

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)

Architecture, institutions and systems of integrated infrastructure delivery in SA (1)

- 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

Architecture, institutions and systems of integrated infrastructure delivery in SA (2)

- 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