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Urbanisation and Climate Change

Strengthening Urban Climate Governance Project (SUCCESS) Activity 1.1



This presentation – objectives

- To provide foundation for common understanding of the thinking, concept and approaches of SUCCESS
- Following on the exercise, this presentation is to fill in some key knowledge gaps around urbanisation and climate change issues



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This presentation

1. Urban / city & urbanisation
2. Climate change
3. Urbanisation and climate change



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This presentation

1. Urban / City & Urbanisation

- Why is 'urban' / 'city' important?
- What is 'urban' / 'city'?
- Why is urbanisation important?
- What are the implications of urbanisation?



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This presentation

2. Climate change

- What is climate change?
- Why is climate change important?



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This presentation

3. Urbanisation and climate change

- What are the linkages between urbanisation and climate change?
- Why are they important?



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Urban / City & Urbanisation

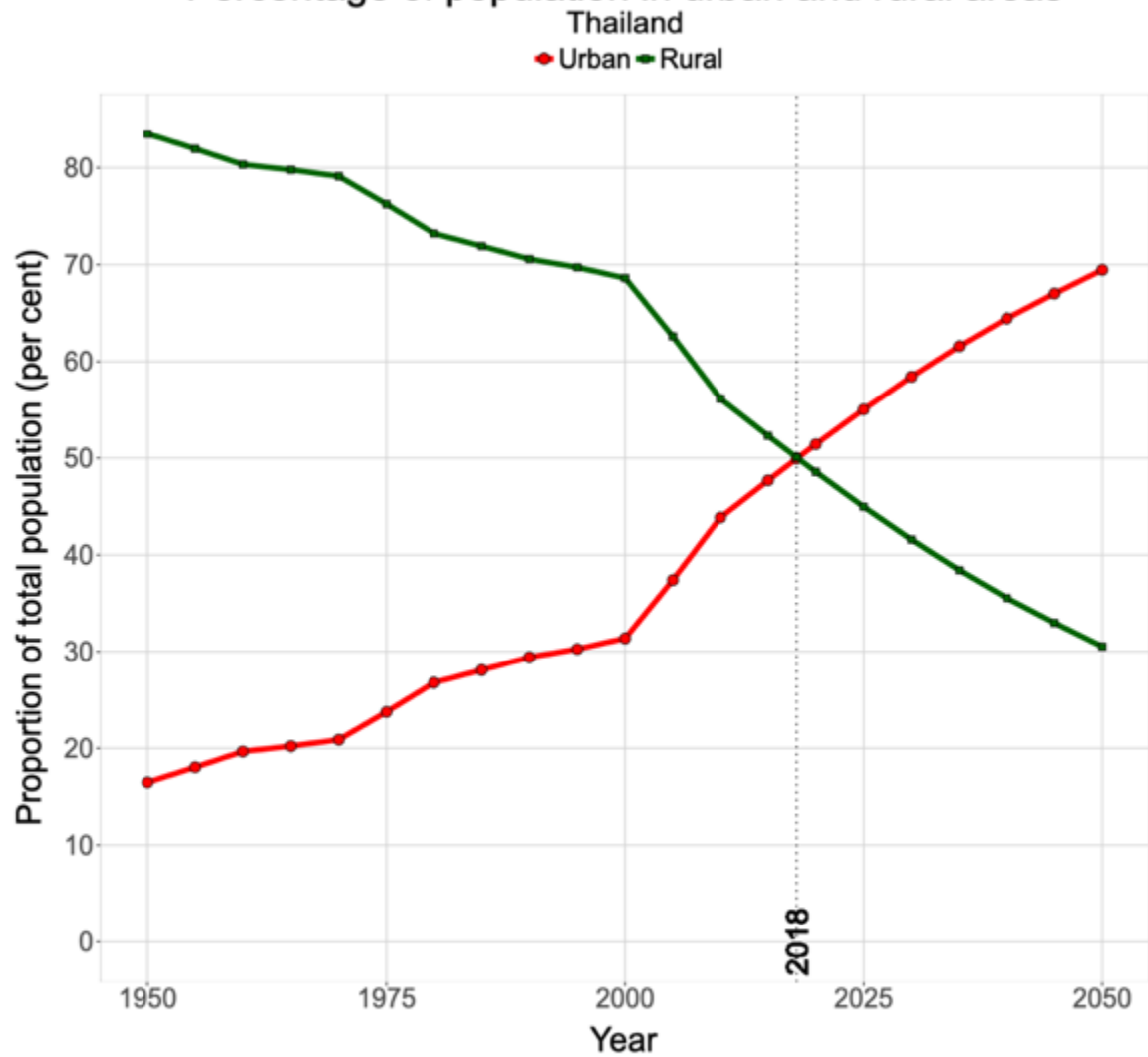
Why is 'urban' / 'city' important?



