

ASEAN Research Digest

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**Economic Research Institute
for ASEAN and East Asia**



IN THIS ISSUE

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ASEAN NEEDS TO PROVIDE THE RIGHT ENVIRONMENT TO MAKE PRIVATE INVESTMENTS IN INFRASTRUCTURE MORE FEASIBLE

Lifting-the-Barriers Report 2015: Infrastructure

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OVERVIEW



RETAIL



HEALTHCARE



INFRASTRUCTURE



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FINANCIAL
SERVICES &
CAPITAL MARKETS



TOURISM

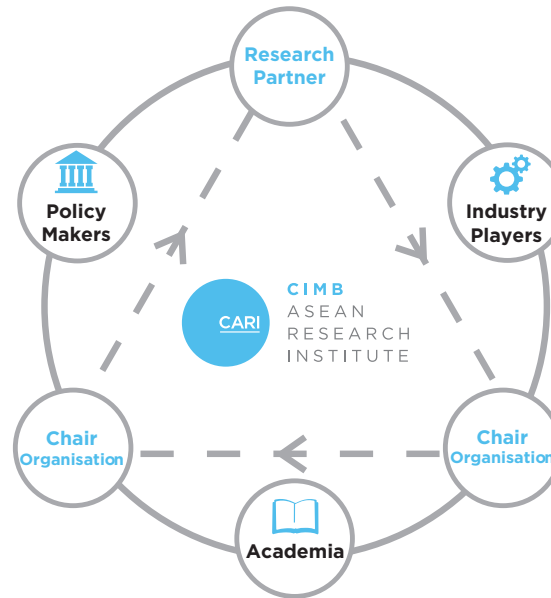
Research objectives:

The CIMB ASEAN Research Institute (CARI) in collaboration with the ASEAN Business Club (ABC) launched the Lifting-The-Barriers Initiative (LTBI) in 2013 as an integrated year long research platform involving core research as well as stakeholder engagement.

The objective was to adopt a vertical approach by means of identifying bottlenecks and barriers hindering free trade of prioritised sectors in the context of the ASEAN Economic Community (AEC).

The LTB Initiative 2015 targets six identified sectors which have pressing relevance to the business landscape in ASEAN and will play a major role in the successful formation of the AEC. The six sectors were Retail, Healthcare, Infrastructure, Air Transportation, Financial Services & Capital Markets and Tourism.

RESEARCH STRUCTURE



Two leading **ASEAN corporations** were selected to champion each sector, providing the direction and experiential insight into their industry. The input from these champions, or chair organisations, were key to understanding the issues faced by industry stakeholders and to develop the recommendations as part of the discourse.

CARI's Research Working Committee and its Strategic Advisors also worked closely with each of the six nominated Research Partners in producing these reports.

The Research Partners were either top management consulting firms or academic institutions who provided the technical knowledge and quantitative analysis required.

METHODOLOGY

The Lifting-The-Barriers Initiative (LTBI) is divided into four phases.

PHASE I

PRELIMINARY RESEARCH

Core research and compilation of qualitative and quantitative input from targeted sectors.

PHASE II

ABC FORUM



LTB Roundtables



Plenary Sessions

PHASE III

LTB REPORTS

The final outcome, a set of white papers, for ASEAN policy makers and community to effect real changes in the region.

PHASE IV

FINDINGS SOCIALISATION

The findings from the LTB reports will be prioritised and presented to various stakeholders including policymakers.



ASEAN NEEDS TO PROVIDE THE RIGHT ENVIRONMENT TO MAKE PRIVATE INVESTMENTS IN INFRASTRUCTURE MORE FEASIBLE

Title of Study: Lifting the Barriers Report: Infrastructure
By: Economic Research Institute for ASEAN and East Asia (ERIA) **Published by:** CARI, May 2015



BACKGROUND

Research objective:

To explore the challenges and barriers of the ASEAN infrastructure sector, with a focus on domestic connectivity.

