National Capacity Building Workshop on Sustainable and Inclusive Transport Development

Colombo, Sri Lanka 9-10 July 2015

Integrated transport planning, policy formulation and coordination

UNESCAP Transport Division
Purpose of this presentation:

Two major aspects – integrated planning and policy formulation, and coordination of actions

• Purpose of integration
• Dimensions of integration
• What integration may deliver
• Importance of coordination of actions
• Some suggestions
• Way Forward
Sustainable transport development – some important considerations

• Travel is a derived demand – the need for travel can be replaced or reduced
• Intricate relationship between activity systems (also known as land use) and transport system – often better solution in other sectoral policies
• Integrated policies and coordinated actions needed to address x-sectoral issues
• Consistent and complementary policies across sectors to have the desired results
What is transport integration

• Integrated management of mobility, transport infrastructure, urban development and environment protection are essential for achieving sustainable development.

• Transport integration is an organizational process through which the planning and delivery of elements of transport system are brought together across modes, sectors, operators and institutions with the aim of increasing the net environmental and societal benefits (Preston ITF, 2012)
Need of transport integration

• Multi-sectoral nature of transport (modes, operations, priorities, organisations etc.) requires integration of plans and policies

• Multiple agencies operate under different levels of Govt. who require coordinated actions based on integrated policies

• Need for consistency between policies in different sectors and levels of decision-making

• Need for greater understanding of effects on other sectors

• Need to ensure seamless transport service
Examples why integrated policy needed:

- **Road safety** – LPDR target in EST – 2 fatalities per 10,000 vehicles by 2020 – can be achieved if coordinated policies and action by transport, police, health, education
- **Dry ports** needed for Multi-modal transport – Transport Ministry needs policies and actions by other ministries
- **Vehicle type and use** - case of Bangkok, policy contradiction
- **Inclusive highway development** – complementary policies and actions by other ministries needed – for example, rural logistics centre
Integrated Transport Training

Objectives

• Ensure balanced, integrated transport system development (to provide seamless transport service - urban and national; passenger and freight)

• Provide efficient mobility services in terms of time, cost etc.

• Reduction of adverse effects - social and environmental

Imperatives for integrated transport system development

• Physical interface between modes

• Operational integration between modes

• Service integration - common fare, ticketing system, etc.
Tool to support more sustainable and inclusive local development

How to make better use of the road network?

- Development and promotion of rural logistics centre – rural supply chain – post-harvest losses of cereal due to poor storage and transport, may represent 4-16 per cent of total production; about 50% fresh food and vegetables may be lost on their way to market

- Roadside facilities
Roadside facilities - Michinoeki

Michinoekis (a Japanese concept) are roadside stations, which provide rest space and social/commercial service (and can also be a delivery point for some public services)
Integrated planning - present practices

**Land Use Transport (LUT) Planning** – based on a 4-stage travel demand modeling - very similar approach for both national and urban/metropolitan levels - *methodologies may differ*

**Policy planning** supported by studies based on borrowed methodologies developed for traditional LUT planning - *most common for both national and urban transport*

**Strategic choice approach** – based on structuring of decision problems, decision graphs, AIDA, input from technical studies – also requires direct involvement of decision makers
Integrated transport planning (ITP) - Land Use Transport (LUT) Planning – Process

Introduced in 1960s – based on a 4-stage modeling

Travel is result of people’s desire to participate in activities and a firm’s logistical needs

A complex process of interaction between TS and LU

Transport system is influenced by land use configuration and travel needs of people and businesses –

Transport supply influence people’s home and work location choices and business locations – influencing land use, which in turn influence transport
An operational Land Use Transport Model

Source: Southworth (1995)
Examples of LUTS based ITP:

- Tens of major cities in US and Europe
- TIS studies in many cities including Bangkok
- National Expressway System – ROK; modeling methodology – Computable General Equilibrium Model (CGEM)
- ESCAP study (CGEM based) – Impact of AH1 AH2 and AH14 (part) – 2012 Theme study “Growing Together”
Major Limitations of LUT:

• Lacks sustainable transport orientation
• Limited policy sensitivity
• May not meet the needs of decision makers – considered as “black box”
• Lacks political dimension of planning
• Expensive, limited capacity to undertake
• Environment, energy, pollution etc - external to modeling
• Other typical limitations of modeling
**Participatory approaches: why favoured**

- Ensures involvement of all actors
- Better understanding of the issues from others’ perspectives
- LUTs cannot accommodate all ST objectives
- A negotiated position and consensus on actions *(transport is as much political as technical in nature)*
- Agreed set of actions and responsibilities

