Institutions for Pan-Asian Connectivity

Biswa N Bhattacharyay
Special Advisor to Dean
Asian Development Bank Institute, Tokyo

The views expressed in this paper are those of the author and do not reflect the views or policies of Asian Development Bank (ADB), ADB Institute, its Board of Directors, or the governments they represent. Based primarily on ADB/ADBI Flagship Study “Infrastructure for a Seamless Asia”, 2009.
Outline

• Need for Connectivity
• Seamless Asia: Concept and Benefits
• Infrastructure Financing Needs 2010-2020
• Role and Structure of Asian Institutions
• Architecture for Subregional Infrastructure Cooperation
• Regional Institution Building
• Role of EU institutions
• Latin America: IIRSA Organizational Structure
• A Cooperation Framework for Pan-Asia Connectivity
• New Institutional Framework for Pan-Asian Connectivity
Need for Infrastructure Connectivity

Current global crisis provides 6 reasons for enhancing infrastructure connectivity for sustainable trade and economic development of Asia:

1. Enhances competitiveness & productivity; economic recovery and help in sustaining growth in medium to long term;
2. Helps to increase standard of living and to reduce poverty by connecting isolated places and people with major economic centers and markets;
3. Narrow development gap among Asian economies by connecting LDCs with major markets and business centers;
4. Promotes environmental sustainability;
5. Infrastructure financing forms an important part of fiscal stimulus package, especially if the crisis is prolonged;
6. Helps in increasing regional demand and intraregional trade for rebalancing Asia’s growth.
A Seamless Asia: Concept and Benefits

• Creation of a seamless Asia—an integrated region connected by world-class environment-friendly infrastructure networks

• In view of Asia's enormous untapped economic potential and the ongoing global financial crisis, now is the time to build efficient and seamless connections across Asia and with the rest of the world for a more competitive, prosperous, and integrated region.

• Infrastructure investment promotes growth, access to basic services, economic opportunities, regional and global integration; and poverty reduction

• The required infrastructure investment for pan-Asian connectivity in the transport, communications, and energy sectors during 2010-2020 would produce substantial real income gains of about $13 trillion for developing Asia during this period and beyond
Benefits of Infrastructure Connectivity

• Accelerate regional cooperation and integration
• Facilitate regional trade integration through physical connectivity as well as institutional linkages
• Stimulate domestic demand and alleviate the further impact of crisis
• Help narrow the development gap among Asian economies
• Promote greater technologies and more efficient use of regional resources
Definition:
Regional Infrastructure Projects

• Regional (or transnational) projects that involve “hard” and “soft” infrastructure spanning two or more neighboring countries;

• National projects that have a significant cross-border impact—in stimulating regional trade and income; or in connecting with the network of neighboring or third countries.
Economics of Regional Infrastructure Network

- Infrastructure networks (i) promote development though regional integration (ii) enhance an economy’s rate of innovational and technological advance and thus lift long-term growth (based on Straub et.al, 2008);
- Integration of network industries can generate huge economies of scale and innovation from network externalities;
- Most transport and energy infrastructure networks are club goods since access to them can be regulated (based on Economides, 1998);
- Transport cost often determine how the forces of industrial agglomeration and dispersion shape the economic landscape;
- Value of a regional logistic network depends on its weakest link- giving rise to free rider problem (based on Krugman, 1993);
- Club theory states that a regional or subregional institute can reduce the costs of collective action in providing club goods, to the benefits of all its members.
Financing Needs for Asia’s National Infrastructure: 2010-2020
(in 2008$ million)

