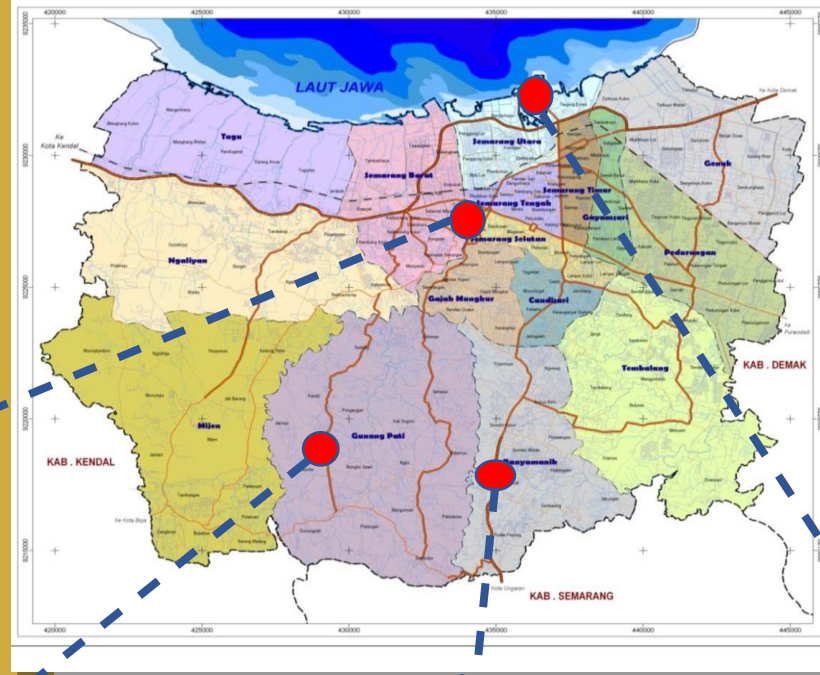


# Resilient Semarang through Climate Adaptation





# SEMARANG OVERVIEW



- Capital City of Central Java Province
- 373.3 Km2
- 16 district  
177 sub district
- 1,8 Million Population



**SEMARANG IS UNIQUE**



## FLOOD



## LANDSLIDE



# VULNERABLE RISK MAP

## LAND SUBSIDENCE



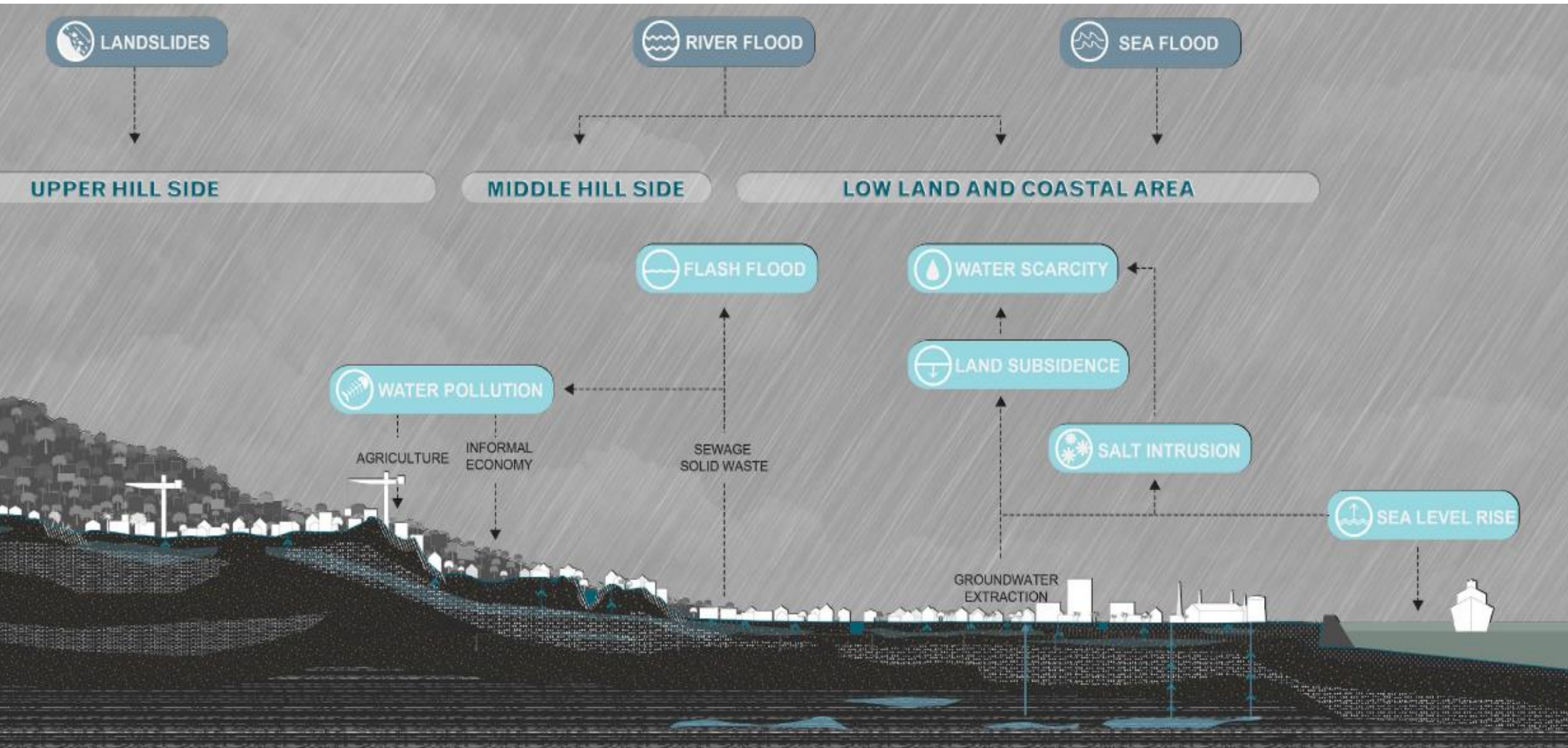
Water-related issues are becoming more apparent as sea level rises, land is further subsiding, rob floods and landslides increase in frequency, and rapid urbanization increases the need for clean water supply.

