UNDERGRADUATE SEMINAR

INFRASTRUCTURE PROJECT IN INDONESIA

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Self Introduction

- 1995 1999 Undergraduate Student, Department of Agricultural Economic, Bogor Institute of Agriculture, Bogor-Indonesia
- 2002-2004 Master Course Student, Department of Urban and Regional Planning, Bandung Institute of Technology, Indonesia
- 2007- Now Lecturer of Brawijaya University-Malang, Indonesia
- 2012-Now Doctoral Course Student, Department of Urban Management, Graduate School of Engineering, Kyoto University, Japan

INDONESIA

Capital city : Jakarta

Inhabitants (June 2009)

Total: 230.472.833Density: 134/km2





The largest archipelagic country in the world:

- covers around 1,919,440 square kilometers,
- consists of five main islands,
- about 17,508 island
- with a population of over 234 million people



Indonesia at a glance

Indonesia

242.3

2,940

712.7

1.1

1.5

13

51

69

25

19

82

93

118

117

119

East

Asia &

Pacific

1.974

4,248

8,387

0.7

1.0

...

49

72

17

5

90

94

111

110

112

Lowermiddle-**Development diamond*** income 2.533 Life expectancy 1,772 4.488 1.6 GNI Gross 1.3 primary per capita enrollment ... 39 66 46 24 Access to improved water source 87 71 Indonesia 104 106 Lower-middle-income group 102

KEY ECONOMIC RATIOS and LONG-TERM TRENDS

Access to an improved water source (% of population)

Gross primary enrollment (% of school-age population)

Most recent estimate (latest year available, 2005-11) Poverty (% of population below national poverty line)

POVERTY and SOCIAL

Population, mid-year (millions)

GNI (Atlas method, US\$ billions)

Average annual growth, 2005-11

Urban population (% of total population)

Child malnutrition (% of children under 5)

Infant mortality (per 1.000 live births)

Literacy (% of population age 15+)

Life expectancy at birth (years)

GNI per capita (Atlas method, US\$)

2011

Population (%)

Labor force (%)

Male

Female

		1991	2001	2010	2011
GDP (US\$ billions)		128.2	160.4	708.0	846.8
Gross capital formation/GDP		31.6	22.5	32.6	32.8
Exports of goods and services/GDP		25.8	39.0	24.6	26.3
Gross domestic savings/GDP		33.2	30.8	34.3	34.2
Gross national savings/GDP		20.1	21.1	32.1	31.8
Current account balance/GDP		-3.3	4.3	0.7	0.2
Interest payments/GDP		3.6	3.7	0.8	0.7
Total debt/GDP		62.0	82.5	27.6	25.2
Total debt service/exports		34.4	23.9	16.6	13.9
Present value of debt/GDP					21.3
Present value of debt/exports					80.4
	1991-01	2001-11	2010	2011	2011-15
(average annual growth)					
GDP	3.2	5.6	6.2	6.5	6.4
GDP per capita	1.8	4.4	5.1	5.4	5.4
Exports of goods and services	4.3	8.2	15.3	13.6	7.6



Indonesia Ethnic Group



MINERAL POTENCY

Panda Aceh	NO	COMMODITY	RESOURCE (MILLION TON ORE)	RESERVE (MILLION TON ORE)
	1	Copper	4.925	4.161
Manado 20	2	Bauxite	551	180
N Cedeanbard Pontenación 00 20 1000 100	3	Nickel	2.633	577
Padan Contraction of the second s	4	Iron Sand	1.649	5
Patengkataya A Balikpapartu a Charles A Balikpapartu a Charle	5	Iron Lateritic	1.462	106
Benight Palembang	6	Iron Primary	563	30
Bandar Lampurg, Carlos UJUNGPANDADG CARL	7	Iron Sediment	18	
SEM ANNO	8	Mangan	11	4
YOGYAKARTA YOGYAKARTA	9	Gold Alluvial	1.455	17
Denpasar KUPAKG	10	Gold Primary	5.386	4.231
Ferro and Associates : Fe, Nickel, Cobalt, Chromit , Mangan, Molibdenum,	11	Silver	3.406	4.104
Titanium	12	Zinc	577	7
 Precious Metal : Gold, Silver, Platinum Base Metal : Zinc, Cupper, Tin, Lead, Mercury 	13	Tin	354	0,7
Light and Rare metal : Bauxite, Monasit (Source : Geological Agenbcy, 2011)	14	Lead	363	1,6

