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POTENTIAL INSTRUMENTS TOWARD SUSTAINABLE URBAN INFRASTRUCTURAL DEVELOPMENT IN INDONESIA

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Outline of Presentation

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- **Research methods**
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The Significant and objectives of the study

- Urban infrastructure is a must for Indonesia's sustainable development.
- Over the last 60 years, the number of population in urban areas increased by 4.4 percent. It was higher than in China (3.8 %) and India (3.1 %).
- The proportion of of urban population in 2016 was estimated 53.3 % (140 million)
- It was in the second rank after Malaysia (73.4 %). But, it was higher than the Philippines (49.1 %), Thailand (34.5 %) and Vietnam (31.7 %).
- In 2025 the number of urban population is estimated to be about 68 percent of the total population

- The contribution of one percent urbanization in Indonesia to GDP per capita is only 4 percent. It was lower than in India (13 %), China (10 %) and Thailand (7 %).
- The above low contribution may be due to the lack of basic services and infrastructures such as education, public health, water supply, housing, energy and transportation.
- However, the government funds to support infrastructures (including urban infrastructures) are far from adequate.

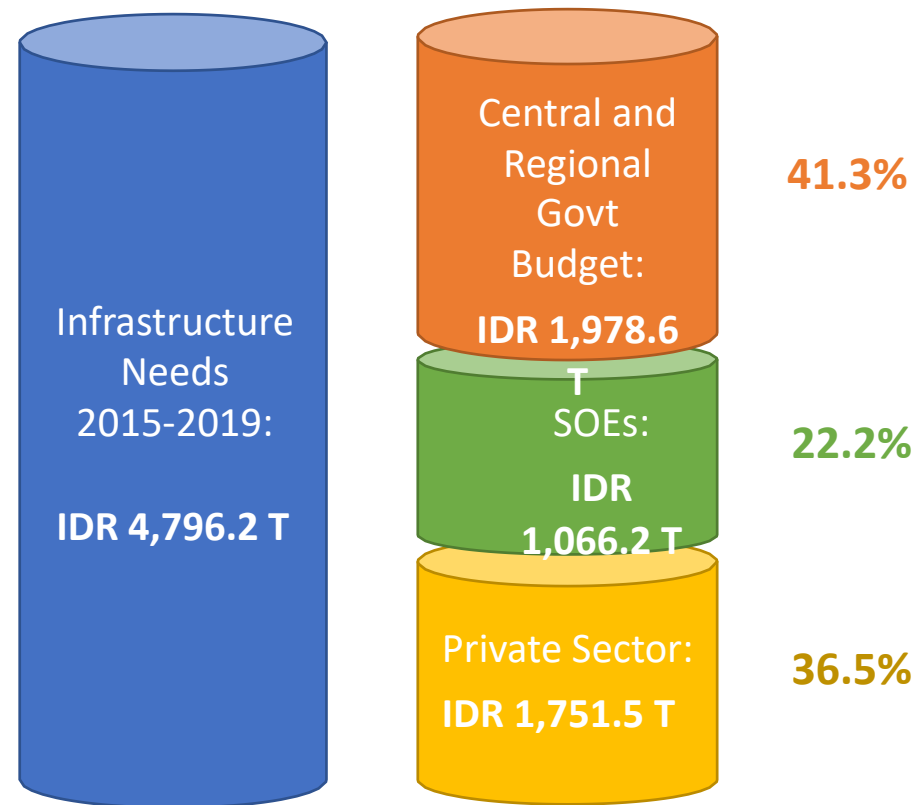
- Between the period 2015-2019, only about 41.3 percent could be provided by the Central and Regional governments.
- Thus, the objectives of the study is to examine and discuss the potential financial instruments for sustainable urban infrastructures other than government's financial sources.

ESTIMATED INFRASTRUCTURE NEEDS AND STRUCTURE OF FINANCING (2015 -2019)



Indonesia is expected to invest IDR 4,796.2 T (USD 364.5 billion) for infrastructure in 2015-2019, of which 41.3% will be financed by the government budget, 22.2% by SOEs, and 36.5% by the private sector. Infrastructure needs is estimated based on the level of infrastructure needed for Indonesia to become a middle income country by 2025.