## CLEAN WATER ACCESS



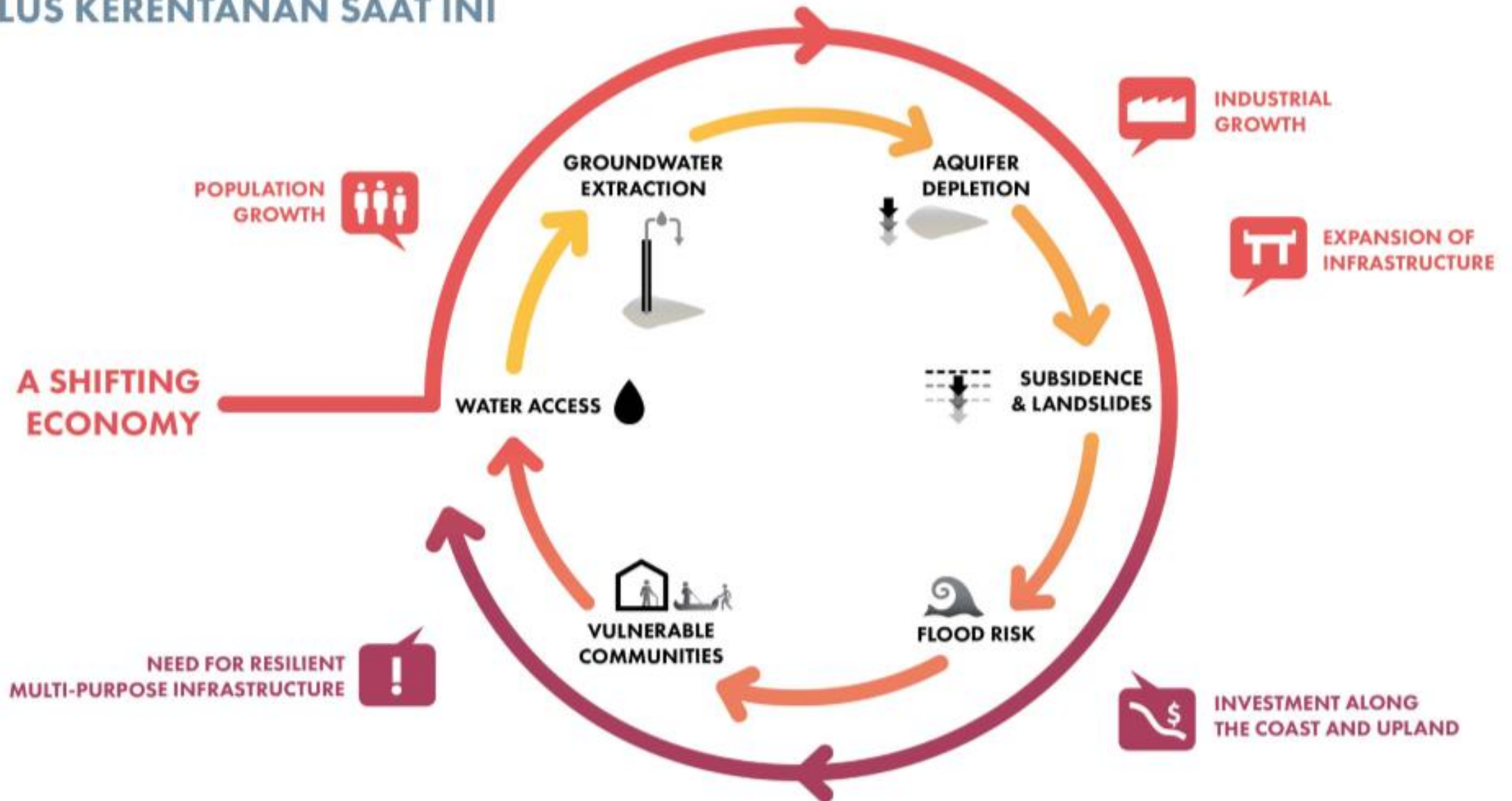


# CROSS SECTION OF **WATER RELATED ISSUES**



# CURRENT CYCLE OF VULNERABILITY

## SIKLUS KERENTANAN SAAT INI







**Tawang**, Semarang Railway Station, 23 February 2021





Subsidence in the northeast area of Semarang varies between 4 and 18cm per year. In the kampungs, streets are raised every few years, impacting entryways of buildings. Penurunan tanah di daerah timur laut Semarang bervariasi antara 4 sampai 18 cm per tahun. Di kampung-kampung, permukaan jalan ditingkatkan setiap beberapa tahun sekali, sehingga berdampak bagi jalan masuk ke rumah.



2000s

**DILARANG MELINTAS GARIS POLISI**  
POLICE LINE  
**DILARANG MELI**  
DO NOT CROSS

In upland, hilly areas of Semarang, unstable soils due to uncontrolled groundwater extraction lead to landslides and fluvial flooding compromising critical infrastructure. Di kawasan hulu, tanah yang tidak stabil akibat ekstraksi air tanah yang tidak terkontrol menyebabkan longsor dan banjir fluvial sehingga mengorbankan infrastruktur penting.



# FRESH WATER SUPPLY

## PENYEDIAAN AIR BERSIH



### 57.07% OF WATER LOSS

in the PDAM piping water supply system

### 57.07% TINGKAT KEHILANGAN AIR

pada sistem penyediaan air perpipaan PDAM

Source: USAID & IUWASH (2010)



### 62.4% OF HOUSEHOLDS

connected to PDAM piped water service

### 62.4% RUMAH TANGGA

terhubung ke layanan air perpipaan PDAM

Source: City Resilience Strategy (2016); Semarang PDAM (2015)



