



# Sustainable Living in Cities Today

## Towards a World Class City

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**Cities is the Centre of  
Economic development,  
social progression and  
technological  
advancement.**





It is an **Urban World** today and **Malaysia** is also an urban nation with **78%** Malaysians living in cities.





**About 65% of our GDP is contributed by urban activities. This will lead to disparity between urban and rural growth in the country.**



RISING GAP IN GROSS INCOME

**Urban : 0.389 to 0.398**

**Rural : 0.364 to 0.367**

*(2016 vs 2019)*

RISING GAP IN DISPOSABLE INCOME

**Urban : 0.380 to 0.385**

**Rural : 0.365 to 0.361**



# Cities is about our Future Societies of our Lives

## MALAYSIA'S FUTURE CHALLENGES

A new challenge in meeting the social needs as by 2040, the population structure shall change significantly, impacting our economy, productivity and built environment.

### MALAYSIA TODAY

#### POPULATION MALAYSIA

**34.1 M (2024), 41.5 M (2040)**

#### URBANIZATION RATE

**78% (2021), 85% (2040)**

#### YOUTH AND CHILDREN

**15-39 YEARS : 46.1% : 15.1 Million,  
Children below 14 is 23.3% (7.6M)**

#### MALE & FEMALE

**Male : 17.9 million  
Women : 16.2 million**

#### AGEING SOCIETY

**7% - 2.44M (2020) where 51%  
(1.25M) are Women, 14% (2040)**

#### DISABLE

**1.6% - 537,000**

#### RISING GAP IN INCOME

**0.38 (2016), 0.407 (2020), Poverty Rate – 5.6%  
(2020), 45.2% Households earns below RM6,000**



#### *ECONOMIC IMPACT of COVID-19*

- **5.6%** GDP contraction (end 2020)  
improves to 6.9% in half quarter of  
2022.

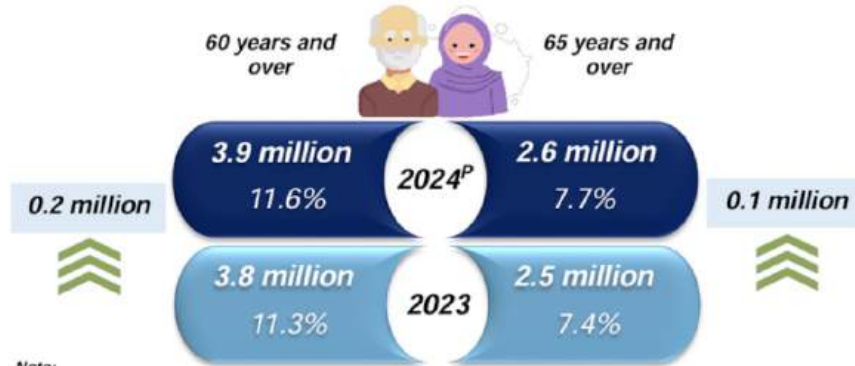
**4.1%** unemployment rate (2020- up to 1M loss of jobs)  
**40%** SMEs was said to wind up operations  
**47%** Self-employed workers lost their jobs

#### *AFFECTING INCOME*

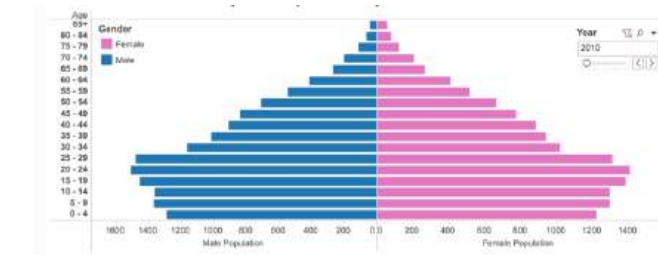
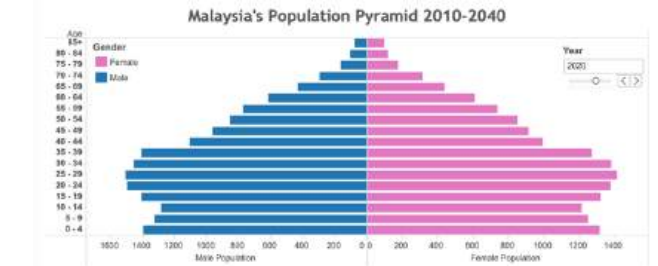
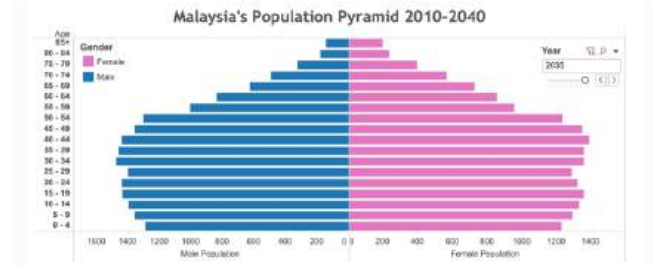
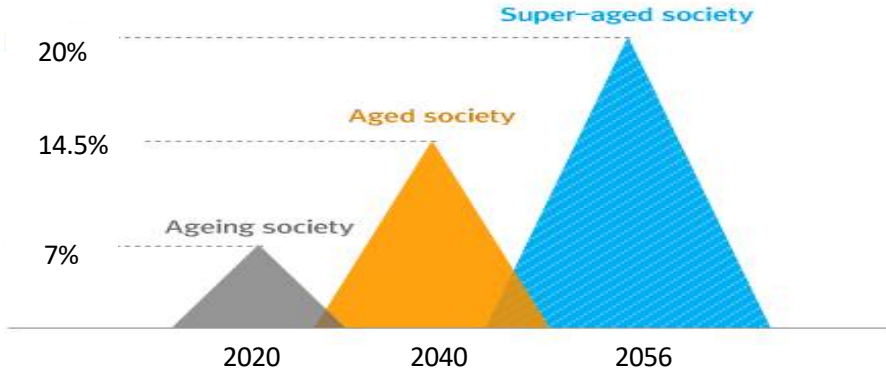
- **10.3%** Mean Household income decline  
**RM 7,089 (2020), RM 7,901 (2019)**  
20% M40 shift to B40, 12.8% T20 shift into M40  
Additional 12.5% with mean income below RM2500.00

# Ageing Population of Malaysia

7.7% (2.6M) of our population today is 65 years and above. And with high urbanization rate of 77%, we have 1.75M ageing society living in urban areas. Globally by 2050, 1 in every 6 person will be above 65 years old.