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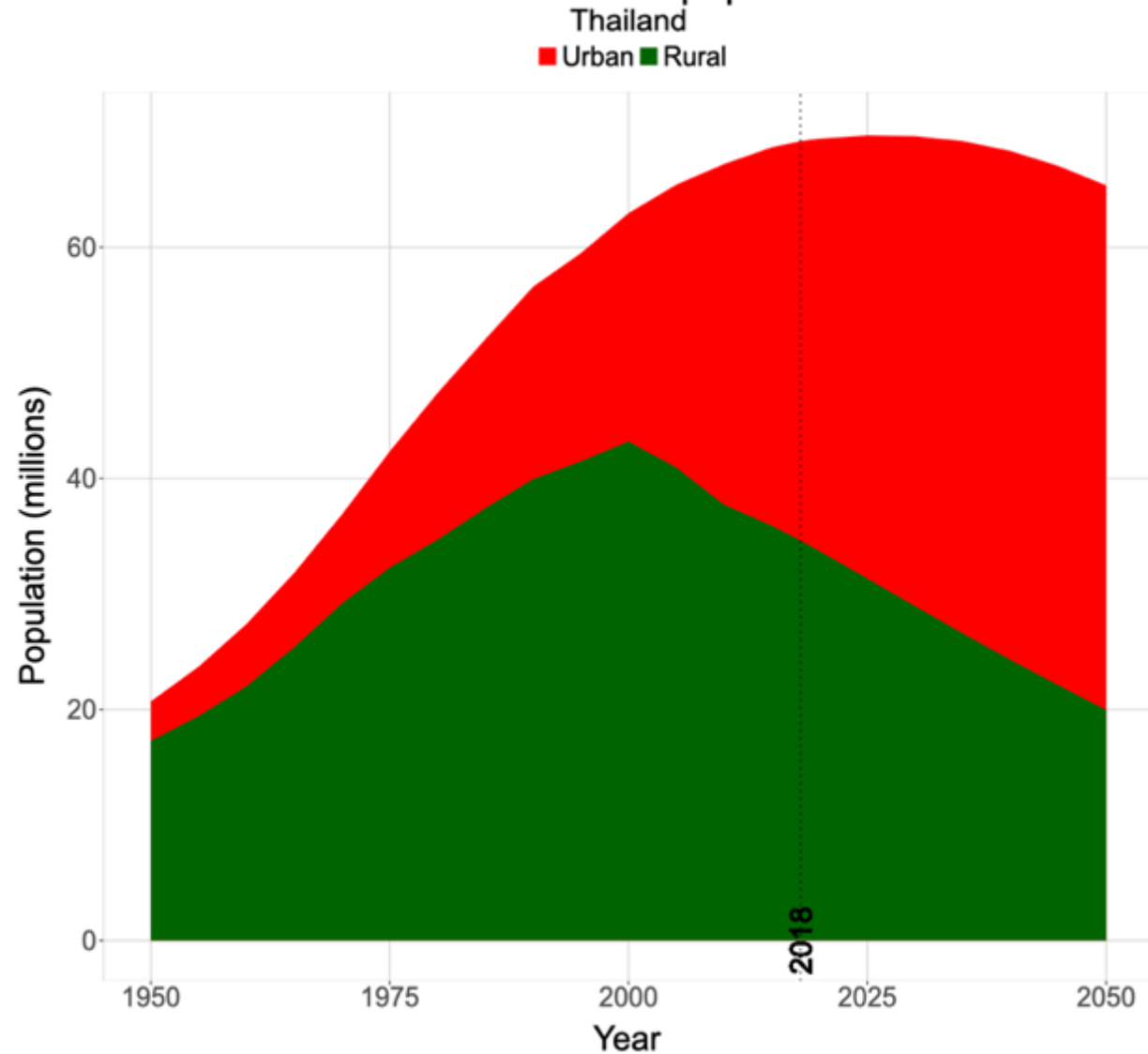
Percentage of population in urban and rural areas



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Note: Urban and rural population in the current country or area as a percentage of the total population, 1950 to 2050.