LANDSCAPE OF INFRASTRUCTURE IN ASEAN

- Infrastructure is important for welfare and economic development to:
 - provide basic needs (electricity, clean water, transportation, etc.),
 - facilitate the access, network, and mobility for people and products,
 - support and improve productivity.
- Infrastructure is also the key for connectivity - connecting people, goods, and services, through various means.
- Connectivity is vital to support productivity and trade.
 - Logistics cost determines the cost of production and thus influences the competitiveness level of location or country.
 - Out of the World Bank's 2014 top 20 countries on the Logistic Performance Index (LPI) only four countries represented Asia:

Rank	Country
5	Singapore
10	Japan
15	Hong Kong
19	Taiwan

- The logistics sector contributes significantly to GDP, which also indicates the importance of infrastructure.
 - In 2013, the logistics cost contributed to GDPs of Indonesia, Malaysia, Philippines, Thailand, and Vietnam as much as 10.7%, while in Singapore it is 8.5% of GDP, according to estimations by Armstrong & Associates.
- With expanding population and economy, the demand for quality infrastructure also increases. However, infrastructure is typically expensive, public funds are limited and public programs are competing for these funds.

- In developing economies it is usual that public spending for infrastructure is lower than the actual need.
 - Bhattacharyay (2010) estimated the demand for infrastructure in majority of ASEAN state members (AMS) as shown in the table below.

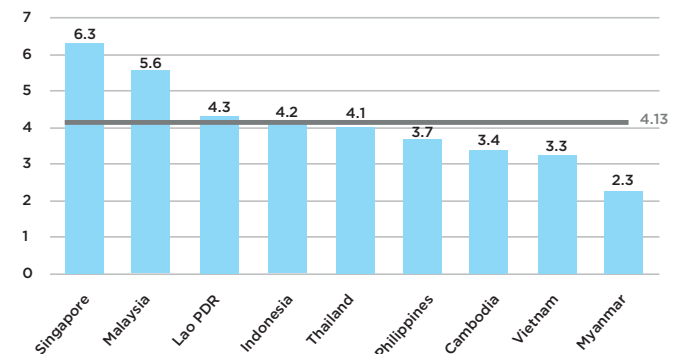
Infrastructure Investment Needs As % Of GDP (Est.), 2010-2020

Country	Transport	Electricity	ICT	Water and Sanitation	Total
Cambodia	4.43	0.95	2.97	0.36	8.71
Indonesia	3.88	0.98	0.97	0.35	6.18
Lao PDR	10.62	0	2.4	0.6	13.61
Malaysia	1.94	4.42	0.27	0.04	6.68
Myanmar	2.7	0	1.46	1.88	6.04
Philippines	2.3	1.87	1.22	0.65	6.04
Thailand	0.58	3.69	0.45	0.19	4.91
Viet Nam	2.07	3.12	2.38	0.54	8.12

Source: Bhattacharyay (2010)

- Current level of ASEAN infrastructure spending is at 3-4% of GDP.
- However, World Economic Forum reported that in terms of overall quality of infrastructure, ASEAN faces high diversity.
 - For example: Singapore score is higher than Japan, US, South Korea, or Australia; while Myanmar is among the lowest scores in the world.

Overall quality of infrastructure in ASEAN Member States (AMS)



Source: World Economic Forum Report 2014-2015



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- The main issues of regional infrastructure development can be categorised into two groups:

Domestic connectivity

- Sufficiency of infrastructure in each country - not an issue for Singapore, Malaysia and Brunei anymore but is for the rest of the AMS

Regional connectivity

- Connectivity and sufficiency of infrastructure at regional level
- Physical ASEAN integration

Infrastructure need estimates (KPMG 2014)

Country	Infrastructure need	Timeline
Indonesia	US\$500 billion	2015-2019
Myanmar	US\$320 billion	2014-2030
Vietnam	US\$170 billion	2013-2020
Philippines	US\$110 billion	2013-2022
Thailand	US\$105 billion	2013-2020
Malaysia	US\$100 billion	2013-2020
Cambodia	US\$ 12-16 billion	2013-2022

Overall quality of infrastructure in ASEAN Member States (AMSs)