Indonesia is a renowned market for resource extraction, seen as even more attractive than for instance, South Africa, Australia and Canada in terms of mineral prospectivity, as per Pricewaterhouse Coopers. The country is home to a biodiversity that is only second to Brazil. Rich with natural reserves, Indonesia has become a commodities powerhouse and a leading commodities exporter in a number of resources.

COAL POTENCY



TOURISM POTENCY





Forest product:

- Biodiversity
- Wood

Agriculture:

- Staple Foods (like rice, corn and etc)
- Vegetables
- Tropical Fruits



Problem:

- Heterogeneity of ethnic
- Corruption
- Transparencies
- Un employment
- Poverty alleviation
- What about Japan?

Indonesia's Competitiveness

The most problematic factors for doing business

Indonesia's Global Competitiveness Index (GCI) Indonesia's Global Competitiveness Index (GCI)

Year	Rank
2009 - 2010	54
2010 - 2011	44
2011 - 2012	46
2012 - 2013	50

Corruption	
Inadequate supply of infrastructure	8.7
Poor work ethic in national labor force	7.2
Restrictive labor regulations	6.8
Inflation	5.6
Access to financing	5.4
Policy instability	5.4
Foreign currency regulations	5.2
Tax regulations	5.1
Government instability/coups	5.0
Crime and theft	4.3
Inadequately educated workforce	4.1
Tax rates	3.3
Insufficient capacity to innovate	2.3
Poor public health	2.0



Source: The Global Competitiveness Report 2012-2013 (World Economic Forums)

Government has limited budget compared to the huge requirement of Indonesia's infrastructure development. Active private participation is absolutely necessary.



Total Infrastructure Investment of US\$ 175 billion

Roads and railways



- Road transport is deteriorating;
- The growth of road network has not kept pace with the growth of the number of motor vehicles

 ✓ the railways sector has also deteriorated in recent years

 ✓ many of the rails, bridges, signal and telecommunication system have exceeded their technical age limits



Airports, sea-ports, and inland waterways



Electricity



INFRASTRUCTURE FINANCING SCHEME



CASE STUDY : JAKARTA

Jakarta Metropolitan Area (hereafter: JMA)

- Covering an area of approximately 7 500 sq. kilometer, including Jakarta city and its surounding areas: Bogor, Depok, Tangerang and Bekasi.
- Total population of more than 22 million in 2005, consisting of about 80% urban population and 20% rural population
- The Jakarta city, the core, had 9.6 million people in 2011



Problems:

- Transportation
- Flood
- Settlements
- Poverty and unemployment
- How is about Japan?

TRANSPORTATION CONDITION

- Number of motorized vehicles \pm 5.5 million, consist of 98% private vehicles serving g 44% trips and 2% public transport vehicles serving 56% trips.
- Average annual growth was aboaut 9.5% in the last 5 years.
- Total road length is 7,650 km with the road area is 40.1 km2 (6.2% of total area of the city).
- Annual average growth of road length was aboaut 0.01%.
- Total demand for public transport in DKI Jakarta has reached 17.1 millon trips/day
- The total lost of traffic congestion estimated Rp 12.8 Triliun/year or 125,523 billion Yen (Time value, fuel consumption, health cost).

"PROBLEMS" DUE TO THE INEFFECTIVE PERFORMANCE OF TRANSPORTATION SYSTEM



PRELIMINARY PREDICTION

Comparation between Utilization of Vehicles with Total Road Area in Jakarta



Uncontrolled private vehicles using will cause saturated traffic congestion in Jakarta at 2014