Urban and rural population

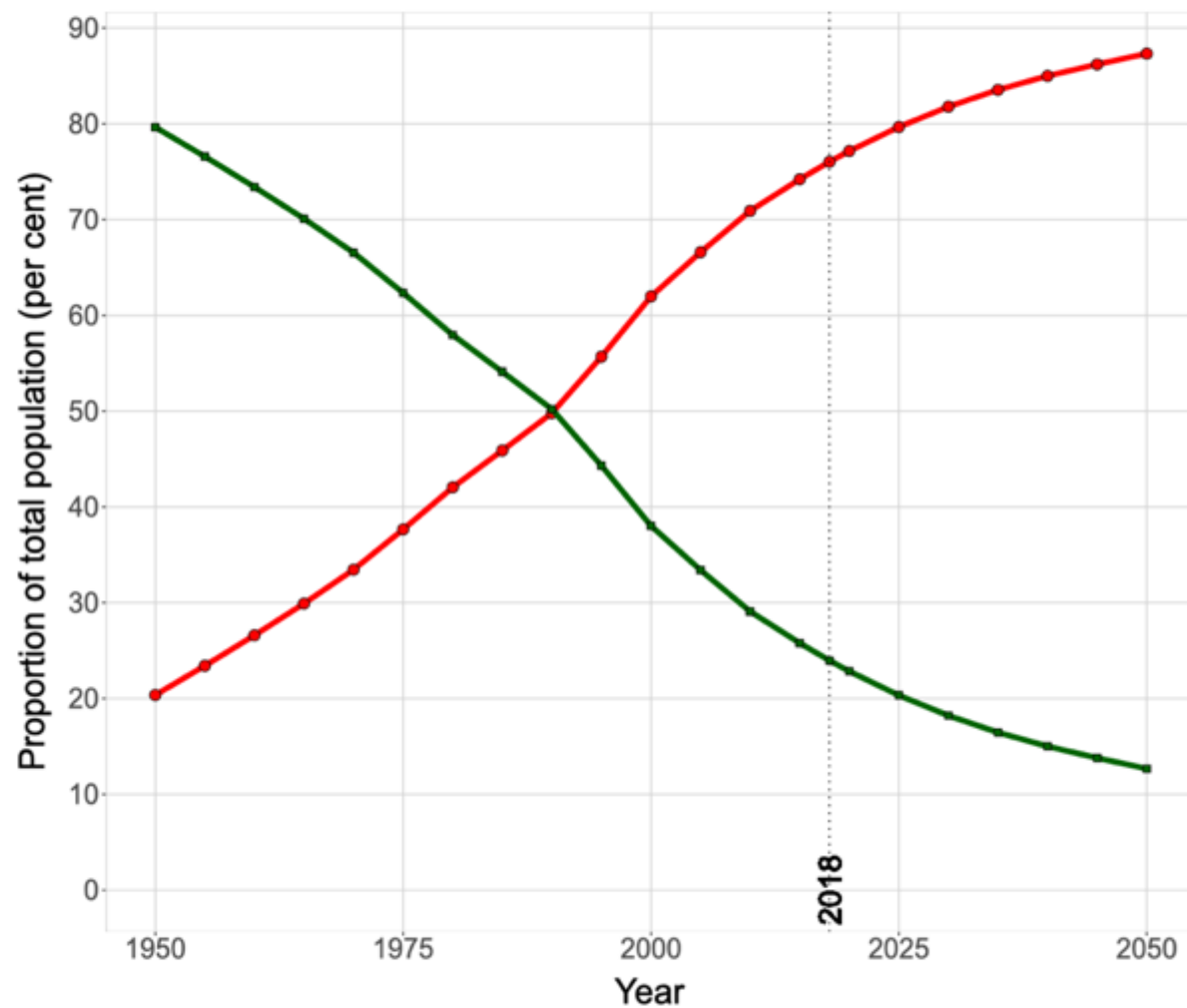


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Percentage of population in urban and rural areas