Infrastructure	Countries	Remarks
Power, Roads, Railway, Telecom, Water and Sanitation	All	<ul style="list-style-type: none"> Lack of supply in Cambodia, Indonesia, Laos, Philippines, Myanmar, Vietnam Reponse to Growth in Brunei, Malaysia, Singapore and Thailand Cross-border projects: SKRL, APG, AHN, TAGP
Urban Transportation	All	Types of facilities.projects and size depend on development stage of the urban areas
Seaport	High demand in archipelagic & maritime-hub countries; Indonesia, Philippines, Thailand, Malaysia, Vietnam	Potential demand from Myanmar (esp Dawei Port)
Airport	All except Singapore (on-going The Jewel project) and Brunei (just completed)	

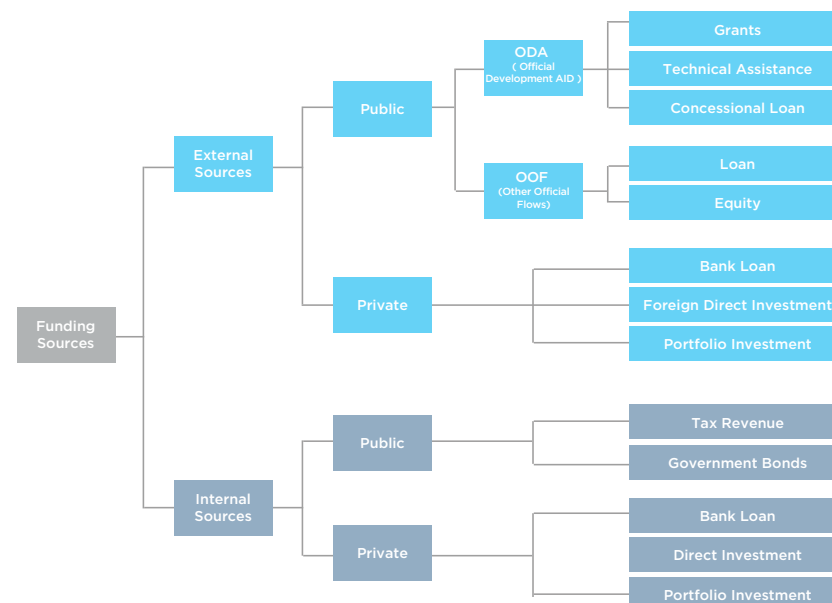
Source: World Economic Forum Report 2014-2015

- The project list is not exhaustive, due to dynamism of human behaviour.
 - Migration, urbanization, natural challenges, technology changes, etc. will influence the quantity, types, and quality of infrastructure in demand.

FINANCING

- The demand for quality infrastructure is huge in the ASEAN region where economic growth has been robust.
 - The ADB projected that ASEAN economies need to invest over US\$60 billion a year in infrastructure until 2020 to support and maintain the region's high economic growth.
- However, infrastructure supply in ASEAN economies remains relatively low, except for Singapore.
- Infrastructure investment has mainly been funded by sovereign resources with some variations of mix financing such as subsidised semi private facilities, backed up by user fees, or supplemented by foreign aid.
- After the severe Asian crisis in 1998 and later in times of global crisis in 2008, many governments' fiscal space has narrowed due to expansionary stimulus packages to offset the impact of the crisis.

Types of Financial Sources



Source: Isono and Sugiyama (ERIA, 2013)



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- In addition, Official Development Assistance (ODA) will likely decline for many ASEAN countries that have achieved medium income status.
 - ▶ Infrastructure projects are also competing for donor's funds with social sectors and projects with direct poverty alleviation impact.
- As a consequence of the limited infrastructure funds coupled with the rapidly rising demand, the infrastructure deficit is expected to widen in most AMS, except Singapore and Malaysia.
- With inadequate financial sources from government and ODA, the governments try to find new financing ways by inviting the private sector to participate.
 - ▶ Private participation is expected to increase through Public Private Partnership (PPP) scheme, equity participation, and privatisation.
 - ▶ PPP and privatisation essentially do not only deal with lack of financial sources but enhances efficiency and improves the quality of infrastructure.
 - ▶ However, since the majority of infrastructure projects falls into the category of non-commercial business, they attract limited private financing.

