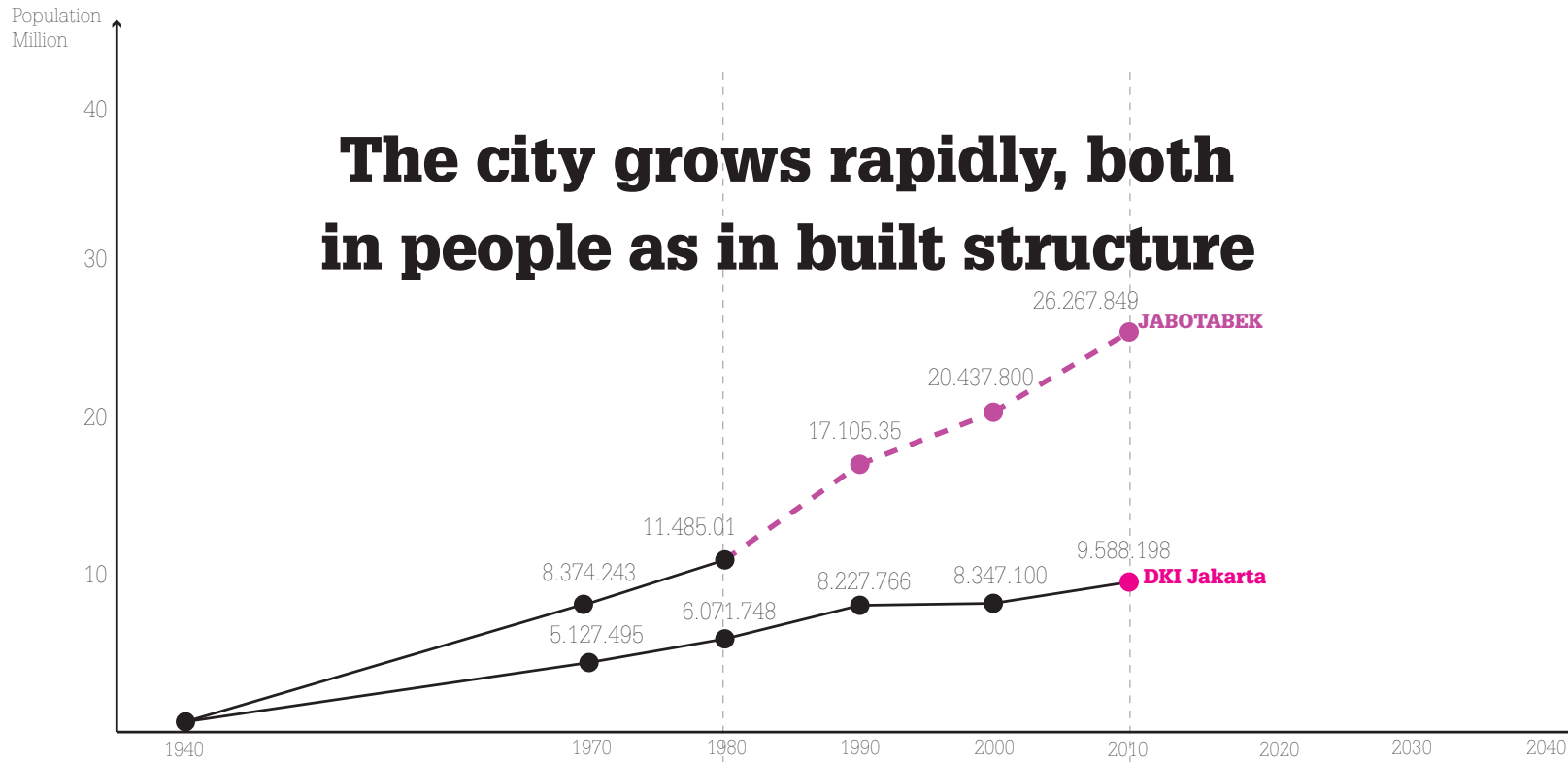
**The city grows rapidly, both
in people as in built structure**



Why Jakarta?

City of Growth

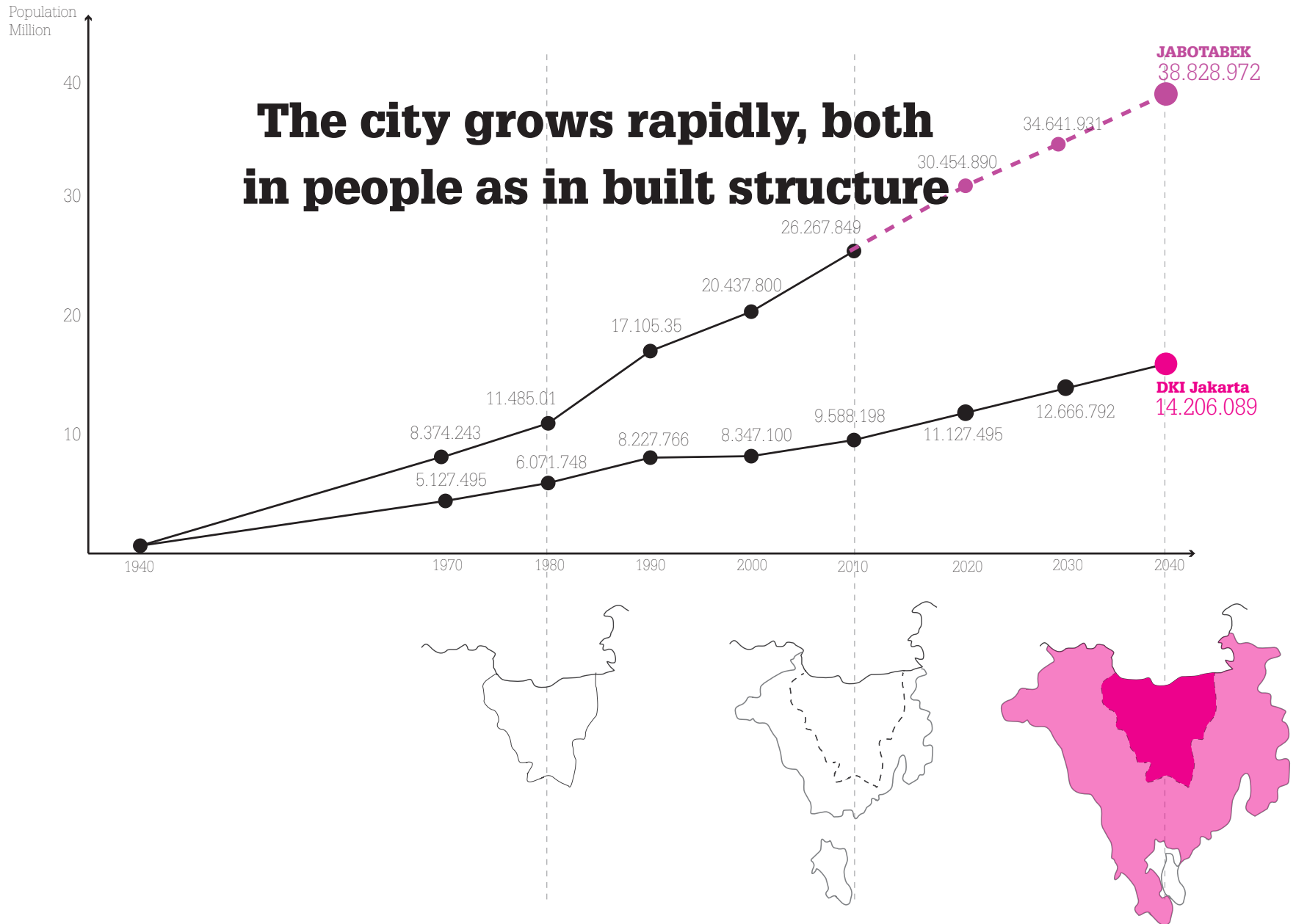
**The city grows rapidly, both
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Why Jakarta?

City of Growth

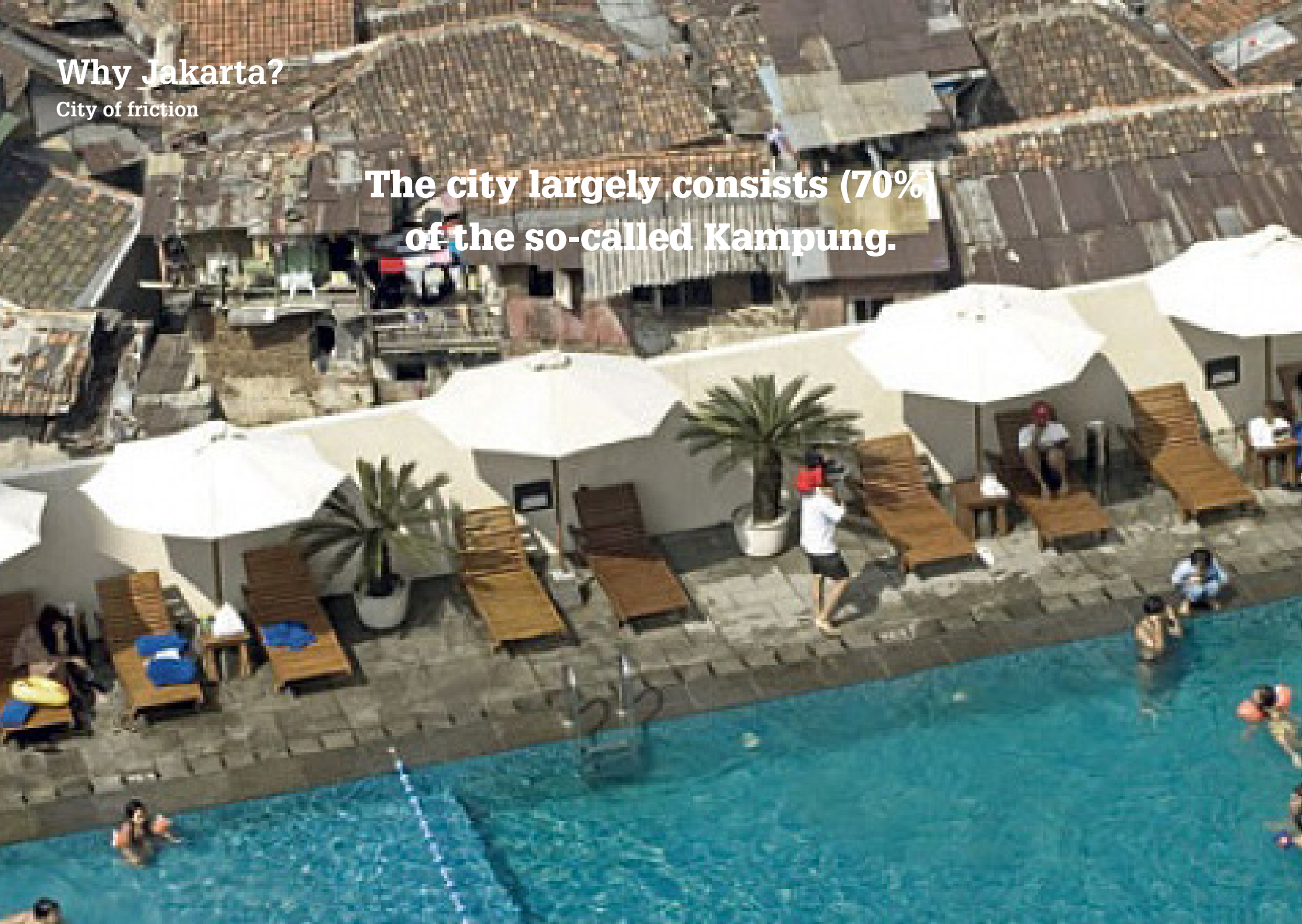
**The city grows rapidly, both
in people as in built structure**



Why Jakarta?

City of friction

**The city largely consists (70%)
of the so-called Kampung.**



Why Jakarta?

