Improving public investment efficiency for infrastructure development

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Current Situation

- **Infrastructure Needs in Vietnam**
  
  = approx. **$20 billion** per year (i.e. around 10% of GDP)

  ↗ by around **2%** of GDP

- **Tight fiscal constraints**

  Need to prioritize investment / Maximize value-for-money

- **Typical issues with infrastructure projects**
  
  • Poor project selection (e.g. based on political considerations)
  • Delays in design and completion of projects
  • Corrupt procurement practices
  • Cost over-runs / Incomplete projects
  • Failure to operate and maintain assets effectively
Viet Nam’s Strategy
Socio-Economic Development Plan (2016-2020)

✓ Infrastructure Components

• Support for renewable energy sources;
• Construction of urban and infrastructure systems with priority on projects responding to climate change;
• Commitment to integrate SDGs in the socio-economic programs and plans;
• Promotion of market for public services and prioritization of PPPs;
• Greater transparency, stability and fairness to encourage business to invest in infrastructure projects;

• Fairer and more transparent procurement, minimizing pre-assigned contractors and using land of high commercial value;
• Strengthened inspection and monitoring of investment projects;
• Improvement of the quality and effectiveness of public investments;
• Reduction of corruption
Project Cycle

Improving efficiency throughout the project cycle

Planning - Prioritization

Operation and Maintenance

Delivery – Procurement

Some countries achieve the same level of infrastructure quality with less investment

- Efficiency Gap estimated to 10% (South-East Asia)

- Potential savings ~ $16 billion per year

Boosting productivity can reduce infrastructure spending by 40% according to McKinsey
Agenda

✓ Strengthening Planning and Prioritization

✓ Streamlining infrastructure project delivery

✓ Making the most of infrastructure assets
Strengthening Planning and Prioritization

Infrastructure Plan

✓ Does the country have a National or Sub-National Infrastructure Plan?

• Align investment with countries priorities / development objectives (e.g. SDG)
• Provide a long-term vision (infrastructure assets can last 50 years)
• Assess infrastructure deficiencies
• Coordinate different infrastructure sectors
• Identify the possibility of charging users
• Highlight policy reforms required (e.g. tariff)
• Develop in consultation with stakeholders

✓ Sector Strategies/Master Plans (transport, energy,...) and SEDP at the national level: are there issues to address in planning? Better alignment of infrastructure projects with strategy (SEDP)? Annual budgeting vs. Medium-Term Expenditure Framework? Coordination vs. decentralization in budget implementation? Public Investment Law?

Source: GIH Compass based on 48 countries
Strengthening Planning and Prioritization

Appraisal Guidelines

✓ Does the country have guidelines for the appraisal of infrastructure projects?

• Ensure investment decisions based on realistic priorities and cost estimates

• Define the minimum level of information required

• Ideally detailed project-level information (full-fledge feasibility studies) and quantification of social, environmental and economic effects (i.e. social cost-benefit analysis)

= good basis for prioritization but ...

• Lack of capacity to provide extensive economic analysis

• Limited information on project proposals / Data availability

➔ A pragmatic evidence-based selection system is needed to compare projects / analyze project at the portfolio level

Source: GIH Compass based on 48 countries (guidelines are only at the sector level for some countries)
Strengthening Planning and Prioritization

*Multi-criteria approach*

**Example: World Bank’s Infrastructure Prioritization Framework (IPF) – Pilot in Viet Nam (2014)**

- Multi-criteria decision approaches formalize the inclusion of non-monetary and qualitative factors into decision analysis
- Filter out projects not aligned with national objectives before feasibility studies
- Combines social and environmental indicators with economic and financial outcomes by synthetizing project-level indicators into 2 indices

<table>
<thead>
<tr>
<th>Social-Environmental Variables</th>
<th>Financial-Economical Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Direct jobs during implementation per year</td>
<td>✓ Internal Rate of Return (IRR)</td>
</tr>
<tr>
<td>✓ Number of direct beneficiaries</td>
<td>✓ Economic Rate of Return (ERR)</td>
</tr>
<tr>
<td>✓ Geographical: Regional poverty level</td>
<td>✓ Multiplier Effects (ME)</td>
</tr>
<tr>
<td>✓ People affected by re-purposing of land</td>
<td>✓ Geographical: Priority Economic Zones (PEZ)</td>
</tr>
<tr>
<td>✓ Cultural and environmental risk level</td>
<td>✓ Implementation risks (IR)</td>
</tr>
<tr>
<td>✓ Pollution in terms of CO2 equivalent emissions (CO2)</td>
<td>✓ Complementary/Competition effects (CC)</td>
</tr>
</tbody>
</table>

*(example from pilot in Viet Nam)*
Strengthening Planning and Prioritization

World Bank’s Infrastructure Prioritization Framework (IPF)

- No need to monetize all benefits and costs
- Designed for application within only one sector
Strengthening Planning and Prioritization

Gender Considerations

Target 5.4: Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies ...