- ▶ In 1997, private participation in infrastructure in the East Asia and Pacific Region was US\$36 billion and fell to about US\$10 billion in 1998.
- ▶ Although it recovered to US\$20 billion by 2000, the amount has since been fluctuating between US\$10-20 billion. A large part of this are investments in China and Thailand.

Regional Sources of Financing

- In light of enhancing regional cooperation, several initiatives related to financial supply and channelling have emerged:

1. Asia Bond Fund (ABF)
2. Asian Bond Market Initiative (ABMI)
3. ASEAN Infrastructure Fund (AIF)
4. Asia Infrastructure Investment Bank (AIIB)

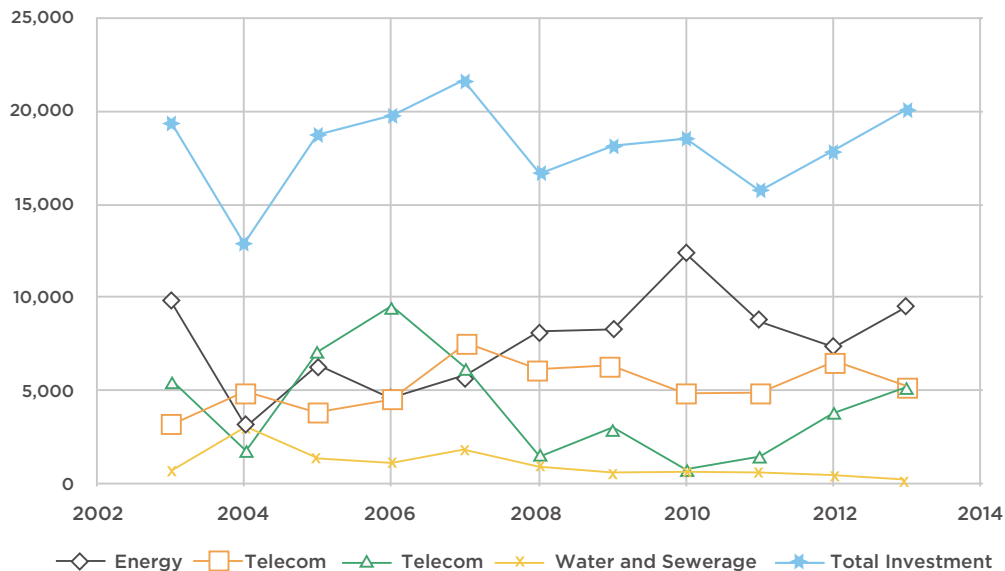
1. Asia Bond Fund (ABF)

- The ABF was created in 2003 as an initiative of the Bank for International Settlements (BIS) to foster regional cooperation, promote intra-regional investment and capital market development.
- It has achieved its early objectives of withholding tax reforms, the liberalisation of foreign exchange rules and reduction in cross-border settlement risk.
- Challenges remain including improvement in both debt and liquidity with the development of repo markets, the adoption of derivatives trading and opening the market to non-resident investors.

2. Asian Bond Market Initiative (ABMI)

- The ABMI was introduced in 2005 by ASEAN+3 with the support of the ADB.
- The ABMI was established to reduce the risks of dual mismatch in the term structure and currency in financing activities through harmonisation and integration in Asia Bond Market, aiming at strengthening regional capital market and channelling savings into East Asia.
- The ABMI in its early years adopted a supply side perspective with the objective of improving depth and diversification of offers.
- The market doubled in size between 2007 and 2013.
- The future strategy of the ABMI market is to increase the volume of infrastructure with better diversification of project risk and investor liquidity.

Private Participation Investment in East Asia and Pacific (US\$ million)



Source: PPIAF and The World Bank PPP

- The rate of PPP implementation remains slow in Asia and, in particular, in ASEAN countries.
 - ▶ The dollar amount of PPP infrastructure projects that came to financial close declined significantly after the Asian crisis and has not recovered.