City of friction

**The city largely consists (70%)
of the so-called Kampung.**

**New developments stand in
contrast with these local urban
villages.**



Indonesia

Introducing Jakarta

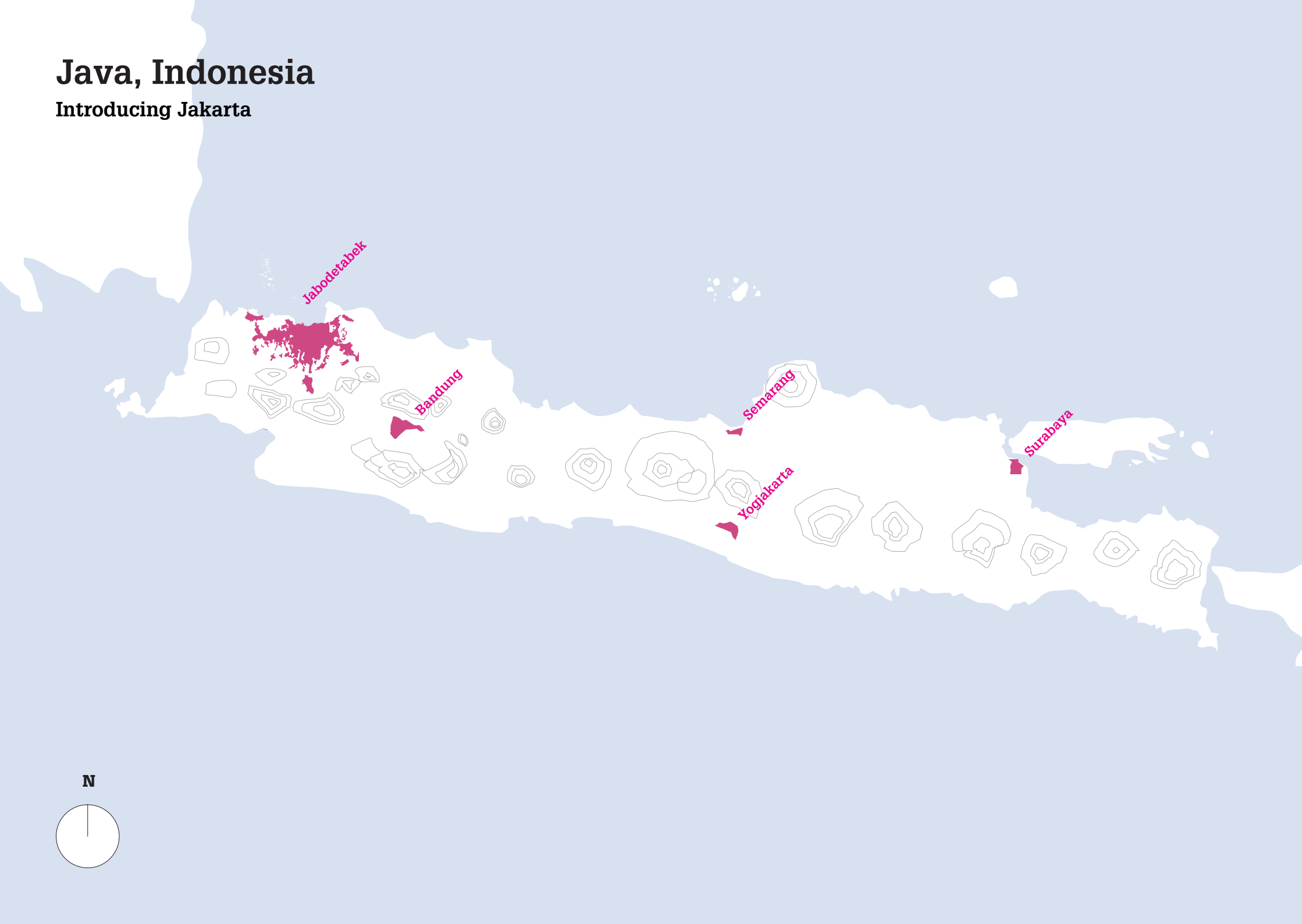
Jabodetabek

N



Java, Indonesia

Introducing Jakarta



Jabodetabek

Bandung

Semarang

Yogyakarta

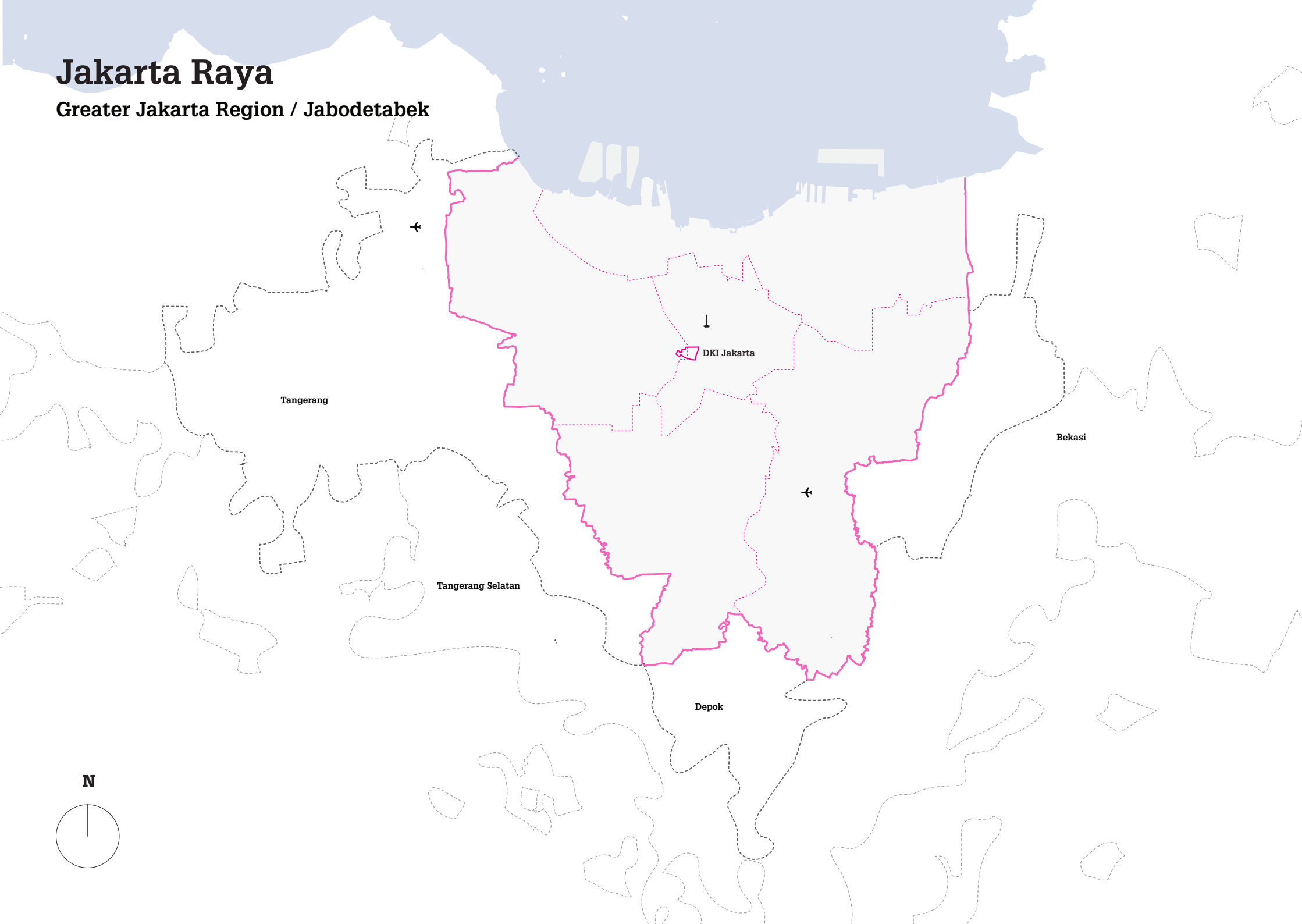
Surabaya

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Jakarta Raya

Greater Jakarta Region / Jabodetabek



Tangerang

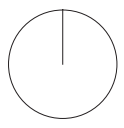
DKI Jakarta

Bekasi

Tangerang Selatan

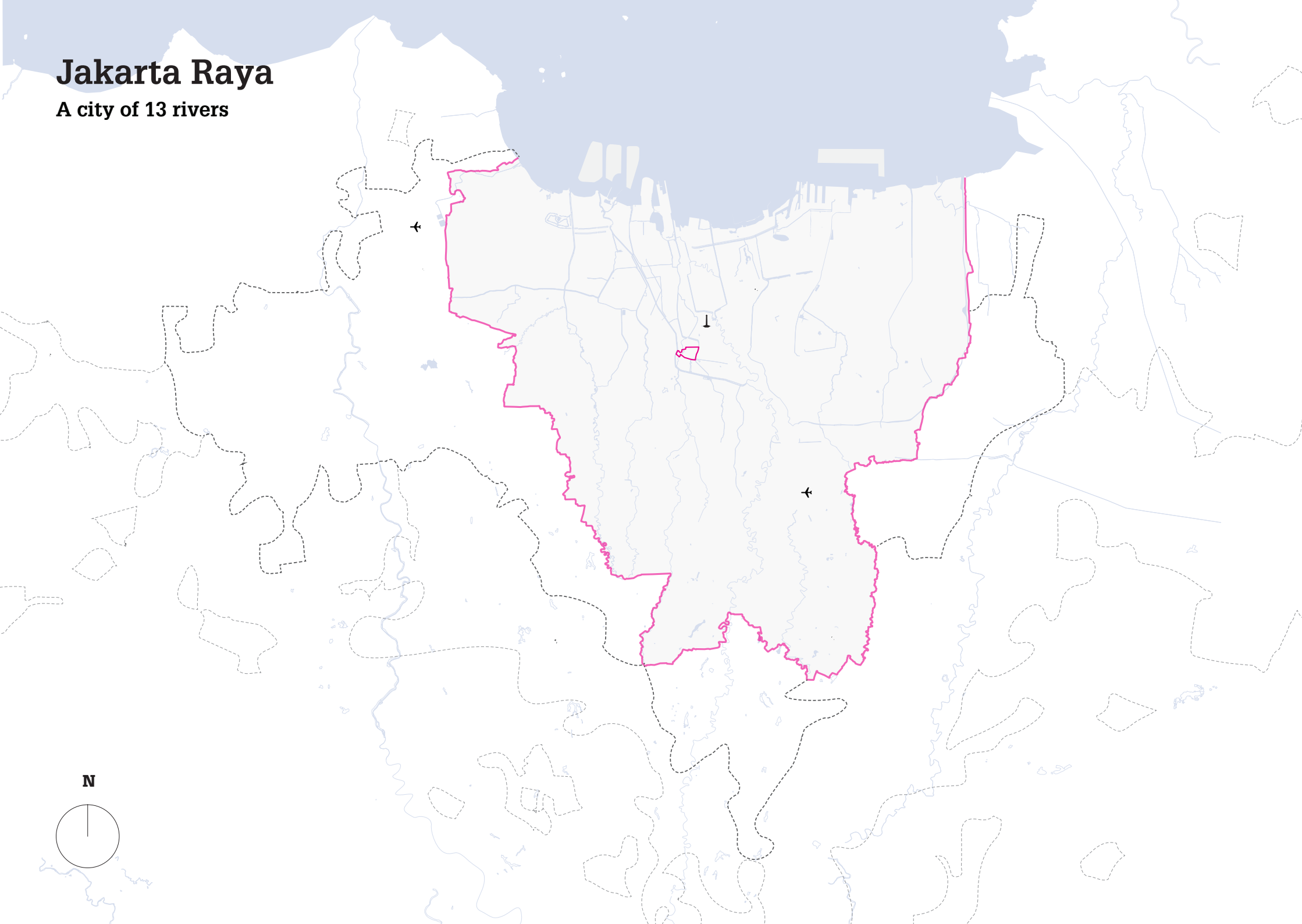
Depok

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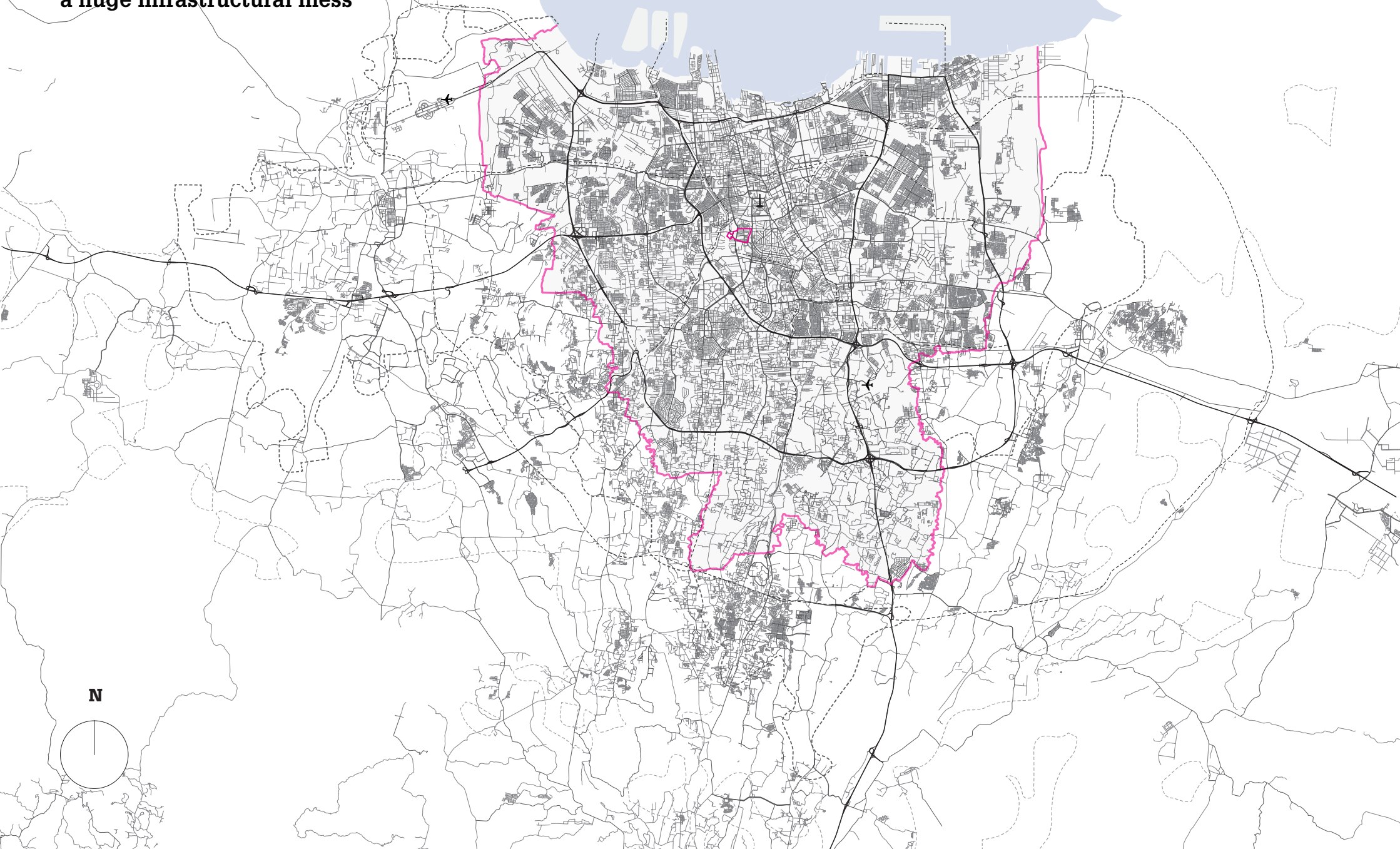
Jakarta Raya

A city of 13 rivers



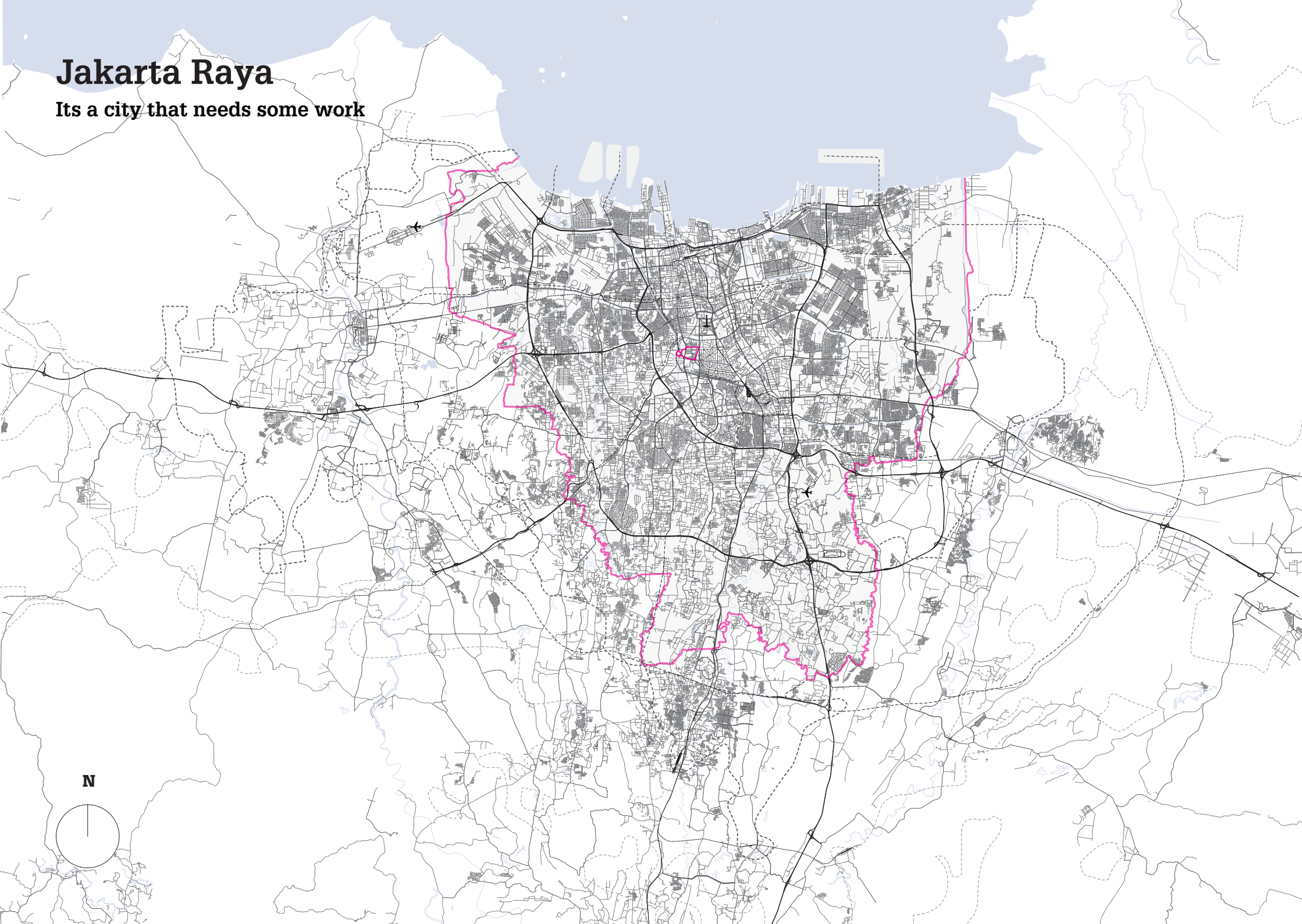
Jakarta Raya

Lack of central planning caused
a huge infrastructural mess



Jakarta Raya

Its a city that needs some work



N

Jakarta: City of friction

Jakarta

Friction of local and global



Jakarta

Friction of local and global

Jakarta can be divided into two interconnected entities, the **Kota** and the **Kampung**



The Jakarta Globe
Places we live | Jones Benjamin

Sources

Kota-Kampung

A way to understand the city

Kota

Kampung



Definition

“Kota”

Line breaks: kota

MEANING

The formal city, the bigger scale.

Top Down

Urban management

Metropolitan / Global orientation

Large space

Coarse / Massive Grain

Private

All legal (certified)

Planned and regulated

Formal and controlled

Definition

“Kampung”

Line breaks: kam | pung

MEANING

The (urban) village, the small scale.

Bottom Up

Mutual self-help

Local orientation

Tiny space

Fine Grain

Public

Majority illegal (uncertified)

Informal & unprotected

Unplanned and unregulated



Housing





Infrastructure



Water management



Shopping





Ruling structure





Social space



Kota

Qualities of top down

Structured
Efficient
Economical
Safe



Kampung

Qualities of bottom up

- Collectivity
- Diversity
- Flexibility
- Identity
- Individuality



**Jokowi:
'...Jakarta
adalah kota
kampung
desa besar..'**

Jakarta is één groot dorp.



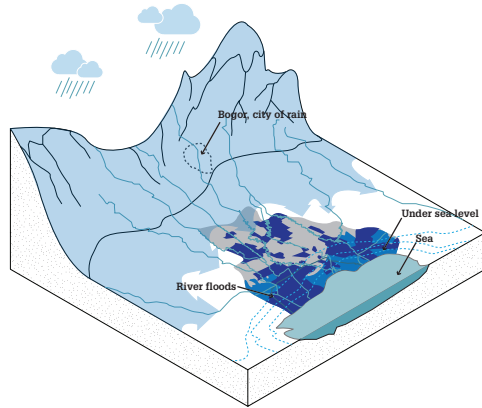
Kota-Kampung

Jakarta has many problems to solve

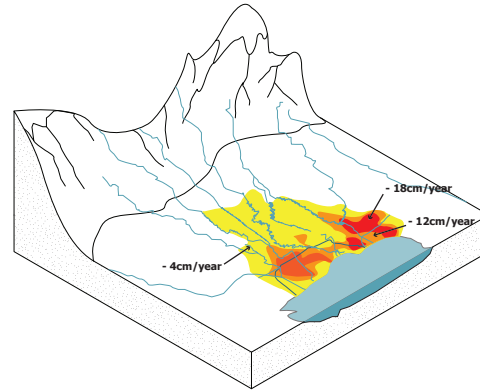
Problems faced by the city as a whole

Five evident problems

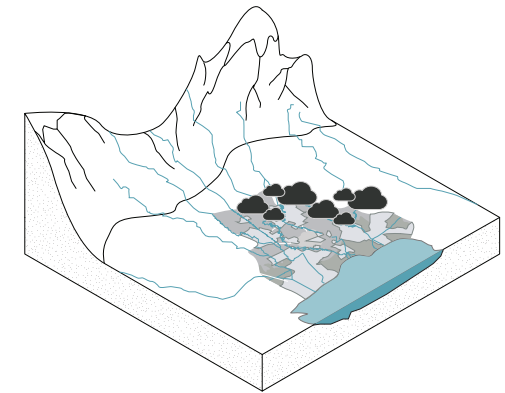
Urgencies of the city



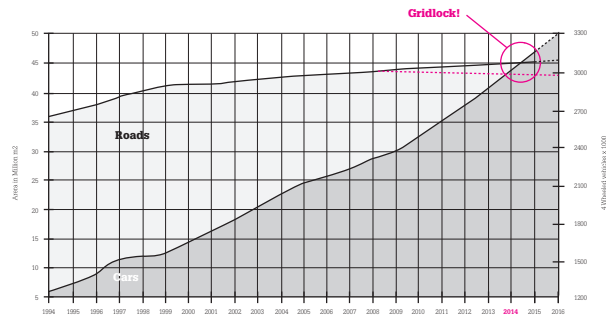
Floodings



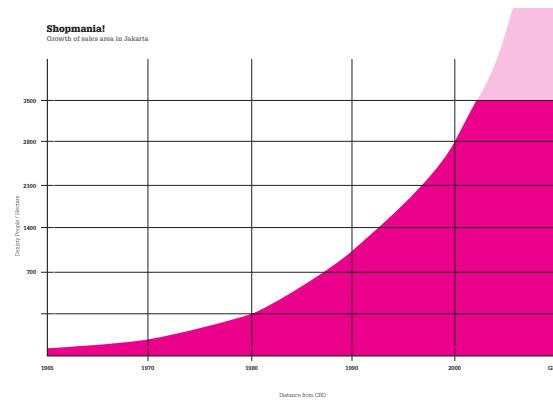
Land subsidence



Pollution



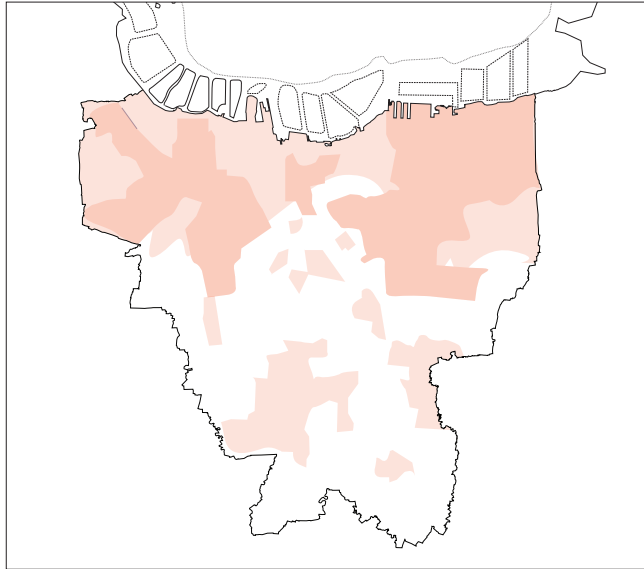
Traffic gridlock



Privatized public space

Floodings

XL



Most affected areas

M



Immobilised city

S



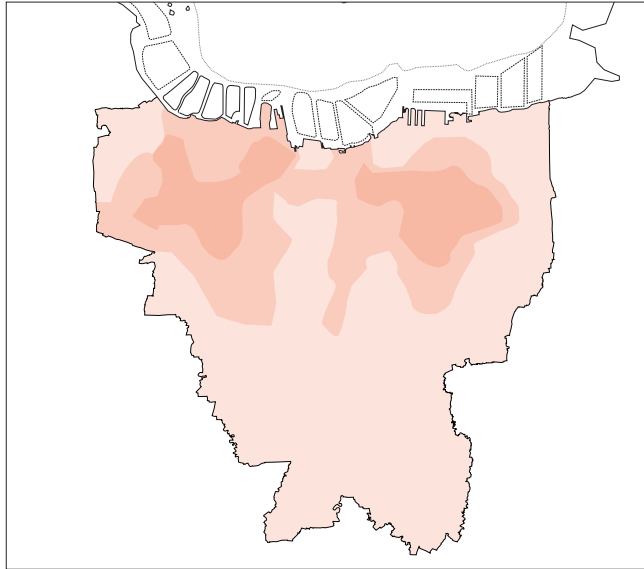
Everyone's problem

“Jakarta’s poor are productive and integral members of the city’s economy, and are also the most vulnerable to flood-related risks”

The world bank - Climate change, disaster risk and urban poor, 2012

Land subsidence

XL



Most subsiding areas

M



Land subsidence

S



Destruction of property

”Jakarta will be 3 to 5 meter under sea level within 50 years following the current inclination trends.”

World Bank, 2013

Pollution

XL



Traffic, industry and rivers

M



Congestion in the city

S



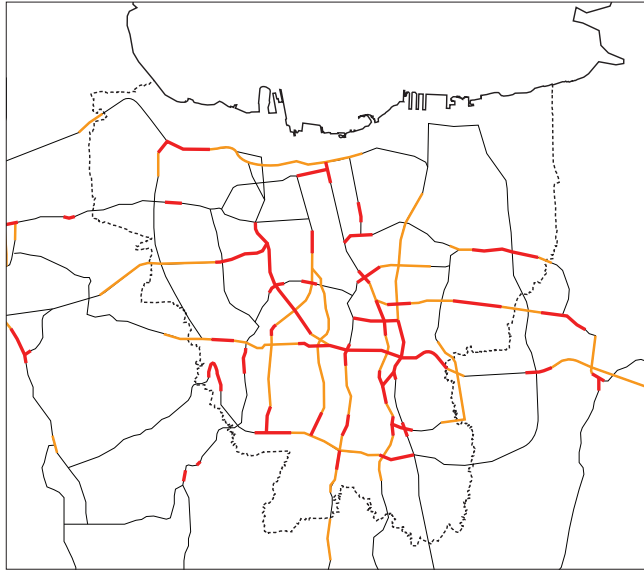
Mentality

”Pollution is concentrated in cities, and vehicles are the main culprits, directly affecting the health of urban populations.”

State of the World's Cities 2006/7, UN Habitat

Traffic gridlock

XL



A congested city

M



Capacity and system

S



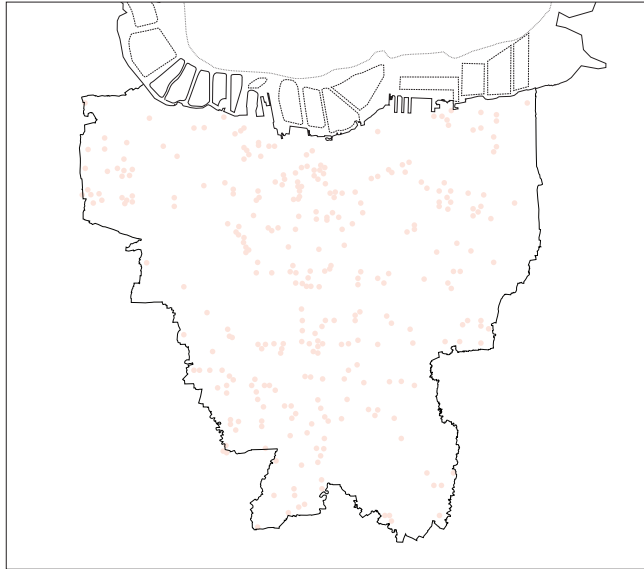
Attitude and mentality

“Traffic will increase by 10 percent next year, with an average speed in the capital expected to be between 8 and 10 kilometers per hour.”