- Infrastructure projects cannot be assumed to deliver benefits to men and women equally

Gender mainstreaming in infrastructure (conscious approach / explicit)

- Gender involvement in consultation
- Supporting women employment in the project
- Key performance indicators with regard to female benefits
- Monitor against gender impact → Lack of sex-disaggregated data is an issue
Agenda

✓ Strengthening Planning and Prioritization

✓ Streamlining infrastructure project delivery

✓ Making the most of infrastructure assets
Streamlining infrastructure project delivery

Accelerating permit approvals and land acquisition

In India, 70 to 90% of road projects suffer a 15 to 20% delay due to challenges in land acquisition

Construction Permits

- Quality of the land administration index (0-30)

<table>
<thead>
<tr>
<th>Country</th>
<th>Time (days)</th>
<th>Procedures (number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brunei</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Cambodia</td>
<td>500</td>
<td>2</td>
</tr>
<tr>
<td>Indonesia</td>
<td>150</td>
<td>1</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>Malaysia</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Myanmar</td>
<td>50</td>
<td>1</td>
</tr>
<tr>
<td>Philippines</td>
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</tr>
<tr>
<td>Singapore</td>
<td>200</td>
<td>1</td>
</tr>
<tr>
<td>Thailand</td>
<td>150</td>
<td>1</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>Vietnam</td>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>OECD high...</td>
<td>500</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: World Bank Doing Business

✓ “one-stop-shop” permitting and clear allocation of responsibilities
✓ Quick dispute resolution mechanisms, and land titles register
Streamlining infrastructure project delivery

Enhancing governance

✓ **Internal controls / Audits**

*86% of public infrastructure projects are above budget*

*Source: Flyvbjerg et al. / data: 258 Infra Projects over 1910-2000 (Europe / USA / Japan)*

✓ **Reducing corruption**

Perceived Control of Corruption in SEA (Percentile Rank – 2015)

<table>
<thead>
<tr>
<th>Country</th>
<th>Perceived Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>100</td>
</tr>
<tr>
<td>Malaysia</td>
<td>80</td>
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<tr>
<td>Thailand</td>
<td>60</td>
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<tr>
<td>Philippines</td>
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<tr>
<td>Vietnam</td>
<td>40</td>
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<tr>
<td>Indonesia</td>
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<tr>
<td>Timor-Leste</td>
<td>10</td>
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<tr>
<td>Myanmar</td>
<td>10</td>
</tr>
<tr>
<td>Cambodia</td>
<td>0</td>
</tr>
</tbody>
</table>

**Estimated globally at between 5 to 20 per cent of construction costs**


**Possible measures:** Income and asset declaration of government officials (financial disclosure and conflicts of interests)

*Source: World Bank*
Streamlining infrastructure project delivery

Improving Public Procurement

✓ Benchmarking of Public Procurement in the region


✓ Using e-procurement systems / blacklisting companies with poor performance

✓ Selecting the best procurement routes (e.g. design-bid-build vs. design-build / EPC (Engineer-Procure-Construct) vs. PPP)

✓ Competition is not prevailing... Direct award to SOEs / vested companies
Agenda

✓ Strengthening Planning and Prioritization
✓ Streamlining infrastructure project delivery
✓ Making the most of infrastructure assets
Making the most of infrastructure assets
Moving away from Build, Neglect, and Rebuild paradigm

✓ Set aside funds for maintenance

Every dollar spent on regular road maintenance can save more than $5 on refurbishing and rebuilding of road...

Maintenance budgets often cut (no immediate consequences)

→ Dedicated funds (from user taxes and user charges) decouple maintenance resources from annual appropriation discussion

✓ Decisions take into account immediate capital + future operation and maintenance costs

Sector Medium-Term Plan

✓ Regularly assess and catalog the condition of infrastructure

Modern maintenance techniques such as remote asset inspection, feedback systems from users, etc.

✓ Extend asset life by integrating resilience considerations

Resilient design codes – protective barriers
Making the most of infrastructure assets

Avoiding political bias towards new infrastructure projects

✓ **Demand management** techniques to reduce the need for additional infrastructure by smoothing the demand and shifting load off-peak (e.g. congestion charges, energy efficiency standards, peak pricing, water education programme)

✓ **Reducing** transmission and distribution losses in water and power

Need to realize the magnitude of the issue and address it (e.g. performance incentives)

*Non-Revenue Water (NRW) is about 25% in urban areas*

often costs less than 3% of adding the equivalent in new production capacity + faster
Making the most of infrastructure assets

Optimizing usage

✓ Maximizing asset utilization

Intelligent transport systems can reduce headways between vehicles (e.g. airport and port capacity can double or triple for a fraction of the cost) and address specific bottlenecks (e.g. road e-tolling)

Measure to encourage users to use the full capacity (e.g. high-occupancy lanes)

✓ Leveraging additional source of revenues

Some airports realize more than 50% of their revenues from retails, hotels, etc.
Conclusion

Significant savings can be achieved by

- Improving project selection and introducing sustainability as well as gender considerations
- Streamlining infrastructure project delivery, improving governance and allocating sufficient funding to maintenance
- Maximizing the use of existing assets by managing demand and leveraging additional sources of revenues
Thank you


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