Towards Prosperous, Inclusive and Sustainable Cities in Asia and the Pacific

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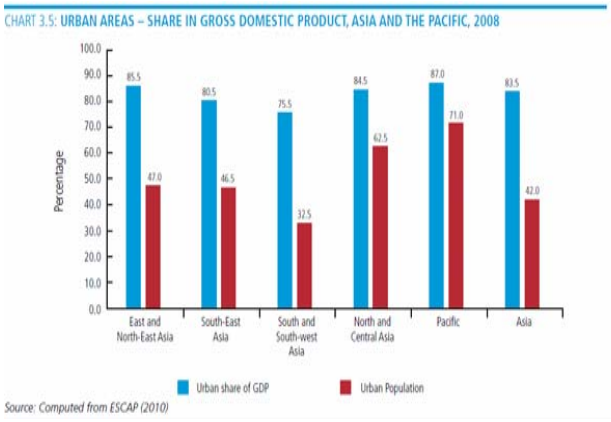
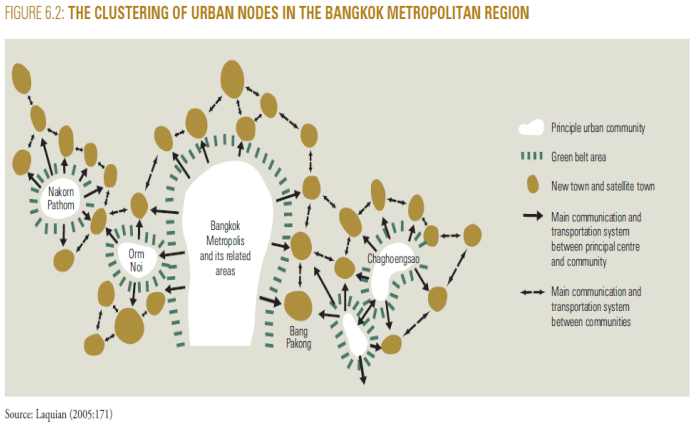
URBAN MEGA-TRENDS IN ASIA-PACIFIC: DEMOGRAPHIC

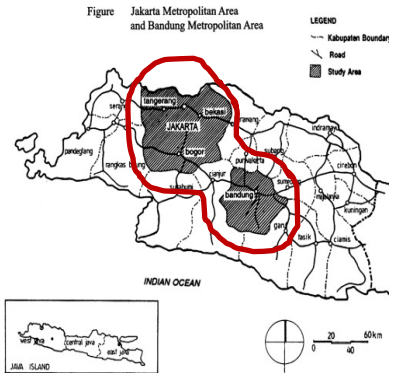
- Asia-Pacific cities are home to over half of the world's urban population, or 1.8 billion people (2010)
- Region to reach 50 percent urban by 2026; two-thirds soon after 2050
- Three important 'mega-trends' in Asia-Pacific urbanization: demographic, economic, spatial
  - Rapid population growth from a low base - 1.8 billion to 3.3 billion in next 35 years: medium-sized cities critical but less attention/finance
  - Spatially large consumption, production and resource footprints: peri-urban /'desakota' patterns blur rural/urban
  - Economic transformation & growing middle class yet persistent high rates of inequality & poverty

Patterns of Urban Development: Economic

- Continued concentration of population, assets, economic & industrial development and infrastructure
- Urban share of GDP is higher than population share – typically 70%+ and growing, but…
- Uneven access/opportunity/coverage & affordability challenges
- Significance of informal sectors: work, transport, land, housing etc
- Inequality woven into economic transformation patterns



