Conclusions of recent ITF work on strategic infrastructure planning and the challenge for appraisal

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The Potential for Strategic Infrastructure Planning

• Importance of infrastructure in modern economies – correlation/causation with economic growth and wider social benefits

• Clear processes are needed for problem identification, scheme selection, appraisal, decision-making and delivery.

• Processes need to look beyond a single sector such as transport to a more comprehensive assessment of infrastructure needs, including land use and utilities – water, power, other services.

• Strategic infrastructure plans offer a means of addressing these requirements.
• Depending on the country, decisions taken in the context of a mix between strategic national infrastructure plans, national transport plans, mode specific national plans and regional plans.

• Project identification undertaken by national/sub-national (often arms’ length) transport agencies, and by regional/devolved authorities

• Project selection – more often by ministers/elected representatives with some devolved to officials and often with stakeholder engagement. Business case and alignment with strategic objectives influenced project selection in most responses.

• Appraisal – formal processes undertaken following established methods, usually with some independent quality control and provision for subsequent ex post evaluation.
Key considerations in Strategic Infrastructure Planning

1 Organisation and governance of the planning authority

- Role – invariably advisory
- Independence from ministers, governance
- Clear objectives and strategic direction
- Frequent updates to ensure relevance – eg to a post Covid world
- Defining sectoral and functional scope – strategy, investment projects etc
Key considerations in Strategic Infrastructure Planning

2 Requirements for working up plans – as identified by the WG

• Use of scenarios
• Consultation
• Budget constraint
• Addressing key challenges – resilience, climate change
• Cross sectoral working/coordination of sectoral investment/policies.
• Transparency, including appraisal methods
• Encourage the collection of performance measures
Some examples of independent strategic infrastructure planning practice in member countries

- Infrastructure Australia (established 2008)
- Australian state and regional commissions (post 2008)
- The New Zealand Infrastructure Commission (2019)
- Infrastructure Commission for Scotland (2019)
- Infrastructure Commission for Wales (2018)
The need for a clear method for appraisal

• To set evidence based priorities within a budget constraint
• To provide a comprehensive assessment of the impacts of a programme, project or policy over its expected life.
• To reflect society’s preferences through measures of willingness to pay, actual payment and accepted valuation for societal impacts
• To draw attention to the consequences of the project/policy for wider policy objectives
• To inform decision makers
CBA methodology – traditional basis for transport projects

- Estimates, using an evidence-based model, of transport users’ responses to the proposed changes in the network,

- Quantification and valuation of transport user benefits – time savings (business/working drivers, commuters, leisure), accident savings, changes in vehicle operating costs - over project life

- Quantification and valuation of environmental, societal and health impacts – air quality, noise, climate change, landscape, severance etc

- Comparison of the forecast benefits and costs in the ‘with scheme’ scenario with a ‘do-minimum’ counterfactual
CBA – wider economic benefits

- Certain schemes are intended to have impacts extending beyond the transport sector.

- If associated with appropriate land use planning and labour market policies, new infrastructure can:
  - Deliver agglomeration based productivity increase.
  - Boost local investment through land development dependent on the infrastructure.
  - Increase labour supply by reducing the cost of accessing jobs.

- Many countries now have the analytical tools and local evidence to make estimates of these impacts in these circumstances.

- Methods are data intensive and usually require interventions from sectors outside transport.
CBA and decision making – the policy background

- Wider Benefits provides an additional metric – the impact on GDP, a policy priority.
- However, CBA takes no account of place or person and so fails to meet some other key policy objectives.
- Incorporation of policy priorities in the decision process – How does a project meet inter-regional, inter-personal and other policy objectives which are additional to those in the CBA?
- Links between the transport project and these policy objectives need to be articulated.
- Decision makers can be encouraged weigh these intangibles against more certain impacts, for example by adopting switching values as used in the UK.
- Place based transport appraisal challenged by the two way road problem.
- Cross border schemes face specific requirements to ensure success.
Ex post evaluation

- Infrastructure schemes cannot be piloted – each place is different
- Ex post evaluation serves to:
  - Provide ministers with information about accountability – did the scheme sponsor deliver what was expected?
  - Help analysts learn how successful they have been in estimating transport users’ and others’ responses to the project.
  - Provide evidence to inform future strategy (note that there is rarely the opportunity to redesign the scheme)
Challenges in infrastructure evaluation

- Length of lags:
  - between start of works and opening, disrupting travel
  - between opening and traffic ‘maturing’

- So simple before and after basis for evaluation subject to error

- Uniqueness of place – cross sectional comparisons rarely feasible

- Direction of causation – relationship between changes in economic performance and changes in infrastructure

- Attribution of causal effects to transport when other policy changes have been made
Recommendations of the Strategic Infrastructure WG 1

• Governments should adopt a strategic approach to infrastructure planning. This should be communicated clearly via an explicit, detailed and periodically updated strategic infrastructure plan.

• Strategic infrastructure plans should be linked to explicit infrastructure funding envelopes, with project pipelines identified, at least in broad terms.

• Governments should consider the merits of establishing independent infrastructure advisory bodies to provide transparent, expert advice on long-term, cross-sectoral infrastructure strategy, planning and policy development, as well as priorities for medium-to-longer-term infrastructure investment.

• Arrangements for the establishment of independent bodies should address key governance principles, such as those identified in the OECD’s Principles for the Governance of Regulators.

• Infrastructure project appraisal should, as far as possible, be based on a consistent and transparent methodology.

• The OECD/ITF should publish a review of government and private sector infrastructure-related responses to the Covid-19 pandemic.
Recommendations of the Strategic Infrastructure WG 2

• A formal policy framework should guide decisions on the stewardship of major infrastructure assets.
• Governments should review their infrastructure regulatory frameworks.
• Ex post performance assessment should be undertaken for all major projects.
• National infrastructure institutions and statistical agencies should co-ordinate internationally to develop consistent infrastructure performance measures.
• Where cross-border infrastructure projects are adopted, they should be managed by a specific-purpose body with all parties represented. Policy objectives and performance standards should be clearly specified and governance, funding and accountability mechanisms established.