

The concept of sustainable transport and land use

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The European context

- EC Research on the City of Tomorrow
 - the LUTR Cluster
 - 12 projects, 30 partners, €13m funding
 - PLUME as an overarching project
 - State of the Art Report; 23 Synthesis Reports
 - www.LUTR.net
- EC DG Enviro proposals
 - all cities over 100,000 to produce Sustainable Urban Transport Plans
 - guidance on how to do so
- ECMT Sustainable Urban Transport task force
 - the requirements of Sustainable Urban Transport
 - the barriers to implementation



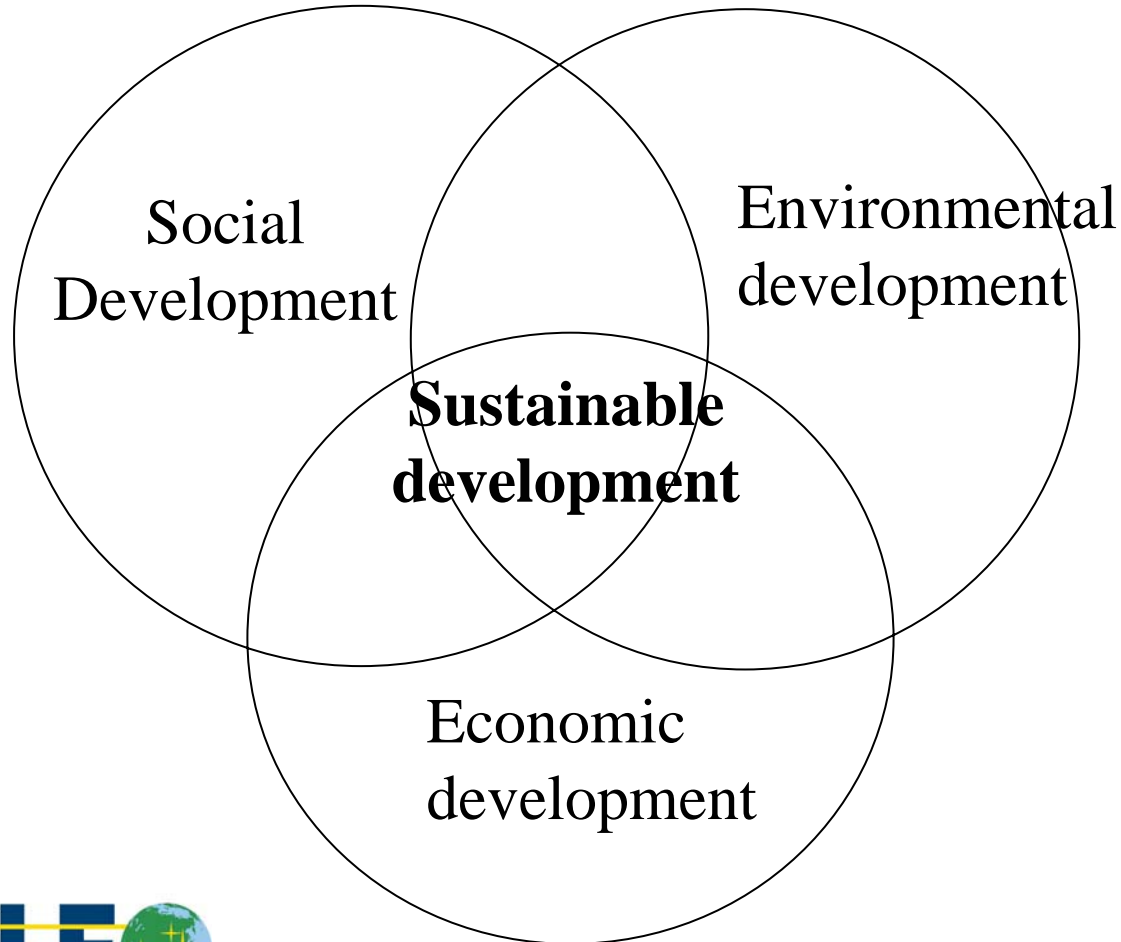
What do we mean by sustainability?

- “Development that meet the needs of the present without compromising the ability of future generations to meet their own needs”

Source: World Commission on Environment and Development (1987)
“Our Common Future”.



What do we mean by sustainability?



Why focus on urban areas?

- 3.8 billion city dwellers in Asia
 - Almost 50% of the population
- Cities are growing in size
 - 11 of the 19 megacities are in Asia
 - 14 out of 23 by 2020
- Cities are central to economic activity
 - About 80% of all new economic growth
 - Urbanisation correlates well with GDP levels
- But cities are often very unsustainable!