Indonesia Transportation Society Chairman Danang Parikesit, Jakarta

Privatized public space

XL



A lack of public space

M



Densely populated

S



Secluded spaces

“The proliferation of private spaces for recreation has widened the socio-cultural gap between the new lifestyle of the upper-middle class.”

Jo Santoso, 2014

Concealed problems

Urgencies of the city



Frozen Kampung



Polarization



Bureaucracy



Village mentality



Corruption

Problems faced by the kampungs

Kampung problems

Urgencies of the kampung



Safety



Land ownership



Water management

Safety

XL



Restricted access

M



Fire hazard

S



Ignorance

Fire truck cannot reach Kampung while fire can quickly spread because of dense buildings with vulnerable materials.

Land ownership

XL



1% government property

M



Bureaucracy

S



Corruption

Since land-ownership is a re-occurring issue we cannot easily change the situation.

Pak Yunaldi, official spatial planning office Jakarta

Water management

XL



Floods

M



Open sewer

S



Lack of sanitation








Less than 3 percent of the entire city - homes, offices, malls - has a sewage connection.

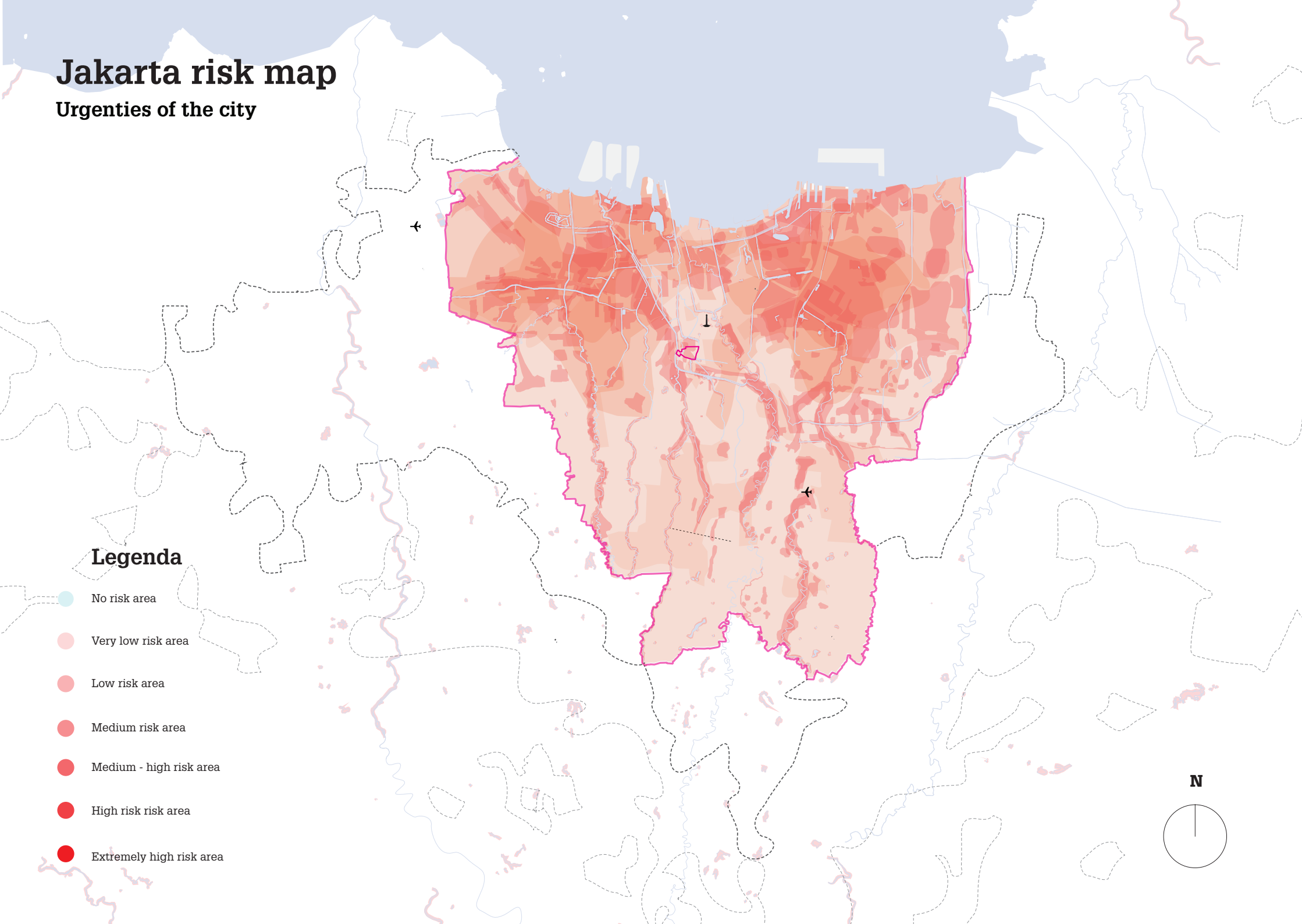
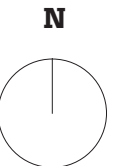
Isabel Blackett, the World Bank

Jakarta risk map

Urgencies of the city

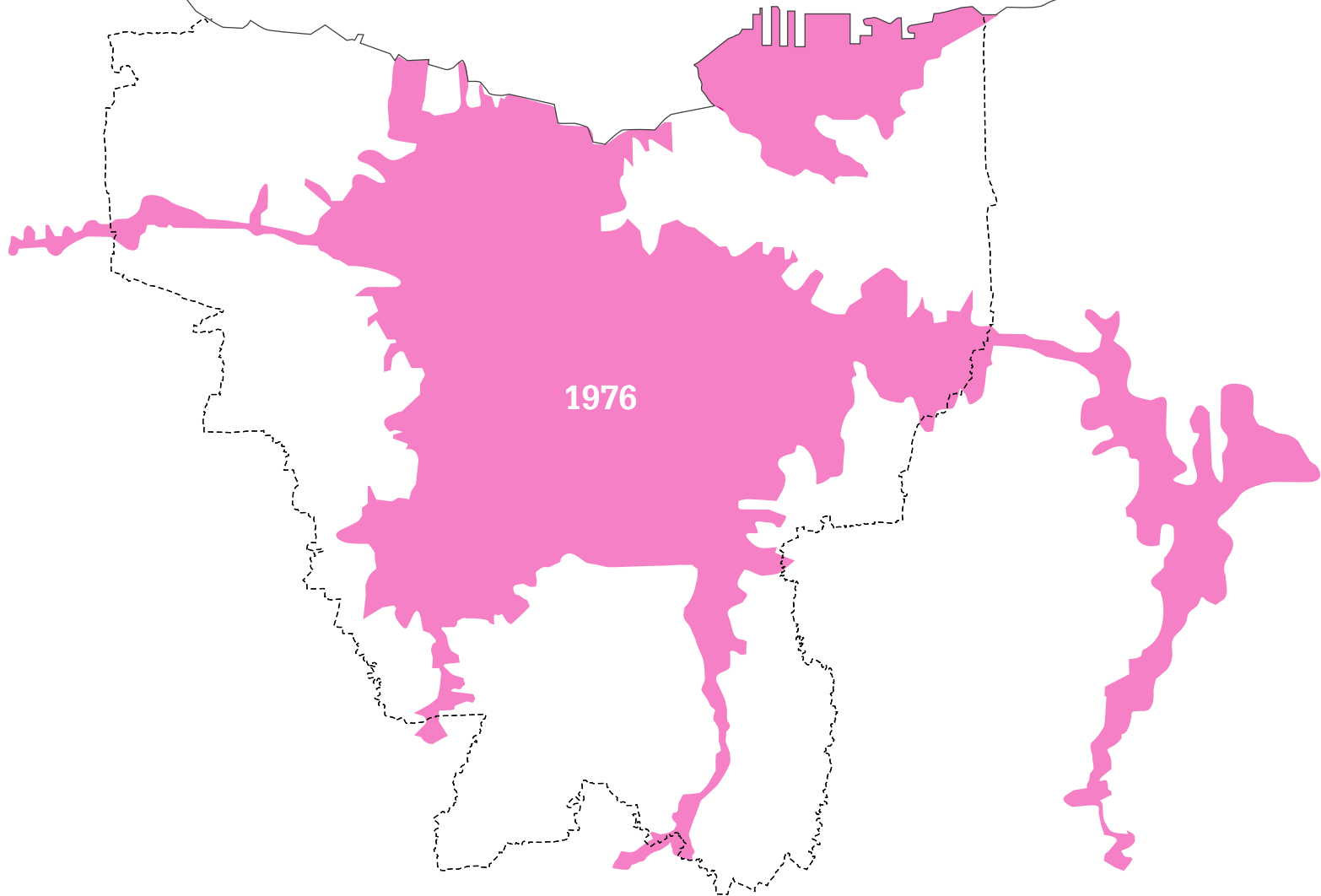
Legenda

-  No risk area
-  Very low risk area
-  Low risk area
-  Medium risk area
-  Medium - high risk area
-  High risk risk area
-  Extremely high risk area

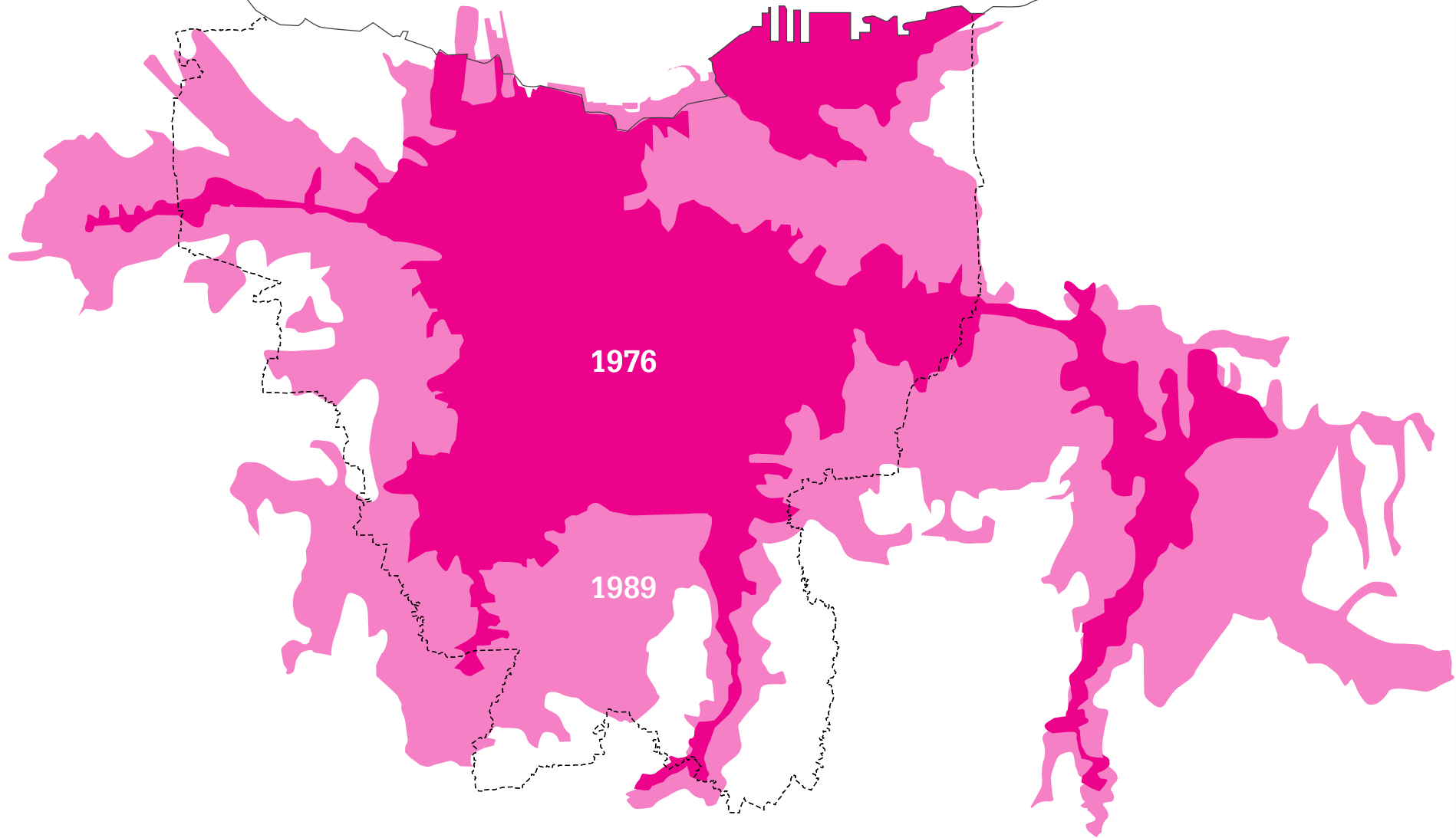


Jakarta's urban sprawl is increasing the complexity and the degree of these problems and is exactly the opposite of what is city needs to do.