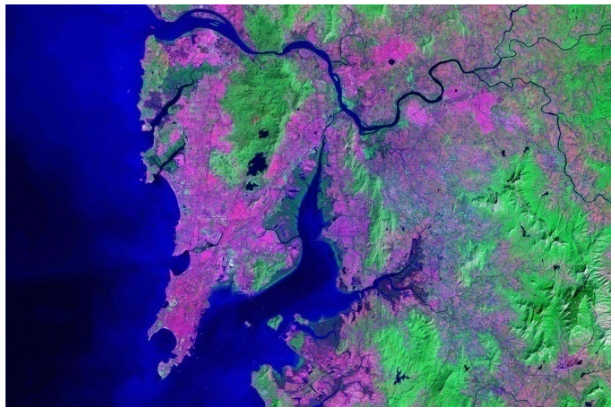




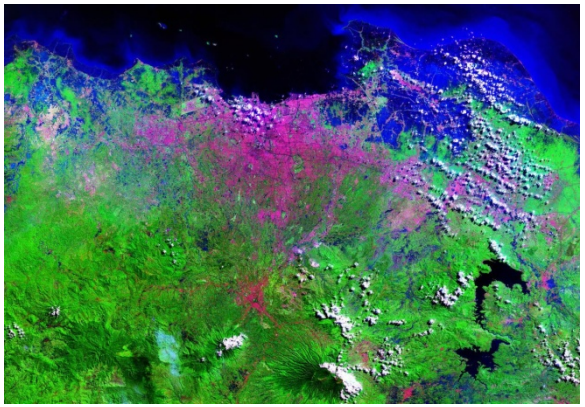
Source: Firman (2009). *The Continuity and Change in Mega-Urbanization in Indonesia: A Survey of Jakarta-Bandung Region Development*

Patterns of Urban Development: Spatial

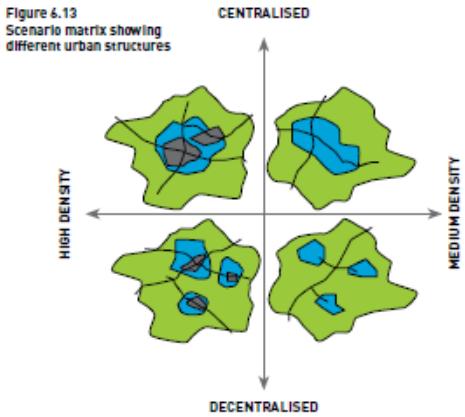
- Urban growth patterns in Asia-Pacific 'radiate-out' & 'regionalize' rather than concentrate. Weaker planning & regulation in outer rings
- Cities are voracious consumers of regional resources
- Cities – megacites - mega-urban regions
- Examples: Mumbai Municipal Region 21m over 4,355 sq km; JABODETABEK 28m over 6,372sq.km encompasses 13 river systems
- Similar patterns in smaller/regional/secondary cities, incl SIDS



Mumbai



Jakarta

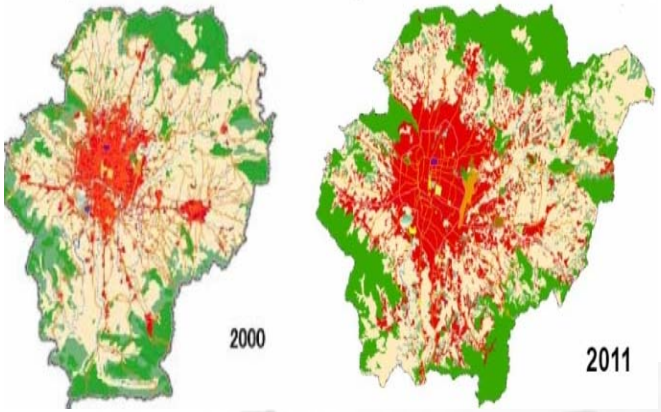


8 ESSENTIAL TRANSFORMATIONS

1. **Change the way we design cities**: a paradigm shift in which sustainability moves from the periphery to centre of planning
2. **Change the way people move**: creating accessible cities, mitigating need for movement
3. **Change the way we design and operate buildings**: from energy wasting to energy creating
4. **Change the way we produce, transport and consume energy**: improve efficiency of the energy system and diversify to renewable energy sources
5. **Change the way water resources are managed**: develop eco-efficient approaches to water resources
6. **Change the way solid waste is managed**: turn waste from a cost into a resource
7. **Address patterns of exclusion** so that investment in people becomes the next driver of growth
8. **Change the way cities are governed** and broaden the stakeholders