(Source: Bappenas- JICA, 2014: Background Study for RPJMN 2015-2019)



Research Methods

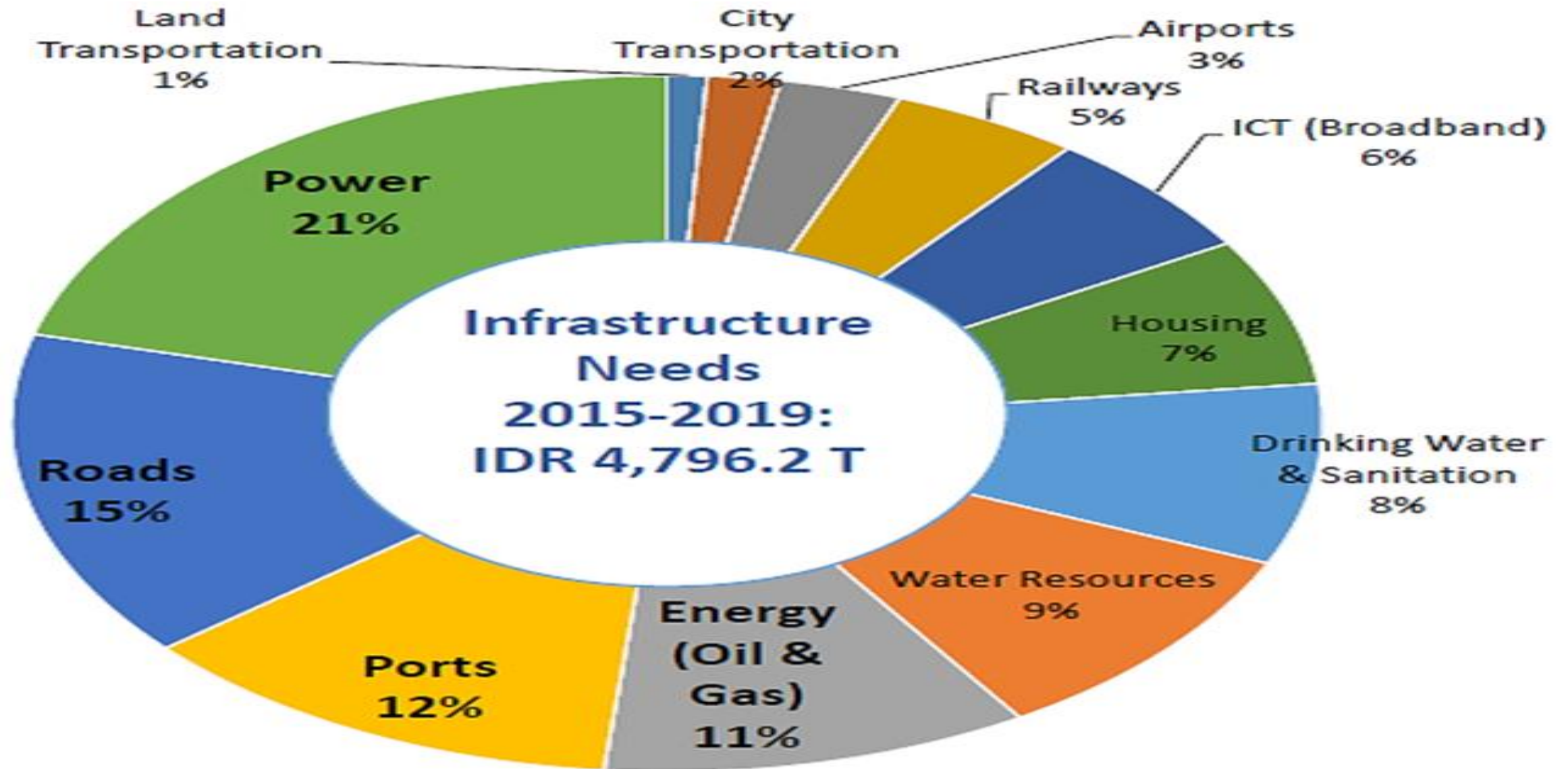
- Literatures review
- Government Publications (e.g. the National Development Planning Board (BAPPENAS), the Coordinating Ministry of Economic Affairs, the Ministry of Finance, the Ministry of Housing and Public Works, the Ministry of Transportation)
- Qualitative survey especially through interviews with the resource persons from the above ministries.