<table>
<thead>
<tr>
<th>Sector/Subsector</th>
<th>New Capacity</th>
<th>Replacement</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Energy (Electricity)</strong></td>
<td>3,176,437</td>
<td>912,202</td>
<td>4,088,639</td>
</tr>
<tr>
<td><strong>Telecommunications</strong></td>
<td>325,353</td>
<td>730,304</td>
<td>1,055,657</td>
</tr>
<tr>
<td>Mobile phones</td>
<td>181,763</td>
<td>509,151</td>
<td>690,914</td>
</tr>
<tr>
<td>Landlines</td>
<td>143,590</td>
<td>221,153</td>
<td>364,743</td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td>1,761,666</td>
<td>704,457</td>
<td>2,466,123</td>
</tr>
<tr>
<td>Airports</td>
<td>6,533</td>
<td>4,728</td>
<td>11,260</td>
</tr>
<tr>
<td>Ports</td>
<td>50,275</td>
<td>25,416</td>
<td>75,691</td>
</tr>
<tr>
<td>Railways</td>
<td>2,692</td>
<td>35,947</td>
<td>38,639</td>
</tr>
<tr>
<td>Roads</td>
<td>1,702,166</td>
<td>638,366</td>
<td>2,340,532</td>
</tr>
<tr>
<td><strong>Water and Sanitation</strong></td>
<td>155,493</td>
<td>225,797</td>
<td>381,290</td>
</tr>
<tr>
<td>Sanitation</td>
<td>107,925</td>
<td>119,573</td>
<td>227,498</td>
</tr>
<tr>
<td>Water</td>
<td>47,568</td>
<td>106,224</td>
<td>153,792</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>5,418,949</td>
<td>2,572,760</td>
<td>7,991,709</td>
</tr>
</tbody>
</table>
### Indicative Investment Needs for Regional Identified and Pipeline Infrastructure Projects, 2010-2020

<table>
<thead>
<tr>
<th>Region/Subregion</th>
<th>Transport Projects</th>
<th>Energy Projects</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asia</td>
<td>177,077</td>
<td>931</td>
<td>–</td>
</tr>
<tr>
<td>Asian Highway</td>
<td>43,276</td>
<td>121</td>
<td>–</td>
</tr>
<tr>
<td>Trans-Asian Railway</td>
<td>82,801</td>
<td>45</td>
<td>–</td>
</tr>
<tr>
<td>Asian Container Ports&lt;sup&gt;a&lt;/sup&gt;</td>
<td>51,000</td>
<td>765</td>
<td>–</td>
</tr>
<tr>
<td>East/Southeast-Central-South Asia&lt;sup&gt;b&lt;/sup&gt;</td>
<td>–</td>
<td>–</td>
<td>22,975</td>
</tr>
<tr>
<td>Southeast Asia&lt;sup&gt;c&lt;/sup&gt;</td>
<td>5,858</td>
<td>17</td>
<td>41,444</td>
</tr>
<tr>
<td>GMS</td>
<td>5,858</td>
<td>17</td>
<td>2,604</td>
</tr>
<tr>
<td>Trans-ASEAN Gas Pipeline</td>
<td>–</td>
<td>–</td>
<td>7,000</td>
</tr>
<tr>
<td>BIMP-EAGA</td>
<td>–</td>
<td>–</td>
<td>100</td>
</tr>
<tr>
<td>Others</td>
<td>–</td>
<td>–</td>
<td>31,740</td>
</tr>
<tr>
<td>Central Asia</td>
<td>21,414</td>
<td>38</td>
<td>11,131</td>
</tr>
<tr>
<td>CAREC</td>
<td>21,414</td>
<td>38</td>
<td>10,861</td>
</tr>
<tr>
<td>Others</td>
<td>–</td>
<td>–</td>
<td>270</td>
</tr>
<tr>
<td>South Asia</td>
<td>293</td>
<td>3</td>
<td>6,846</td>
</tr>
<tr>
<td>Total</td>
<td>204,642</td>
<td>989</td>
<td>82,369</td>
</tr>
</tbody>
</table>
## Role and Structure of Asian Institutions