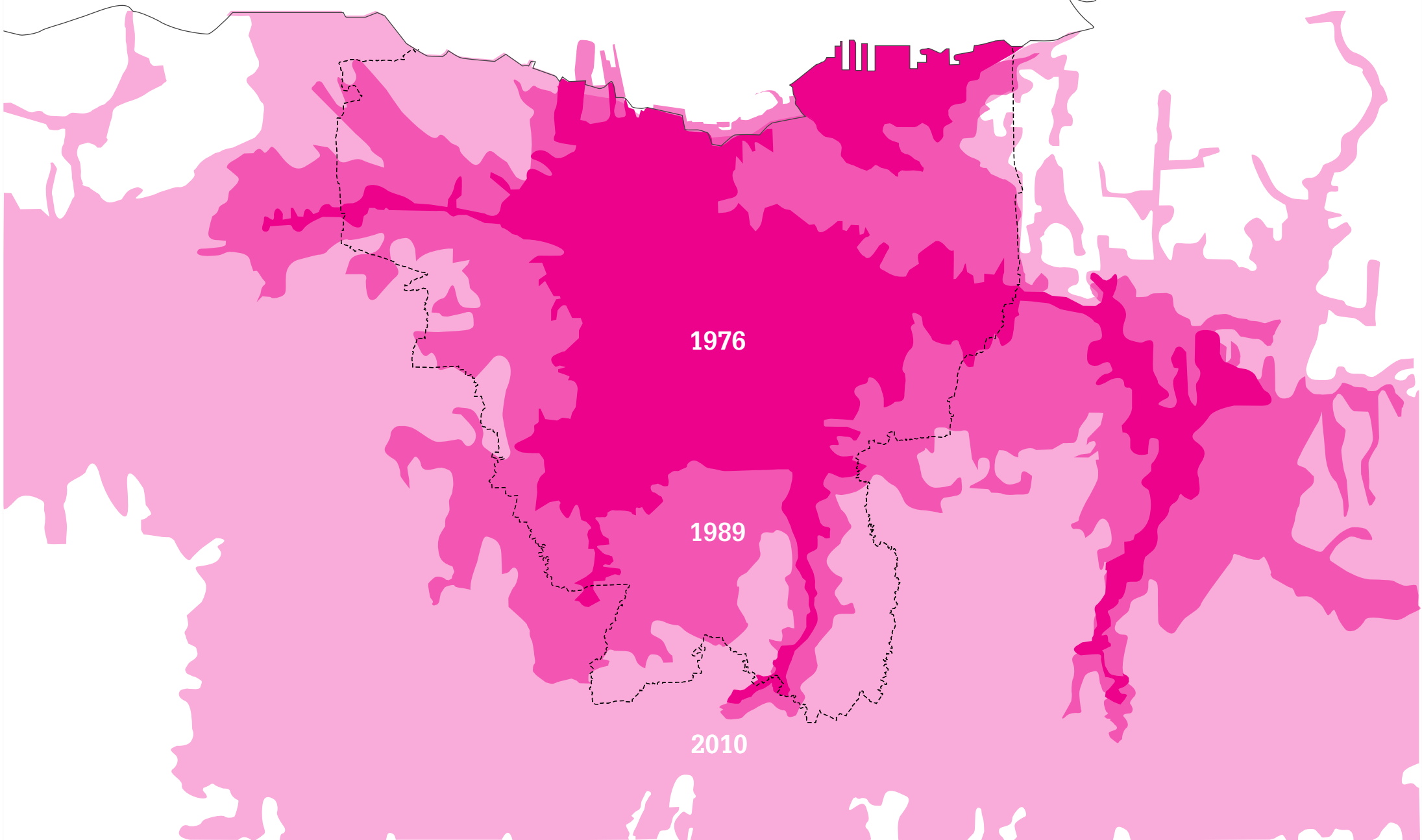
Urban Sprawl



Urban Sprawl

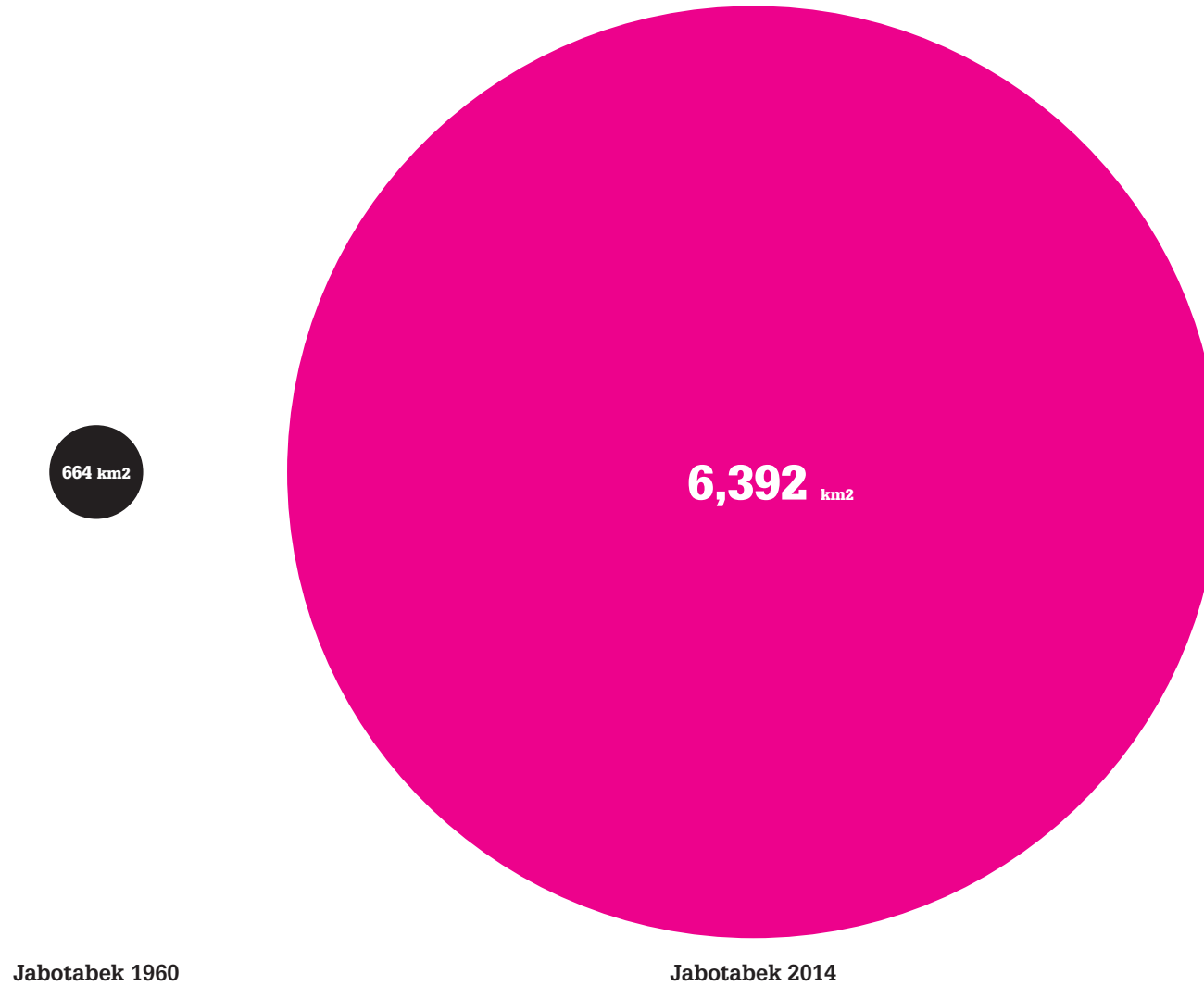


Urban Sprawl



Jakarta

Population growth



**In approximately 50 years,
Jakarta has Grown With 962%!**



Outer Suburbs

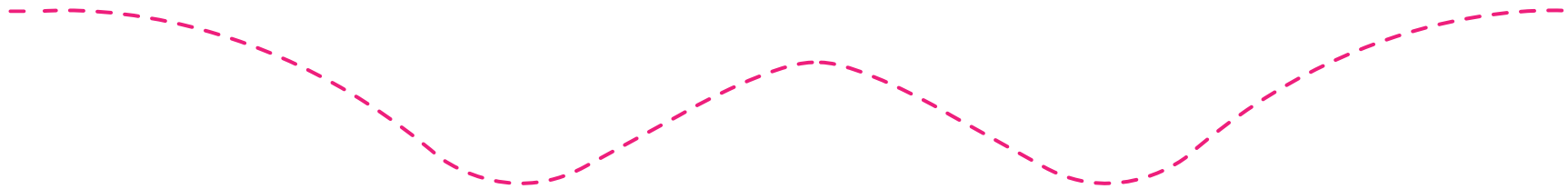
Inner Suburbs

City center

Inner Suburbs

Outer Suburbs

% of total population in region



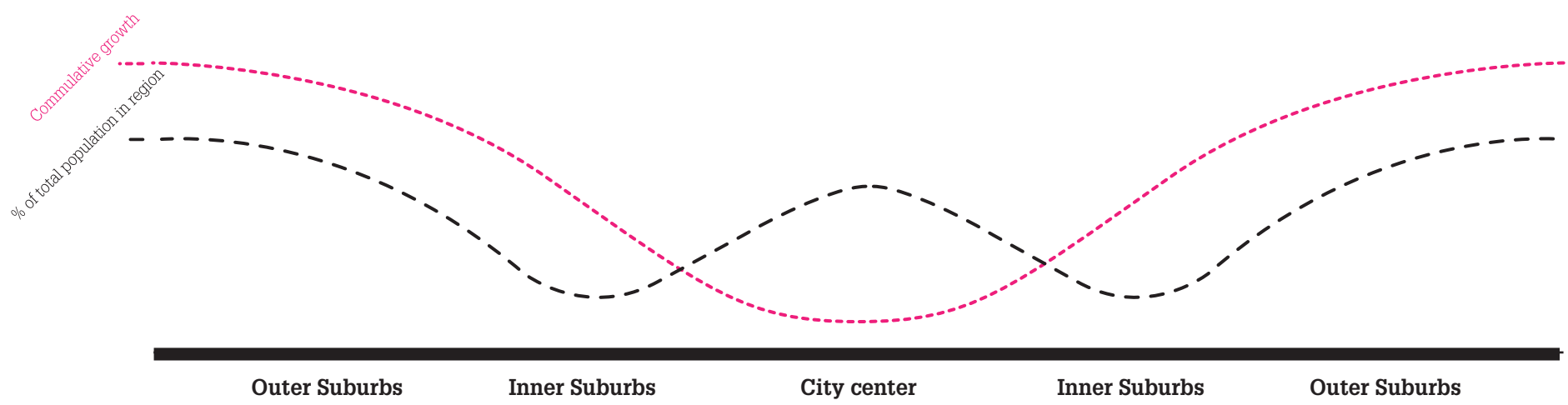
Outer Suburbs

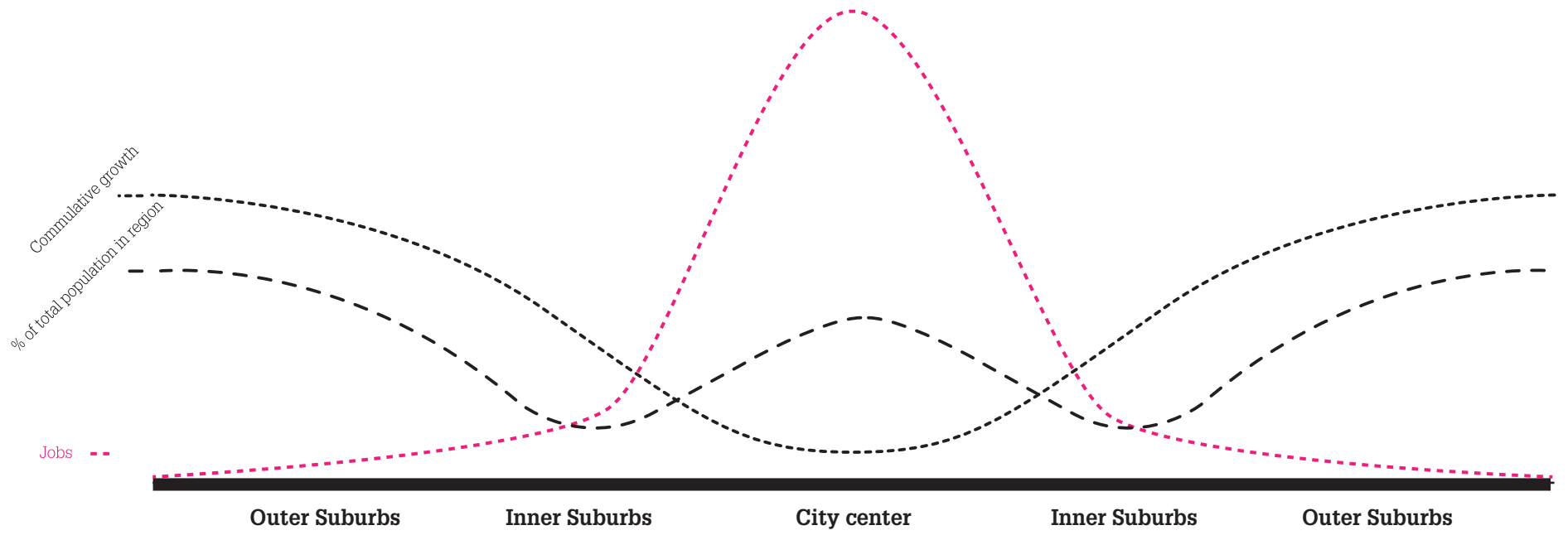
Inner Suburbs

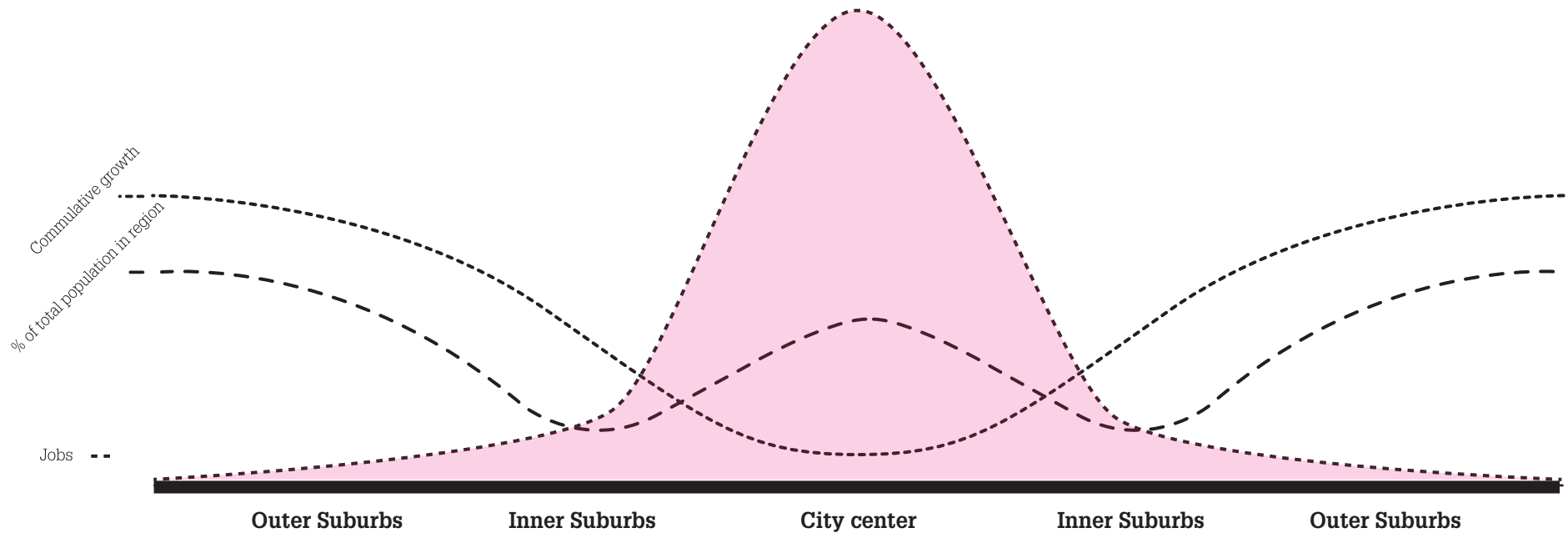
City center

Inner Suburbs

Outer Suburbs

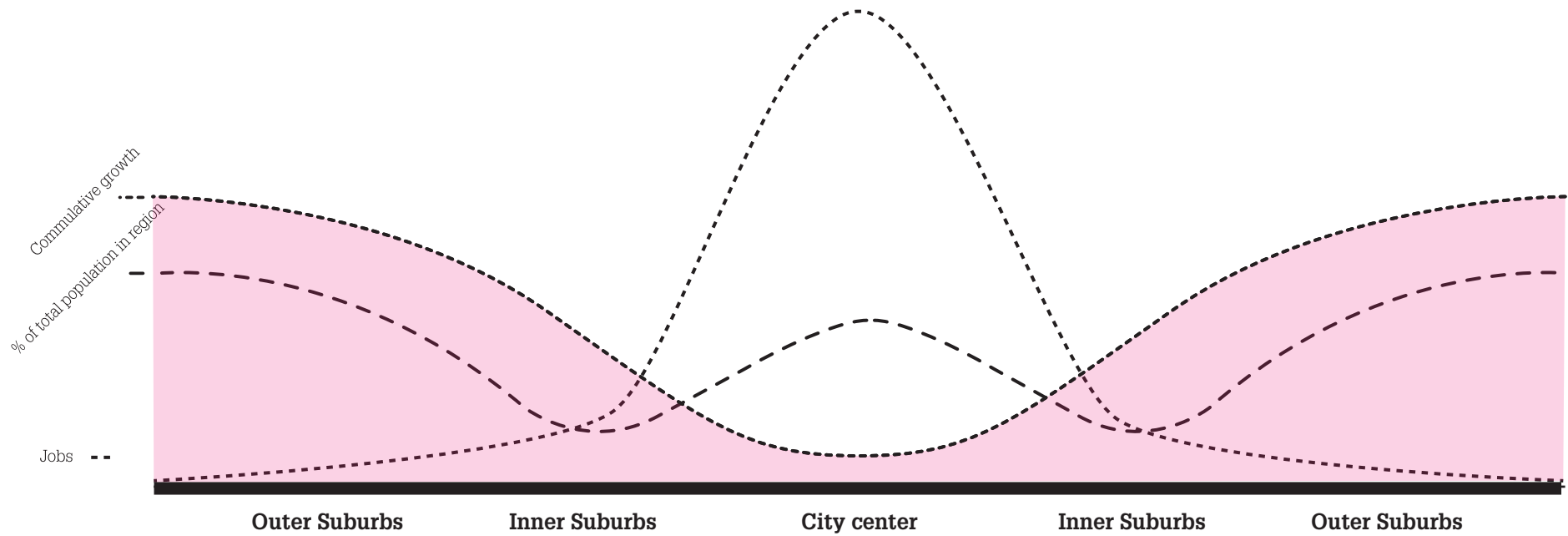






→ Commuting from the suburbs to the citycenter where the jobs are.
 ← Commuting from the suburbs to the citycenter where the jobs are

COMMUTING
 From the suburbs to the citycenter where the jobs are

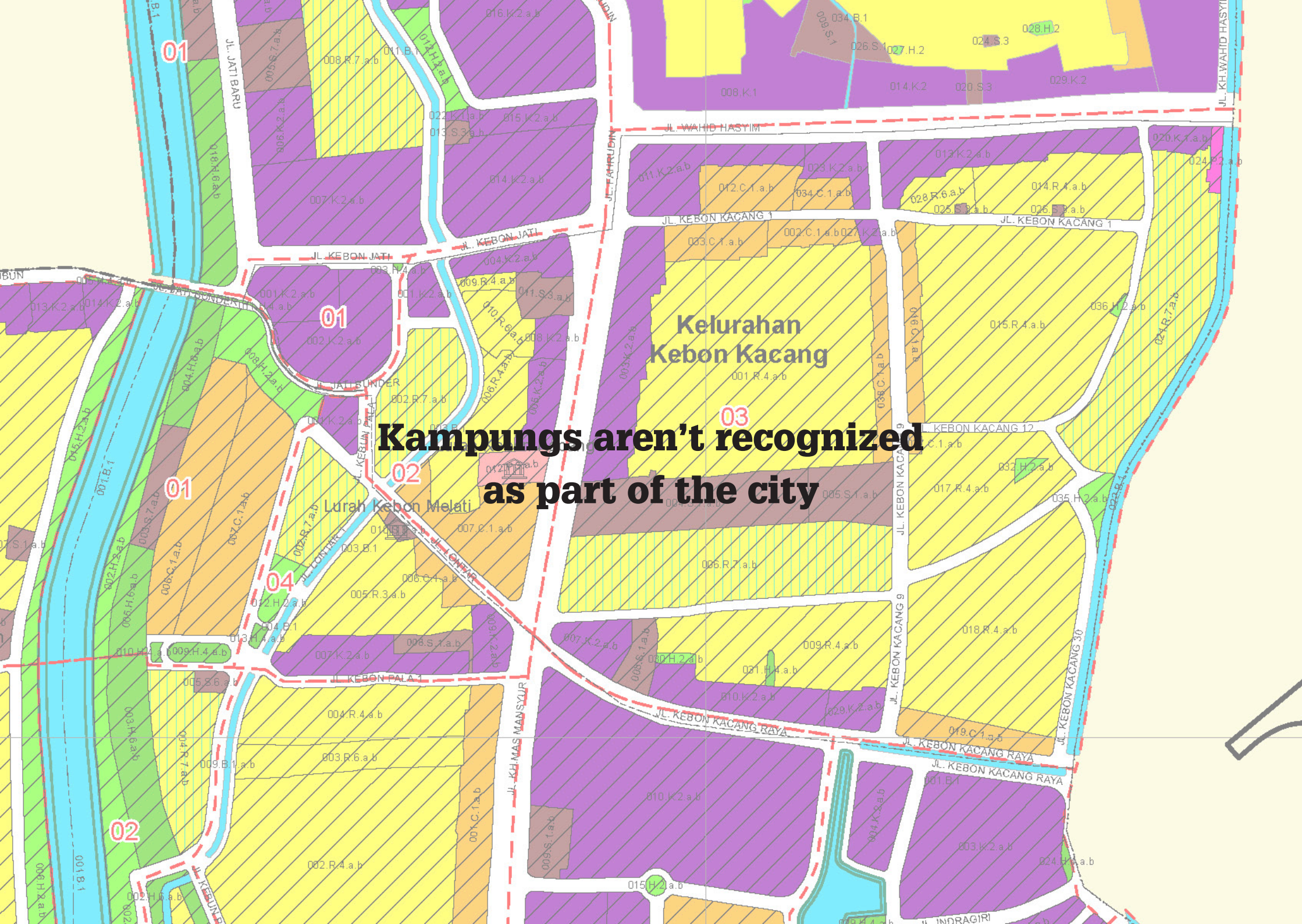


LACK OF PEOPLE
 Expensive to realise public facilities

An aerial view of a city model at night, showing a dense urban layout with numerous buildings, roads, and green spaces. The model is illuminated with lights, highlighting the intricate details of the city's infrastructure. The text is overlaid on the image in a white, bold font.

What is happening now?

The government is doing the complete opposite of what is needed and is avoiding the real problems



**Kelurahan
Kebon Kacang**

**Kampungs aren't recognized
as part of the city**

01

03

01

02

04

02

Lurah Kebon Melati

JL. JATI BARU

JL. KEBON JATI

JL. KEBON JATI

JL. WAHID HASYIM

JL. KEBON KACANG 1

JL. KEBON KACANG 1

JATI BUNDER

JL. KEBON MELATI

JL. LONCAT

JL. KEBON PALA 1

JL. KEBON KACANG RAYA

JL. KEBON KACANG RAYA

JL. KEBON KACANG RAYA

JL. KH. MAS MANSYUR

JL. KEBON JATI

JL. INDRAGIRI

JL. KH. WAHID HASYIM

JL. KH. HIRUBIN

JL. KEBON KACANG 9

JL. KEBON KACANG 10

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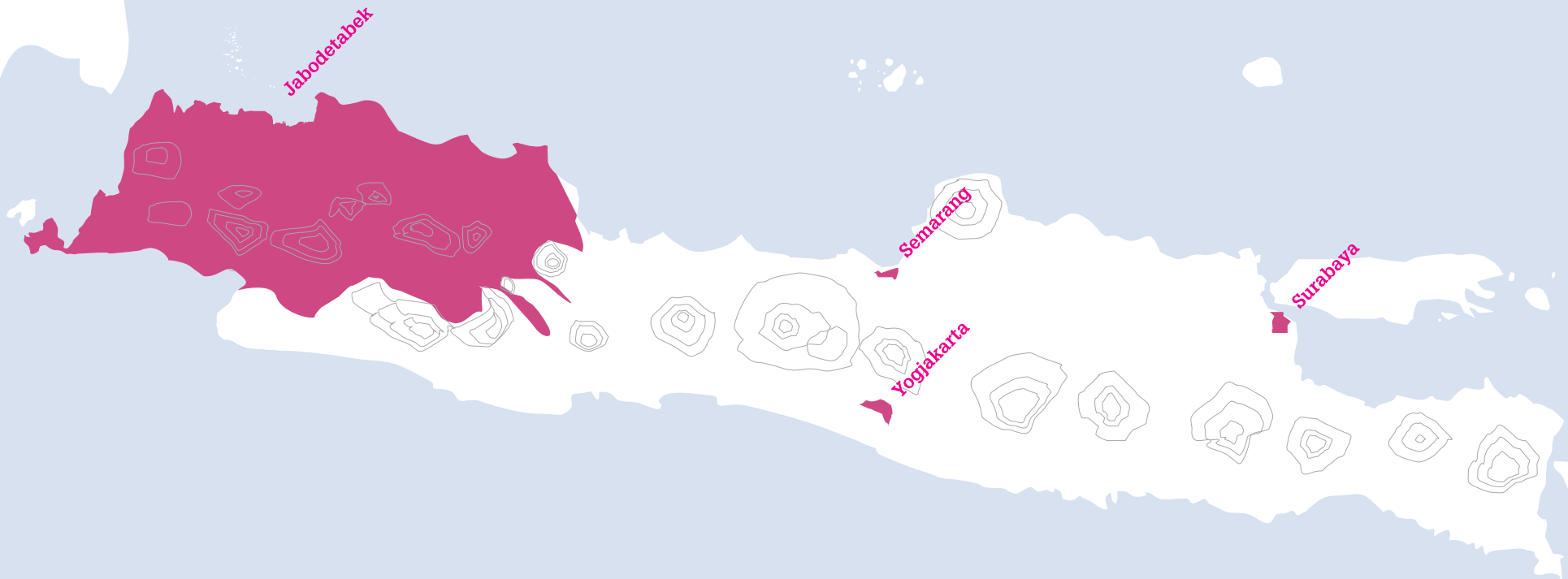
Current Size



N



Jabodetabek with the density of Los Angeles



Javakarta?