1. CHANGE THE WAY WE DESIGN CITIES: COMPACT – OR 'SMART' DE-CENTRED

- Compact development increases land use efficiency & reduces the need for private cars
- Urban density and developing mass transit can dramatically reduce GHG emissions from transport sector
- Cellular development/compact cities create integrated/multi-centred urban areas
- But also need for new frameworks recognizing realities of 'desakota' /de-centred patterns (incl. urban agriculture, managing and valuing ecosystem services, governing across administrative boundaries etc)



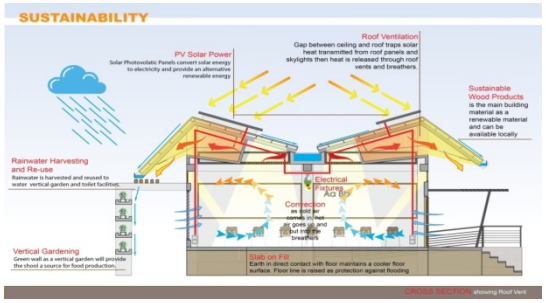
Kathmandu Valley

2. Change the way people move

- Transport accounts for 23% of global energy-related CO2 emissions, and it's the fastest growing source of emissions in developing countries
- Integrate land use, housing and transport planning : focus on 'accessible cities for all'
- Elimination of 'disabling environments', e.g. [http://walkabilityasia.org]
- Invest in non-motorized options: Hangzhou's bicycle scheme provides 60,000 bicycles through 2,411 rental stations and offers free rental for the first hour of use
- More affordable and 'relevant' systems for poor & commuting populations

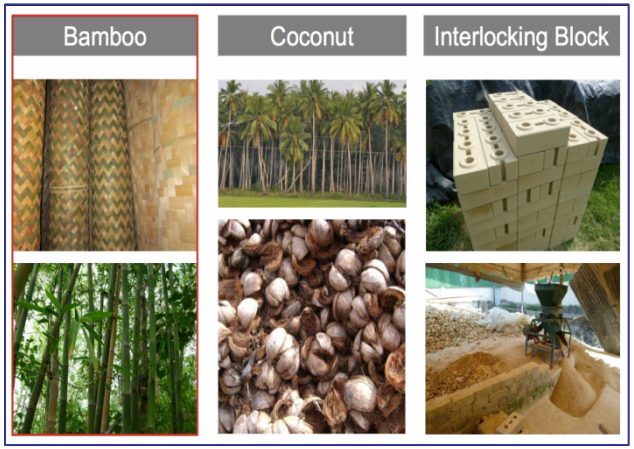
3. CHANGE THE WAY WE DESIGN & OPERATE BUILDINGS

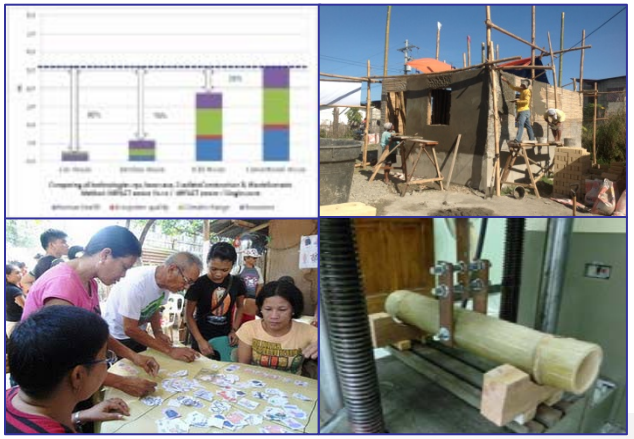
- Improving the ecological performance of buildings
- Globally, buildings generate 40% of GHG emissions
- If future cities are designed on existing norms CO2 emissions from buildings will outpace global trends within a few decades
- We are currently locking-in future costs for generations
- Improving the efficiency of buildings has a critical role in reducing energy generation
- Opportunities in ‘greening’ building codes