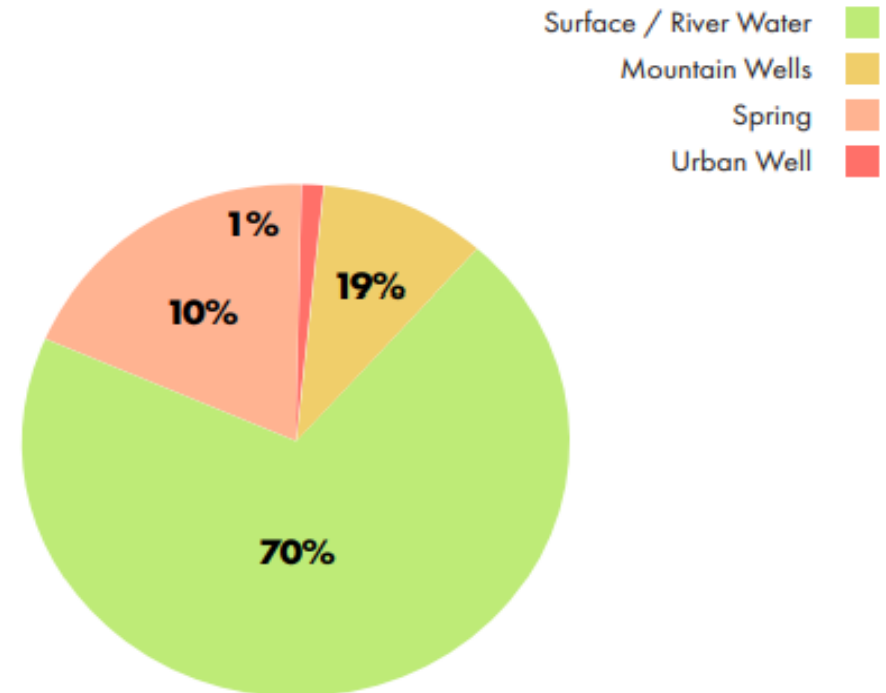
### 64.03% OF HOUSEHOLDS

use ground water as a source of clean water

### 64.03% RUMAH TANGGA

menggunakan air tanah sebagai sumber air bersih

Source: Semarang Vulnerability Assessment (2010)