Malaysia

Urban Rural



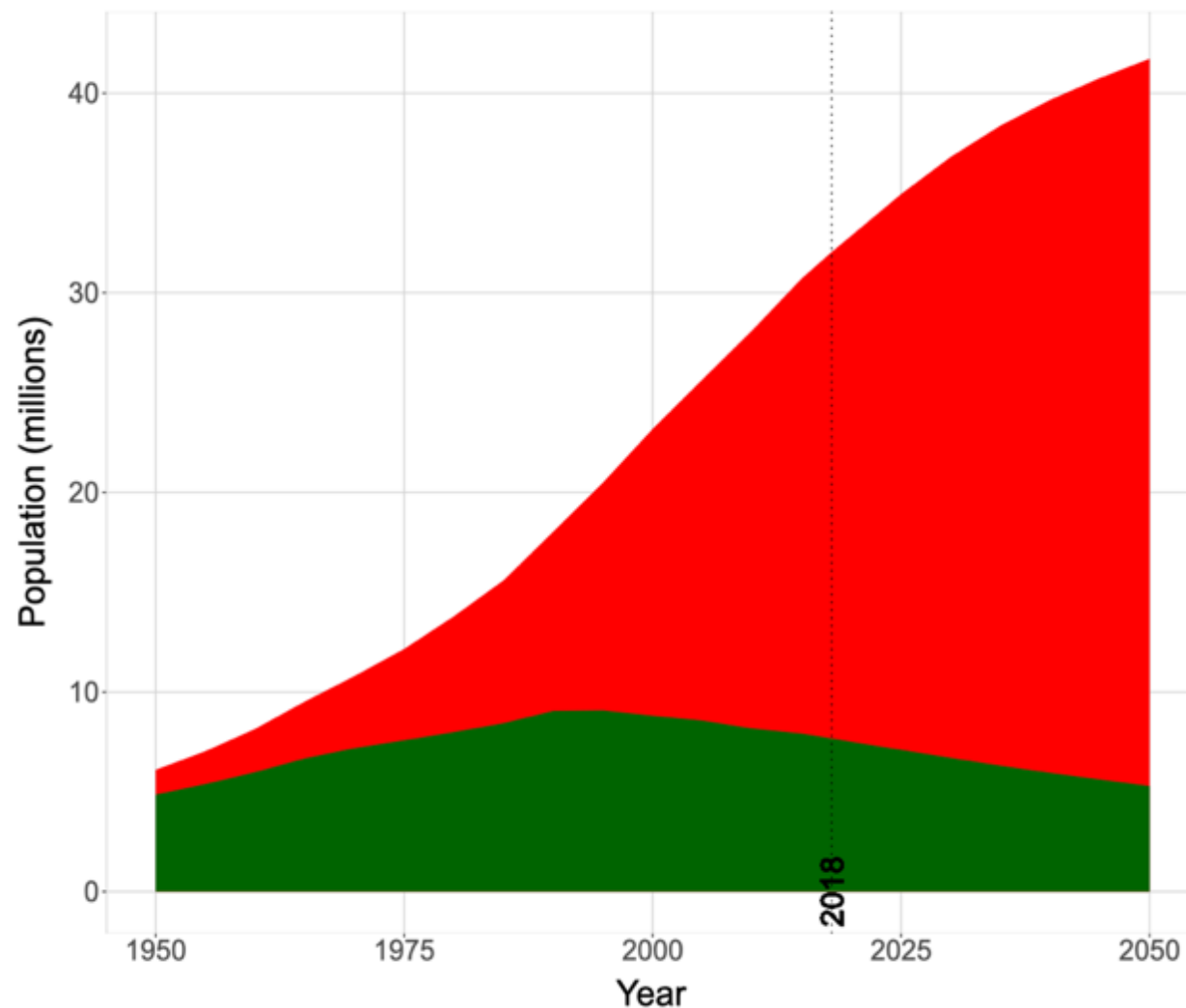
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Urban and rural population

Malaysia

Urban Rural



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Urban / City & Urbanisation

Why is urban / city important?

- Healthcare
- Education
- Employment



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Urban / City & Urbanisation

What is 'urban' / 'city'?



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What is 'urban' / 'city'?



Urban

Rural



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What is 'urban' / 'city'?

- But in Thailand



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What is 'urban' / 'city'?

- Population size?
- Population density?