RESULTS AND DISCUSSION

Urban Development Plan in Indonesia, 2015-2045

- Urban Vision 2045 : Sustainable and Competitive Urbanization
- 5 Pillars :
 - Pillar 1 : Convenient, Secure and Comfortable City : Strong neighborhoods, Walk able, Affordable, Comfortable, Cultural and Connectivity
 - Pillar 2 : Green City with climate and Disaster Resistances (Green Open space, Green Waste, Green Transportation, Green Water, Green Energy, Green Building)
 - Pillar 3 : Competitive Smart Cities based on IT (smart economy, smart people, smart governance, Smart Infrastructures, Smart Environment, Smart Living)
 - Pillar 4 : Developing Indonesian Cities based on physical characteristics, economic advantages, local culture
 - Pillar 5 : Integrated Urban and Rural development in Urban System based on Regions

The Percentage of Infrastructural Budget Allocation, 2015-2019



INFRASTRUCTURE MEDIUM TERM DEVELOPMENT TARGETS (2015 - 2019)



	Current Condition (2014)	Target (2019)
Connectivity		
• National Roads	94%	100 %
• Logistic Fund	23,5%	19,2 %
• Public Transport	23%	32%
Basic Infrastructure		
• Electrification Ratio	81.5%	96.6%
• Electricity consumption per capita*	843 kWh	1.200 kWh
• Household gas network	102.000 (SR)	192.000(SR)
• Adequate Drinking water access	68.5%	100%
• Adequate Sanitation access	60.5%	100%
• Unfit housing	10.1%	0%
• Housing Backlog	11.9 million	6.9 million
Water Resistance		
• Raw water capacity	51.4 M3/second	118.6M/second
• Storage Per Capita	62.3 M3/capita	78.36 M3/capita
• Irrigation reservoirs	11%	20%
• surface irrigation network	7.145 million Ha	7.914 million Ha
• Capacity Design Flood	5-25 (annual)	10-100 (annual)

*) As a comparison of electricity consumption per capita : Vietnam 1.000 kWh, Thailand 2.200 kWh, Malaysia 4.200 kWh, Jepang 7.800 kWh, USA 13.200kWh

Sources of Infrastructure Financing

- Most of infrastructure financing is dominated by the government budget and conventional banks borrowings.
- The present long terms financing institutions from insurance company, pension funds and Pilgrimage funds have not been optimally used for infrastructure development.
- These sources of funds at the present time are usually invested at the capital markets that have no direct relation with infrastructures.
- For that reasons, the government introduced the following five financial schemes.

Types of Financing Methods for Infrastructures

Reguler *

Project Feasibility

Financing Scheme

1

Economically Feasible but
Financially not Feasible

Government

Government

National Budget
(APBN)

*Are preferred for **eastern Indonesia, rural area and border area**

Creative Financing **

2

Economically Feasible but
Financially not Feasible

Private

Government

Hybrid Financing

Source: Directorate of Government Development Cooperation, Bappenas, 2015.

3

Economically Feasible and
Financially Marginally Feasible

Private

Government

Private

PPP with Government
Support (VGF) or other
Creative Financing such as
PFI, PBAS, Infrastructure
Bank, Land Bank, etc)

4

Economically and Financially
Feasible

Private

Private

Regular PPP

5

Economically Feasible but
Financially not Feasible

State-Owned Enterprise

State-Owned Enterprise

State-Owned Enterprise
Assignment

** Are preferred for **western Indonesia and urban area**

Decision to determine the financial schemes

- Based on project feasibility consideration.
- The first scheme (government's own budget financial scheme) is specifically allocated to finance new public infrastructures and maintenance projects that have economic feasibility, but they are financially unfeasible.
- The project locations are dominated in border and rural areas and in Eastern Indonesia.
- This scheme is located in these areas as these locations have not been well-developed yet.
- The second scheme is through the Government Cooperation with the private business entities. This scheme is generally selected for public infrastructure projects that have economic feasibility, but not financially feasible.