### PDAM MAIN WATER SOURCES

#### SUMBER AIR BAKU PDAM

Source: Dokumen RISPAM Kota Semarang



# 2019

SIMPANG LIMA

BANJIR KANAL  
BARAT

AIRPORT

KOTA  
LAMA

PORT



# 2040

**X** AIRPORT IS NO LONGER VIABLE

AIRPORT

BANJIR KANAL  
BARAT

SIMPANG LIMA

KOTA  
LAMA

PORT

 LOSS OF 1000 HE  
OF INDUSTRY

 SUBSIDED  
3 METERS

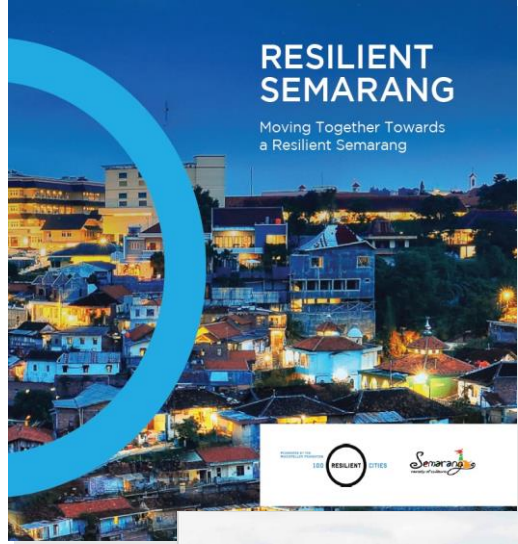
 LOSS OF 6000 HE  
OF URBAN AREAS

**X** PORT IS NO  
LONGER VIABLE

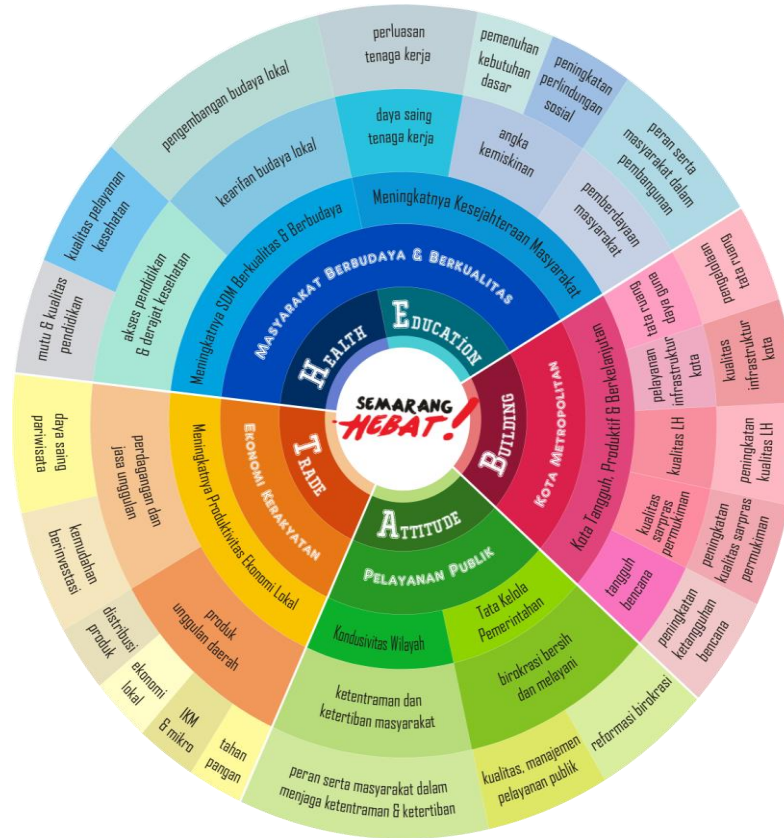
**-3M**



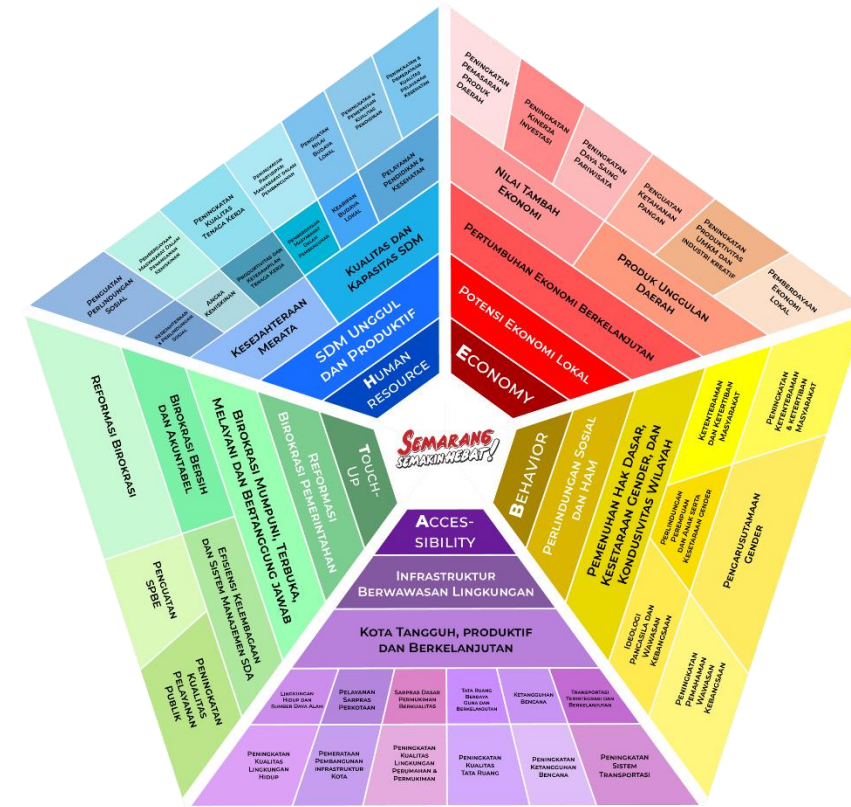
# URBAN RESILIENCE / CLIMATE ADAPTATION INTEGRATION INTO DEVELOPMENT PLANNING SYSTEM