Note:  
<sup>P</sup> Preliminary





Cities are major consumption and producers - **78%** of world's energy consumption, **70%** of greenhouse gases emission & produces **2 billion** tonne of waste a year.

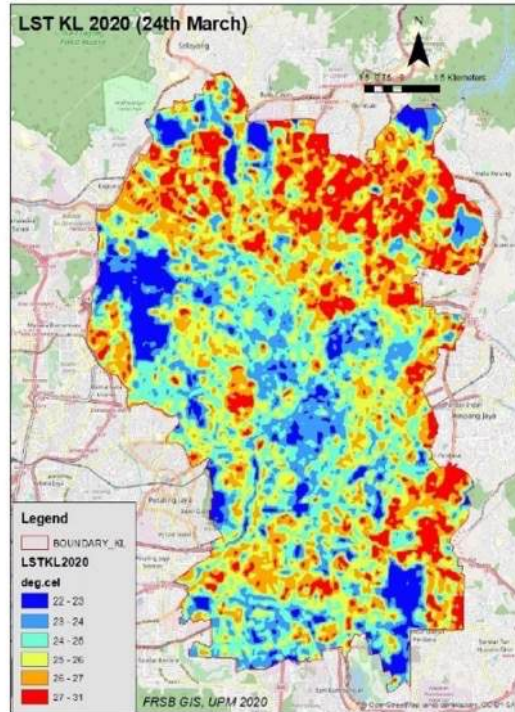
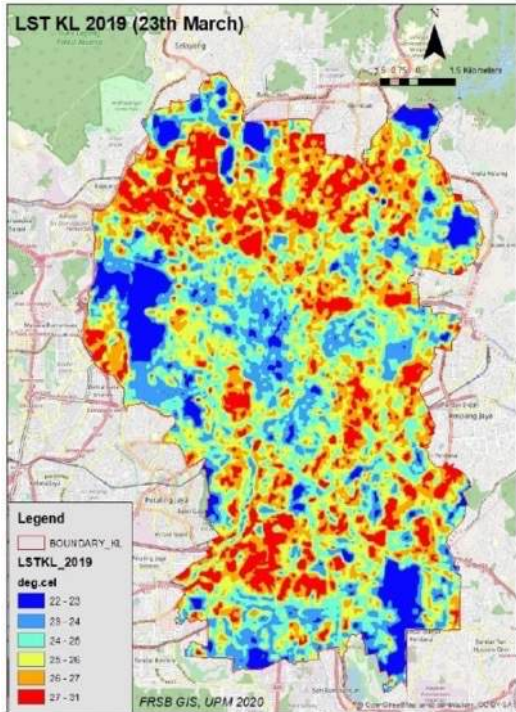


# Urban Heat Are Definitely Becos of Climate Change

*Cities are getting warmer, storms and heavy rains are causing all kinds of natural disasters*



**URBANICE**  
MALAYSIA



FRSB. UPM 09 APRIL 2020

Researchers from Univerity Putra Malaysia analyse surface area temperature of Kuala Lumpur. (Group of researchers led by Prof. Madya GS. Dr. Mohd Johari Mohd Yusof has studied the impact of pandemic Covid-19 on the effect of the city heat island.

**LOCKDOWN - KI's UHI Improves With 2.84 Degrees Drop In Temperature.**

23 March 2019 - 30.95 degrees Celsius

24 March 2020 -

28.11 degrees Celsius

**UHI contributes towards :**

- Higher energy consumption
- Higher Green House Gas Emission (NO<sub>2</sub>, CO<sub>2</sub>, etc)
- Human Health and Comfort Levels
- Impaired Water Quality





Urban crisis  
intensifies as we  
battle **the 4Cs**  
**covid, climate-**  
**change, conflicts**  
**and capital.**





**Urbanisation and Urbanism**, with the concentration of people in urban areas, there is a need to understand of the **interaction of communities in cities with the built environment**



55.4 % of today's world population (7.7 billion) lives in Urban Areas/Cities. By 2030 – 60%, 2050 – 66% of the world's population will live in cities





**Climate proofing  
our cities** -  
sustainable and  
resilient  
Infrastructure to  
mitigate and  
adapt measures in  
addressing climate  
change







**Opportunities for  
Change – for cities  
to be sustainable  
and resilient**



# BUILDING CITY RESILIENCE IN WINNING THE FUTURE

Building a 'New Normal' to reduce economic, social and environmental vulnerability of COVID-19.

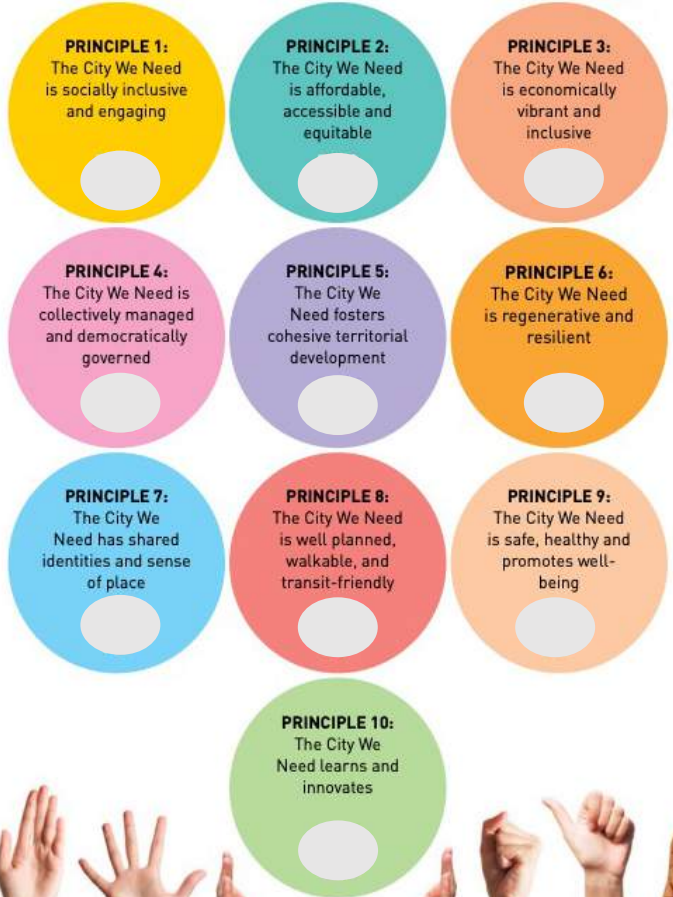
There is a need for urgent actions to improve people's lives and stimulate innovation towards a behavioural shift to make cities more sustainable and resilient.