Hat Yai Municipality population 156,802 / density 7,583 persons per sqkm

Khon Kaen District population 416,285 / density 437 persons per sqkm

Kuming China population 3,895,000 / density 5,500 persons per sqkm

Jaipur India population 3,037,350 / density 27,000 persons per sqkm



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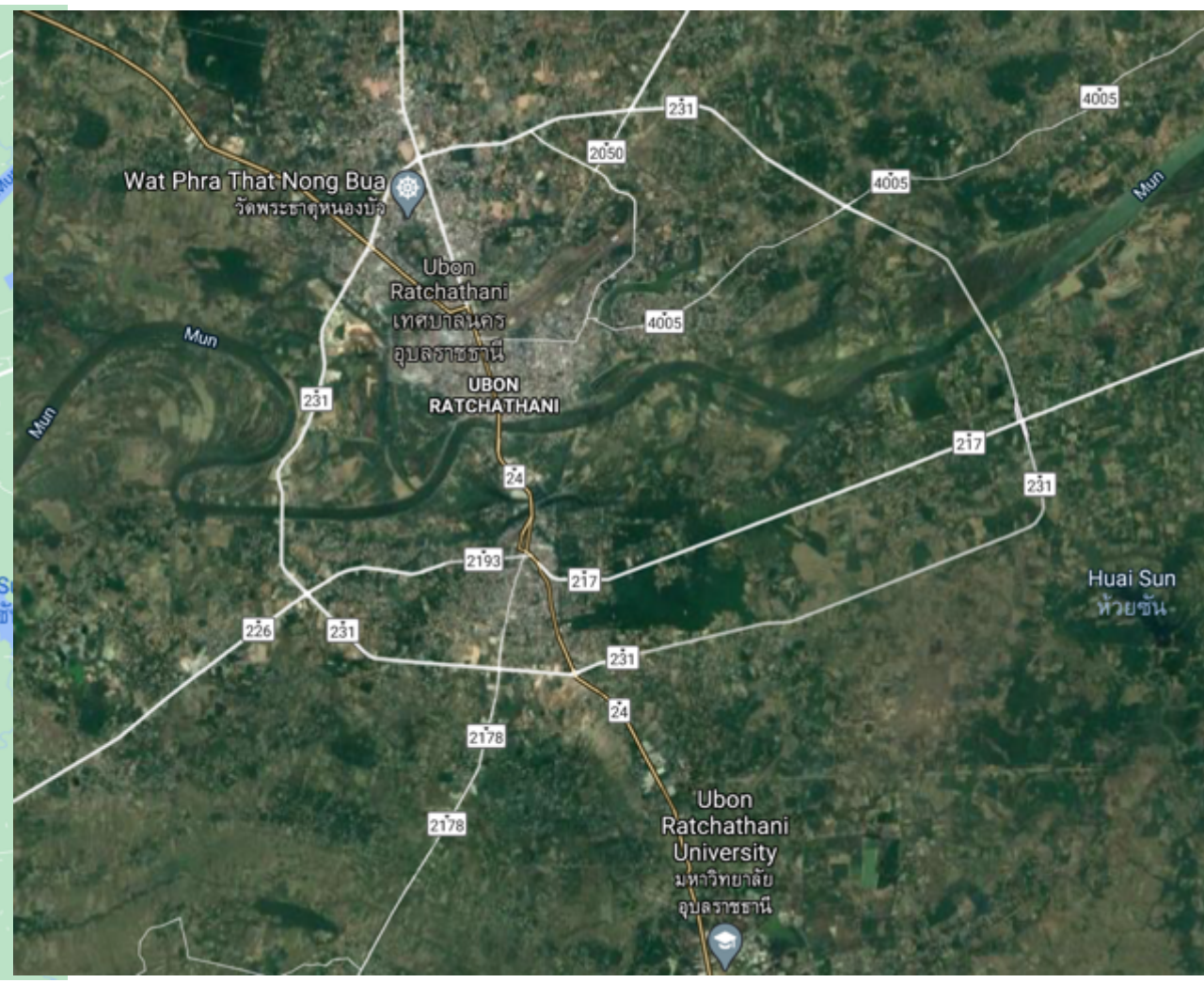
What is 'urban' / 'city'?



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- Administrative boundary = Tessaban Nakorn / Tessaban Muang?