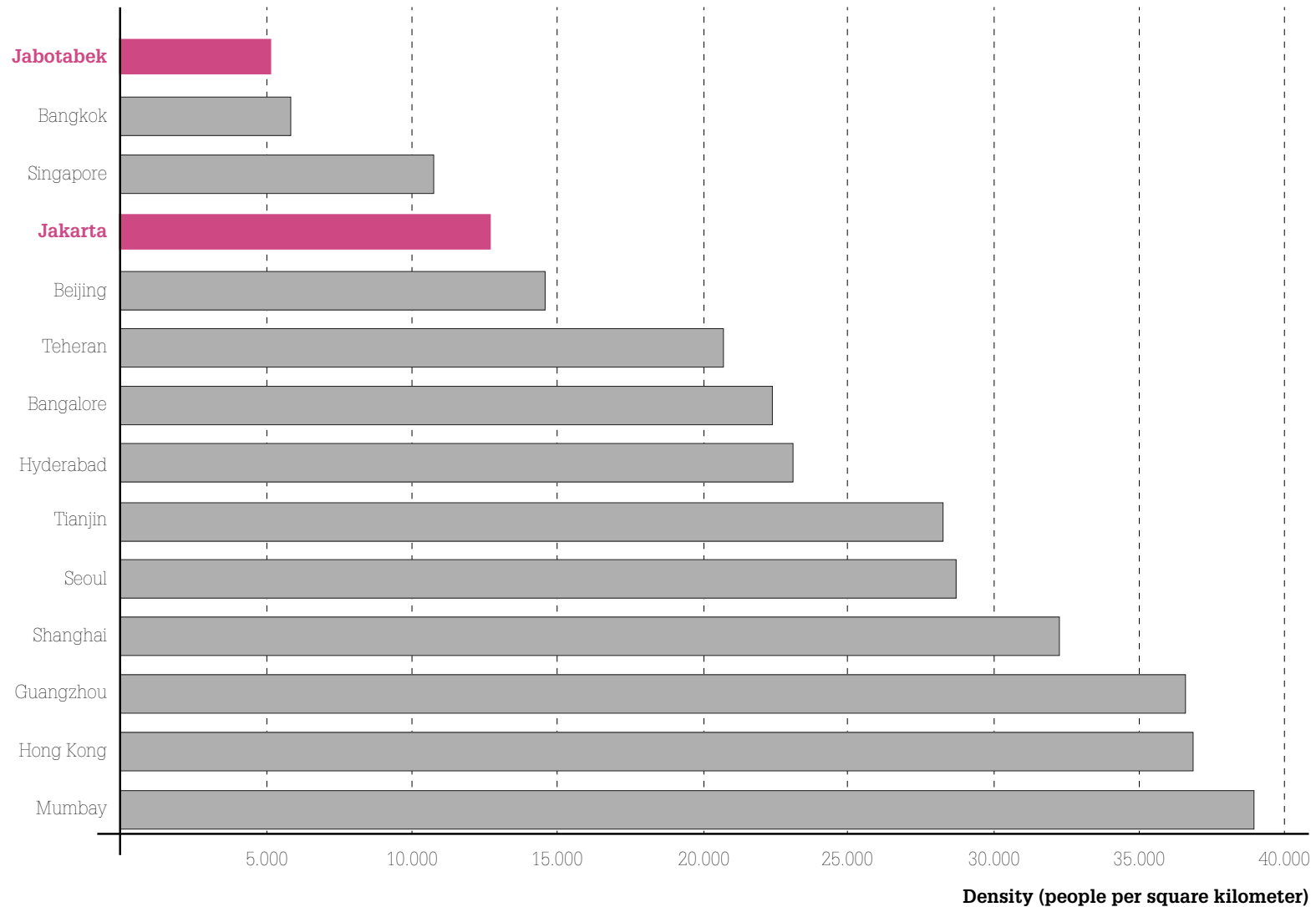
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Jakarta is not dense at all

Population-density

Comparative average population densities in built-up areas in 14 South East Asian metropolitan areas

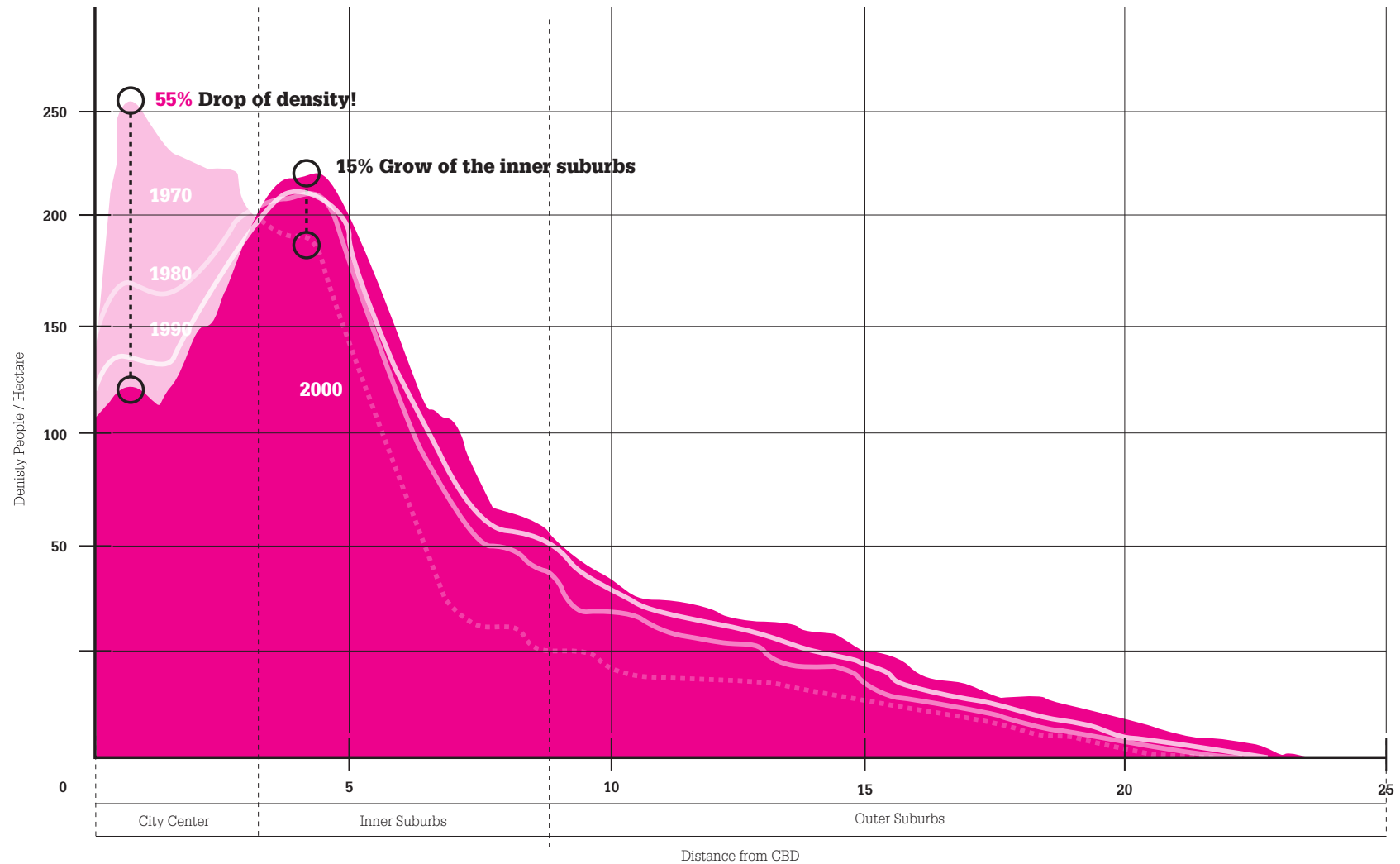


Drop of density!

Population-density

Density measured from CBD

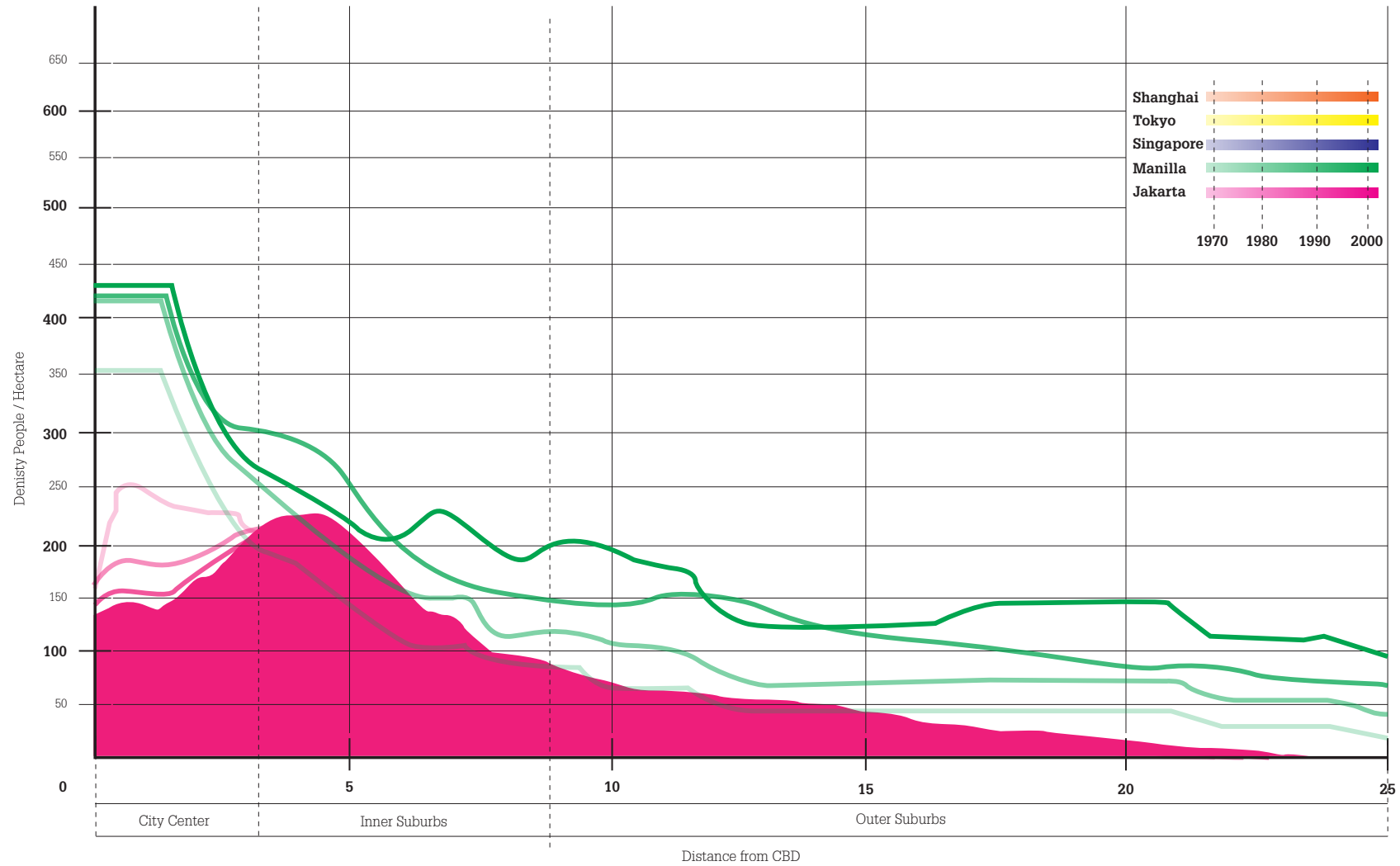
Jakarta's city center is depopulating and sprawl is increasing



Comparison

Population-density

Density measured from CBD
Comparing Cities



Jakarta is not dense at all

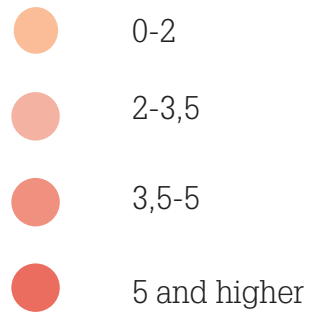
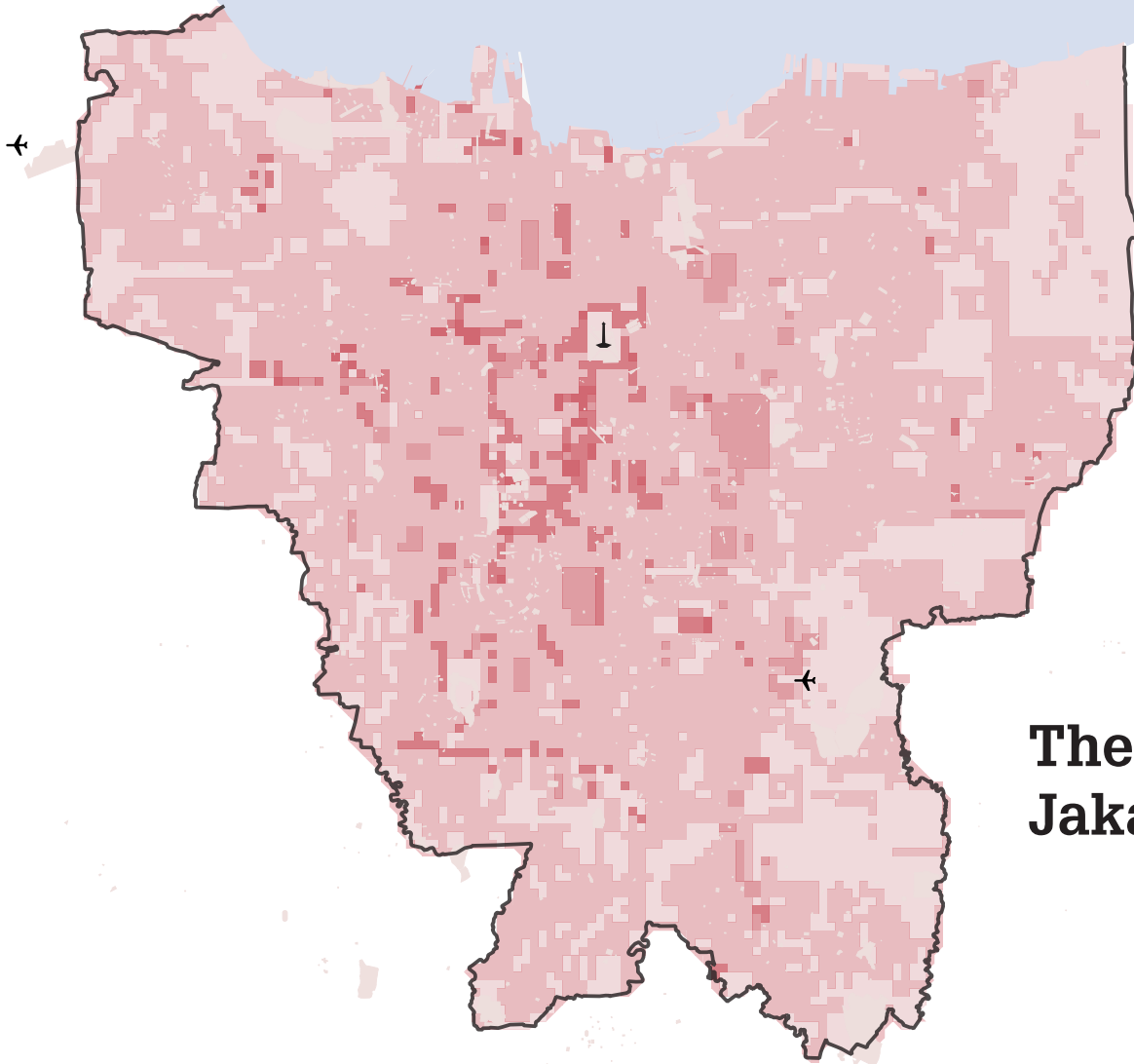
Floor area ratio

**What about the average
Floor area ratio?**



Jakarta

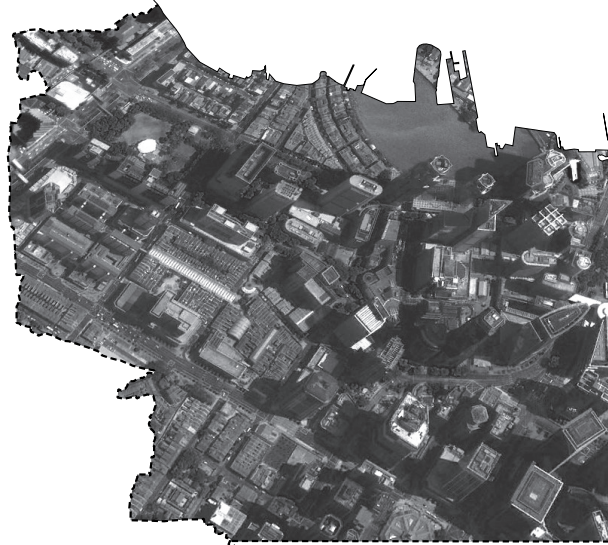
FAR 2.0



**The floor space index of
Jakarta is **low****

Jakarta

FAR 8.0



**What if it had the
spatial density of
Singapore?**

Jakarta

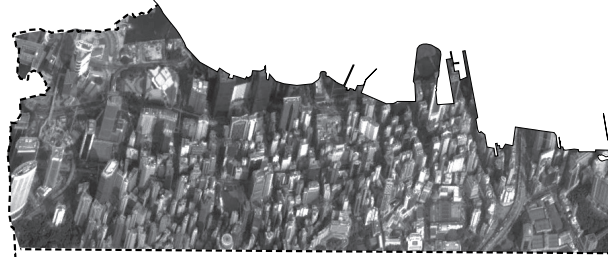
FAR 13.0



... or **Shanghai?**

Jakarta

FAR 15.0



... or **Hong Kong?**

Hypothesis

The first step in tackling the major issues of Jakarta is to stop the urban sprawl and to densify the city center.

Based on a 2009 World Bank report we believe densification to be an essential strategy for a sustainable growth of Jakarta. Many scholars indicate 'Smart Growth' policies to be a way to counter suburban sprawl. This would allow for more budget per km²; making public transportation affordable and flood prevention more effective, less commuters which would help to prevent the gridlock, the return of the middle class defreezing the kampung and it would mean introducing formality within the informal kampungs allowing to change the urban fabric and therefor giving the opportunity to create more public space and an effective sewage system.

Densification would...

Densification would...

**...generate more
budget per square
meter**

Densification would...

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budget per square
meter**

**...force a
reconsideration of the
urban fabric**

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meter**

**...force a
reconsideration of the
urban fabric**

**...allow a
reconsideration of the
kampung (a new KIP)**

Densification would...

**...generate more
budget per square
meter**

**...allow to make
public transport
feasible**

**...force a
reconsideration of the
urban fabric**

**...allow a
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Densification would...

**...generate more
budget per square
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**...allow to make
public transport
feasible**

**...force a
reconsideration of the
urban fabric**

**...allow to reconsider
the riverbanks**

**...allow a
reconsideration of the
kampung (a new KIP)**

Densification would...

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**...allow to make
public transport
feasible**

**...force a
reconsideration of the
urban fabric**

**...allow to reconsider
the riverbanks**

**...allow a
reconsideration of the
kampung (a new KIP)**

**...generate social- and
economical benefits**

JaJakarta

Manifesto for the city

In 2030 Jakarta will have expended so much, and in this process overtaken many adjacent cities, that it will be called Jabodetabekasesuci.

(Jakarta municipality, 2014) An unpronounceable name for a megacity that has become so addictive to growth that it will become uncontrollable. In general, an increasing amount of city will decrease the net capita per square km. The municipality will be left incapable in effectively managing the dramatically enlarged city.

The only way to pursue the ambition of a world-class city is to address all problems simultaneously. (1) Since the real estate market stands in direct relation with the stock market (2) (Rolnik, 2013), the city has become

addicted to urban growth. Therefore, a building stop would imply an economic stop. Urban sprawl is one of the main outcomes of the real estate investments.

We believe stopping the urban sprawl (3) to be the first and most critical step in solving the city's problems. The projected urban growth should take place within the centre of DKI Jakarta.

Although official numbers forecast differently, we expect an even further decrease of the population in the city centre of DKI Jakarta due to the increase of the middle class. The middle-class, which will be doubled in 2020 (BCG, 2013), will either move to the suburbs or enlarge their spatial demand per capita within the city centre. To accommodate this spatial

Manifesto for the city

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an increasing amount of city will develop in the 100 square kilometers known municipality. It has become incapable in effectively managing the dramatically enlarged city.

The only way to pursue the ambition of a world-class city is to address all problems simultaneously. (1) Since the real estate market stands in direct relation with the stock market (2) (Rolnik, 2013), the city has become

addicted to urban growth. Therefore, a building stop would imply an economic stop. Urban sprawl is one of the main outcomes of the real estate investments.

We believe stopping the urban sprawl (3) to be the first and most critical step in solving the city's problems. The

projected urban growth should take place within the centre of DKI Jakarta.

Although the middle class are most drawn off to the suburbs with the decrease of the population in the city centre of DKI Jakarta due to the increase of the middle class. The middle-class, which will be doubled in 2020 (BCG, 2013), will either move to the suburbs or enlarge their spatial demand per capita within the city centre. To accommodate this spatial

Densification

Manifesto for the kampung

As New York is often labeled the 'Big Apple', Jakarta is often called the 'Big Durian'. The 'durian' fruit is infamous for being smelly outside, while the inside surpasses the flavor of many other fruits. When looking at Jakarta a similar analysis could be made, at first hand the city could be experienced negatively. The pollution, the slum-like area's, the traffic jams all contribute to this experience. Knowing the city slightly better would provide an alternative opinion. The great 'taste' of the city could be found within the urban villages, the so-called Kampung. However, due to many different reasons this part of the city has become vulnerable.

For the greater part Jakarta is defined by the Kampung, one could therefore

best describe it as a city of villages. Within the Kampung many residents form strong communities. These ground-based villages provide jobs, services and housing for people from various levels of income. (Jellinek, 1991) However the Kampung are facing numerous serious problems. Ranging from very basic ones, such as poor infrastructures to a multitude of complex and interconnected city-wide problems.