**Fundamentals towards resilience and a new sustainable development paradigm.**



How we plan, build, and manage our cities today will determine the outcome of our efforts to achieve a sustainable and harmonious development tomorrow





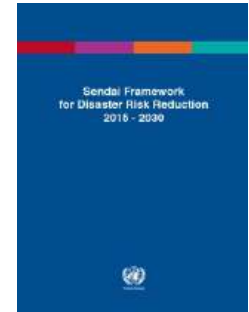
**The Sustainable Agenda** is the universal call to action to end poverty, protect the planet and ensure that by 2030 all people enjoy peace and prosperity.

## THE SUSTAINABLE AGENDA

*Since 2015, several key agendas has been the focus of global organization that champions sustainability.*



In 2015 : Adopted by 193 Member States of United Nations. It replaces the 8 MDGs that was used to measure



# Malaysia SDG Cities

encourages cities to have set targets and goals towards the sustainability agenda and ensure no one is left behind



Malaysia  
**SDG CITIES**



## Malaysia Sustainable Urban Nation

### SUSTAINABLE DEVELOPMENT GOALS

17 SDG'S & 169 TARGETS  
Qualitative measures to achieve sustainable development



### NEW URBAN AGENDA

### THRUSTS

#### Transformative Implementation



URBAN PROSPERITY



SOCIAL INCLUSION



ENVIRONMENTAL SUSTAINABLE

#### Effective Implementation



GOVERNANCE STRUCTURE



SPATIAL DEVELOPMENT

### TOOLS & ENABLERS

to achieve its commitment for Cities For All

#### Development Enablers



NATIONAL URBAN POLICIES



URBAN ECONOMY & MUNICIPAL FINANCE

#### Operational Enablers



URBAN PLANNING & URBAN DESIGN



URBAN LEGISLATION, RULES & REGULATIONS



LOCAL IMPLEMENTATION



**We need to Future  
Proof our Cities to  
meet the needs of  
our future societies**





**Affordable living** is  
key to community  
well-being in cities





# AFFORDABLE LIVING IS KEY COMMUNITY WELL-BEING IN CITIES

*Providing choice, ensuring easy access and sharing resources*



*Choice of  
Affordable  
Housing*



Re-think Our Current Housing

**Developing  
Socially  
responsive  
housing**

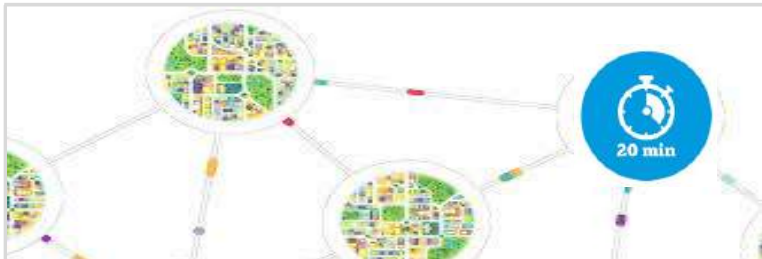


*Access  
and  
Choice to  
Transit*



Understanding Walking Behavior & Permeability

**Providing pedestrian  
and non-motorized  
vehicle**



*More  
Parks &  
Access to  
Basic  
Daily  
Needs*



Shared Streets, Community Facilities & Common Areas

**Sharing Resources –  
community spaces in  
cities**

**Reinvest in cities**  
where urban  
regeneration and  
urban infill is the  
golden opportunity  
to transform our  
cities with quality  
spaces





**Ecological and green urbanism** is key to our future urban solutions





# The Need for More Green Spaces

Urban **green areas** have beneficial effects on quality of life for the **elderly**: living within walking distance of **green spaces** can increase longevity, reduce health vulnerabilities, promote physical activity and contribute to **elderly** well-being.

**Reachable . Walkable . Safe . Right Amenities . Correct Materials. .**





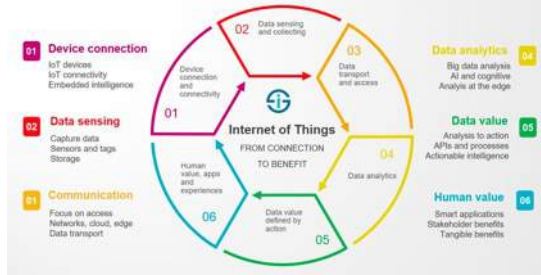
# THE NEED FOR MORE PUBLIC SPACE

## *Public Space and Public Life in Cities*



**Smart Sustainable Cities** is crucial as it embrace ICT to improve quality of life, efficiency in urban services and city's competitiveness by meeting the needs of the city.