- In the case of the public infrastructure projects that are economically feasible, but financial feasibility is marginal, the projects will be offered to business entities with the government budget support.
- Also, it includes a public infrastructure project that was initially unfeasible financially as a whole, but if it is split into several packages becomes financially feasible.
- The fourth financing scheme is for the projects that are feasible economically and financially. This will be given to the private sectors as the financing sources.
- The government in this context only gives permission to the private sectors to conduct the projects.

- The fifth scheme is for special public infrastructure projects that are financially unattractive to the private sectors, but are of strategic value / priority so that they must be built soon.
- This will be done the State Own enterprises (SOEs). If the SOEs in carrying out the assignment require additional capital, the government as the shareholder can provide additional capital through the state budget

LESSONS' LEARNT OF PPP SCHEME

- Although the concept of the PPP scheme has been quite well organized, the implementation of the PPP still experienced many constraints and challenges. The Following are some lessons learnt :
- Mistakes are usually made in Project identification and preparation processes. For instance, mistakes associated with tendering and transaction costs and the time length of project feasibility studies.
- Investor credibility in terms of the sustainable financing capacities and project experiences. This is particularly related with the big value infrastructural projects.

- The lack of understanding of business entities toward infrastructural business characteristics and regulations established by both of the central and regional governments. This condition often makes the investors are not attractive to take part in the scheme.
- Determining the value of project. This occurs especially when infrastructure projects require substantial funding, while investors and the banks or other financial institutions face limited funding.
- Problems associated with land acquisition financing (e.g. the time length and technical process of land acquisition and estimating budget to fund that land acquisition).

- The ability for investors to have collateral for project loan. This is especially occurs to the big value of infrastructure projects.
- The source of investor funds. As the structure of cash flows of the infrastructure project is usually a long terms cash flow, there is a great possibility that the investor cannot sustain the source of funding. This further becomes problematic if the banks are also unable to provide funds for long tenure borrowings with fix interest rate.
- Other non-bank financial institutions that were established by SOEs to provide infrastructural financial assistances including Indonesia's Infrastructural Guarantee Company (PT. Penjaminan Infrastruktur Indonesia-PT. PII), Indonesia State Owned Infrastructure Financing Company (PT Sarana Multi Infrastruktur-SMI), and The Indonesia Infrastructure Guarantee Fund (IIGF) as an independent SOEs also have limited capacity to finance infrastructure projects.
- Risks and uncertainty, for instance, toward land clearing program, security and local regulations to name a few.

PRIVATE BONDS AS POTENTIAL INSTRUMENTS TOWARD URBAN INFRASTRUCTURAL DEVELOPMENT

- Private bonds such as corporate bonds, project bonds or Sharia Bonds (Sukuk) can be potential financing instruments to sustain urban Infrastructural development
- The reasons for corporate and project bonds because of :
 1. Corporate bond ratio vs. bank loan ratio in Indonesia is only 7.5 percent (Malaysia was 47.5%, and Singapore was 78%).
 2. The ratio of corporate bond vs. government bond is still less than 20 percent. This causes the fiscal space of the state budget to become narrower.

3.The relatively small number of the issuance of corporate bond Indonesia which is only at the amount of US\$ 21 billion or only 2% of GDP while Malaysia has US\$ 169 billion or 44% of GDP, Singapore US\$ 299 billion or 32% of GDP.

4. Corporate bond issuer is dominated by bank (85%), while for infrastructure it is only 6%.

Also, most of the issuers are concentrated in several companies. About 75% of corporate bonds are issued by 30 companies. This indicates that the corporate bonds have not yet been well known by the private business entities.