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3. ASEAN Infrastructure Fund (AIF)

- The AIF was established by contribution from ASEAN member countries and the Asian Development Bank (ADB) in 2011 agreement and became fully operational in 2013. The fund focuses on financing infrastructure projects and is administered by the ADB.
- The initial fund size was about US\$500 million.
 - ▶ Of which the ADB contributed US\$150 million.
- It is expected that the total lending from the fund will amount to US\$4 billion by 2020 and coupled with ADB co-financing, the scheme could generate funding of up to US\$13 billion.

4. Asia Infrastructure Investment Bank (AIIB)

- The China-led Asian Infrastructure Investment Bank (AIIB) is a financial institution that is expected to significantly increase the financial supply for infrastructure investment in the region.
- It was led by China's initiative in 2013 and 57 member states committed to be founding members of the bank.
- The AIIB started operations in December 2015 with a capital of US\$100 billion.



KEY FINDINGS

BARRIERS

- The gap between infrastructure demand and supply is usually attributed to the lack of financing but data of global savings show there is a larger potential supply than the estimated demand for infrastructure investment.
- There are problems of finding good projects in the pipeline, the channelling barriers, as well as refinancing the project's subsequent terms or expansion.
- The first thing to match is the need for long-term investment portfolio vis-à-vis the attractive projects offered.

Infrastructure Financing Paradox

- The World Bank estimates that about US\$800 billion is invested annually in infrastructure in developing countries, of which 40% in East Asia and Pacific.

US\$ 600 billion from governments	+	US\$ 40 billion from MDBs	+	US\$ 160 billion from private sector	=	US\$800 billion
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- To maintain annual economic growth at 5%, the current annual infrastructure investment will need to double over the next 10 years.
- The Bank estimates a 'gap' of roughly US\$1 trillion/year each year until 2020 that cannot be met by government budgets or by the MDBs.
- At the same time, there are massive supplies of surplus capital -global savings currently amount to US\$17 trillion -with investors looking for long-term stable returns. This is the 'infrastructure paradox'.
- Thus the main question should also be how to channel idle money to investments in real projects.

Channelling

- Channelling financial supply is determined by the market and regulation.
 - ▶ Markets work as an intermediary between lenders and borrowers.
 - ▶ A well-functioning market exists only if it is based on good regulatory framework and run by credible regulators.
- Complexities in capital markets pose high risks that are typically avoided by bureaucrats, thus operating a capital market requires both knowledge and wisdom in markets and regulations.
- A responsive regulator is important to fix the problems and bring the policy development to the next level of maturity.

Attracting Investment

- The potential of success or failure of a PPP project is determined at the very beginning of the process, during the investment planning stage.
 - ▶ Before the government decides that a project would be offered as PPP project, objectives and expectation of the project should be very clear.
- Governments should know what is the impact of the project on the economy. This examination should include:
 - ▶ Analysis of current situation
 - ▶ Future forecast of relevant socio economic indicators
 - ▶ Expectation and targets
 - ▶ Contradictive scenario, i.e. what if the project is not developed -this rationale will lead to the level of project's significance.
- The next step in investment planning is doing some exercises on different project schemes -they could be financed by public funds, fully private resources, private sector participation, or PPP scheme.
 - ▶ These scenarios will provide the policy makers with the economic cost and benefit analyses to see how the schemes have different impact.
 - ▶ The decision to choose PPP -if PPP is the best scheme -after going through this step will enhance the project's attractiveness and eliminate unnecessary criticisms from the public.