### The Internet of Things From connecting devices to human value

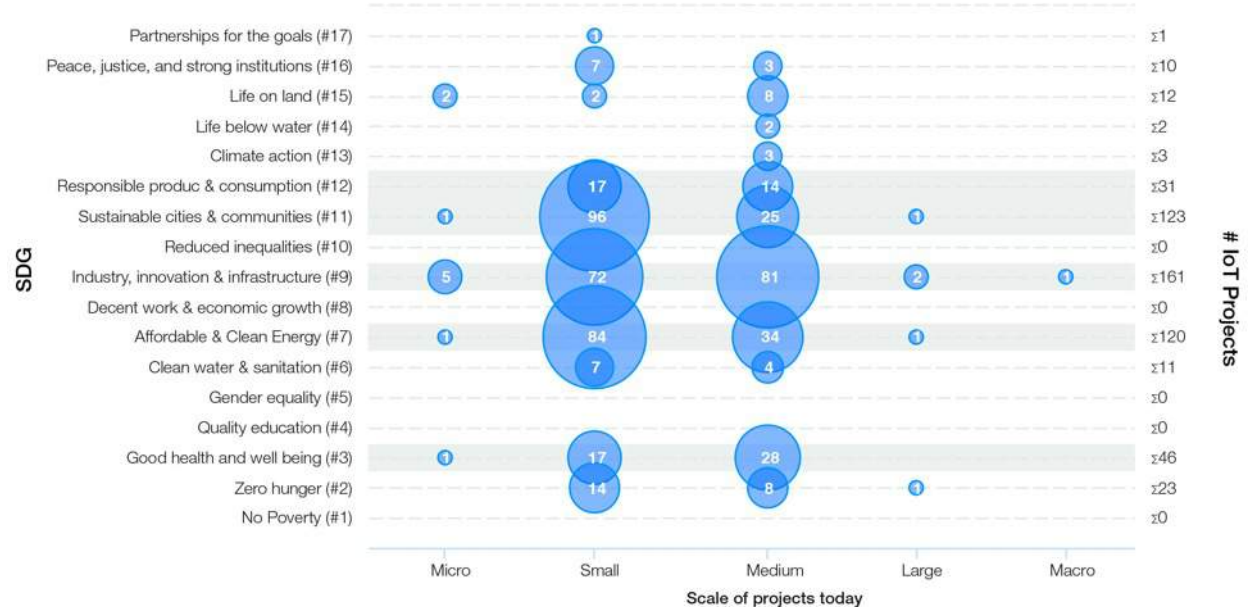


### 75% of IoT Projects concentrate on 5 SDGs



IoT Analytics & World Economic Forum (analysis)

### 75% of IoT projects focus on 5 SDGs



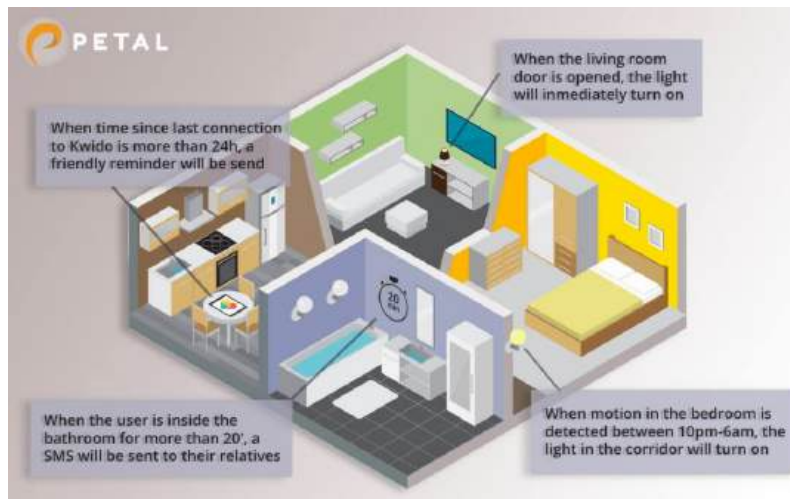
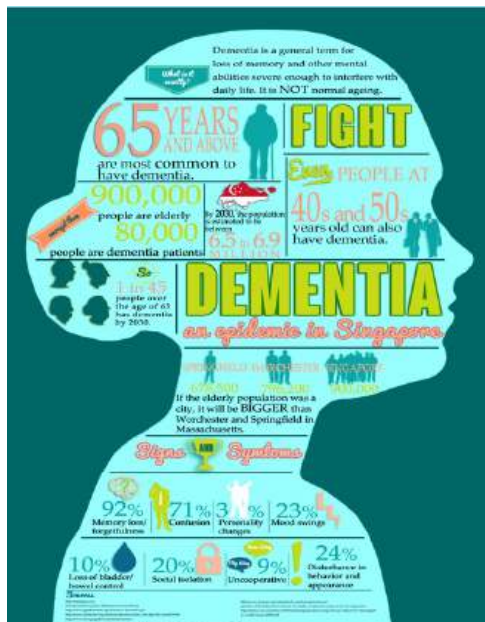


# Technology & Communication

Using technology to address challenging health issues of the ageing community.



## DEMENTIA-FRIENDLY COMMUNITY

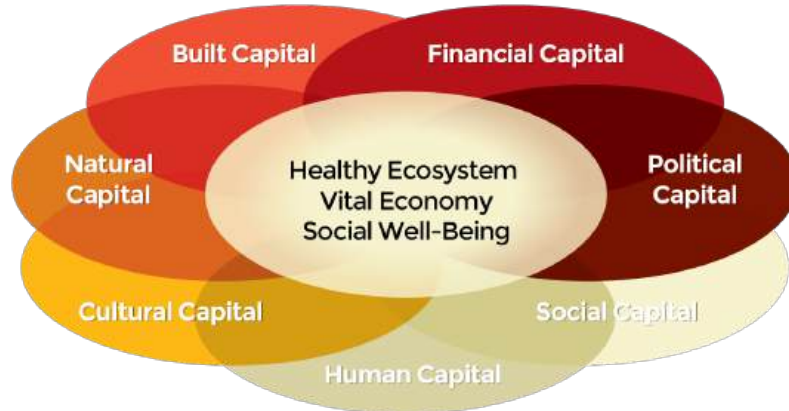


**Cultural capital** to  
drive social and  
economic change  
and enhance local  
resiliency

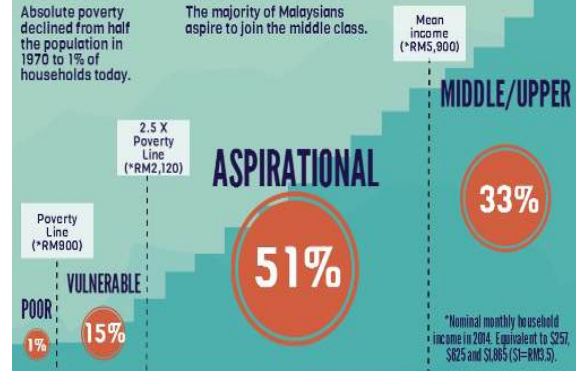




We must build on our **Social and Cultural Capital** where community assets, forms of knowledge, skill, education or any advantages which synergize with economic capital to ensure sustainability.