**2016**

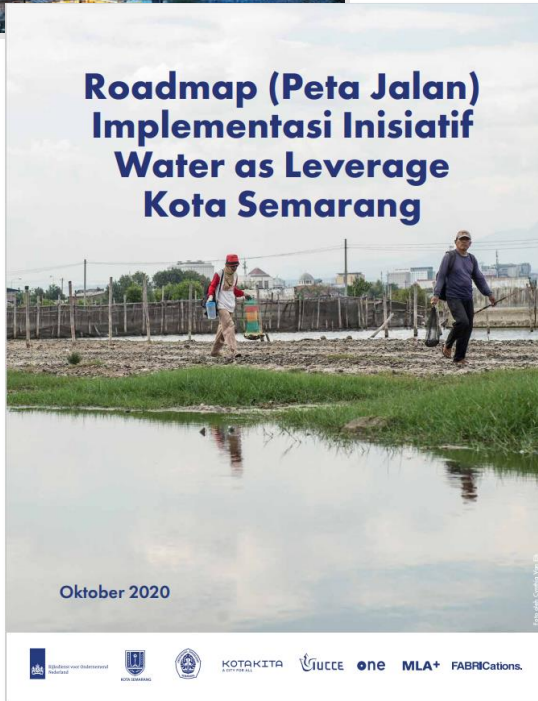


**MID-TERM  
DEVELOPMENT  
PLANNING (RPJMD)  
2016-2021**



**MID-TERM  
DEVELOPMENT  
PLANNING (RPJMD)  
2021-2026**

**2019/  
2020**





# Semarang Resilient Strategy

PILLARS	Sustainable Water and Energy	New Economic Opportunities	Preparedness for Disaster and Disease Outbreaks	Integrated Mobility	Transparent Public Information and Governance	Competitive Human Resources
STRATEGIES	<ol style="list-style-type: none"><li>1. Enhancing the performance of basic water management</li><li>2. Promoting innovations in water provision</li><li>3. Promoting environmentally friendly behaviors</li></ol>	<ol style="list-style-type: none"><li>1. Promoting entrepreneurship to increase the competitiveness of trade and services</li><li>2. Developing environmentally-friendly and socially oriented innovative businesses</li><li>3. Strengthening multi-stakeholder (academic, business, community, government) partnership to create job opportunities</li></ol>	<ol style="list-style-type: none"><li>1. Developing technology for disaster and disease management</li><li>2. Enhancing the capacity of stakeholders in disaster and disease management</li><li>3. Improving coordination in disaster risk reduction</li></ol>	<ol style="list-style-type: none"><li>1. Encouraging a change in behavior from using private vehicles to public transport</li><li>2. Improving coordination and institutional management of public transport</li><li>3. Integrating transportation planning</li></ol>	<ol style="list-style-type: none"><li>1. Optimizing Musrenbang (development planning forum) in the planning process</li><li>2. Improving the integration of planning and city budgeting</li><li>3. Optimizing the government's coordination of data integration and public information</li></ol>	<ol style="list-style-type: none"><li>1. Preparing the workforce for the current job market</li><li>2. Promoting the value of pursuing higher education qualifications</li><li>3. Improving non-formal education</li></ol>
INITIATIVES	8 Initiatives	11 Initiatives	7 Initiatives	13 Initiatives	9 Initiatives	5 Initiatives



## Sustainable Water and Energy

1. Enhancing the performance of basic water management
2. Promoting innovations in water provision
3. Promoting environmentally friendly behaviors

