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Indonesia Country Report

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National Construction Services Development Board

THE CONSTRUCTION SECTOR OF INDONESIA

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I. EXECUTIVE SUMMARY

Economy of Indonesia is growing better since the economic turmoil 10 Years ago. This current year, GDP Per Capita At Current Market Prices is US \$ 1,663.0 and GNP Per Capita At Current Market Prices US \$ 1,591.2. The inflation rate is 6.6%. The construction sector contribution to GDP increase from 8,17% in 2004 to 8,9% in 2007. The next coming years, it is expected to account more than 9%. This expectation is applicable since Indonesia is known as the second largest construction market up to 2010 in Asia after China (ENR Singapore, 1997). The market covers infrastructure and property investment both under government spending and or private investment. For this year, the government spending for infrastructure provision accounts for almost 200 Trillion Rupiahs (1 USD= 9,300 IDR) in which for public work projects covering road networks, water resources and human settlement get the public funding almost 35.6 Trillion IDR of all 170 Trillion IDR infrastructure procurement. It was estimated that the construction market of this country for the period of 2005 – 2009 is about 1,200 Trillion IDR (Bappenas, 2005).

II. MACRO ECONOMY REVIEW & OUTLOOK

a. Overview of National Economy

The Indonesian economy is growing significantly since it was hit by Asia economic crisis in 1997. Now it is considered to be in stable state and to growth at 6.5%. It shows that GDP at constant price 2006 achieved US\$ 1.663,0 higher than 2005 (US\$ 1.320,6). The growht of GDP without oil and gas in 2006 achieves 6.1 %. Most of GDP is used to household consumption (62.7%), government expenditure (8.6%), gross fix capital formation (24.0%) and export netto (4.8%). The main sources of th economic growth are export (4.1%) followed by household consumption (1.9%), gross fixed capital formation (0.7%) and import (2.8%) respectively.

The business trend index in fourth quarter of 2006 was 107.3 showing that business condition in general is better than third quarter of 2006. This business condition is growing better since increased revenue due to increasing production capacity and number of working time. Higher business revenue occurs in the finance sector, property and services. The higher increased workforce occurs in the construction sector. The highest business index is 115.35 occuring in the construction sector. It shows that this sector is the most increased sector compared to other sectors. However, the agriculture sector has decreased its index (95.12%). The business trend index during first quarter of 2007 was expected about 108.79. During 2007, business condition is expecting higher than 2006 and in this year, construction sector will have higher index.

Consumer trend index across greater Jakarta during last quarter of 2006 was 106.96 showing economic condition of consumers are in better condition. Increased value of

consumer trend index is due to increasing household income and consumption of main commodities. Higher consumption occurs in the housing expenses (energy and water), transportation, and education, while recreation expenditure decreased. It was expected that economic condition of consumers during 2007 is much better than 2006.

b. Main Economic Indicators

The Indonesian economy is in a stable shape towards increased growth. The Indonesian gross domestic product for 2004 in constant 2000 real prices was RP. 1511 Trillion which represents a 1.03% increase on the previous year. To January 2005 the gross domestic product grew at an annual rate of 5.13% in Central Bureau of Statistics data (CBS, Economic Indicators, January 2005). During the same period the consumer price index standing at 118.53 in January 2005 grew by only 1.43 points against 0.57 the previous year (2002=100). The interest on 90-day bank deposit bills was 6.65% in October and the 10-year Treasury Bonds returned 8.31%. Rising cost of materials including that for crude oil leading to an increase in inflation from 5.06% in 2003 to 6.4% in 2004 and the cyclical Rupiah devaluation of 20% against the US\$ has forced the government to instigate minimization of energy consumption, spending and subsidy provisions nationwide. The unemployment rate however, increased from 15% in 2003 to 16% in 2004. Despite current uncertainties about the international economy and the downturn in balance of payments from US\$28.6 Billion in 2003 to 23.5 Billion in 2004, the rate of economic growth is forecast to continue to the end of 2006 at 6.5%, with the domestic economy proving to be relatively resistant to adverse global economic conditions.