LOOK FOR OPPORTUNITIES TO 'GREEN' SLUM UPGRADING

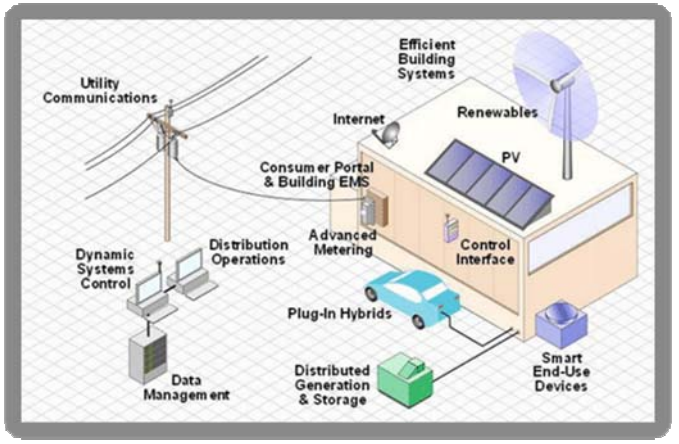
- More than 30% of urban citizens in Asia-Pacific live in slums, and the number of slum dwellers is increasing in many countries
- Opportunities through innovative slum upgrading in design, green spaces/gardens, use of low-carbon building materials etc
- Opportunities to produce green & resilient building materials that are affordable to the poor (e.g. bamboo)
- Provide employment for the poor & 'sustainability partnerships' with NGOs/ CBOs





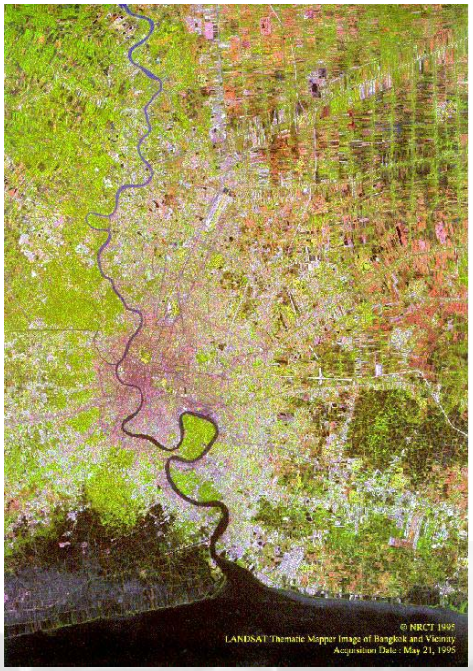
4. CHANGE THE WAY WE PRODUCE, TRANSPORT & CONSUME ENEGRY

- Transition to a low-carbon economy: fundamental change of energy systems
- There is an urgent need to decouple urbanization, economic growth, high energy consumption and growing carbon emissions
- Some success:
  - Shanghai through compact city design has declining carbon intensity per capita;
  - Seoul committed to reduce GHGs by 40% by 2030 through energy efficiency;
  - Tokyo '10 year project for a Carbon-Minus Tokyo' through advanced energy saving measures & strict compliance