As a first example, the Kampung have become prone to land speculation. Lot by lot, real estate agencies have bought strategic areas of the inner city. Eventually they are reassembled in bigger lots and sold to private developers. Driven by market demands, these developers introduce

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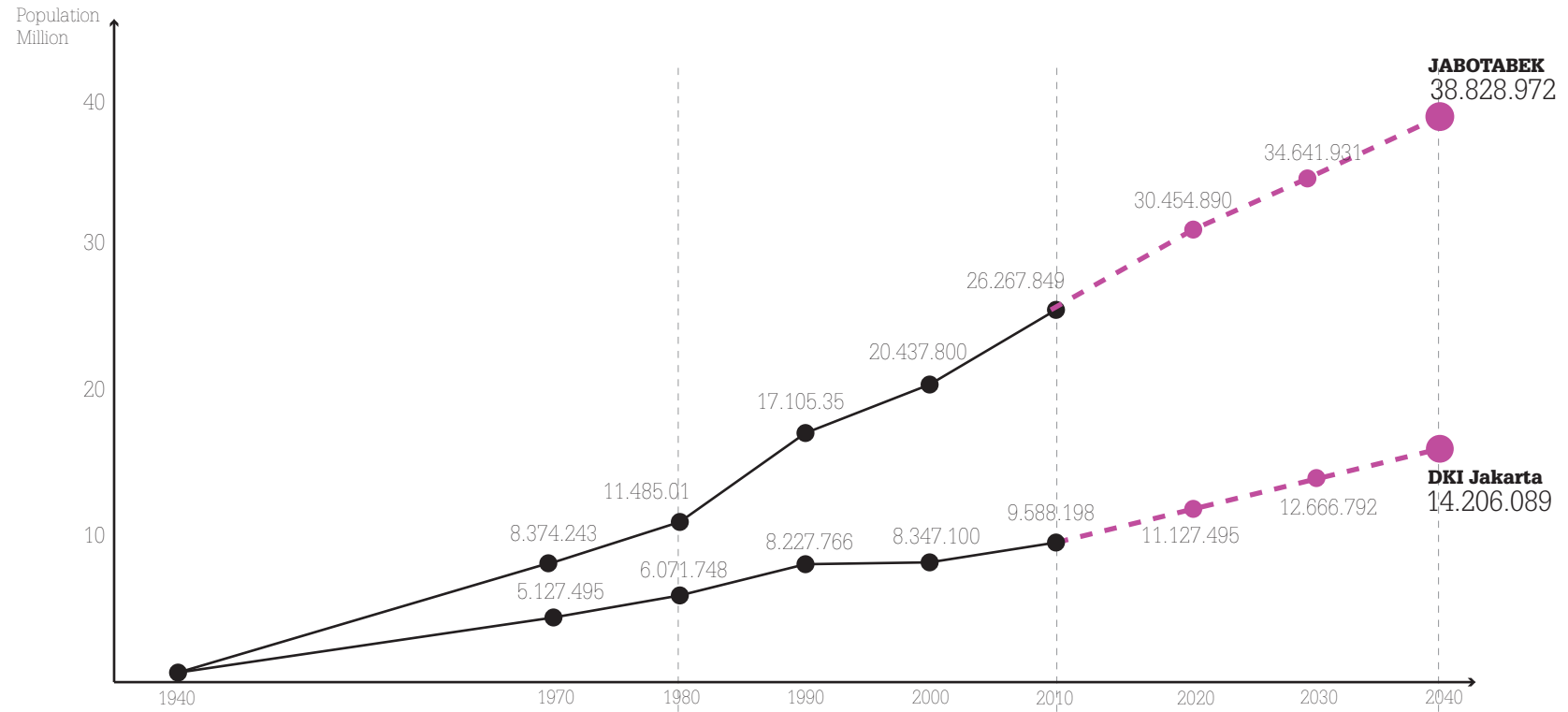
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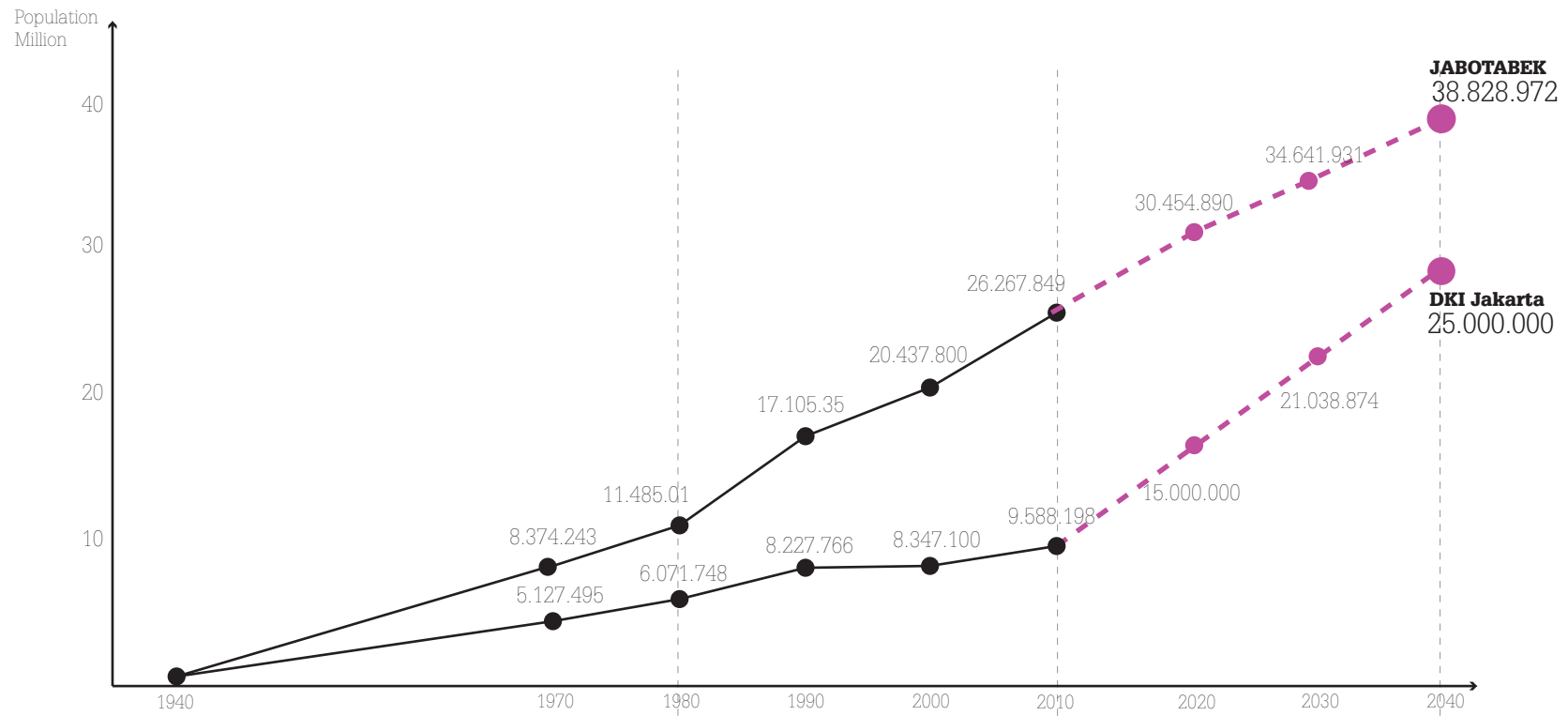
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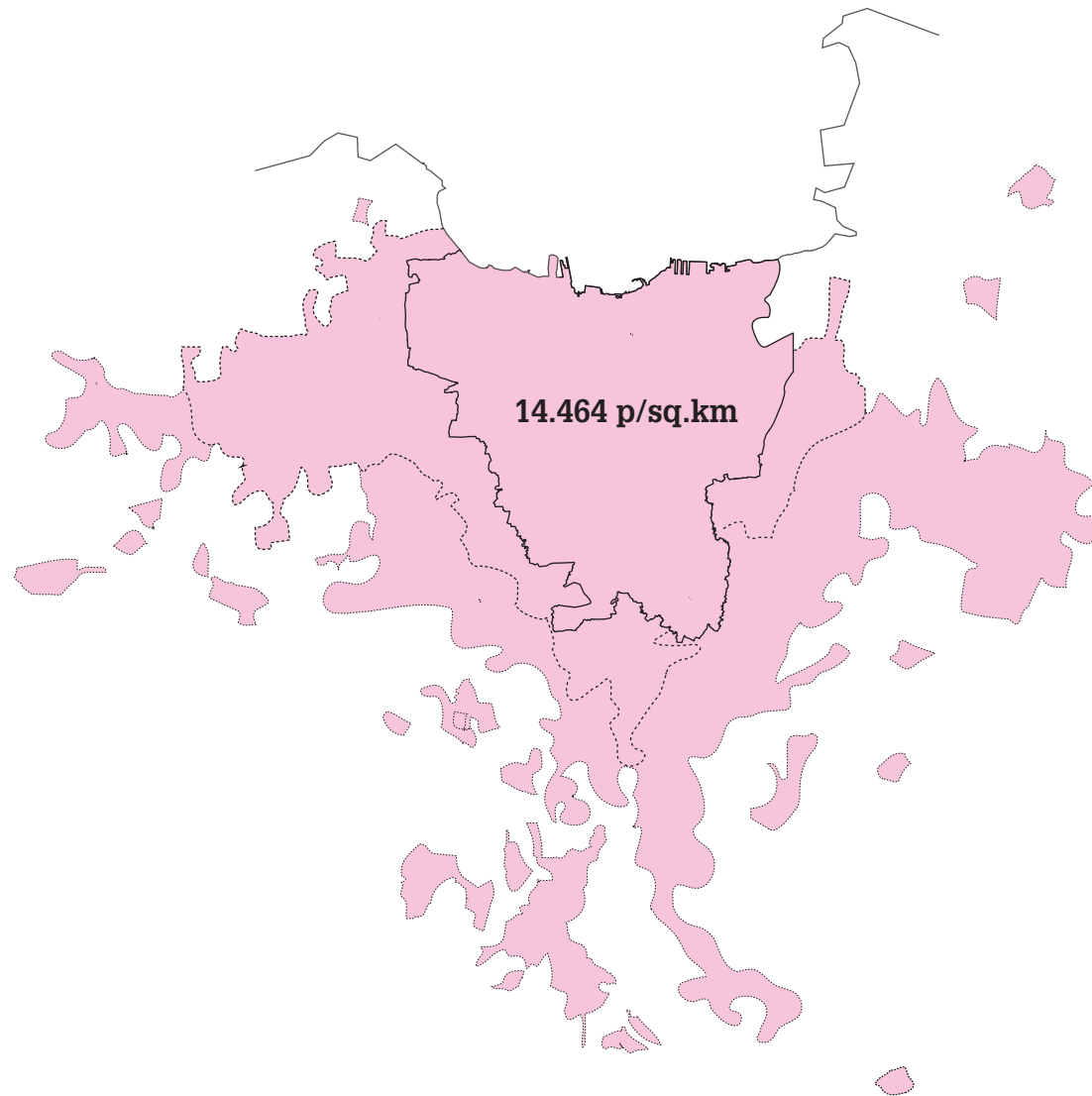
Ranging from very basic ones, such as poor infrastructures to a multitude of more complex issues in a congested city-village.

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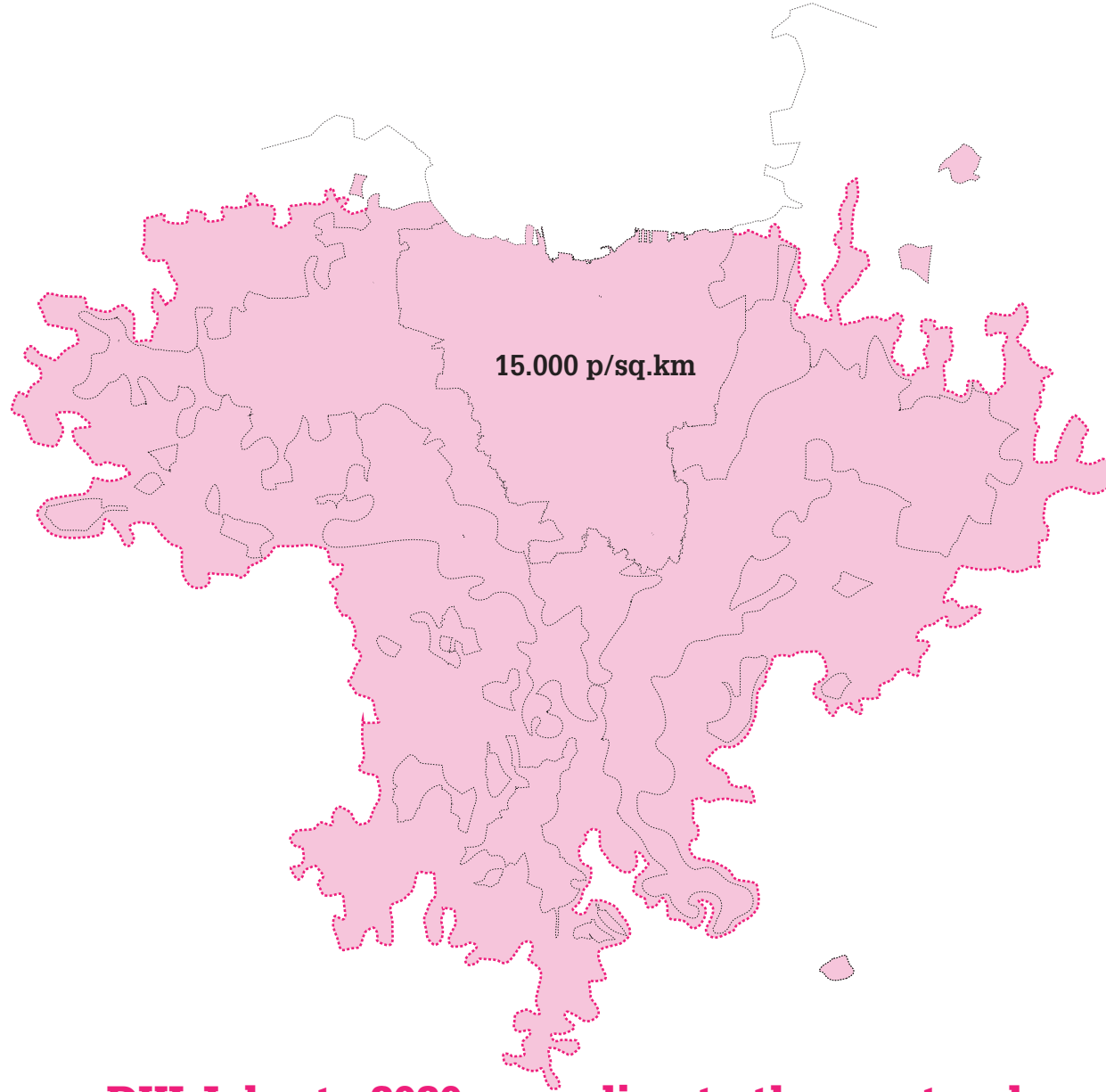
Upgrade



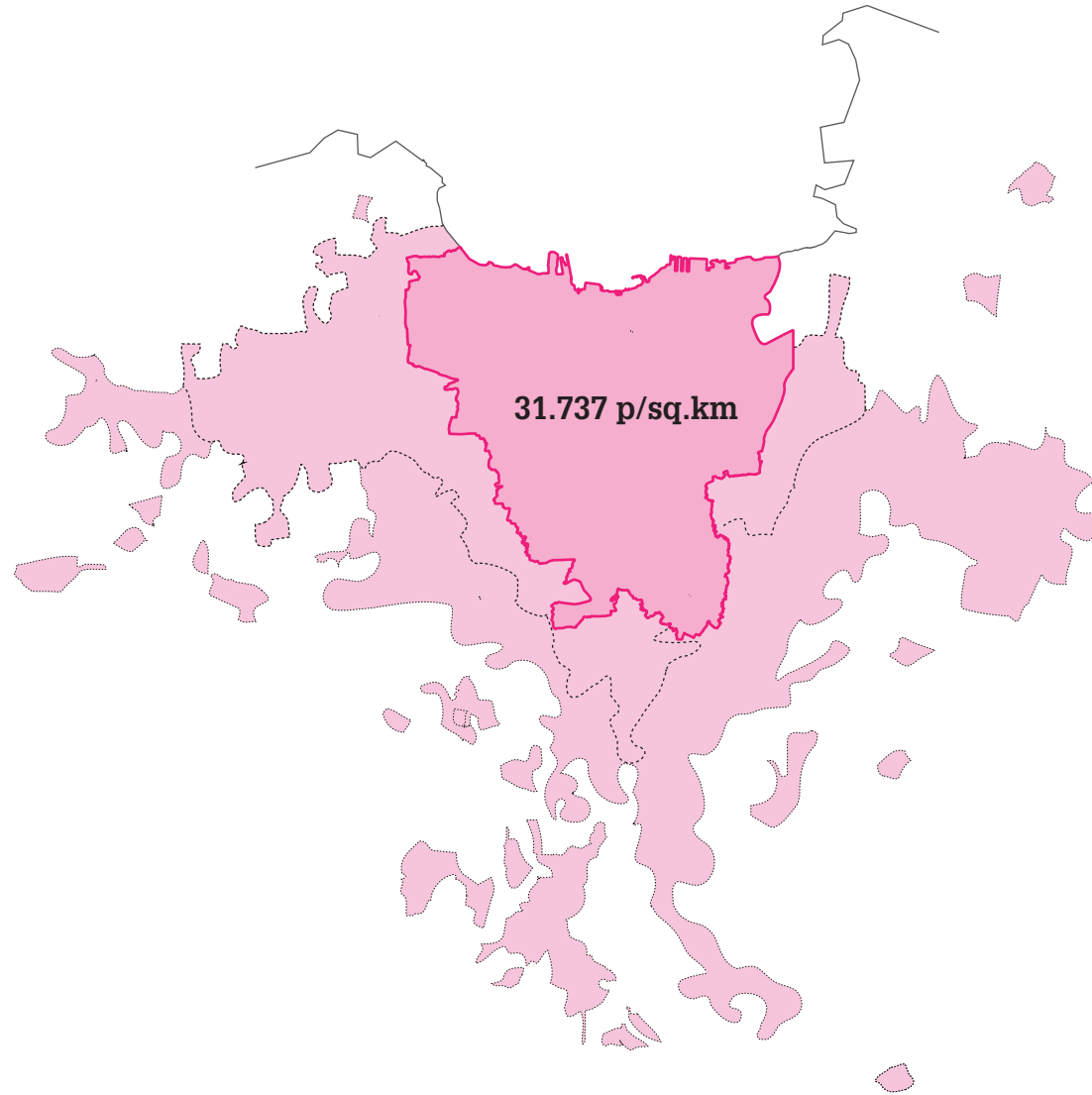




DKI Jakarta 2010
9.588.198 people



DKI Jakarta 2030 according to the masterplan
10.000.000 people



a densified DKI Jakarta 2030
21.038.874 people

What are the implications of this increase in density for the city of Jakarta?

Implications run through all scales

			<i>Scale</i>	<i>km</i>	<i>m</i>	<i>cm</i>	<i>mm</i>
<i>Group</i>	Jabodetabek	XXL	1:1.000.000	10	10000	1000000	10000000
	Jakarta	XL	1:250.000	2,5	2500	250000	2500000
	Kebon Kacang	L	1:10.000	0,1	100	10000	100000
<i>Individual</i>	Indiv area	M	1:1.000	0,01	10	1000	10000
	Community	S	1:200	0,002	2	200	2000
	Unit	XS	1:50	0,0005	0,5	50	500
	Detial	XXS	1:5	0,00005	0,05	5	50

What is shown and designed on which scale?

XL

Jakarta

L

Kebon Kacang

M

Sites

S

Community

XS

Housing unit

XXS

Detail

System

- Urban fabric
- density
- FAR

System

- Urban fabric
- density
- Po/km2
- FAR
- open space
- OSR
- designation
- function
- demographics

System

- Urban fabric
- density
- FAR
- Po/km2
- GSI
- safety
- fire prevention
- dimensions

System

- Urban fabric
- structure
- constructability
- building site
- open space
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- designation
- function
- demographics
- safety
- fire prevention
- dimensions

System

- Urban fabric
- structure
- constructability
- building method
- flexibility
- light conditions
- ventilation
- designation
- function

System

- Urban fabric
- structure
- constructability
- building method
- flexibility
- materials
- water resistance
- fire resistance
- lifespan

Infrastructure

- Transportation
- road capacity
- main roads
- public transport
- rails network
- main roads

Infrastructure

- Transportation
- road capacity
- main roads
- secondary roads
- public transport
- rails network
- main roads
- main stations

Infrastructure

- Transportation
- road capacity
- tertiary roads
- small roads
- parking
- public transport
- platforms

Infrastructure

- Transportation
- functional use
- internal routing
- parking

Infrastructure

- Transportation
- functional use
- internal routing
- parking

- Water management
- river/canal capacity
- main rivers
- water-net
- storage

- Water management
- river/canal capacity
- sub-rivers
- water-net
- storage

- Water management
- river/canal capacity
- sub-rivers

- Water management
- sewage capacity
- main system

- Water management
- sewage capacity
- functional use

- Waste management
- sewage capacity
- main net

- Waste management
- sewage capacity
- main net

- sewage capacity
- main system

Urgencies

- flooding
- land subsidence
- traffic gridlock
- pollution
- privatized
- formal rights
- waste

Urgencies

- flooding
- land subsidence
- traffic gridlock
- pollution
- privatized space
- formal rights
- waste

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- flooding
- land subsidence
- traffic gridlock
- pollution
- waste
- privatized space
- land ownership

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How can the densification strategy facilitate solving.. flooding?