## Towards a Middle-Class Society in Malaysia



Aspirational resemble the middle/upper classes in many ways:

- 76% live in urban areas
- 57% have smaller families

but only 16% of aspirational **vs.** 55% of the middle and upper classes have completed higher education

and 83% of those with a Bachelor's or postgraduate degree are in the middle and upper classes

How can Malaysia move towards a middle-class society?

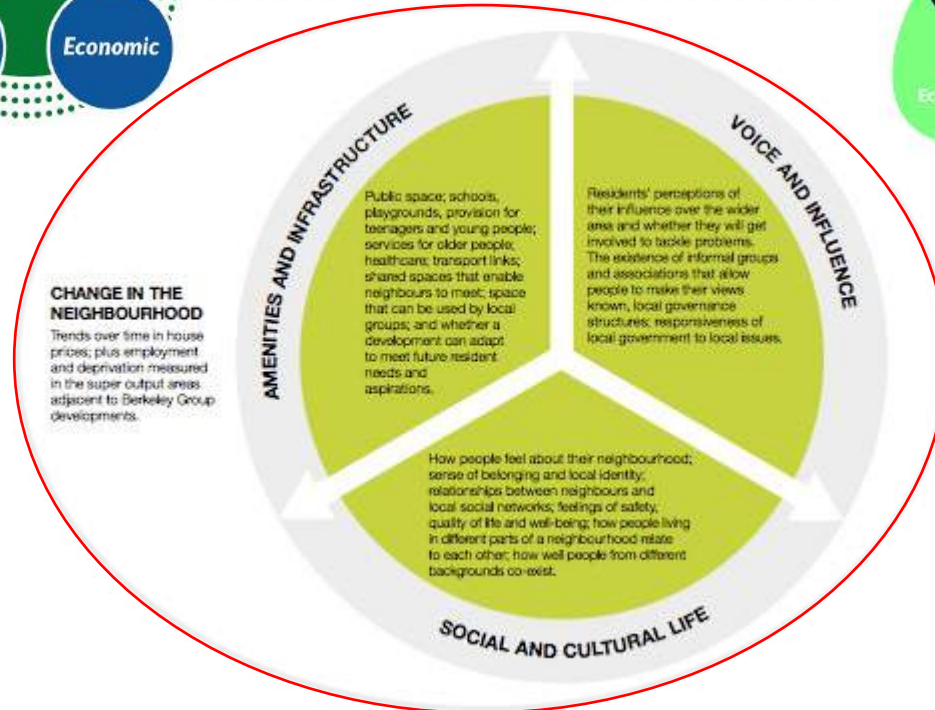
- Empower Malaysia's youth to continue their education beyond secondary school
- Enhance social safety nets, financed by more progressive taxes

# The need to emphasize on Social Sustainability in Sustainable Urbanisation

## 3 Pillars of Sustainable Development



## 4 CORE DIMENSIONS OF SOCIAL SUSTAINABILITY



## Cultural Sustainability as the 4th Pillar of Sustainable Development





**8-80 healthy cities**  
– make cities age  
friendly and  
access for all





# URBAN HEALTH IS CRUCIAL



*In addressing Urban Health : 38 SDG targets relevant to urban health, corresponding to 15 SDGs*





# The Need for Healthy Ageing

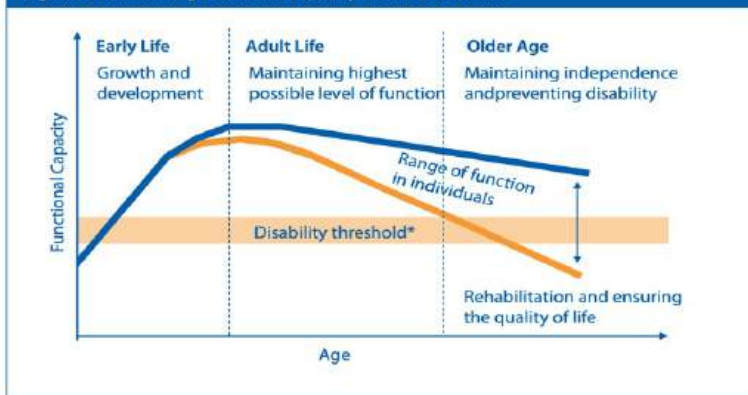
With pace of ageing accelerating, we need to adapt to ageing population by developing and maintaining the functional ability that enables well-being in older age.



Centre of Healthy Aging and Wellness at UKM.  
2015 : 1 out of 10 Malaysian senior citizens experienced “successful” of healthy ageing.

**Functional Ability**  
*includes the interaction of:*  
**Individual Capacity**  
&  
**Environment – Social, Physical & Economics**

Figure 4. Maintaining functional capacity over the life course



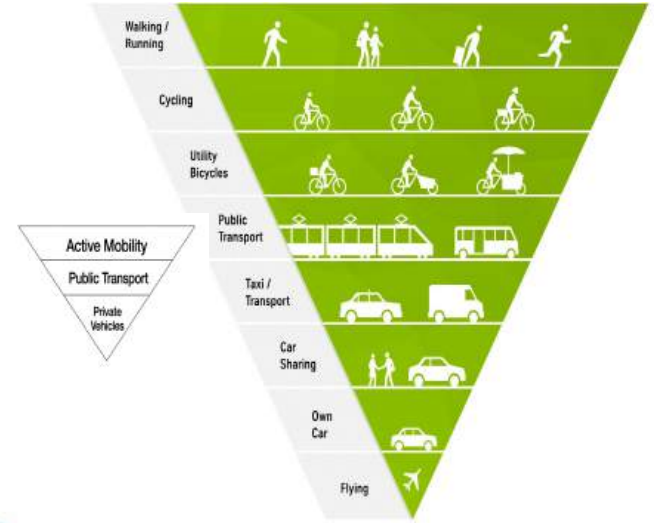
Source: Kalache & Kickbusch (12).

WHO guide book indicates the functional capacity increases in childhood, peaks in adulthood and declines in older age. The rate of decline is determined by various external – social, environmental & economic factors.