The Indonesian economy continued to grow slowly between 1999-2004 after the Asia Economic crisis had affected all sectors in the regions since 1997, but will obviously be affected by what occurs in the global market. Although difficult to predict, the indications for the Indonesian economy are positive for the years after 2004 judging from the information shown in Table 1 This table shows that the Indonesian economy is getting better.

Table 1. Main Economic Indicators

INDICATORS	2003 (Real)	2004 (Real)	2005 (Real)	2006 (Real)	2007 (Proj)	2008 (Proj)
Economic Growth (%)	4.5	5.1	5.6	5.48	6.3	6.6 – 7.0
Construction Growth (%)	12	7.9	9.9	9.0	10.4	10.0 – 10.5
Inflation (%)	5.06	6.4	17.11	6.6	6.5	6.0 – 6.5
Foreign Exchange (Rp/US\$)	8.577	8.921	9.830	9.167	9.300	9.100 - 9.400
SBI-3 months (%)	8.5	7.25	12.83	9.75	8.5	7.5 – 8.0
Oil Price (US\$/barrel)	28.09	36.20	41.00	64.00	63.00	57.00 – 60.00

Source: Bank Indonesia, Finance Department of RI

According to the latest CBS the real gross domestic product (GDP) expanded by 6.17%, indicating that the economy is picking up, as the corresponding value for the previous year was 5.8%. In the past the Indonesian economy was relatively resilient against minor adverse international economic conditions. The control exercised over the relatively long recovery period since the economic crisis of 1997-2000, through

fundamental economic remedies, has provided a good basis for managing the present uncertainties thereby indicating opportunity for gradual expansion and continuing sustained growth in the key sectors of the economy. These include in particular the construction, agriculture, manufacturing and services sectors. In terms of consumption and investment (not in the table), for the first half of 2005 compared to the first half of 2004, retail sales at current prices increased by 16%, new capital expenditures by 27% and new government expenditures were up 10%.

Table 2. Macro Economic Development Indicators

	2003	2004	2005	2006	2007
GDP and Components					
GDP at constant prices 2000 Rp. Billion	1,423,868	1,511,757	1,750.7	1,846.7	1,963.9
GDP at current prices 2007 Rp. Billion	1,872,432	2,095,409	2,785.0	3,338.2	3,957.4
GDP growth at constant prices 2000 (%)	5.80%	6.17%	5.70%	5.50%	6.30%
Sector growth at constant prices 2000 (%) :	2003	2004	2005	2006	2007
Agriculture, Forestry and Fishing	3.5	4.06	4,166	4,356	4,619
Mining & Quarrying	2.1	4.61	5,116	5,302	5,504
Manufacturing	2	6.19	6,370	6,579	6,761
Services sector	-9.3	5.20	5,366	5,583	5,771
Construction sector	7.7	8.17	8,460	8,747	8,962
Demographic Indicators					
Population (Million)	213.499	215.98	219.852	222.747	225.642
Population Growth Rate (5)	1.160	1,160	1,164	1,178	1,191
Total labor force (Million)	102.541	104.62	106.28	106.39	109.94
Labor force growth rate (%)	2.03	2,05	2,07	2,07	2,10
Unemployment (Million)	10,248	11,801	11.10	10.93	10.01
Unemployment growth rate (%)	9.71	9.86	11.24	10.28	9.11
Financial Indicators					
Short term interest rate (%)	18.69	16.57	16.83	17.58	16.13
Long term interest rate (%)	15.07	13.41	16.23	15.07	13.00
Changes in Consumer Price Index (2007=100)	115.63	124.19	141.50	148.34	155.58
Change against US\$	8,465.00	9,290.00	9,830.00	9,020.00	9,419.00

Source : CBS (2007) & Bank Indonesia (2007)