<table>
<thead>
<tr>
<th>Region</th>
<th>Members</th>
<th>Form</th>
<th>Highest Level</th>
<th>Modalities</th>
<th>Functions</th>
</tr>
</thead>
</table>
|        |         |            |               | A, R       | Integratio| Security | Trade | Finance | Infrastructure | Socioecono|m
| ASEAN  | 10 countries | Formal     | Summit        | A, R       | ●         | ●        | ●     | ●        | ●              | ●         |
| GMS    | 6 countries, ADB | Informal   | Summit/Ministerial | A,F,R     | ●         | ●        | ●     | ●        | ●              | ●         |
| MRC    | 4 countries | Informal   | Senior officials | A, F, R   | ●         | ●        | ●     | ●        | ●              | ●         |
| IMT-GT | 3 countries | Informal   | Summit        | A, F, R   | ●         | ●        | ●     | ●        | ●              | ●         |
| BIMP-EAGA | 4 countries, ADB | Informal | Summit       | A, F, R   | ●         | ●        | ●     | ●        | ●              | ●         |
| BIMSTEC | 7 countries | Informal   | Summit/Ministerial | A, F, R | ●         | ●        | ●     | ●        | ●              | ●         |
| CAREC  | 8 countries, 6 multilateral institutions | Informal | Ministerial | A, F, R | ●         | ●        | ●     | ●        | ●              | ●         |
| SAARC  | 8 countries, 9 observers | Formal | Summit/Ministerial | A, F, R | ●         | ●        | ●     | ●        | ●              | ●         |
| SASEC  | 4 countries, ADB | Informal | Senior officials | A, F, R | ●         | ●        | ●     | ●        | ●              | ●         |
| SECSA  | 6 countries, 1 observer, ADB | Informal | Ministerial | A,F,R | ●         | ●        | ●     | ●        | ●              | ●         |
| PIF    | 16 countries, 4 country observers | Informal | Forum Leaders | A, R | ●         | ●        | ●     | ●        | ●              | ●         |

Notes: Modalities: A-Advisory; F-Financing; R-Regulatory
Architecture for Subregional Infrastructure Cooperation
Role of Asian Institutions

- Due to diverse Asian economies, many overlapping subregional institutions are operating with varying speeds & addressing regional infrastructure issues in different degrees with multiple objectives;
- No. of participating countries vary from 3 to 16 countries;
- Most subregional institutions are informal (except ASEAN and SAARC) without any legal binding or enforcement capacity;
- Even formal ASEAN follows non-interference, sovereignty, incrementalism, and consensual decision-making.
- Most operate at summit/ministerial level-some at senior officials level;
- Most take advisory, regulatory and financing modalities;
- Asia needs formal institutions with (i) explicit treaty-based legally biding rules and (ii) regulations with compliance monitored by a standing body or secretariat
Regional Institution Building: The Cases of APEC and ASEAN+3 (Komori, Yasumasa 2005)

• ASEAN +3 provided an example of what some historical institutionalist call “layering” which involves building new institutions on top of existing institutions by retaining some elements of those institutions and revising others (based on Thelen, 2003)

• Formation of APEC was possible only after substantial and lengthy process of dialogue on issues of economic cooperation in the region at a non-governmental level (based on Harris, 1994)

• Importance of timing and sequence of institution building
Conceptualizing Regional Financial Institutions (RFIs) vs. Global Financial Institutions
(Ravi Kanbur, 2002)

• Responsibility of resources for region specific public goods should be shifted to RFIs
• Global issues such green house gases, financial contagion, global spread of diseases should stay the purview of GFIs
• Country specific operations should be a presumption in favor of donor resources flowing through RFIs
• The governing structure of the RFIs should be independent of any interest.
• RFIs should have roles and responsibility that are best devolved to them and the right instruments for their task vis-à-vis subregional financial institutions.
Role of EU institutions in decision-making and management of the Trans-European Networks (TENs)

European Commission, Directorate-General Energy and Transport → Member States

Proposes, monitors TEN, offers funds and assistance

Propose projects, agree on TEN lists

EU influence on the management depends on the source of funds. EU rules on public procurement and assessment standards, notably on environmental impacts, apply. Member states also have to follow interoperability decisions. By appointing high-ranking European Coordinators to follow up projects, the EU possesses indirect influence.

**EU Funding**
- If cohesion funding, then DG Regional Policy has important role in approval, timeframe, and specifications.

**EIB Funding**
- If TEN funding, DG Transport and Energy (or the TEN-T agency) has some power on approval and timeframe.
- EIB has influence over project specifications and management.

**National Funding**
- EU influence weak. No influence from European institutions on time frame or specifications, although EU agreements on interoperability exist.