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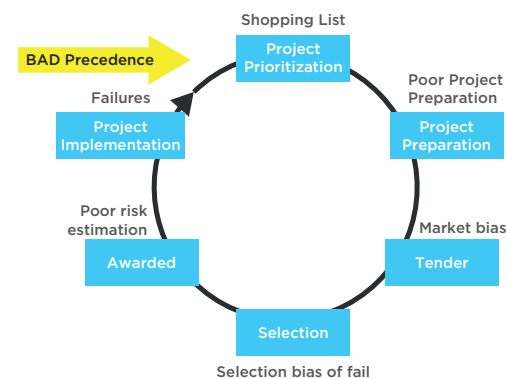
- Among the identified barriers, the following three issues are also typically found in emerging economies:

Type of barrier	Barriers
Regulatory	<ul style="list-style-type: none"> Poor regulatory system causes lack of private confidence, inefficiencies, delayed project implementation, weak government support, and public challenges. Common problems in regulatory issues are: conflicting regulations, poor investment planning, unclear investment procedures, changing tax regime, barriers for foreign investors, repatriation issues, barriers for foreign workers, irrelevant objectives in investment regulation, and expensive dispute settlement.
Market	<ul style="list-style-type: none"> Issues related to the market for PPP include underdeveloped capital market, lack of viable attractive projects, costly transaction, lack of market instruments to manage portfolio risk, and barriers for entry and exit of funding flows. Some of these issues are shaped by regulation but good regulation is not sufficient. Implementing good regulation by credible and capable regulators is much more important.
Operational	<ul style="list-style-type: none"> Operational issues include inadequate local partners, unarranged flows of deal, lack of capability, high cost of logistic, labour, and input, the absence of arbitration facility, and weak contract enforcement.

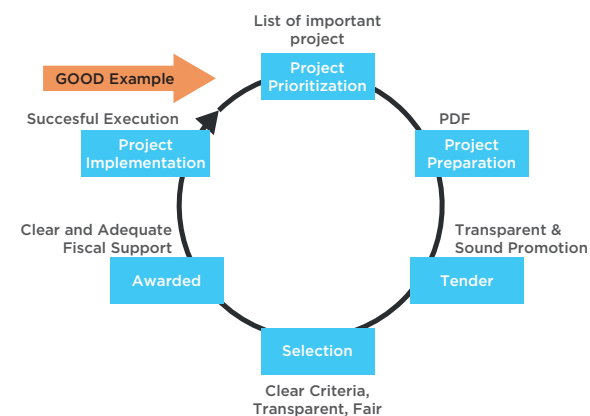
- In short, the crucial issues in PPP implementation are very much related with the host country's regulatory framework and the capacity of the government to manage and lead the project execution.
- ERIA's studies in ASEAN implementation of PPP have confirmed the following key points:
 - Sufficient and coherent regulatory to provide investors with adequate confidence level and proper access to respond accordingly. Low risk perception will bring lower costs offered by private entities, thus will benefit the host country.
 - A strong and capable public sector, to lead the whole process and ensure fair risks sharing and competition.
 - A sufficient mechanism to provide inexpensive ways to channel the funds, access to financial sources, dispute settlements, and refinance the project.

- Some countries may need to implement some reforms and enforce a new way to provide conducive environment to implement PPP.
 - In some cases new regulation is needed, in other cases countries are better off by deregulating as the existing regulations are a burden on the investment landscape.
- The government should understand the nature of the private sector, i.e. profit-oriented institutions.
- Governments need to find the balance between public and private interests.

PPP Challenges: Causal Nexus



Source: Zen (Thailand PPP, 2012)