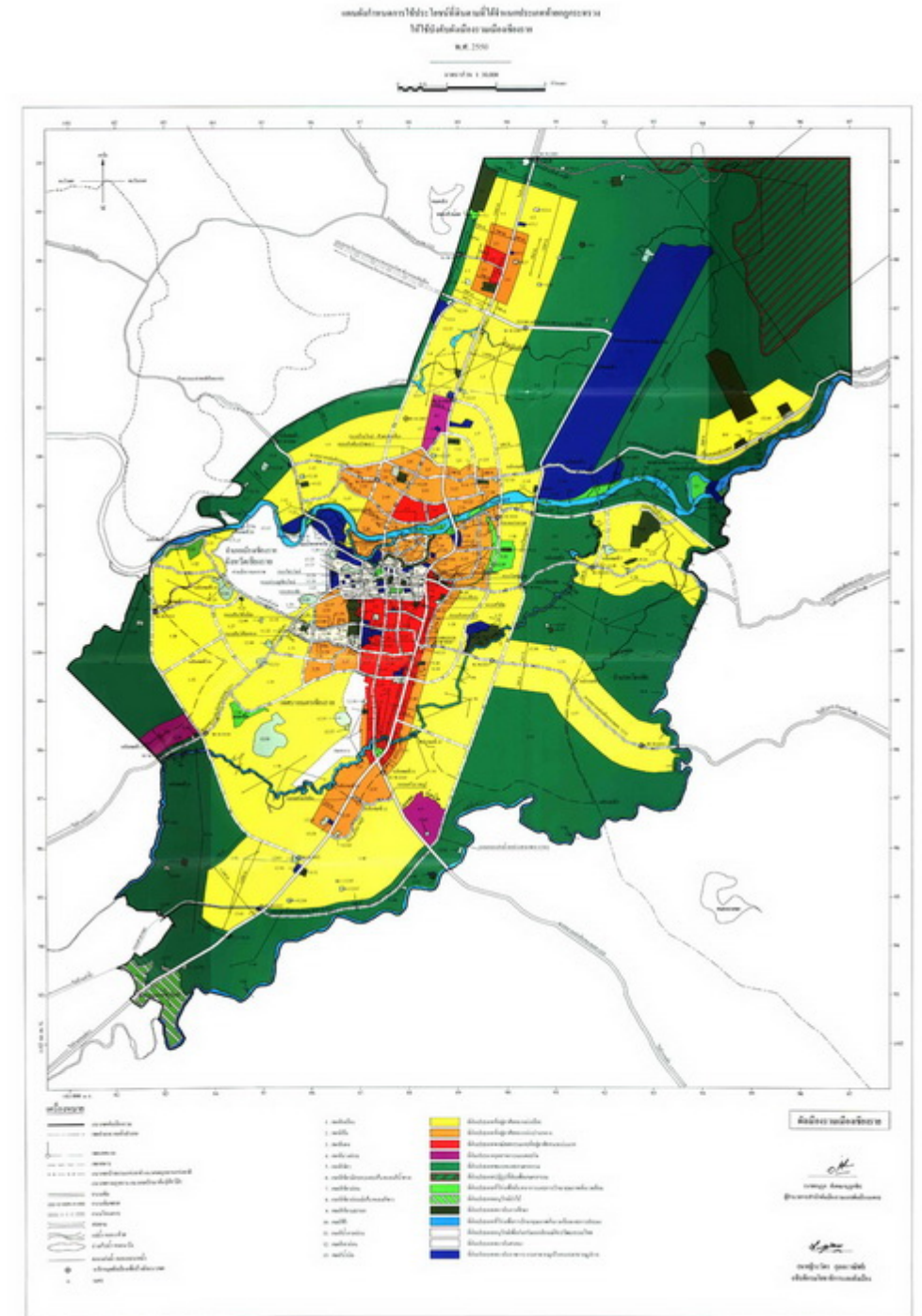


What is 'urban' / 'city'?

- Urban Land Use Map?



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Urban / City & Urbanisation

What is 'urban' / 'city'?

- Urban / city in Thailand are difficult to define
- 'Urban' and 'rural' can be difficult to distinguish
- Urbanised areas cover more than 1 municipality
- Urban land use maps cover several sub-districts and local government bodies
- Urban / cities are more than geographical locations



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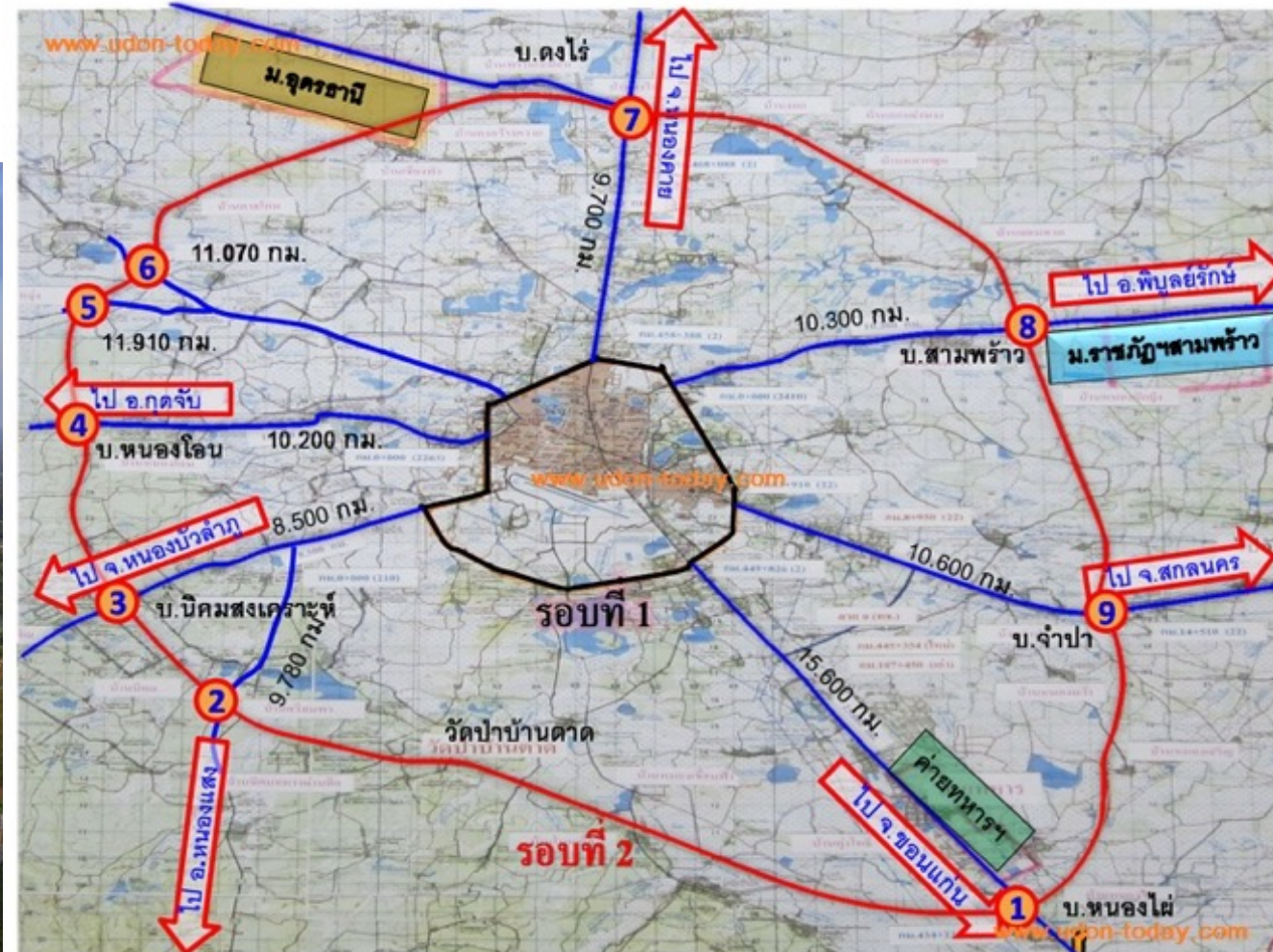