The present number and name of companies issued Bonds

No.	Type of companies	Number	Name of companies
1.	Bank and Finance	19	SOEs Bank and Foreign Banks
2.	Energy	3	PT. PLN, PT. Antam dan PT. Medco Energi
3.	Construction	2	PT. Jasa Marga dan PT. Waskita Karya
4.	Telecommunication	2	PT. Indosat dan PT. Telkom
5.	Real Estate & Property	3	PT. Agung Podomoro, PT. BSD, dan PT. Summarecon
6.	Food and Beverages	1	PT. Indofood Sukses Makmur

The importance of Sharia Bonds instrument

- The Sharia bonds (Sukuk) have not yet been well developed, although the regulations to this type of bonds have been issued especially by the Finance Service Authority locally called OJK.
- It was estimated that Sharia bonds only contribute 5 percent of the total of bonds value and it is only 10 percent in terms of the number of bonds issuers.
- Unlike in Malaysia, Bahrain, Brunei Darussalam, Uni Emirate Arab, Qatar, Pakistan, UK and France which have regularly issued this type of bonds.

Notes on Issuing Corporate Bonds

- The first relates with the time length of issuing corporate bonds as regulated by the Financial Service Authority (OJK). This suggests that OJK should simplify its regulation related with documentation in the process of the issuing of corporate bonds.
- The second associated with the cost in issuing corporate bonds which should not be expensive. This means that there should be cost standardization for the supporting institutions of corporate bonds.
- The third relates with the capital gain tax of corporate bonds holders. The coordinating ministry of economic affair needs to free the capital gain tax that are imposed on the corporate bond holders.

- The fourth issue associated with the lack of community access toward corporate bonds as banks are not allowed to make bonds transaction, except for government bonds (ORI). Thus, the financial service authority (OJK)/ the Ministry of Finance needs to revise community access to corporate bonds trading.
- The fifth is to speed the PPP process for any Greenfield projects into two financial sources, namely, bank lending and bonds. The OJK/Bappenas needs to use bank lending for construction costs, while for any capital spending it should use bond issuing mechanism.
- Finally, it is important to provide incentives for corporate bonds for green energy infrastructural projects such as for drinking water and electricity projects.

Notes on the Implementation of Project Bonds :

- The need to issue regulation specifically related with project bonds as this regulation has not yet been available.
- The second is that the projects bonds generally can only be done for the on-going infrastructural projects (brown field). However, if it will be applied for the green field projects, there should be bonds guarantee institutions to improve bonds rating and reduced investors' risks.
- Incentives given to bonds issuing institutions by OJK/the Ministry of Finance.

- Regulation issued by OJK in the context of investment allocation minimum toward government bonds for pension funds, guarantee institutions, insurance and National Social Security Body for health and workforce (BPJS) need to be treated equally as the government bonds to attract investors as the same as government projects.
- There should be detail agreement toward the time lengths of the project bonds.
- The incentives should be given to project bonds vi as vis the time length of administration process of negotiation that involved many stakeholders.
- The role of independent institutions to evaluate the potential performance of project bonds is necessary to be provided.

Notes on the implementation of Sharia bonds :

- An intensive promotion of this instrument to the potential investors should be sufficient to be undertaken by the government.
- There should be regulation of SPV (Special Purpose Vehicle) in issuing sharia bonds in managing underlying assets.
- Finally, the present regulation that was made by the OJK to determine the value of the bonds at cost needs to be revised to market value.

CONCLUDING NOTES

- Urban infrastructural development should be given serious concern as urbanization is growing rapidly.
- Conventional methods to financing urban infrastructures to depend largely to state budget, the banks and the non-bank institutions need to be supplemented by other financial instruments, namely, corporate bonds, project bonds and Sharia bonds (sukuk).
- For the success of the implementation of these private bonds instruments, attention should be given including the time length, the cost in issuing corporate bonds, incentives to free the capital gain tax, and regulations, etc.
- Thus, much remain to be done by the government.

THANK YOU