US DOT has a manual for transport applications

Common for local level planning
Limitations of participatory approaches

• Lacks substantive contents, knowledge and rigor of analysis
• May degenerate into venting of opinions
• Institutional framework and / or organizational capacity to follow participatory approaches may be lacking
A compromise: **Planning as a strategic choice approach** - considers substantive and political dimensions (may use AIDA or other tools)

- Integrative – considers a holistic approach
- Interactive – supports negotiation
- Transparent – clearly understood no “black box” – a common complain for LUT planning
- Communicative and educational
- Authorative – analytical and political standards

**Examples:** Netherlands’ Second Transport Structure Plan; many examples around the world (South Side example is famous)
The process of integrated comprehensive planning

1. Initial/existing knowledge about issues and problems
2. Designing a questionnaire
3. Identification of stakeholders and preparing a DIRECTORY
4. Communication with the stakeholders
5. Stakeholders interviews
6. ANTHOLOGY (compilation and coding of stakeholders’ statements)
7. Analysis of stakeholders’ views and opinions
8. Identification of major issues and problems
9. PROBLEM AND CAUSE ANALYSIS
   - Stakeholders’ image of the future
   - Major issues and problems
   - VISION for sustainable development
   - Strategies, aims and targets and broad areas of actions
10. Additional information from secondary and primary sources
11. Inputs from experts (additional)
12. Presentation at plenary meeting
13. Verification with existing plans/programmes/studies and additional information collected
14. Consultation with stakeholders about initial outcomes and further refinements (workshops)
15. Draft Action Plans
16. Plenary meeting and presentation of the Draft Plans to stakeholders
17. Finalization of ACTION PLANS
18. Implementation
The coordination issue - development of integrated transport system

• Physical interface between modes
• Operational integration between modes
• Service integration – common fare, ticketing system, etc.
• What may be done in future
Some cities have made progress; but take the case of BTS in Bangkok

There was not much thought to develop BTS as part of Bangkok’s transport system.

• Hardly any thoughts on its integration initially
• Result?..............
• Fortunately now both BTS, MRTA, the private sector and other actors taking corrective measures; working on a common ticketing system
What countries are doing

• Policy on National and Urban Transport (some efforts have also gone in developing integrated policies on x-sectoral matters)
• New institutional framework – at metropolitan/urban level
• Regulatory standards – fuel, emission, vehicle
• Demonstration projects
• Knowledge products and management
• Capacity building –
ST - What countries are doing (examples)

• Bangladesh – MMTP (national)
• Lao PDR – LTMP 2013, EST
• Philippines - EST
• India – NUTP, other major national programs – inclusive transport in rural areas
• China – national and urban transport policies – low-carbon transport, NMT, public transport, new energy vehicles etc.; three city level policy documents – pilot projects, financial support
• Japan – ITS, new technologies, social needs
• ROK – Green logistics
Institutional framework - examples of current practices (integrative policy and coordination)

• Strong central planning agency
  (Bangladesh, China, India, Indonesia, Thailand....)
• Top-down, cadre performance system (China)
• MPO – USA; all cities with > 50k popn. – responsible for transport planning – 5 core functions
• UMTA – India, in 14 cities (funding if UMTA established)
• Ad-hoc/Informal committee, Steering committee, joint meetings (Bangladesh, China..)
Direction of future development

• Multimodal transport system development
• Regulatory measures – vehicle, fuel, emission
• ITS/ICT applications and new technologies
• Integrated public transport system
• Transport logistics services and city logistics
• Livability of cities – greater integration of transport planning with social needs

All of these are x-sectoral matters; success will depend on integrated policy and coordinated actions by actors
Avoid policy pitfalls of ignoring the larger systems within which the transport sector is embedded
Some suggestions for actions:

• Common understanding on Sustainable Transport in the national context - Japan, ROK, Europe have; do we?
• Institutionalize policy formulation and coordination of action by multiple agencies
• Avoid policy pitfalls of ignoring the larger systems within which transport system is embedded
• An agreed integrated policy framework for planning (national and urban)
• Integrated planning and set of actions for each actor (agencies operators etc)
• A supportive environment - institutions, capacity, knowledge product, knowledge mgmt., funding support to local authorities, innovative financing, political champion
Way Forward

- Strong institutional framework for integrated policy formulation and coordination of implementation
- National ST Policy and strategy
- National guidelines, standards, TM, KM
- A framework of indicators and benchmarks
- Awareness of elected officials – a single champion can change a city’s face
- Demonstration/pilot projects, funding support
- New technology (ICT/ITS, pavement, pavement etc)

Strong government actions are needed
Thank you
www.unescap.org/our-work/transport
Info.: escap-ttd@un.org