A vision for sustainable urban transport

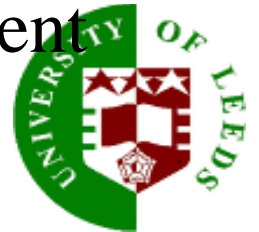
- Provides basic access and development needs
- Supports safety, human & ecosystem health
- Promotes equity within and between generations
- Is affordable, fair and efficient
- Supports the economy, regional development
- Limits emissions and waste within ability to absorb
- Uses resources within renewal, replacement rates
- Minimises impacts of noise and use of land

Source: DGEnv Working Group on Sustainable Urban Transport



A vision for sustainable land use?

- Provides homes with access to all essential destinations
- Ensures mixed development with ready access to jobs, shops, education, health
- Maintains high density to avoid undue use of land
- Supports walking, cycling, public transport
- Avoids wasting space on roads and parking
- Provides green space to support the environment



But cities are unsustainable!

- Congestion
 - A serious problem in many Asian cities
 - As private transport use rises rapidly



But cities are unsustainable!

- Pollution
 - Growing emissions, particularly of NO_x , HCs, PM_{10} , $\text{PM}_{2.5}$
 - As a result of growing traffic, poor standards
 - 500,000 deaths brought forward each year
 - PM_{10} cost \$420m in Bangkok in 2000



But cities are unsustainable!

- Noise
 - A growing concern for western cities
 - With increasing evidence of impacts on mental health
 - Transport the largest single cause
 - But is noise yet perceived as a problem in Asia?



But cities are unsustainable!

- Accidents
 - 500,000 deaths in Asia each year
 - 20 million injuries
 - Around half of these in cities
 - Costing around 2% of GDP



But cities are unsustainable!

- Poverty
 - 70% of the world’s poor live in Asia
 - Around 250 million in Asian cities
 - Lack of basic access a key problem – “the lack of basic infrastructure is a defining characteristic”



And cities are contributing to global unsustainability

- CO₂ emissions are a major contributor to global warming
- Transport a major cause (c 25% globally)
- CO₂ from transport increasing at 3.5% pa in Asia (2.1% in Europe)

What can be done?

- Cities need a clear vision for what they want to be like in 10, 20, 30 years' time
 - Shanghai: “the leading city in East Asia”
- What are the visions for the cities of S E Asia?
- These are not visions for transport, but raise the question: how can transport contribute?
 - Which helps define the objectives for the transport strategy



Clear objectives are essential

- Nationally specified or locally selected
- As contributors to the overarching goal of sustainability
- Specified as desired outcomes of the strategy, not elements of it
- The PROSPECTS list
 - Economic efficiency
 - Environment
 - Liveable streets
 - Safety and health
 - Equity and social inclusion
 - Economic growth
 - Intergenerational equity

What can be done?

- An increasingly wide range of types of policy instrument
- But relatively little guidance on which to consider
- So many cities fail to innovate
- An integrated approach, using a package of measures, will be more successful
- Contributing to a clear overall strategy



The range of policy instruments

Pedestrian street



Space for slow mode



Bus Rapid Transit (BRT)



Public transport



P&R



Allocation lane for each mode



Key elements of a strategy

- The PROSPECTS list
 - Reducing the need to travel
 - Reducing car use
 - Improving public transport
 - Improving the road network
- Second stage issues
 - Freight
 - Walking and cycling
 - Special needs

A strategy for sustainable urban transport

- Promotes choice of mode, and more rational use of private cars
- Favours energy efficient, clean vehicles
- Provides a quality public transport network
- Strengthens the share of walking, cycling
- Makes efficient use of land
- Manages transport demand
- Is integrated, involves all stakeholders

Source: DGEnv Working Group on Sustainable Urban Transport



Barriers to implementation

- Legal and institutional
- Financial
- Political and cultural
- Practical and technological
- Process
 - Analytical
 - Management
 - Communication

Source: PROSPECTS, GUIDEMAPS, DISTILLATE



The ECMT barriers

- Lack of a national policy framework
- Poor policy integration and coordination
- Inefficient and counterproductive roles
- Public, political and media resistance
- Unsupportive legal and regulatory frameworks
- Weaknesses in pricing and fiscal frameworks
- Misguided financing and investment flows
- Analytical obstacles; poor data quality, quantity
- Wavering political commitment

Source: ECMT



The way ahead

- Clear vision and objectives
- A logical structure for decision-making
- While reflecting the needs, aspirations of individual cities
- And commitment to overcoming the barriers
 - Individually and together



What form might plans take?

- Guidance available from PROSPECTS
 - Procedures for Recommending Optimal Sustainable Planning of European City Transport Systems
 - Providing cities with guidance in generating optimal land use and transport strategies to meet the challenge of sustainability in their particular circumstances
 - Funded by EC DG Research



The Decision Makers' Guidebook