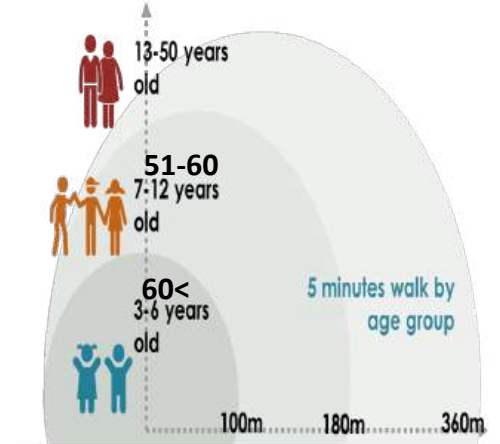
Repurpose Current House for Multi-generational living.



# Making Streets Safe & Cities Walkable



No to urban highways





## People Dimension Cities

– getting it right with people scale for better access and better people spaces in cities.

Its important for people to relate to the city.



*Its about the Right Scale that makes a city friendly and comfortable.....*

### City Plan Scale

Birds eye view / Aircraft perspective



### Site Plan Scale

Roof top / Helicopter perspective



### People Scale

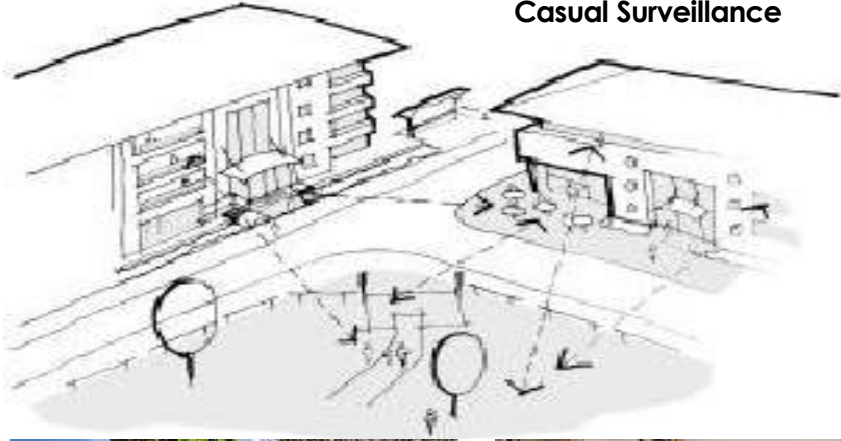
Eye level / 5 km/h perspective



# Safe and Secure

Secure neighbourhoods allow older people, children, younger women to venture outside in confidence to participate in physically active leisure and in social activities.

## Casual Surveillance



## Well defined walking areas



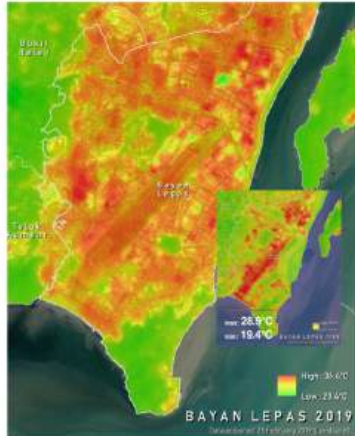
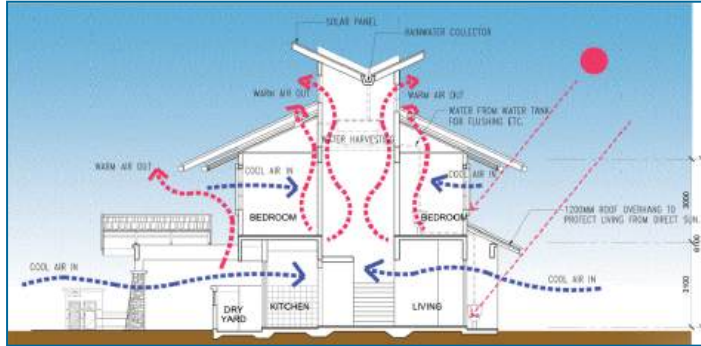


# COMFORT LIVING - REDUCE URBAN HEAT

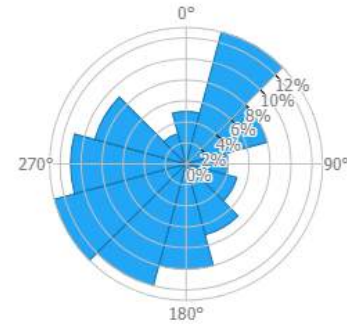
## Passive Design and Energy Efficient Buildings should be the new standard



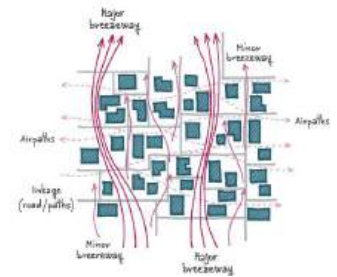
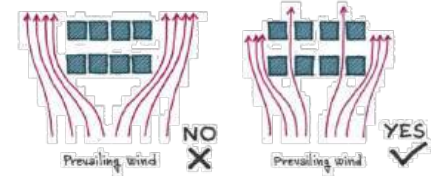
Using tools and technology to design, plan and mitigate heat through responsive and passive design solution to reduce heat and reduce energy use in buildings.