Urban / City & Urbanisation

Why is urbanisation important?



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Urban / City & Urbanisation

Why is urbanisation important?

- Urbanisation is driven by many factors
- Economic development
- Infrastructure development
- Migration



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Urban / City & Urbanisation

Why is urbanisation important?

Transformation of land use, population, governance

- Rural to urban = changing ecological landscapes and hydrological patterns
- Increasing population = increasing demands in water, food, energy, transport, housing
- Increasing population = increasing waste, pollution



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Urban / City & Urbanisation

What are the implications of urbanisation?

- Physical and land use changes
 - Unregulated, uncontrolled, unplanned land use change = changes in ecological and hydrological landscapes
 - Environmental degradation
 - Floods increase, flood patterns change
 - Natural water sources disappear and are contaminated



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Urban / City & Urbanisation

What are the implications of urbanisation?

- Social changes
 - Increasing demands in water, food, energy, transport, housing
 - Increasing water waste, solid waste, pollution



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Urban / City & Urbanisation

What are the implications of urbanisation?

Urban governance

- Local governments unable to keep up with infrastructure development and maintenance, water and solid waste management, demands in transportation
- Inequalities of access and provision to services



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Urban / City & Urbanisation

- Urban or city in Thailand - difficult to define
- Urban or city is more than just a location
- We will focus on the process of urbanisation
- Understanding the implications of urbanisation is important



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What is climate change?



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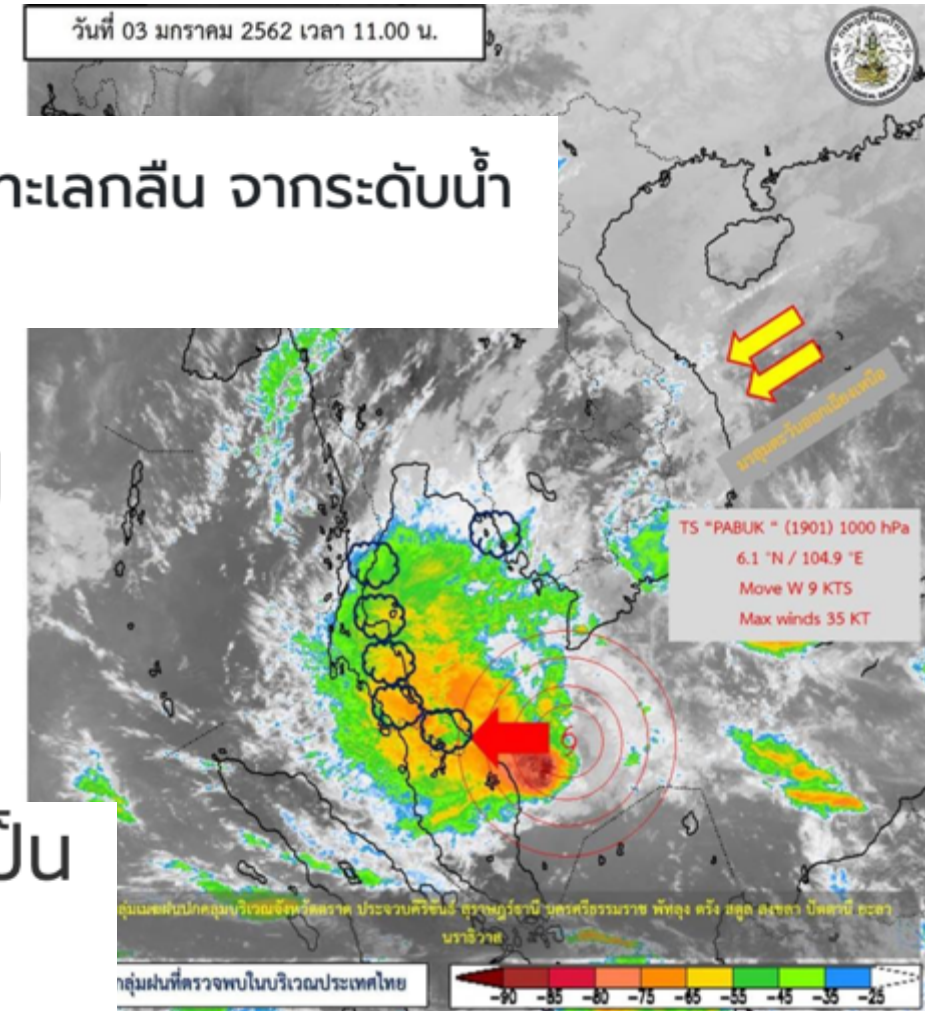