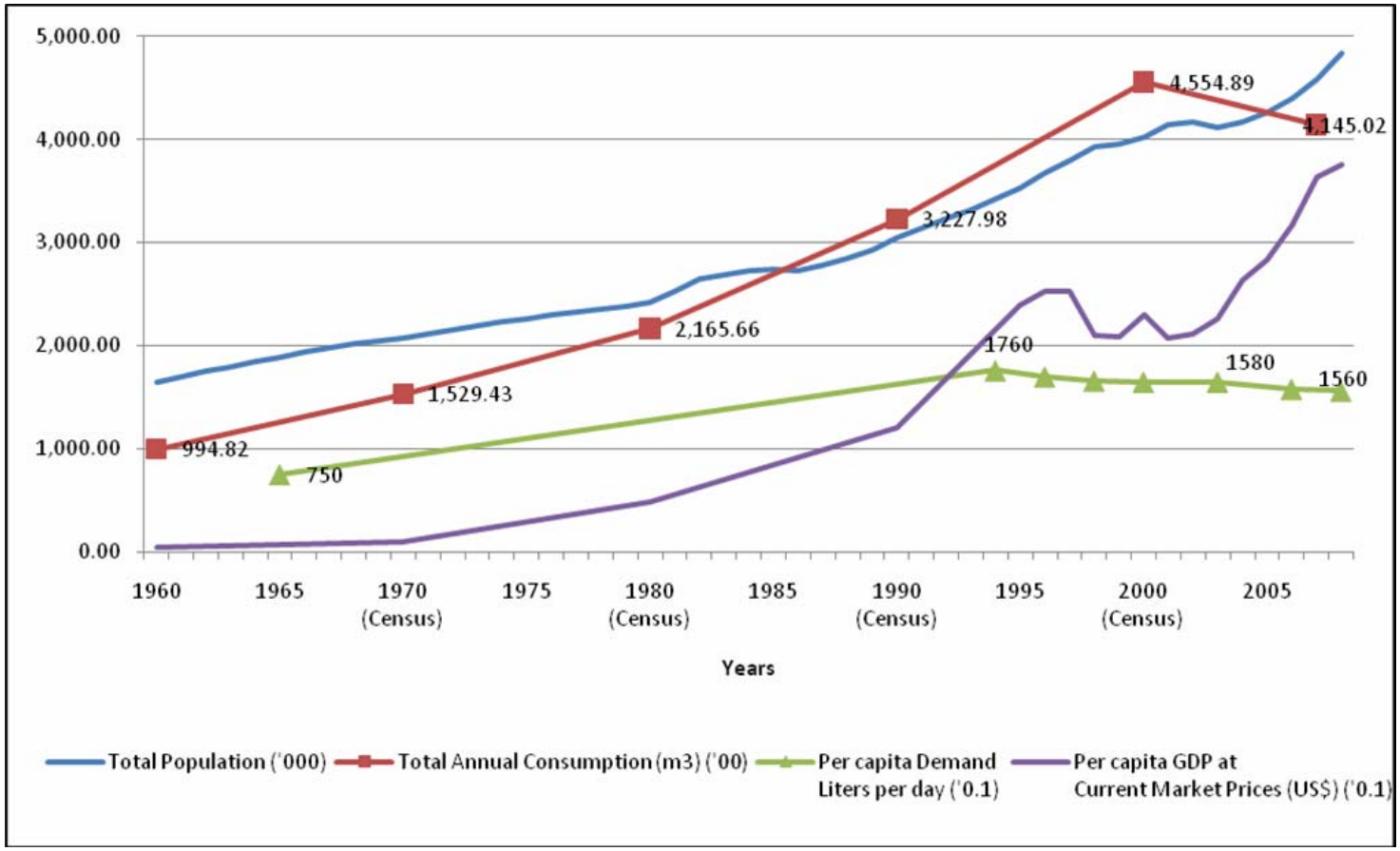


5. CHANGE THE WAY WATER RESOURCES ARE MANAGED

- Eco-sustainable water infrastructure: 'an integrated approach in water infrastructure development to achieve ecological & economic efficiency'
- Recent initiatives; Philippines, Indonesia
- Eco-efficient water infrastructure requires a shift in policies, from piecemeal to integrated, and a shift in infrastructure design, from centralized single-purpose to decentralized and multipurpose
- Urban planning and infrastructure planning needs to integrate water supply, rainwater harvesting, wastewater treatment and recycling and flood control measures
- Water needs to be 'costed' into future development planning



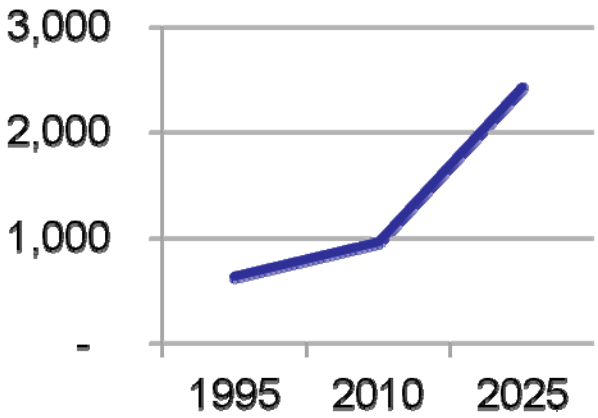
Water Consumption Trends: Singapore



Source: Singapore Department of Statistics 2007 and Tay, 2008.