Wind Speed Rose



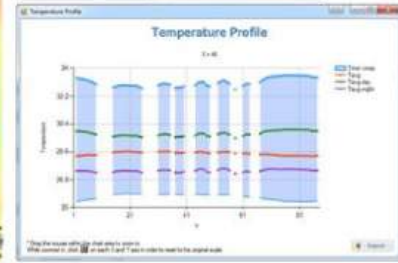
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WASP - 7.0.0					
N: 110.00m Y: 100.00m Grid 8.0					
<input checked="" type="checkbox"/>	Heatmap			Details	
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<input checked="" type="checkbox"/>	Roads			14	
<input checked="" type="checkbox"/>	Grid			15	
<input type="checkbox"/>	Show buildings above heatmap			16	
<input type="checkbox"/>	Show circles			17	



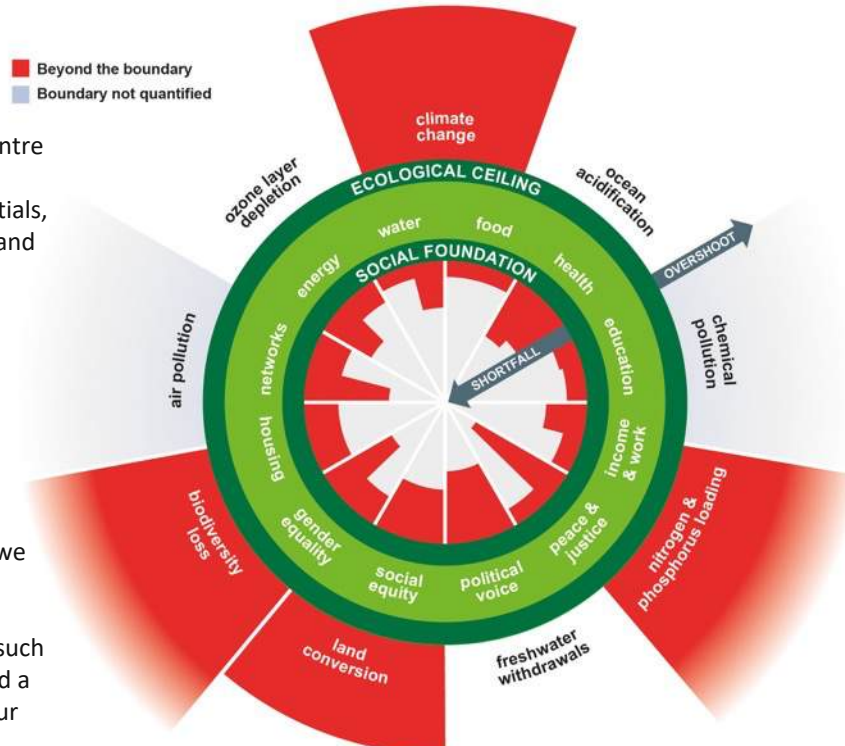
# Growth within our Planetary Boundaries

## - Call for The Doughnut Economic Model

Growth within the Planetary Boundaries - Doughnut economics is an economic model who uses a doughnut as a **metaphor for the framework of human prosperity**. ... the doughnut itself **represents a perfect balance for humanity** where **everyone's basic social needs are met without exploitation and overuse of the planet's resources**.

**Social Foundation** :The Doughnut's centre reveals the proportion of people worldwide falling short on life's essentials, such as food, water, healthcare etc – and the humanity's challenge is to get everyone out of that hole.

**Ecological Ceiling** : At the same time, we cannot afford to be overshooting the Doughnut's outer crust if we are to safeguard Earth's life-giving systems, such as a stable climate, healthy oceans and a protective ozone layer, on which all our wellbeing fundamentally depends.



*Time For New Economic Model*

*Balance between human development and nature*





# Growth within our Planetary Boundaries

## - Call for The Circular Economic Model

Circular Economy talks about circulating resources within an economy without creating waste. It offers strategies that we can stay below the ecological ceiling.

Resources include organic ones that can be regenerated to benefit the environment, and inorganic ones that can be recovered and put back into manufacturing processes. The model also believes that waste creation is an error in our systems. The Circular Economic model is intuitive as a solution to our linear economic model (take-make-waste).

*Time For New Economic Model  
Nature and Well-being*

### LINEAR ECONOMY



ENERGY FROM FINITE SOURCES

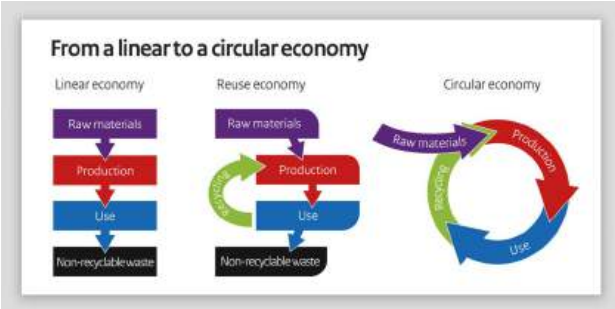
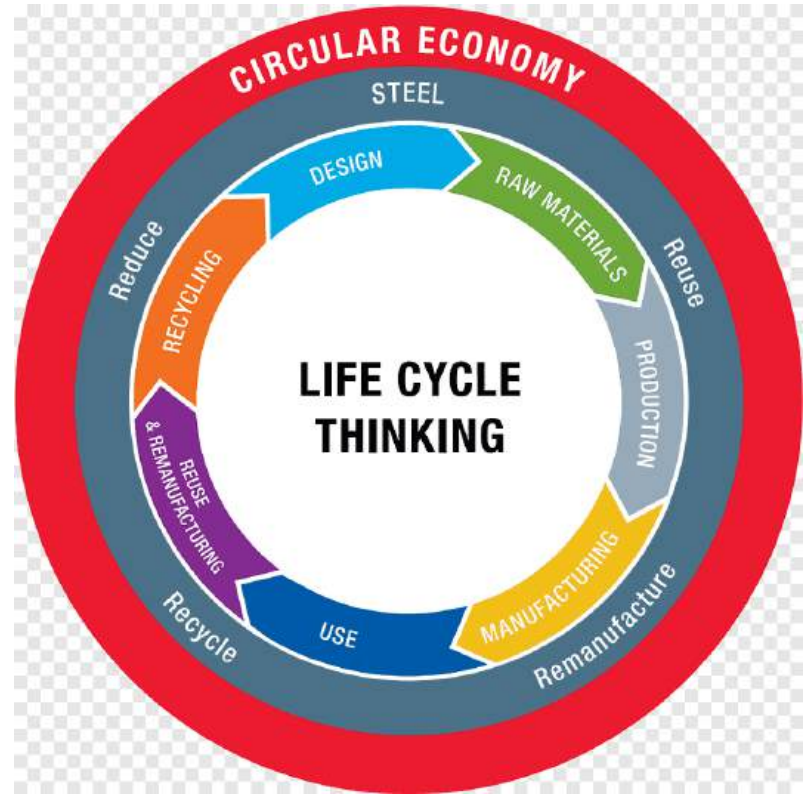
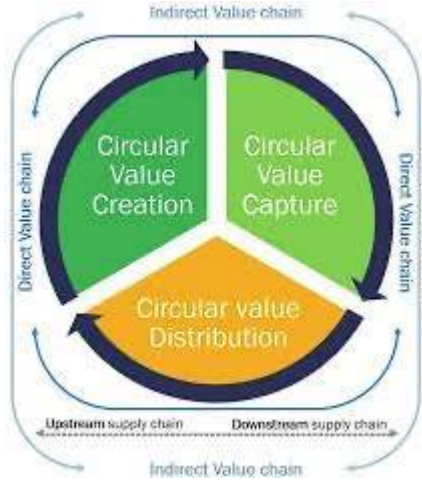
### CIRCULAR ECONOMY