PORTRAIT OF TRANSPORTATION PROBLEMS IN JAKARTA



Penilaian terhadap Kehidupan dan Keamanan di DKI Jakarta

"Puas atau tidak puaskah Anda terhadap upaya atau kebijakan Pemerintah Persoalan kota apakah yang biasanya membuat (5) Provinsi DKI Jakarta dalam": Anda stres atau tidak merasa bahagia di Jakarta? Tidak puas Tidak tahu/tidak jawab Puas Mengatasi kemacetan lalu lintas 7,5 90,4 2,1 69,47% Penyediaan jumlah kendaraan umum 27.8 70.8 1.4 Kemacetan Perbaikan kualitas kendaraan umum 16,8 80.6 2,6 89 2,3 Menjaga kestabilan harga kebutuhan pokok 8,7 13,72% JAYA , BAYA 23,8 75 1.2 Menjamin rasa aman masyarakat Ekonomi Mengatasi banjir/genangan di jalan 9,4 90,6 0 Kemanan Mengatasi kemiskinan 5,5 93 1.5 (Kriminalitas) 7,38% Penyediaan lapangan kerja 9,4 87,8 2,8 1,37% Angkutan umum "Menurut Anda, secara umum mengkhawatirkan atau tidakkah 2,40% Banjir tindak kejahatan di Jakarta saat ini?" 3.09% Lainnva Mengkhawatirkan Tidak mengkhawatirkan Tidak tahu/tidak jawab 2,57% Tidak tahu/tidak jawab 84% 86.2% Jakarta Utara 13,6%-2.3% 1 L 3,5% Jakarta Jakarta Pusat Barat 82.8% Jakarta Timur Jakarta 1 Selatan 93% 17,2% 85.3% - 7% 13,3% -1 -1,4% N=583 Metode Jajak Pendapat: Jajak pendapat melalui telepon dilakukan pada 15 Januari 2011 terhadap 583 warga DKI Jakarta yang berusia 17 tahun ke atas atau sudah/pernah menikah. Responden dipilih secara acak sistematis.



FIRST STRATEGY : Public Transport Development -Development of 4 Modes of Transportation

- 1. Mass Rapid Transit (Subway)
- 2. Light Rail Transit (Monorail)
- 3. Bus Rapid Transit (Busway)
- 4. Waterways



FIRST STRATEGY IMPLEMENTATION : BUS RAPID TRANSIT DEVELOPMENT (BUSWAY)



SECOND STRATEGY : TRAFFIC RESTRAINT

- 1. Traffic Restraint Zone (3 in 1)
- 2. Electronic Road Pricing (ERP)
- 3. Parking Control and Pricing
- 4. Park & Ride Development

THIRD STRATEGY : NETWORK CAPACITY IMPROVEMENT

- 1. Area Traffic Control System (ATCS) Development
- 2. Road Maintenance and Improvement
- 3. Flyover and Underpass Development
- 4. Toll Road Development
- 5. Pedestrian Facility Improvement

PROJECT

JICA INITIATED PROJECT

Project Name	Finance scheme	Progress
MRT North- South & East- West	Yen Loan	North-West: Tender East-West: F/S ongoing
Cilamaya new port	PPP (Incl.: Yen Loan)	F/S ongoing
Karawan New air port	PPP (Incl. : Yen Loan)	Plan to be decided after 2013
Indramayu Coal fired power plant	Yen Loan	E/S consultant under tender
Central Java Coal fired power plant	PPP	PPA signed



The Development of MRT

- Estimated cost: varies from Rp 15.5 trill (around US\$ 1.7 billion) to Rp 23 trillion (around US\$ 2.3 billion)
- The Jakarta Mass Rapid Transit Project mainly consists of the planned construction of a series (three phases) of MRT rail links across Jakarta.
 - Jakarta MRT North-South Line Phase I (Lebak Bulus Bundaran HI, Operational 2016)
 - Jakarta MRT North-South Line Phase II (Bundaran HI Kp. Bandan, Operational 2018)
 - Feasibility Study under Japanese grant has been completed At present, finalization of EIA is being processed. Funding commitment from JICA is targeted to be obtained in 2011 Basic Design Works to start one year after funding commitment.
 - Jakarta MRT East-West Line (Alternative Route: Balaraja Cikarang)