6. CHANGE THE WAY SOLID WASTE IS MANAGED

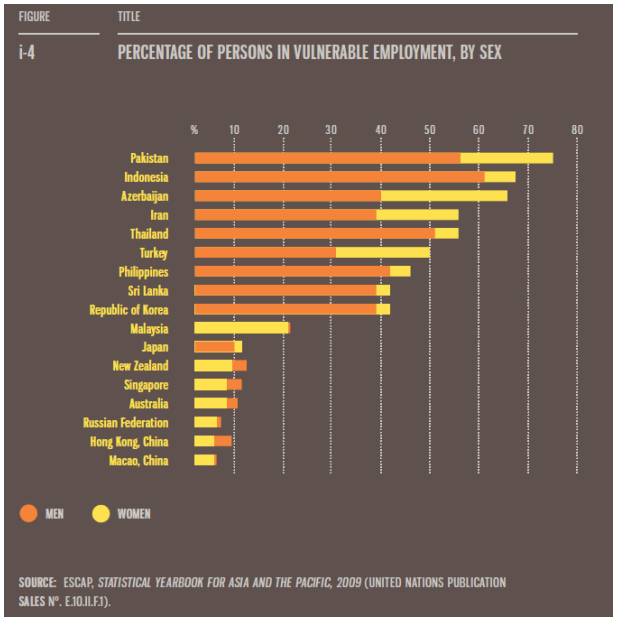
- Solid waste increasing due to rapid urbanization & high consumption patterns
- 60-80% of urban solid waste is organic and its open dumping produces methane
- 90% of waste could be turned into a resource by composting, recycling, production of bio-gas, RDF
- But current approaches focus on end of pipe approaches - expensive to build and operate
- Local governments spend 30-40% of their budget on SWM with little/no revenue derived
- Decentralized Integrated Resource Recovery Centers example of addressing needs of small cities (livelihoods/composting/recycling) [http://waste2resource.org]



Solid waste generation (thousand tons/day) in middle income developing countries in Asia-Pacific

7. ADDRESS PATTERNS OF EXCLUSION: INVESTMENT IN PEOPLE IS THE NEXT DRIVER OF GROWTH

- Investment in social protection and social policy remains low across much of the region: targeted over universal systems
- 1.1 billion workers remain in 'vulnerable' forms of employment: 45-85% of Asia-Pacific's workforce
- Majority of 'new' urban citizens work in the informal sector, obtain land & housing through informal markets
- Majority of women depend upon precarious/ vulnerable forms of employment: In India and Bangladesh over 90% of female workforce in the informal sector
- Migrant workers/'irregular' migrants/floating populations rarely covered in emerging social protection systems



THE AGEING CHALLENGE

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Source: Prof. Steffen Lehmann, PPT for Citynet, 2013