Infrastructure

- Transportation
- road capacity
- tertiary roads
- small roads
- parking
- public transport
- platforms

Infrastructure

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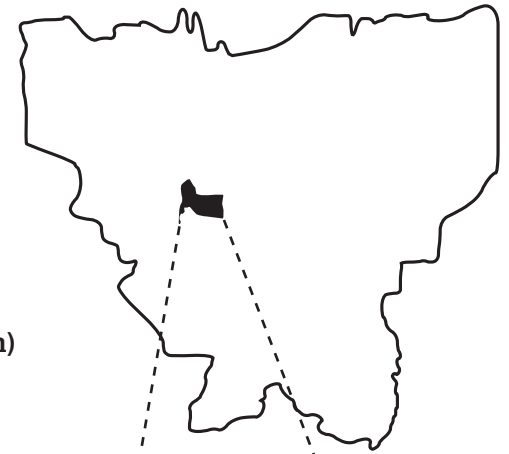
How can the densification strategy facilitate solving.. flooding?

The implications, designs and programmatic requirements work through all scales

XL

Jakarta
1:250.000
Group

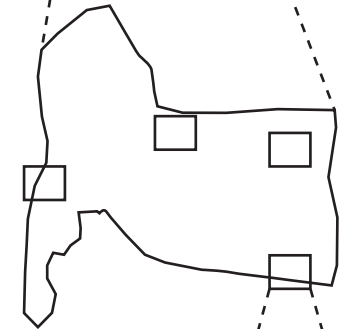
Implications
> design (Jakarta Impian)



L

Kebon Kacang
1:10.000
Group

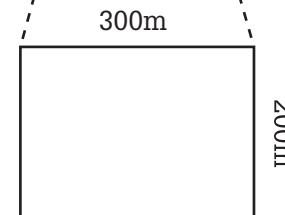
Implications
> design (Kebon Kacang Masterplan)



M

4 Individual sites (*situations that accure more often*)
1.1000
Individual

Implications
> design (M till XXS architectural and policy designs)



From XL to XXS > what needs to be done where and on what scale?

XL Jakarta

Visions



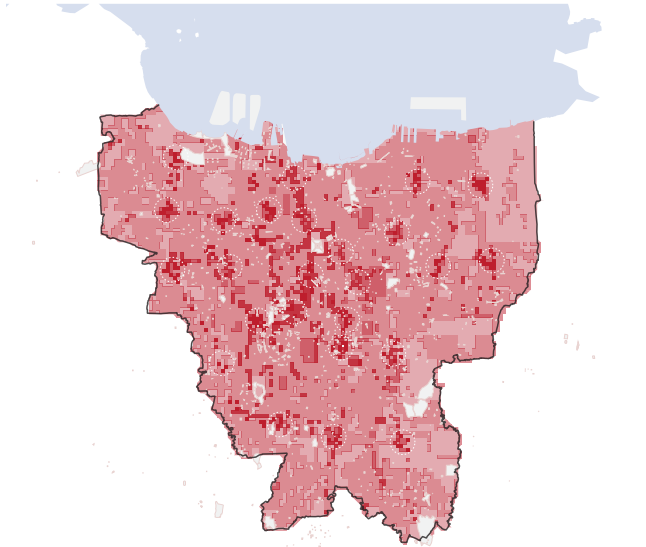
Road Upscaling



Widening rivers



Building a giant sea wall



New CBD nodes



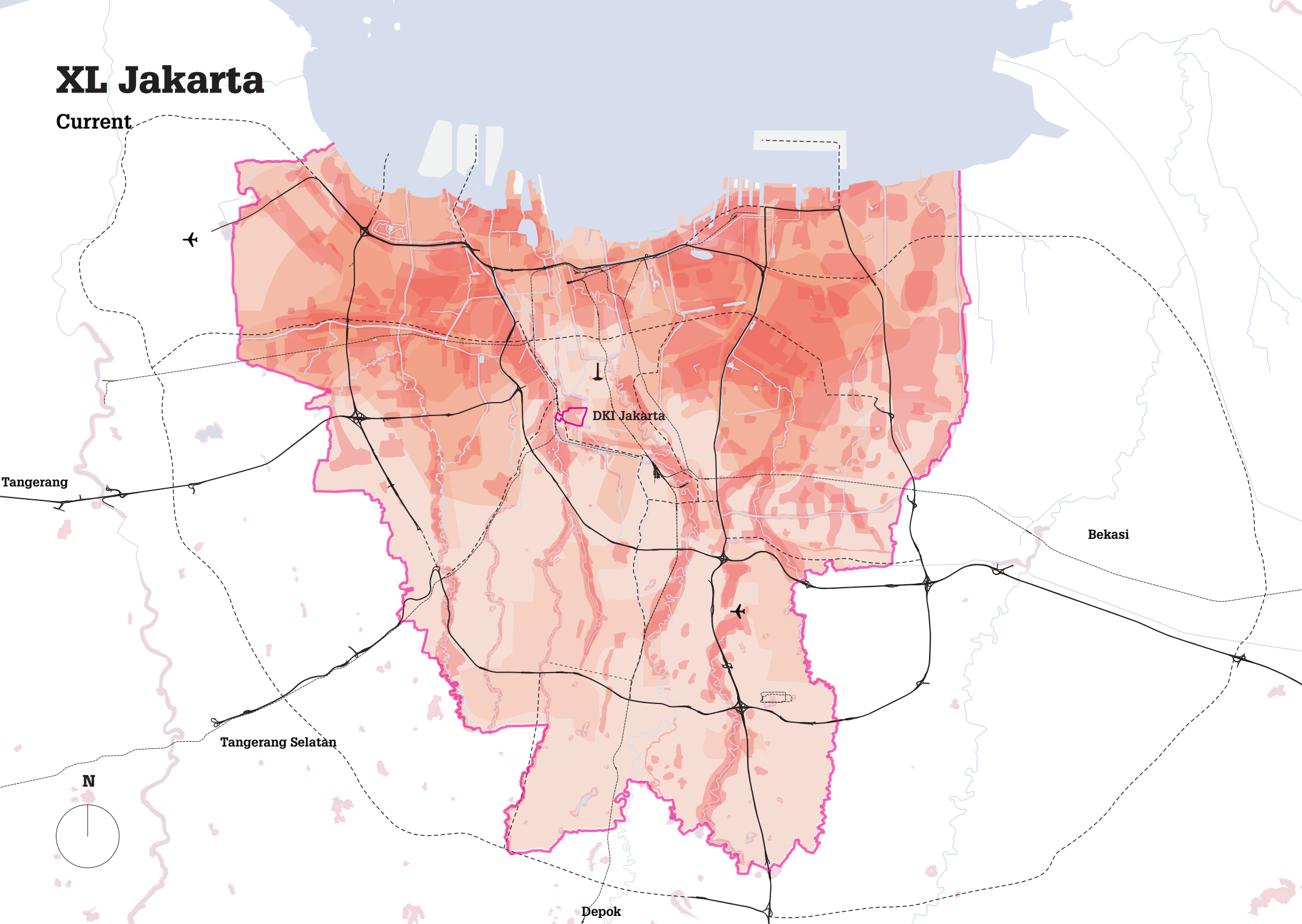
Kampung to kampung connections



Greenspaces around river sides

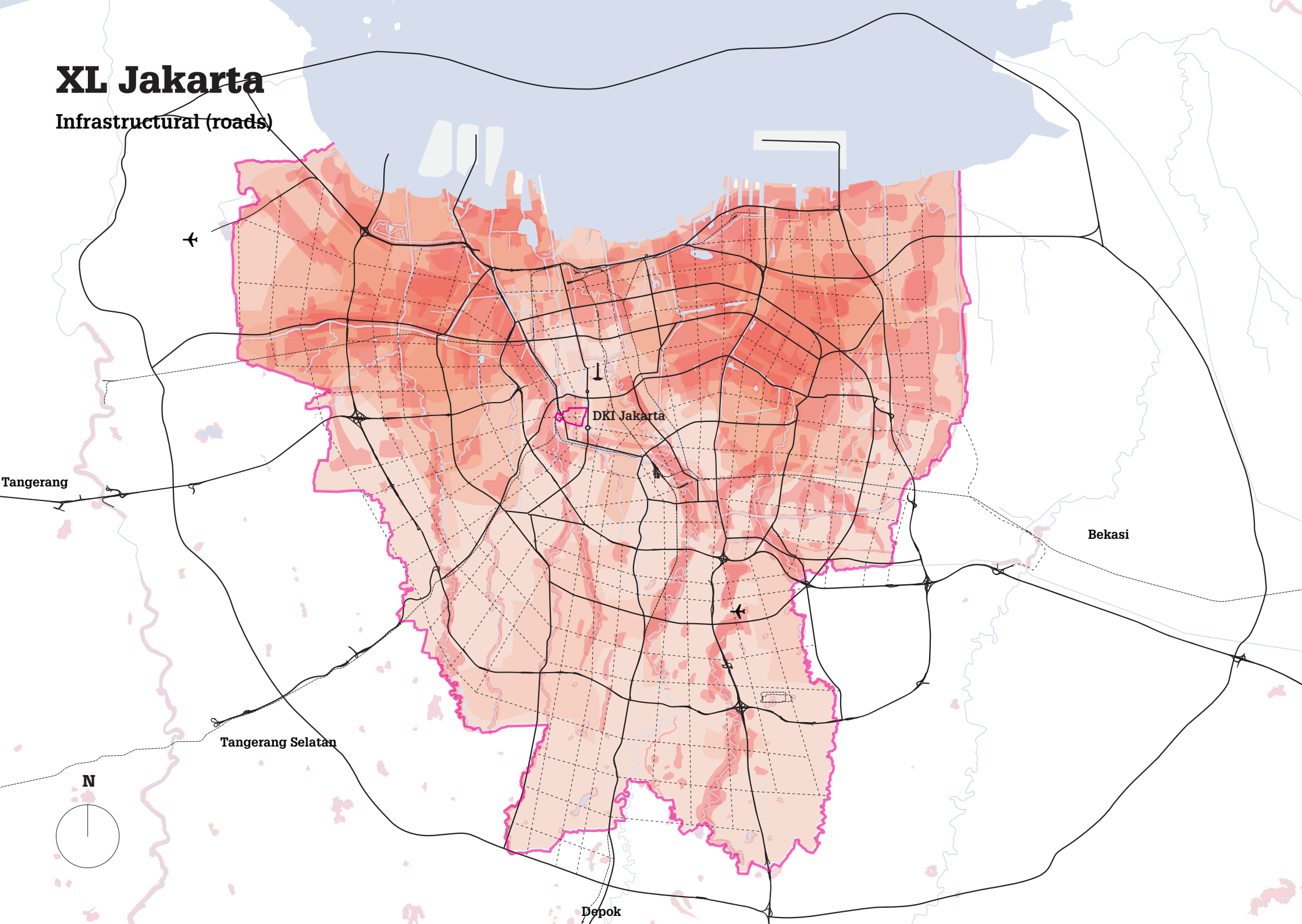
XL Jakarta

Current



XL Jakarta

Infrastructural (roads)



XL Jakarta

Water



DKI Jakarta



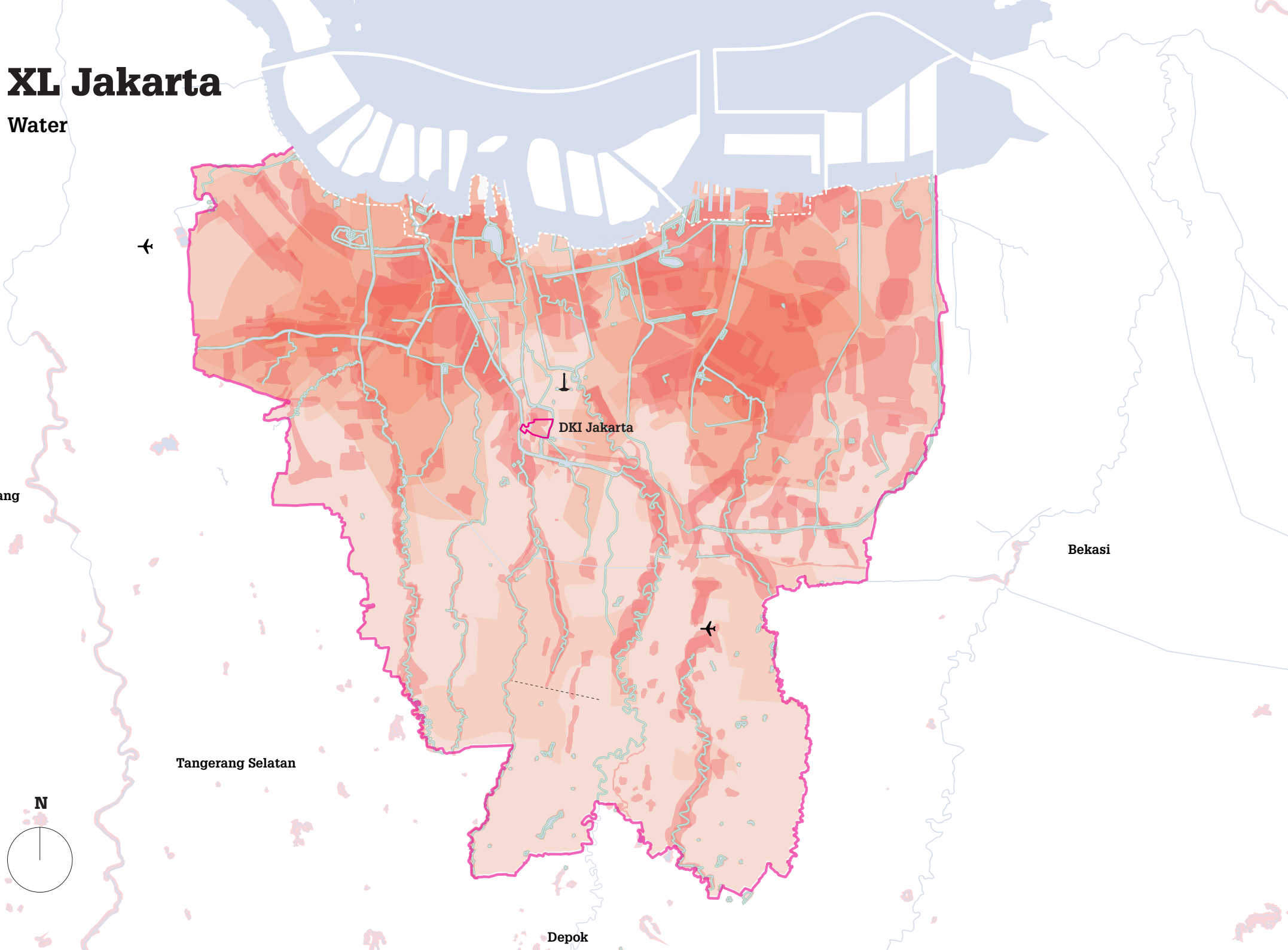
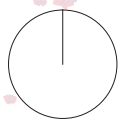
Tangerang

Bekasi

Tangerang Selatan

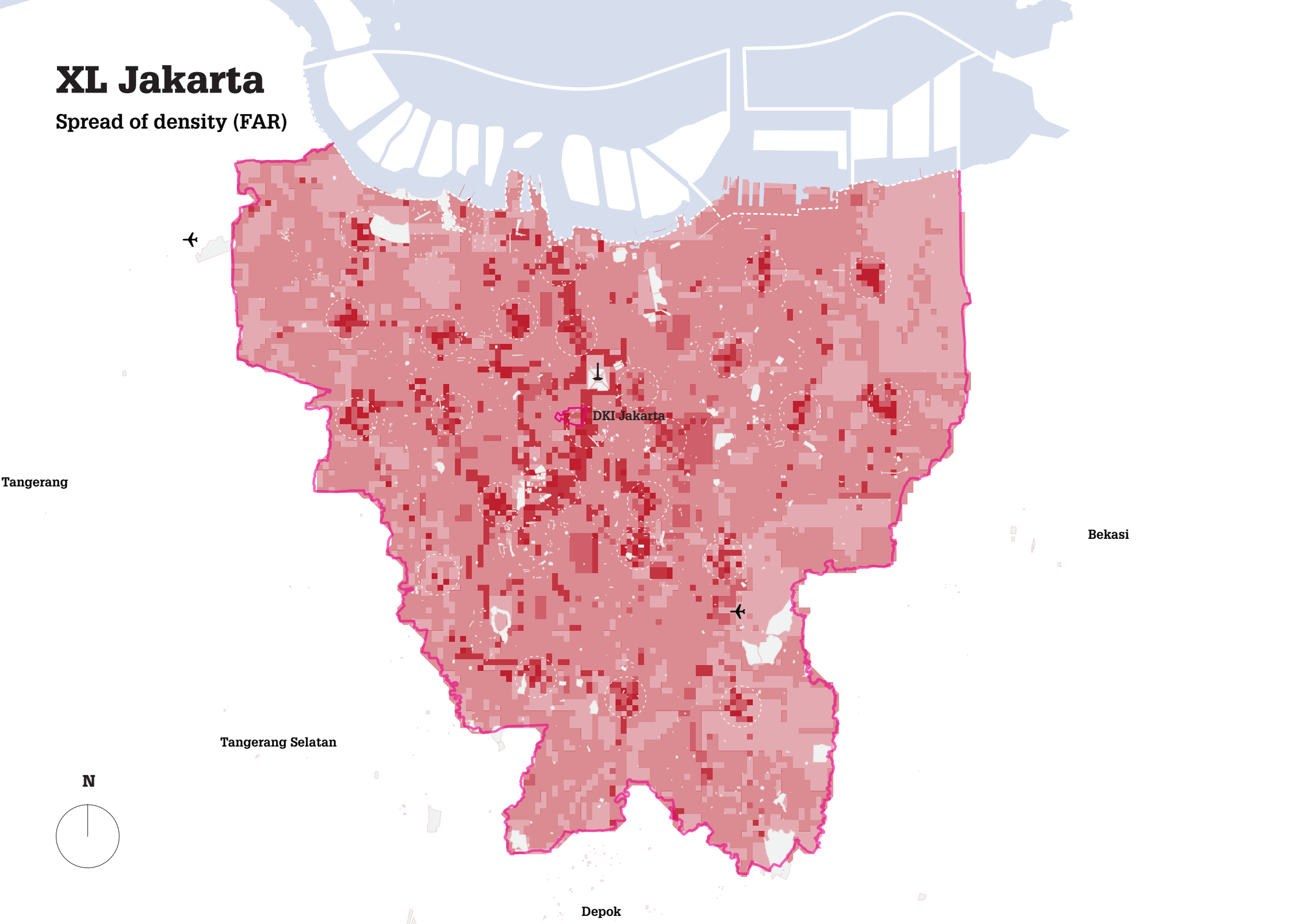
N

Depok



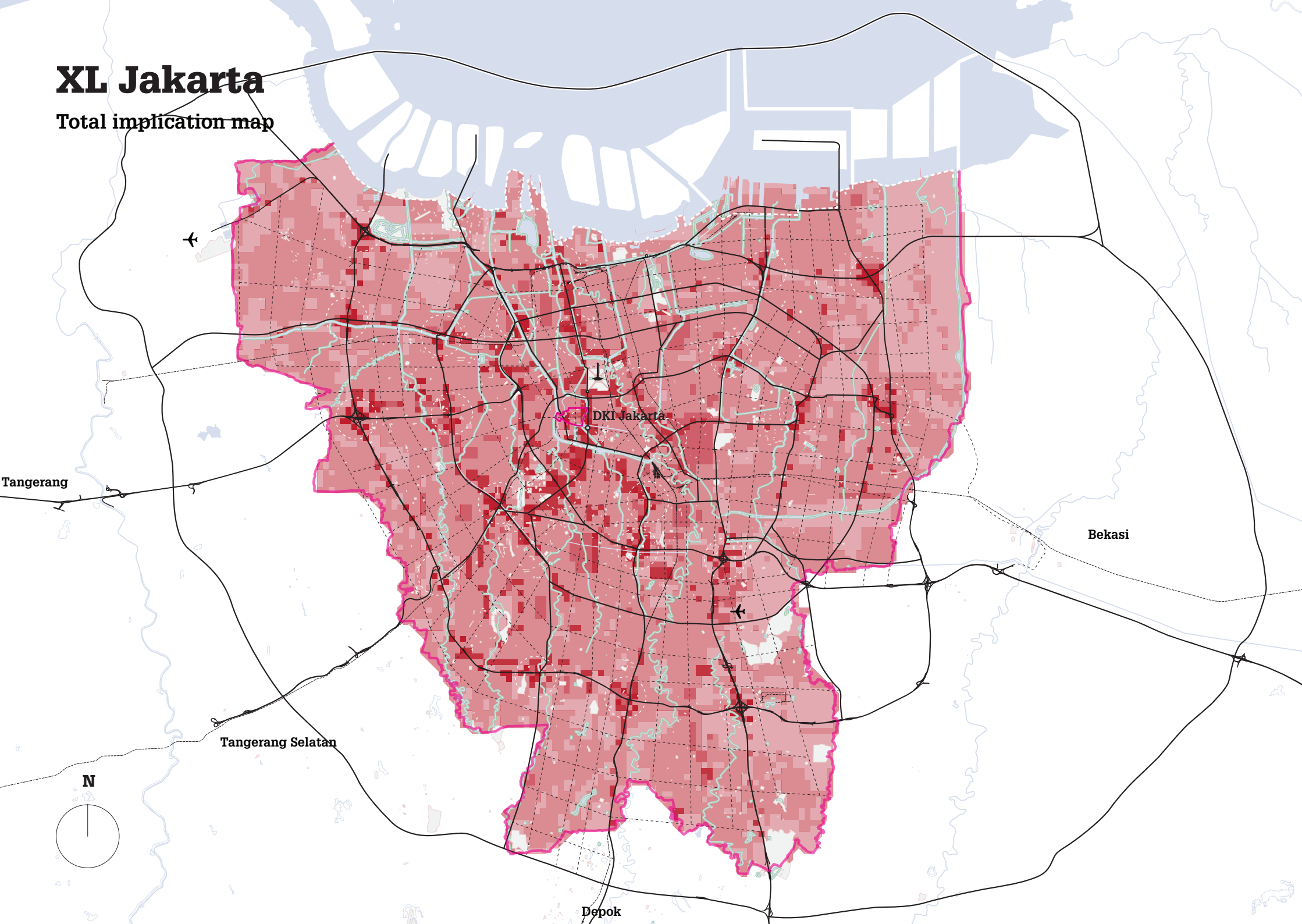
XL Jakarta

Spread of density (FAR)