Source: van der Geest W and Jorge Núñez Ferrer (2008)
The Case of Latin America

IIRSA Organizational Structure

Executive Steering Committee

- National Coordinators
  - Integration & Development
  - Sectoral Integration

- Executive Technical Groups
  - MDBs such as IDB, Fonplata, and CAF

IIRSA Secretariat

Note: IIRSA-Initiative for the Integration of Regional Infrastructure in South America; CAF- Andean Development Corporation

Source: http://www.iirsa.org/CD_IIRSA/Index.html
A Cooperation Framework for Pan-Asian Connectivity

**SEAMLESS ASIA**
*An integrated regional economy based on world-class regional infrastructure networks*

**BENEFITS OF A SEAMLESS ASIA**
- Enhanced regional cooperation and integration
- Increased productivity and environmentally sustained economic growth throughout Asia
- Expanded greener infrastructure facilities
- Enhanced global competitiveness through stronger regional production systems
- Improved connections to economic centers and opportunities for low-income populations
- Expanded access to basic services such as energy and clean water for all

**Sources of Financing**
- Asian Infrastructure Fund
- Multilateral Development Banks
- Bilateral Funds
- National Governments
- Private Sector

**Institutional Arrangements**
- Pan-Asian cooperation, coordination, and partnership through a Pan-Asian Infrastructure Forum
- Cooperation, coordination, and partnership through subregional infrastructure programs
- Cooperation, coordination, and partnership among national agencies
New Institutional Framework for Pan-Asian Connectivity

• Market-led Asia’s integration and its fragmented institutional arrangements calls for a pan-Asian approach with a new pan-Asian institutional framework integrating existing subregional institutions.

• A “Pan-Asian Infrastructure Forum (PAIF)” should be established to help coordinate and integrate existing subregional infrastructure initiatives toward a seamless Asia.

• An “Asian Infrastructure Fund (AIF)” is needed to mobilize international funds (public and private) and help prioritize, prepare, and finance “bankable” regional infrastructure projects.
Asian Infrastructure Fund

Sources of Funds
- MDBs
- Bilateral & development agencies
- National development banks
- Private sector
- SWFs
- Pension Funds
- Private investors

Types of Capital
- Ordinary fund
- Grants and concessional funds
- Portfolio funds

Asian Infrastructure Fund (Trust Fund managed by ADB)

Fund Mobilization and Financing Facility
- Mobilize Asian and international funds through its own resources, institutional bonds, co-financing arrangements, PPP.

Project Preparation Facility
- Prepare, develop, negotiate and evaluate from agreed upon regional infrastructure projects.

Risk Guarantee Facility
- Provide guarantee against major risks, e.g., operational, financial, country and political risk.
Institutional Framework for PAIF

PAIF Summit Steering Committee

Ministers/Senior Policy-makers of Asian countries
Heads of Major Private Sector Companies
Representatives of subregional infrastructure programs
International development institutions involved in Asia (e.g., ADB, UNESCAP, WB)
Heads of national infrastructure financial institutions

Development of Pan-Asian Infrastructure Strategies and Policies for a Seamless Asia

Sector-wise:
• Energy (Power, Gas, and Oil)
• Transportation (Roads, Rails, Seaports, and Airports)
• Telecommunications (Landline, Mobile Phones, Internet)
• Water and Sanitation

Identification, Selection and Prioritization of Regional Infrastructure Projects

Preparation of Agreed List of Priority regional projects

Monitoring and Implementation of Priority Projects

Heads of National Technical institutions (on infrastructure related issues, e.g., regulatory, standard, legal and sectoral)
Organizational Structure of PAIF Secretariat

Technical Expert Committee
(for preparation of sectoral strategies and policies)

Policy and Legal Regulation
Sectoral Subforums
- Energy
- Transport
- IT and Telecoms
- Water and Sanitation

PAIF Secretariat

Asian Infrastructure Information
and Database Management

Asian Common
Infrastructure
Statistics

Asian Database on
infrastructure companies,
projects, regulations,
systems and procedures

Capacity Building and Training
Conclusion

A Framework for Pan-Asian Infrastructure Cooperation requires:

- A common vision, strong leadership and a shared commitment by Asian leaders;
- Strong institutional capacities at the national and subregional and regional level;
- Coherent infrastructure development at the national, subregional, and regional levels;
- Pan-Asian infrastructure strategies to prioritize investments and coordinate policies;
- Effective financing framework to help mobilize the region’s vast savings, and encourage public-private partnerships.
Thank you

Biswa N Bhattacharyay
dr_biswa@yahoo.com