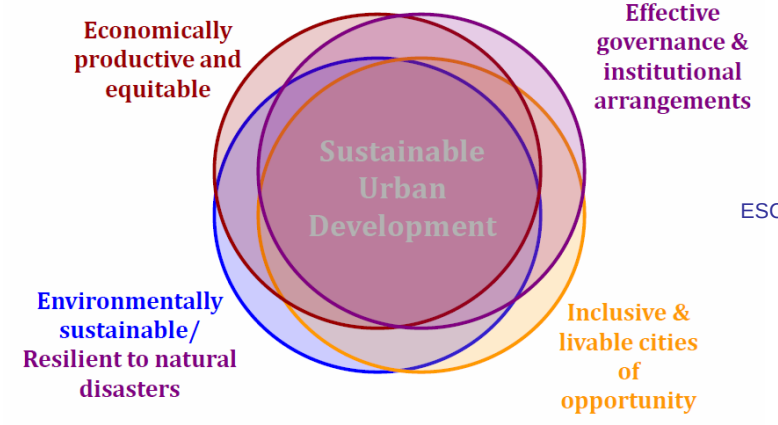
CITIES AND AGEING

Global City Indicators Facility

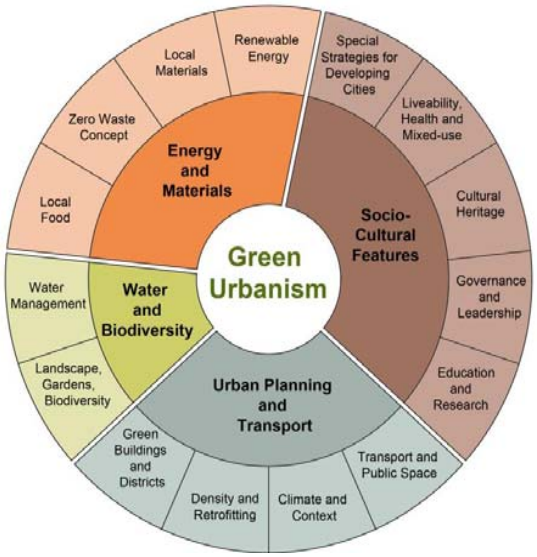
PHILIPS

Older persons will increase from 438 million in 2010 to 1.26 billion by 2050.

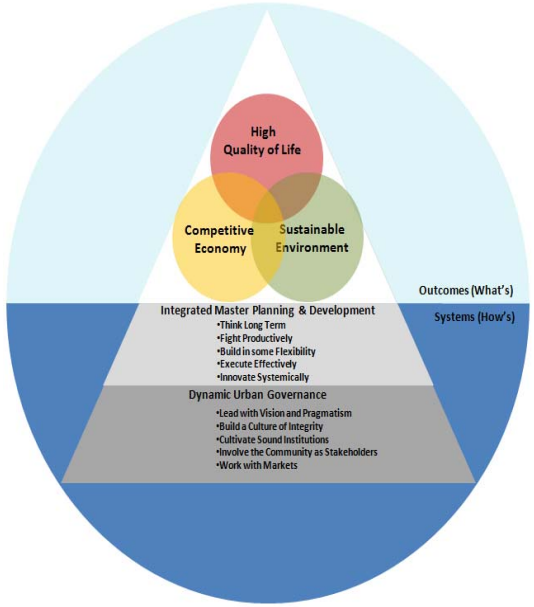
HOLISTIC & INTEGRATED PLANNING/ ACTION: Approaching cities as systems



ESCAP, 2013



Source: Steffen Lehmann, 2008

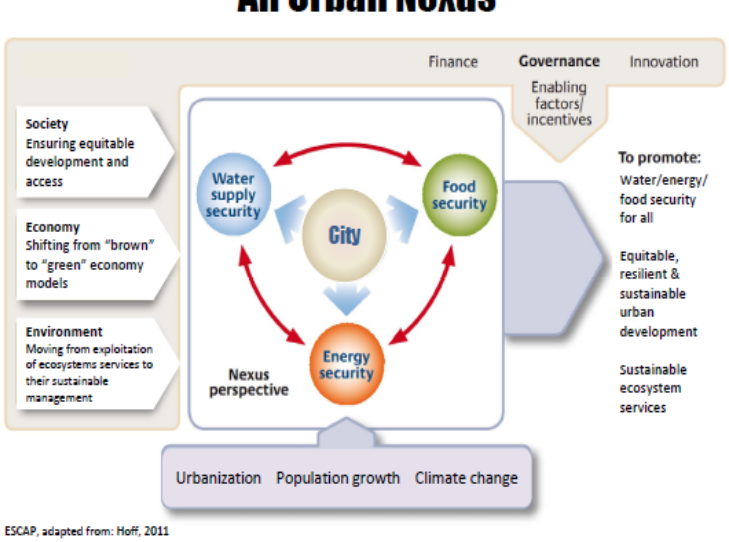


http://www.clc.gov.sg/Research/clcframework.htm

Overcoming Barriers for Prosperous, Inclusive & Sustainable Cities & their Regions

8. Change the way Cities are Governed

- Existing institutions/policy frameworks require transformation /renewal: collaborative governance
- Shift from short term exploitation of natural/human capital to investment
- Challenges: financial & technological, also political, organizational & information
- Effective stakeholder engagement: municipal government, the private sector, CSOs/researchers/organizations
- Policy responses must consider impacts/relationships beyond urban boundaries & across sector silos
- Support mutually beneficial actions & policies for interdependent urban & rural areas



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