XL Jakarta




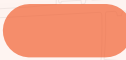
Total implication map

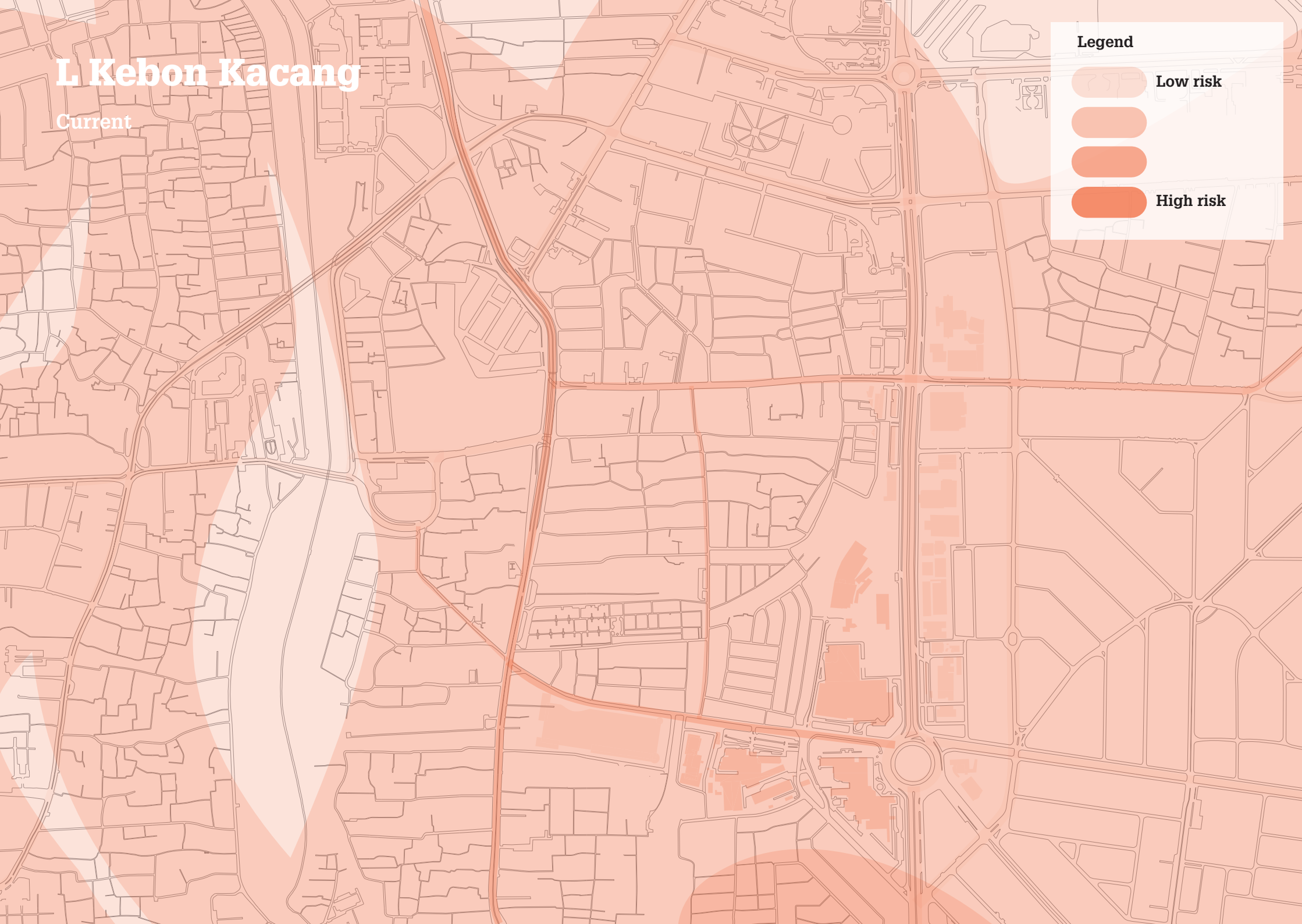


L. Kebon Kacang

Current

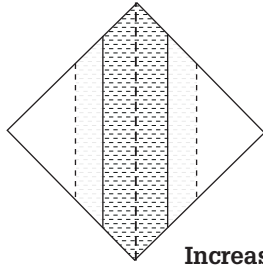
Legend

-  Low risk
- 
- 
-  High risk

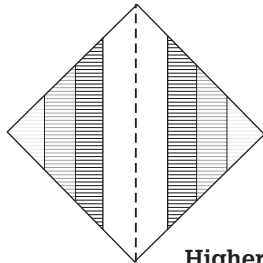


L Kebon Kacang

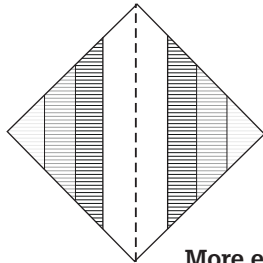
Visions



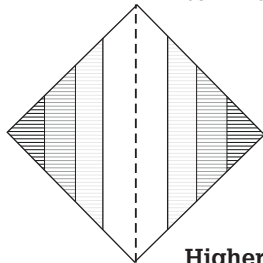
Increasing capacity of infrastructure



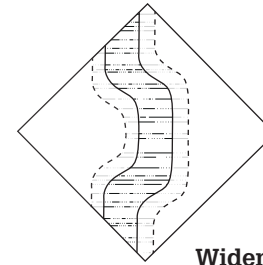
Higher FAR next to infrastructure



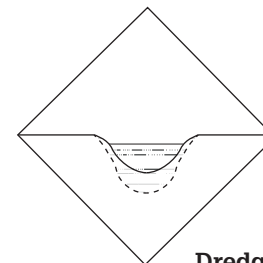
More economic activity next to infrastructure



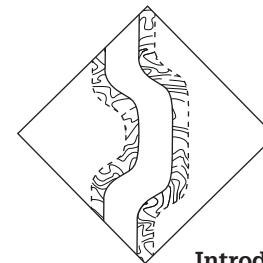
Higher density inwards - people/km² - from infrastructure



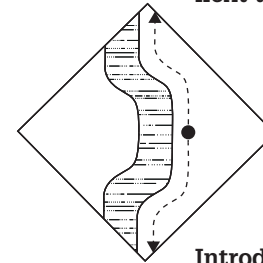
Widening rivers



Dredging rivers



Introducing open space next to rivers



Introducing public transport next to rivers

L Kebon Kacang

Jakarta Eksplorasi

Legend

FAR 0-2

FAR 2-4

FAR 4-6

FAR 6-8

Rivers

Class 5 road

Class 3 road

Class 2 road

Class 1 road

People per km²

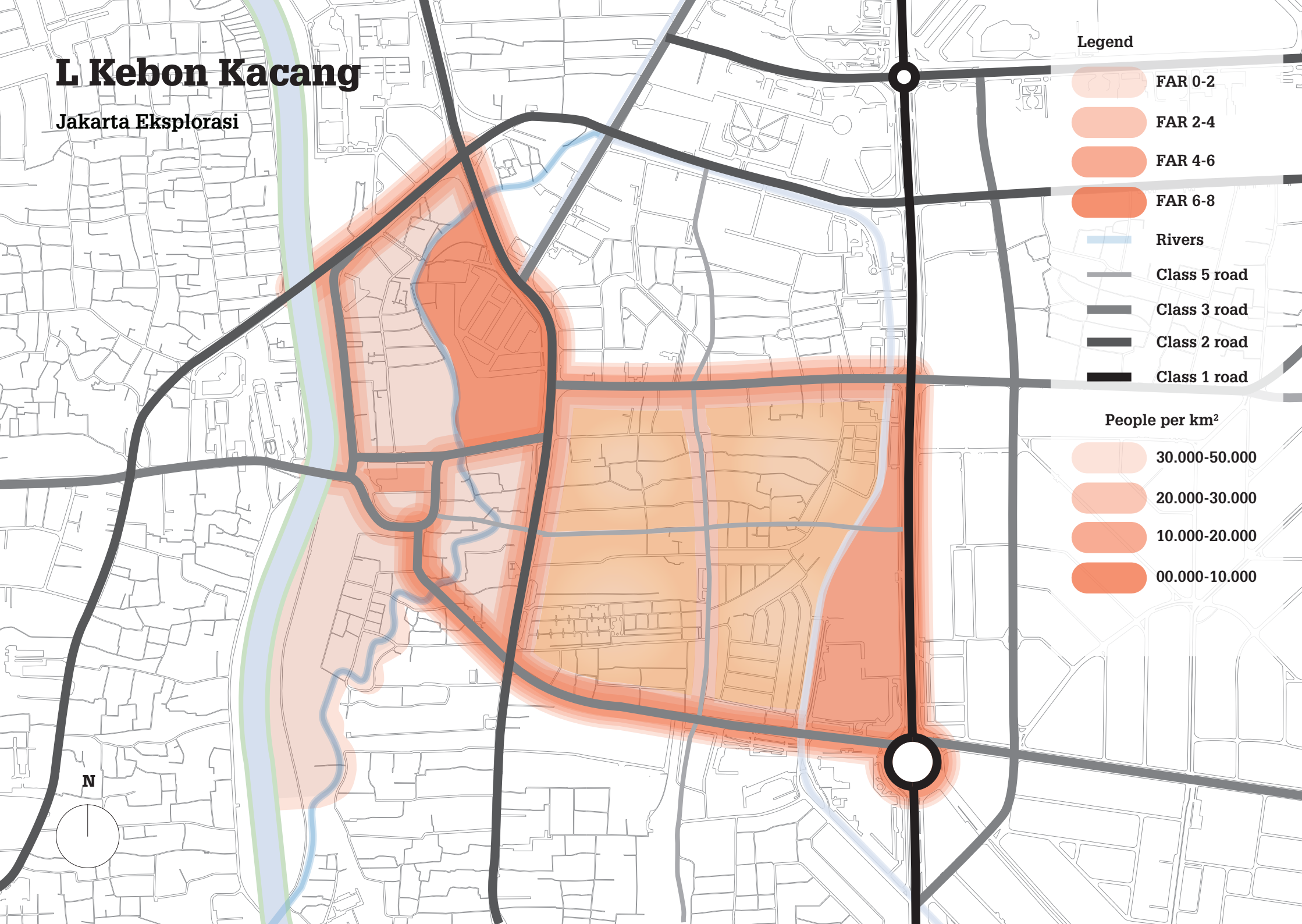
30.000-50.000

20.000-30.000

10.000-20.000

00.000-10.000

N



L Kebon Kacang

Jakarta Eksplorasi

Legend

FAR 0-2

FAR 2-4

FAR 4-6

FAR 6-8

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Class 5 road

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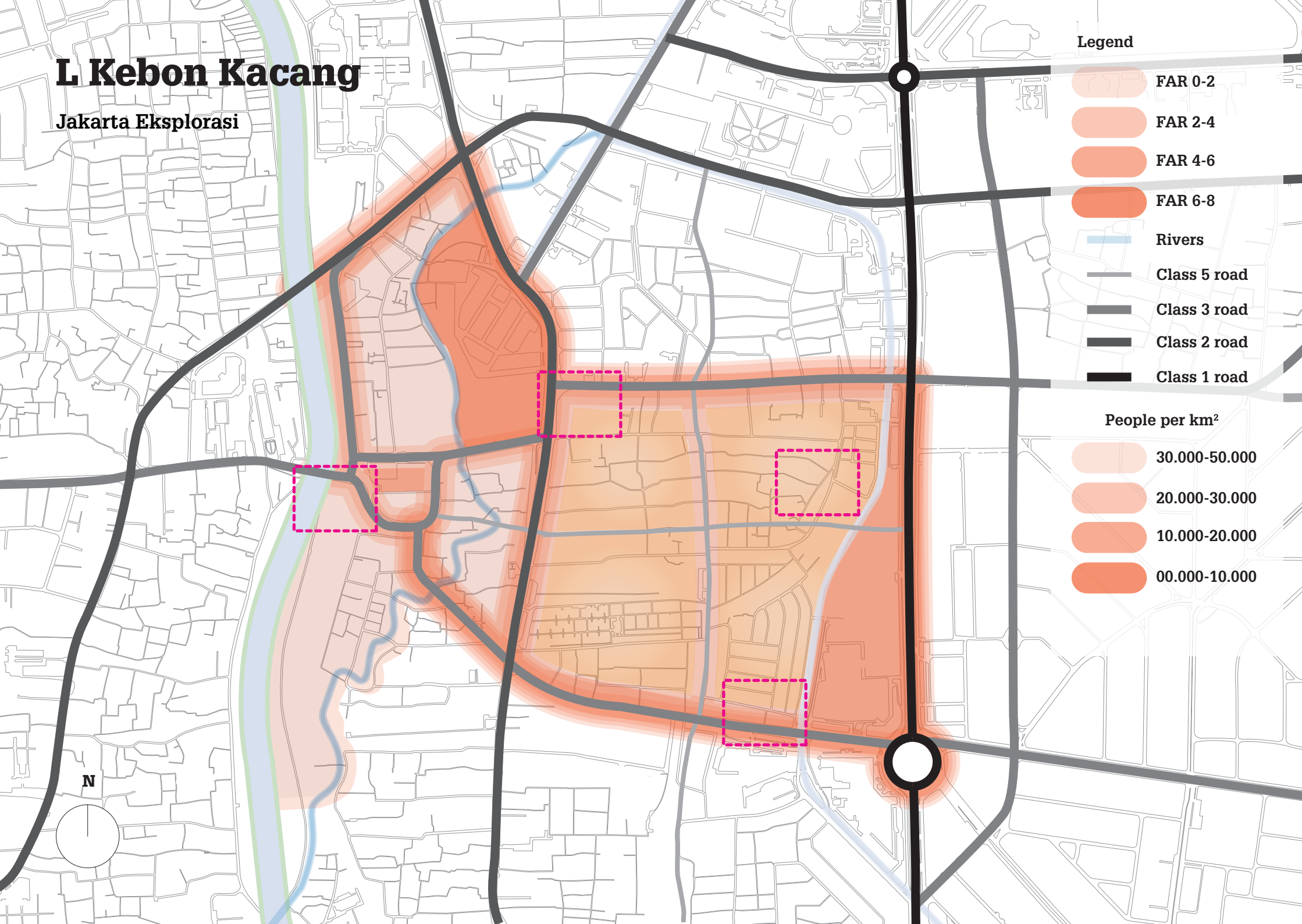
People per km²

30.000-50.000

20.000-30.000

10.000-20.000

00.000-10.000



L Kebon Kacang

Jakarta Eksplorasi

Legend

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Class 5 road

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People per km²

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20.000-30.000

10.000-20.000

00.000-10.000

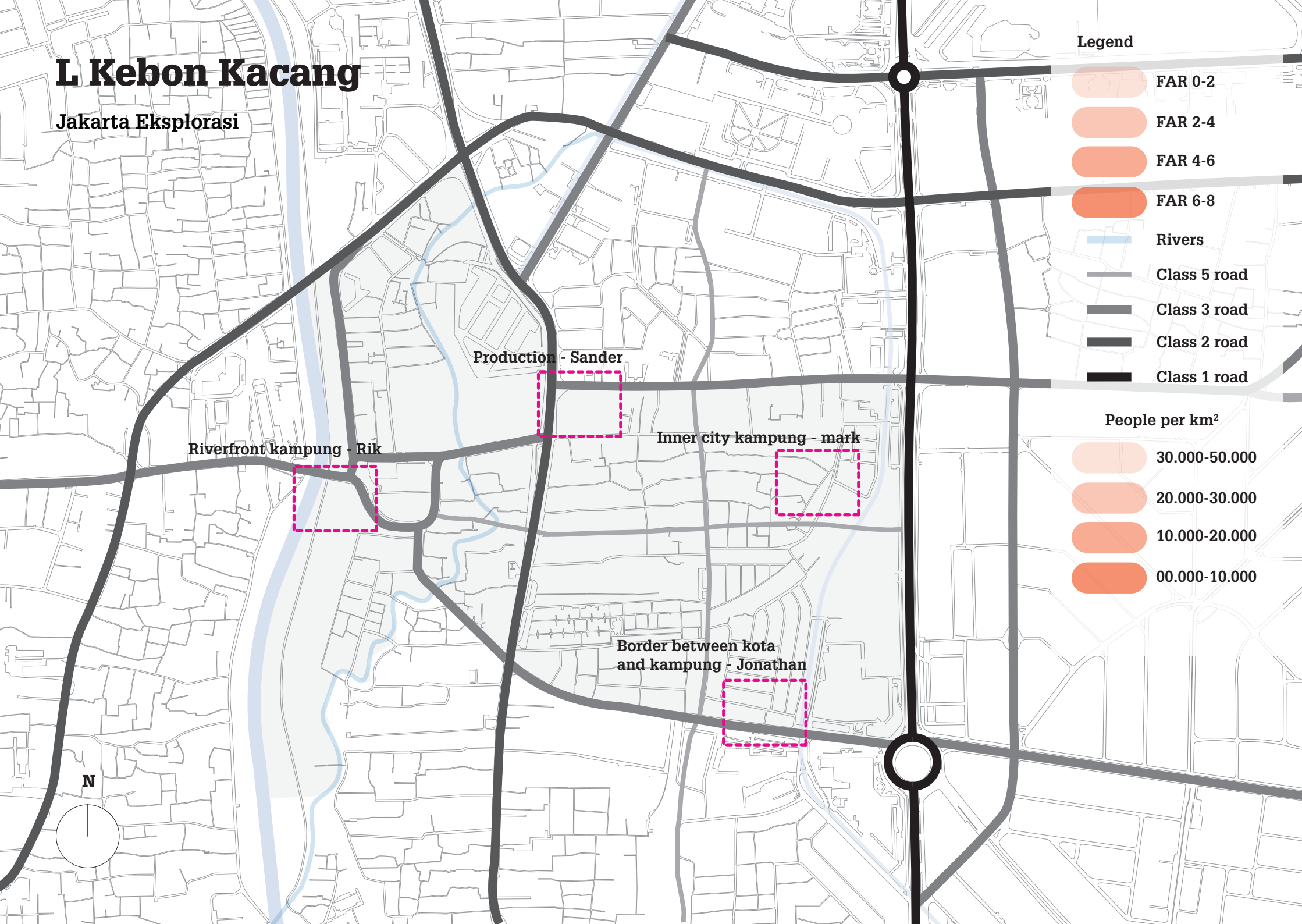
Riverfront kampung - Rik

Production - Sander

Inner city kampung - mark

Border between kota
and kampung - Jonathan

N



M till XXS scales > individual works