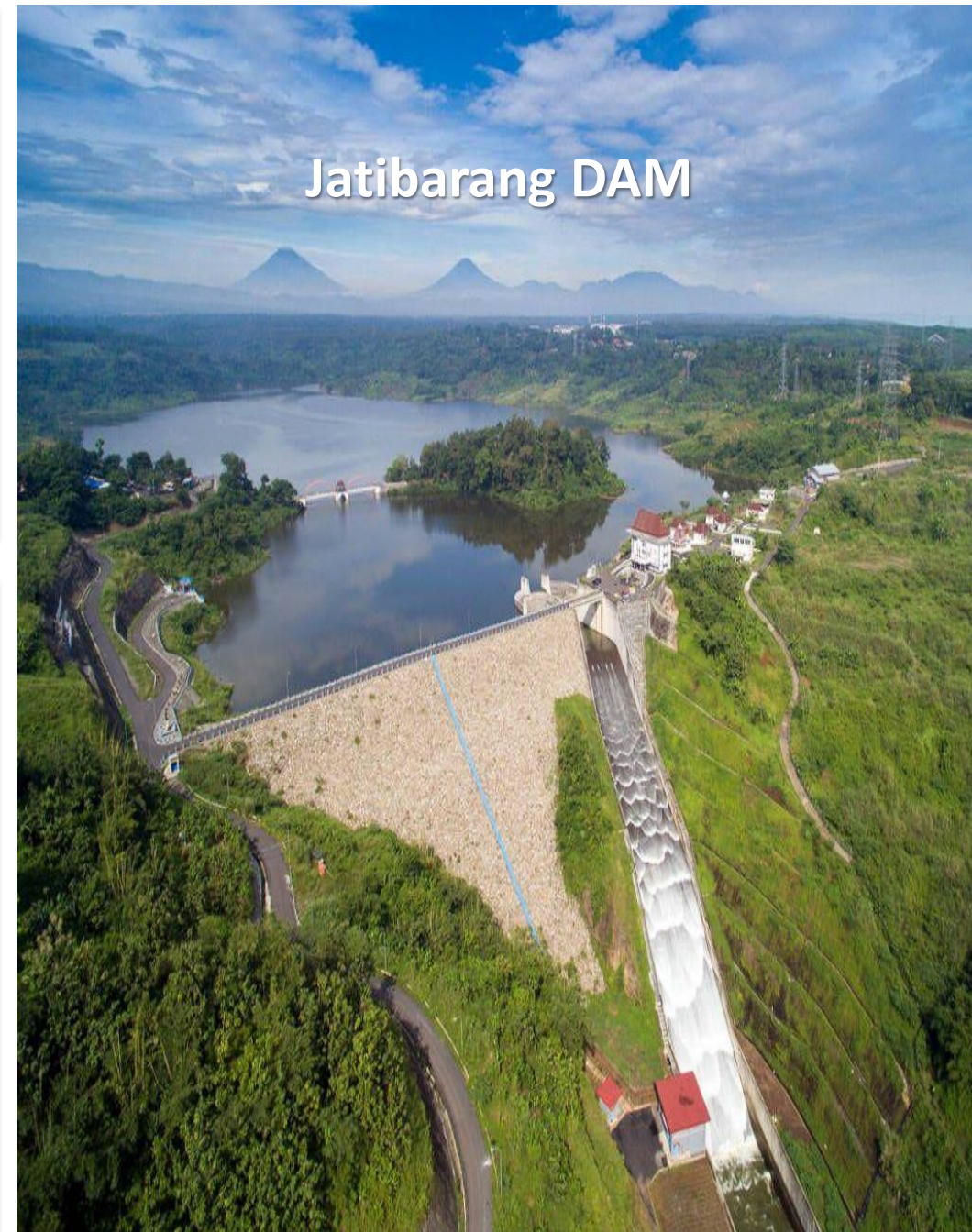
8 Initiatives

## Public Private Partnership (PPP) West Semarang Water Supply System



## Rain Water Harvesting

## Jatibarang DAM





## New Economic Opportunities

1. Promoting entrepreneurship to increase the competitiveness of trade and services
2. Developing environmentally-friendly and socially oriented innovative businesses
3. Strengthening multi-stakeholder (academic, business, community, government) partnership to create job opportunities

11 Initiatives





# Collaboration with PMI (Indonesia Red Cross)

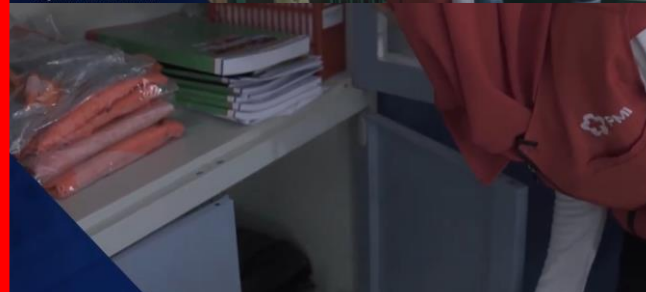
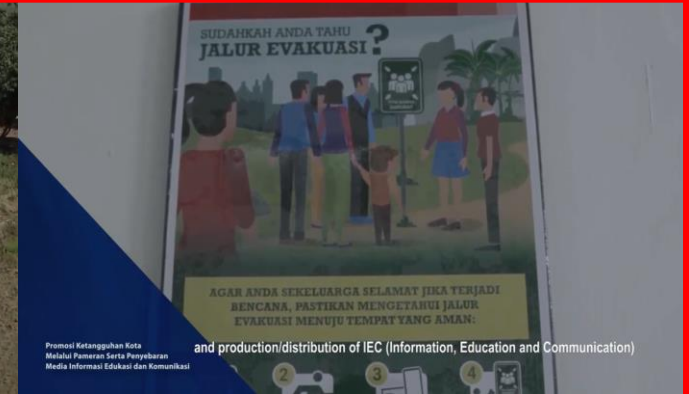
Preparedness for  
Disaster and Disease  
Outbreaks

1. Developing  
technology for  
disaster and disease  
management

2. Enhancing  
the capacity of  
stakeholders in  
disaster and disease  
management

3. Improving  
coordination  
in disaster risk  
reduction

7 Initiatives





# MoU and Coalition Building for Resilient City





# MoU and Coalition Building for Resilient City





## Integrated Mobility

1. Encouraging a change in behavior from using private vehicles to public transport

2. Improving coordination and institutional management of public transport

3. Integrating transportation planning

13 Initiatives

# Trans Semarang goes to World Class BRT

## Semarang BRT – Trans Semarang



***“Dedicated Lane, direct service, dan feeder system transforming Trans Semarang to become World Class BRT “***

## “New Level” of Semarang BRT – Trans Semarang





## Transparent Public Information and Governance

1. Optimizing Musrenbang (development planning forum) in the planning process

2. Improving the integration of planning and city budgeting

3. Optimizing the government's coordination of data integration and public information

9 Initiatives

- a district and subdistrict-level conference that provides a forum for residents, city officials and councilors to **discuss problems** in their areas and to make prioritization on next year activities on city budget
- City government **allocate specific budget** to accommodate community priority under Mayor's Decree





## Competitive Human Resources

1. Preparing the workforce for the current job market
2. Promoting the value of pursuing higher education qualifications
3. Improving non-formal education

