Integrated Infrastructure Planning

Comparative delivery systems

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What is integrated infrastructure planning?

- Infrastructure integration necessary to benefit from economies of scale, advance the overall security of infrastructure products and services, and increase the overall competitiveness
- Holistically integrated approach: policy, institutions, financial and social expectations, managing diverse stakeholders, public-private partnerships, combinations of SOE/DFI/public/private, etc
- Managing complexities of ‘crowding-in and coordinating multiple role-players from the public and private sectors’ (Scott, 2008)
- Not focusing on one project in isolation, rather than as part of a broader long-term economic or industrial strategy
- As opposed to just addressing infrastructural issues only when in crisis
- Moving ‘beyond a project mentality towards building an integrated, reliable and efficient network that anticipates future demands, and allows for investment in critical new infrastructure in a timely and innovative way’ (Saha International, 2007)
- Key characteristic: ‘inter-operability and inter-connectivity’ (Kukobat, 2010)
- Infrastructure must be delivered as a complete ‘system’
Complex challenges of the delivery system of infrastructure

- Delivery system complex, multi-dimensional, multiple stakeholders – high level of co-ordination and planning required, sophisticated skills set and capacity needed
- To do with characteristics as an ‘asset class’ (ADB, 2005), numerous factors shaping supply and demand
- Capital intensive, long lead and payback times, financially risky
- Must be provided as a complete functioning system – ‘synchronization of system component completion’ is crucial
- Infrastructure assets are long-lasting – where it is delivered shapes patterns of development, economic opportunities and even societal changes
- Strong competition from interest groups on where to place infrastructure – means planning is open to political, opportunistic and pork-barreling
- Role-players, stakeholders must be consulted and participate in planning and delivery
- Negative externalities – i.e.. environmental and social impacts - are high, driving up costs, risks
- Appropriate technology, type of infrastructure – relevant, are crucial
Challenges of integrated infrastructure delivery in SA

- Complicated institutional arrangements, mandates – poor co-ordination and integration
- 3 spheres of government, silo approaches in national departments, inadequate planning and integration between and within different levels of government
- Infrastructure not delivered as a complete functioning system
- Infrastructure planning not integrated into long-term economic development plans
- Severe policy and regulatory misalignments
- Competition between hard and soft infrastructure development – not integration
- Hard infrastructure rollouts not sequenced with other (including ‘soft’ infrastructure) system improvements necessary to deliver
- Systemic lack of capacity across the public sectors
- Huge infrastructure backlogs and future needs, but limited public funding
- Focus on overcoming backlogs, failure to plan for future needs and to maintain existing stock
- Pressure for delivery leads to hasty policy and implementation – undermine development impact
- Strong private sector – but sector skills, finance not optimally leveraged
- Crowding-in and coordination public-private players inadequate
- Inadequate stakeholder – communities, civil society – consultation and participation
- Opportunistic capture of infrastructure projects, planning rife
- Often inadequate balance between infrastructure and environmental impact
- Need for new technology, versus use of new developers yet to demonstrate viability (Sibisi, 2011)
Institutional model for integrated and coordinated infrastructure delivery flawed
- Housing process is example: land acquisition, town planning, township establishment, infrastructure provision and building of houses involves a chain of interconnected steps
- Different parts of delivery are assigned to municipal and provincial governments
- The initial processes are the responsibility of municipalities, the latter provincial departments
- Complicated old-order regulations for land use, township establishment and environmental assessment
- The latter is the responsibility provincial departments, the former municipalities
- Often a project meets the development aims of one department, but does not get regulatory approval from another
- In terms of policy, over-arching Medium Term Strategic Framework developed by Presidency, national departmental medium term strategic plans and departmental annual performance plans
- Annual Program of Action of government to institute alignment of departmental activities around cross-cutting priorities
- National Spatial Development Perspective is meant to foster spatial alignment
- At provincial level, Provincial Growth and Development Strategies
- Municipal levels, Integrated Development Plans
- Various forums, key among them: national and provincial is Cabinet and head of department clusters
- Bulk of infrastructure spend sits with SOEs/DFIs
- Co-ordination between national departments, provinces and SOEs/DFIs
Arrangements of architecture, institutions and systems of integrated infrastructure delivery flawed

Weakness of plans: they are restricted to specific departmental mandates

At cluster level – a collection of special projects, rather than pursuing joint objectives

Individual national departments struggle to plan for themselves, integrating plans across other departments and spheres even harder

Provincial Growth and Development Strategies do make strategic choices and trade-offs between alternative development plans, little actual implementation

Small portion of provincial budgets available for new capital investments – the bulk for social services

Provinces & PGDS not suitable co-ordination nodes for economic development (budgets outside their control, etc)

Bulk of infrastructure budget with national departments and SOEs

Little alignment between SOEs/DFIs and national, and provincial and local governments

Integrated Development Plans at local level – also focused on individual projects

Clusters also not effective – participation rates of DGs in meetings are 32%

Participants of clusters not accountable to clusters, but to departments
Models of Integrated Infrastructure Delivery Systems

• For years Brazil also looked at infrastructure development as isolated cases – rethink
• Brazil has a permanent inter-ministerial Working Group overseeing integration of activities & specifically the Brazilian Association of Infrastructure and Basic Industry to oversee infrastructure development
• Australia has a National Infrastructure Council to integrate infrastructure development between 3 tiers of government
• Infrastructure Australia is the overarching governance and implementation entity
• Infrastructure Partnerships Australia entity ensuring governments, private sector, communities champion infrastructure
• India has Integrated Infrastructure Development Centres across the country – hubs that coordinate integration, managed by state-owned industrial development corporation
Key Lessons for Integrated Infrastructure development (1)

- Integrate infrastructure development to *broader* economic development measures
- Maximize synergistic effects between infrastructure development and broader economic development – both maximize development impact
- Integrate infrastructure development into a national developmental strategy, with infrastructure the *core* of the strategy
- Integrate and co-ordinate the institutions overseeing infrastructure and broader national development
- Integrate and co-ordinate infrastructure development and broader national development across *sectors*
- Integrate and co-ordinate public-public partnership for joint infrastructure and broader national development – DFIs are key
- Integrate and co-ordinate through a flexible partnership between private and public sector – DFIs are key
- DFIs at centre of integrated infrastructure planning as integrators
Key Lessons (2)

• Focus on whole of government approach – ‘one-stop shop for infrastructure’
• Public private partnerships key – Canada, Australia, Japan and Brazil
• Public-SOE-private partnerships variations key
• Share risks between public and private sectors
• Leveraging private sector skills, finance, capacity and systems
• Adequate state capacity is essential
• Infrastructure Commission set-up by President is going to be key entity
• Clarify and streamline relationships, roles in the infrastructure delivery system
• Better manage rent-seeking, corruption
• Aligning budgets, synchronizing planning
• Manage stakeholders better