ENERGY FROM RENEWABLE SOURCES

# SDG 12 Responsible Consumption and Production

SDG 12 brings together all forms of economic activities to be sustainable





# Food Security & Malnutrition



Access to sufficient quantity of affordable nutritious food is crucial. Food insecurity places older adults at greater risks of malnutrition and increases hospitalization.





**Multi-stakeholders  
participation &  
gender responsive  
sustainable  
budgeting in  
planning and  
design for our city**





# Stakeholders Management is Crucial -

Stakeholders varies for different engagement and their role and needs differ according to place, time and situations. **Locals Know Best!**



## KEY STAKEHOLDERS OF THE CITY

- Multi-stakeholders**
- Identify them
  - Collaborate Closely
  - Engage and Empower

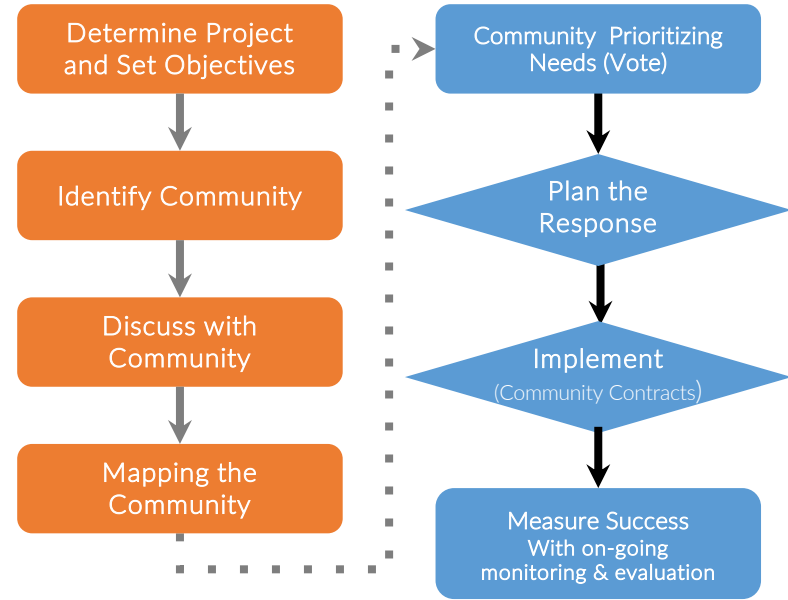


- OTHERS**
- Investors
  - Consumers/Prospects
  - Funders
  - Communities
  - NGO's
- LEVELS OF INVOLVEMENT**
- Planning
  - Approving/Regulating
  - Building
  - Operational

Different cities will need different solutions and tools to implement based on their size, capacities, and resources.

Leave No-One Behind - The GRB approach is a local innovation that emphasises that government expenditure and policies affect women, men, children and others in society and hence its priorities and implementation must involve local participation to decide.

**Gender Responsive Participatory Budgeting** is to ensure budgets are allocated to better meet the different needs and interest of different people within a community



Example of GRPB Community Project in the Low-Cost Apartment



Pasukan Pembersihan



**Community-Led Action Plan** is where **business community** collectively come together to invest for local improvements within their area.

## ROLE OF COMMUNITIES : COMMUNITY ACTION PLANS

To encourage communities to develop Neighbourhood Action Plans to encourage proactive and responsive communities that decides upon actions that would enhance their well-being



Empowering  
Local  
Community by  
providing a new  
social space that  
is co-owned and  
co-managed by  
the community –  
A Place of Their  
Own.



Need Assessment

Social Profiling

Adaptive Design

Construct and  
Community Participation

Handing Over &  
Ownership





An aerial photograph of a residential area with many houses featuring red-tiled roofs. The left side of the image is overlaid with a semi-transparent blue filter, which contains the text. The right side shows the actual scene in color, with a dense arrangement of houses and some greenery.

**Addressing  
urbanisation will be  
a continuous  
challenge** as we  
need to meet the  
needs of our future  
societies

# Sustainable and Resilient Cities

*Prinsip Dayahuni dan Kemampanan Perbandaran*

## INCLUSIVE – LEAVE NO ONE BEHIND

INKLUSIF & TIADA SESIAPA TERTINGGAL

Provision for and participation of all segments of society – irrespective of their race, gender, ethnicity, and identity – to contribute to its implementation.



## HEALTH & WELL-BEING

SIHAT & SEJAHTERA

Cities plays an important role towards the health and well-being of communities by having spaces that improves their physical and physiological well being.

## MULTI-STAKEHOLDER & PARTNERSHIP

PERKONGSIAN BERSAMA

establishing multi-stakeholder partnerships for mobilising and sharing resources, knowledge, expertise, technology and financials, to support the agenda



## LIVEABILITY FOR URBAN SUSTAINABILITY



## CAPACITY FOR RESILIENCE

KAPASITI TERHADAP DAYA TAHAN

Cities must also have the capacity to address disasters by ensuring better design, bringing nature back and setting limits to growth and development. While at the same time have the infrastructure, institutional and financial support.

## UNIVERSAL & EQUITABLE ACCESS

AKSES YANG SAKSAMA

Cross-cutting – the need to strengthen financing capacity for resilience through stand-alone efforts and embed in development planning.



## INTERCONNECTEDNESS

KESALINGHUBUNGAN

Cross-cutting – the need for good governance, transparency, accountable, responsive and integrated





**URBANICE**  
MALAYSIA

*Thank You*

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