อากาศวันนี้ ทวีตไทยร้อนจัด สูงสุด 43 องศาฯ แดดมีฝนฟ้า คะนองทุกภาค

วิจัยใหม่คาดภายในปี 2050 หลายเมืองใกล้ชายฝั่งในอาเซียนจะถูกทะเลกลืน จากระดับน้ำ
ทะเลที่สูงขึ้นอันเป็นผลจากการเปลี่ยนแปลงสภาพภูมิอากาศ

ชายทะเลพังงายังอ่วม ชาวบ้านเจอคลื่นแรงซัดฝั่ง สร้างความ
เสียหายต่อเนื่อง

"ปาบึก" ปรากฏการณ์ที่ไม่เคยเกิดขึ้นมาก่อนหรือจะเป็น
สัญญาณ"เกิดการเลื่อนของฤดูกาล?"



Climate change

- What is climate change?
- Seasonal shifts = dry season or summer is longer and hotter, winter is shorter and warmer, rainy season arrives later and is shorter
- Changes in frequency and intensity of extreme weather
- Changes in patterns, frequency and intensity of storm patterns
- Changes in rain patterns
- Sea level rise
- Changes in average temperature



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Why is climate change important?



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พายุปากีสถาน: รู้อะไรแล้วบ้างเกี่ยวกับ

พายุนอกฤดูมรสุมรุนแรงที่สุดพัด

**อากาศร้อนจัด : วันนี้ร้อนสูงสุดทะเล
40 องศาอีกวัน ควรเตรียมตัวอย่างไร**

แก้ปัญหาคัดเซาะชายฝั่งทะเลไทย ... ยิ่งแก้-ยิ่งพัง?

**น้ำรกระบายน: ปัญหาไม่คลี่คลายถ้า
ผังเมืองยังมีปัญหา**

**หน่วยงานจัดการน้ำระบุน้ำไทยไม่ซ้ำ
รอน้ำท่วมใหญ่ปี 2554**

**วิจัยใหม่พบ กรุงเทพฯไม่จมทะเลแค่รอบนอก
แต่จะจมเกือบทั้งเมืองใน 31 ปีข้างหน้า**

Climate change

- Why is climate change important?
- The weather becomes more unpredictable – shocks and surprises
- Extreme weather events will occur more often
- Preparation and decisions are more difficult to make
e.g. when to store for water, when to prepare for flood protection and how long for



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Urbanisation and climate change



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- What are the linkages between urbanisation and climate change?



Urbanisation and climate change

What are the linkages between urbanisation and climate change?

- The way cities are urbanising creates complex social and environmental problems
- Current urban development pathways increase vulnerabilities of local communities
- Existing water-related issues and disasters such as floods and droughts will be exacerbated and more difficult to deal with



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Urbanisation and climate change

- Understanding the linkages between urbanisation and climate change
- Understanding urban-social-ecological-technical change
- Understanding root causes of urban vulnerabilities



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Urbanisation and climate change

- Adaptive capacity
- Adaptation, disaster risk management
- Inclusive and equitable urban development planning and investment
- Access to critical urban systems and infrastructure of marginalised, urban poor, vulnerable groups
- Learning-oriented institutions and governance



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SUCCESS Project

For more information

- Please contact - successprojectinfo@gmail.com

For updates and resources, please see

<https://www.facebook.com/UrbanClimateResilienceThailand/>

www.tei.or.th/thaicityclimate/success.html



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