5 Initiatives

# SMARTNAKER

Semarang | Anda membuka versi PC

**SMARTNAKER**  
DINAS TENAGA KERJA KOTA SEMARANG

Home Official Media Sosial

Email Password

**Form Pendaftaran**

No. KTP

No Kartu Keluarga

Email

Nama Lengkap

Tempat & Tanggal Lahir

Jenis Kelamin

Buat Password

Confirm Password

### Informasi Kegiatan



## DINAS TENAGA KERJA KOTA SEMARANG

### tidak masuk sekolah negeri ? INI SEKOLAH SWASTA GRATIS DI KOTA SEMARANG

TK PGRI 64	Jl. Purwosari Raya 9
TK PGRI 115	Jl. Raya Walisongo Km. 9
TK PGRI 23	Jl. Petek Kp. Bedas Utara No. 284
TK PGRI 85	Jl. Muktiharjo Raya No. 52 Sendang Indah
TK PGRI 02 Mlatiharjo	Jl. Ciamuk VIII
TK Pertiwi 34	Jl. Kambaja Raya
TK Pertiwi 39	Jl. Pramuka RT 01/RW 02
SD Budi Luhur	Jl. Gayamsari IV No.2 Pedurungan
SD Islam Darul Huda	Jl. Walter Manginsidi, 01/IV Genuk
SD Kusuma Bhakti	Jl. Kebonharjo RT 10 RW VI Semarang Utara
SD BINA PUTRA	Jl. Damarwulan I No.52, Karangayu Semarang Barat
SD Marsudi Utami	Jl. Mayangsari Selatan I No.05 Ngaliyan
SD Muhammadiyah 16	Jl. Singgalang Raya, Wanotingal Candisari
SD Bangunsari	Jl. Lodan III, Bandarharjo Semarang Utara
SD Bakri Pratiwi	Jl. Erowati IV / 12 A, Kec Semarang Utara
SD Muhammadiyah 6	Jl. Cinde Utara No.40, Jomblang Candisari
SD Pangudi Luhur Vicentius	Jl. Purwosari Raya, Tambakrejo Gayamsari,
SD Gunung Brintik	Jl. Dr Sutomo 4 Semarang
SD Islam Rohmaniyah	Jl. Kramat Raya
SD Hasanudin 03	Jl. Kalisasak Mangkang Wetan Tugu
SD Islam Diponegoro	Jl. Ngumpulsari Raya No 12 Tembalang
SMP Al Islam	Jl. Alastuo Bangelayu
SMP PGRI 2 Semarang	Jl. Hasanudin Rumah S...
SMP Kuncup Melati	Jl. Gang Lombok No...
SMP Dondong Mangkang	Jl. Raya Mangkang KM 1...
SMP Putra Nusantara	Jl. Pringgondani II
SMP Purnama 1	Jl. Kedung Mundu raya No. 3
SMP Taman Dewasa Citarum	Jl. Tuntang No 3 Citarum Utara
SMP Perintis 29	Jl. Karangbenda No. 4-5
SMP IT Hidayatullah Gunung	Dk Sirayu RT 04 RW 02
SMP Islam Cahaya Insani	Jl. Medoho Asri No.3
SMP Muhammadiyah 2	Jl. Kasipah No 12
SMP Purnama 2	Jalan Slamet Riyadi No.45
SMP Hasanuddin 3	Jl. KH. Wahid Hasyim 390
SMP Muhammadiyah 9	Jl. Lopangan Kalisasak No 9
SMP Muhammadiyah 6	Jl. Bratojoyo Timur II No 22
SMP Walisongo 2	Jl. Dempelsari RT 03 RW 23
SMP Islam Al Bisyr	Jl. Sendang Pentul No 9
SMP Purnama 3	Jl Jend Sudirman 265
SMP Alhuda	Jl. Sembungharjo

@HendrarPrihadi

**State & Private School  
Free of Charge Program**



# Water as Leverage

Semarang Integrated Urban Water Management Program

Marine Village Tambaklorok



Conservation Area & Building Coverage Restriction in Spatial Plan



Semarang River Revitalization



Integrated Toll Road–Sea Dyke Semarang - Demak



Integrated Toll Road–Sea Dyke Semarang - Kendal







KOTA LAMA



SIMPANG LIMA



KAMPUNG PELANGI



BANJIR KANAL BARAT



LAWANG SEWU



PELABUHAN TANJUNG MAS

**SEMARANG**  
**SEMAKIN HEBAT!**