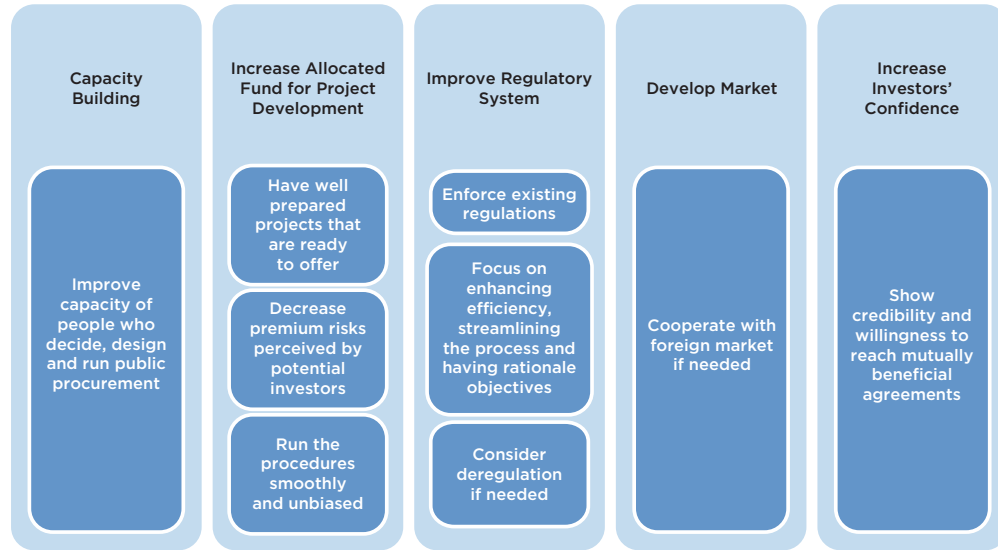
Note: PDF: Project Development Facility

Source: Compiled from Zen and Regan (Financing ASEAN Connectivity, 2014)



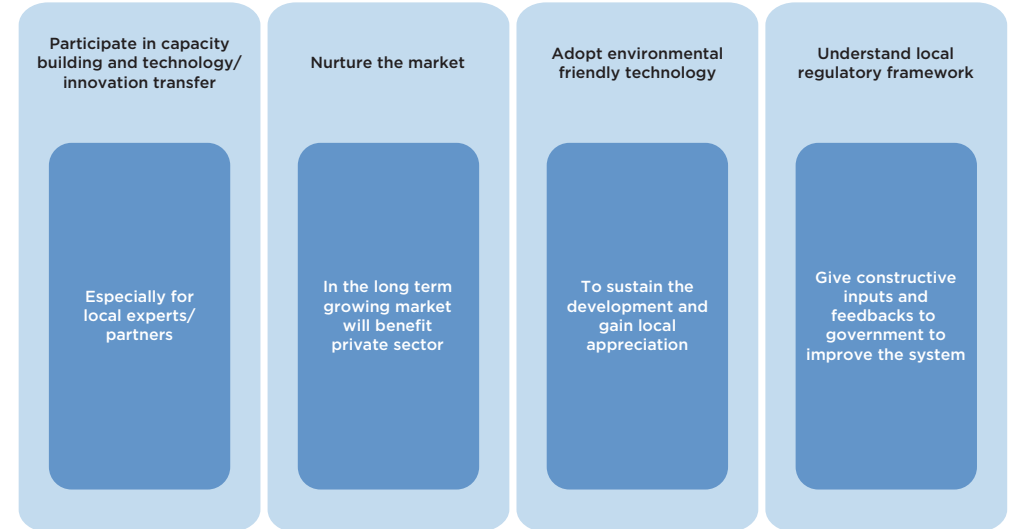
CONCLUSION

Recommendations for the public sector:



- Further, some efforts could be devoted to address the following issues:
 - ▶ The market for long-term credit should be expanded. Governments should check the regulatory framework within which the capital market is regulated. Some regulations may need to be revised, adjusted, created, or deregulated to facilitate funds channelling from the financial institutions into infrastructure projects.
 - For example: a typical barrier is regulations that treat insurance funds similar as bank savings, which in nature are very different.
 - ▶ Access for cross border financial flows should be widened, especially for infrastructure financing. The infrastructure projects are safer in terms of vulnerability and uncertain capital mobility than many governments fear.
 - ▶ A dedicated unit should be established,, especially for the case of PPP, that functions to speed up and streamline the process, communicate with potential investors professionally, and address the underlying problems such as how to offer good projects. To be well functioned, the unit should be equipped with competent experts and authorised officers, sufficient access and power to make appropriate decisions, and legal framework to secure and allow progressive movement.

Recommendations for the private sector:



- In other words, the private sector has to actively participate in nurturing the market and supporting the public sector accordingly.
 - ▶ Among crucial things are maintaining good communication with the host country's government, willingness to involve local partners (even though there is no obligation), recruiting and transferring knowledge to local experts, and valuing the environment (with or without regulation).
 - ▶ In the long run, if the local market is well developed, there will be higher opportunities and costs reduction to do the business in the host country.

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