The Development of MRT

- <u>Sumitomo Mitsui Construction Co. (1821)</u> and a group of companies won a 3.6 trillion-rupiah (\$370 million).
- The 5.9 kilometer (3.7 miles) tunnel will be built by Sumitomo Mitsui and a partner as well as a consortium of <u>PT Wijaya Karya</u> (WIKA), PT Jaya Konstruksi, <u>Shimizu Corp.</u> (1803) and <u>Obayashi Corp. (1802)</u>



SUMMARY OF PPP PROGRESS IN INDONESIA

- PPP Project in operation
 - -15 water supply project with capacity of 21,460 litre/second
 - -31 toll road with total 774.06 km in length
 - -24 Independent Power Producer (IPP) with total capacity 4,761 MW
- PPP Project under construction and contract signed
 - -3 toll road projects with total 126.83 km in length
 - -1 power plant project with capacity 2,000 MW
 - -Total investment of USD 4,192.77 million
- PPP Project in tendering process
 - -17 PPP projects consist of 8 toll road, 3 water supply, 2 solid waste treatment, 2 transportation and 2 power plant projects
 - -Total Investment of USD 9,772.19 million
- PPP Project under preparation for transaction

 -13 PPP projects consist of 5 water supply, 4 transportation, 2 solid waste treatment, 1 waste water treatment and 1 power plant projects
 -Total investment of USD 5,749.42 million

We have high expectations for Japanese Investors' active participation. Your skills and know-how will be of high value.

- Opportunities are widely open for Japanese business entity and Indonesian partner in infrastructure development in Indonesia, i.e. consultancy, EPC (Engineering, Procurement and Construction), supplier, investment, etc.
- The involvement of Japanese business entities and Indonesian partners could be in the area of:
 - Projects financed by Japanese ODA Loans and Grants.
 - Projects financed by multilateral donor such as World Bank (WB), Asian Development Bank (ADB), European Union (EU), etc.
- Bring in high quality technical skills for infrastructure O&M:
 - Safety and life cycle cost management in the railway sector
 - Non-revenue water reduction in the water sector
 - Clean, reliable and efficient technology in the energy sector
- Bring in intellectual know-how:
 - Transit-oriented development (TOD) including railway station and surrounding development
 - MRT operation control center
 - Vehicle traffic management ITS
 - Exploratory risk management in geothermal
 - Project finance skills transferred to Indonesian local banks

My Research:

- Topic : Social Capital and Migration
- Why migration??
- Why social capital??
- What is the impact of social capital and migration in rural development??

Migration

- Indonesia's rural regions characterized are: wide-spread poverty, underemployment, and surplus of low-skilled labor.
- Rural households use migration strategies to allocate their labor resources for increasing their income and reducing the risks.
- Migration is commonly used by rural inhabitants for ensuring their survival, pursuing economic mobility, and supporting household resources.

General role of social capital.

Contributors	Essence of ideas
Serageldin et al (1999)	Sharing information; coordinating activities; making collective decision.
Adger (2003)	Growing collective action; creating collective good or welfare; coping with extreme weather and other hazards and other impact.
Marshall (2004)	Growing economic development; Increasing institutional performance, health, and happiness.
Turner (1999)	Growing economic development.
Kolowkiewicz (1996)	Aiding in conversion of assets or capital.
Fournier (2000)	Increasing household income.
Антоw (2000)	Increasing economic performance.
World Bank	Increasing economic prosperity; sustaining development.
Grootaert (1977)	Accumulating and access to credit; higher household expenditure per capita; more assets; better access to credit; increase saving; children less likely not attend school; increasing household welfare.
Molynex (2004)	Increasing efficiency. Facilitating knowledge transmission; reducing market failure in information; reducing free riding; reducing poverty.
Requena (2003)	Greater levels of satisfaction and quality of life at work.
Umar (2004/2005)	Eradicating social problems including crime; giving benefit to kingdom sector; increasing community empowerment.
Herman (2001)	Solving conflict.
Humsona (2007)	Alleviating burden caused by earth quake.

Hypothesis

 Social capital will increases the number of migration and have negative impact to rural development.

My message:

"The young people with big dreams should not spend the time with unimportant things."

"Do not avoid the communication to others, because mate and fortune comes from communication."

THANK YOU FOR YOUR ATTENTION!!