III. OVERVIEW OF THE CONSTRUCTION INDUSTRY

a. Construction Investment

The construction value completed can be seen in Tabel 3. The Government of Indonesia has expressed her desire to speed up infrastructure development in order to accelerate economic growth to levels of 7.8% through increasing the ratio of Investment to GDP to 28.4% from 19.6%, opening new job opportunities to reduce unemployment and poverty alleviation to 5.1% and 8.2%. The above investment driven development plan can be seen in Table 4 which depicts infrastructure demand between 2005-2009 to be Rp.145 Trillion or US\$15.825 Billion. A more accurate picture can be obtained in Table 5 which illustrates for construction investment and maintenance demand in the Department of Public Works to total Rp.73.59 Trillion; broken into Bina Marga (Roads and Bridges) Rp.21.27 Trillion, Sumber Day Air (Water Resources) Rp.34.53 Trillion, Cipta Karya (Human Settlements) Rp.14.60 Trillion, and Other Public Works Rp.3.18 Trillion.

Table 3. Value of Construction Completed by Type of Construction, 2002 – 2006
Based on Contract Price

(1,000,000 IDR)

TYPE OF CONSTRUCTION		2002	2003	2004	2005	2006
(1)	(2)	(3)	(4)	(5)	(6)	(6)
1	<i>Residential</i>	4,891,746	6,155,685	4,795,995	7,495,904	9,305,172
2	<i>Non residential</i>	9,653,059	10,547,568	18,581,659	20,701,163	22,069,558
3	<i>Electrical installation</i>	1,387,860	1,099,642	3,825,819	3,174,567	3,363,393
4	<i>Gas and Water supply installation</i>	193,528	103,114	114,635	431,511	371,544
5	<i>Sanitary installation</i>	85,996	186,489	69,988	206,000	194,926
6	<i>Foundation</i>	146,339	294,075	353,875	1,155,892	850,095
7	<i>Sound system, AC, lift, etc</i>	85,294	73,855	2,038,887	1,090,505	1,268,817
8	<i>Water supply network</i>	317,420	269,802	447,877	487,919	512,374
9	<i>Oil and Gas pipe network</i>	148,326	314,169	759,422	650,974	648,546
10	<i>Electricity network</i>	665,628	1,679,716	1,559,105	439,088	1,027,867
11	<i>Road and bridge works</i>	9,696,851	10,460,761	15,083,795	18,844,750	19,897,065
12	<i>Irrigation/drainage</i>	2,412,684	2,106,474	4,975,447	3,845,006	4,553,470
13	<i>Electric power supply and Tele-communication Network</i>	132,198	110,385	20,973	2,823,137	1,137,230
14	<i>Construction or improvement of airport, harbor, bus station, etc</i>	728,708	637,340	1,440,669	1,688,968	1,598,572
15	<i>Other construction works</i>	4,534,600	5,011,568	1,936,391	4,282,534	5,144,678

	TOTAL	35,080,237	39,050,643	56,004,537	67,317,918	71,943,309
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Source: CBS (2006)

Table 4. Construction investment plan (2008 – 2009)

MODEL PROJECTS	US\$Million
Central Java Coal Fired Power Plant 2 x 600 MW	1,200
Pasuruan Combined Cycle Power Plant 1 x 500 MW	275
Medan Kuala Namu Tol Road 60 kms	142
Solo Kartosono Tol Road 165 kms	928
Margagiri Ferry Terminal 0.9Million Vehicles, 1.2 Million Passengers	97
Teluk Lamong Seaport (Tanjung Perak Port Expansion)	275
Bandung Water Supply Project	26
Dumai Water Supply Project	44
Tangerang Water Supply Project	37
Palapa Ring Telecommunications Projects 7 ring FO 30000 kms	1,500
Total	4,524

Table 5. Public works investment plan (2008 – 2009) (USD Million)

Public Works	Strategic Plan 2008	Indicative Investment 2008	Strategic Plan 2009	Proposed Investment 2009
Road Networks	8.80	10.02	10.30	11.25
Water Resources	13.20	15.80	15.10	18.73
Human Settlement	5.60	7.13	6.49	7.47
Others	0.88	1.42	0.95	1.77
TOTAL	28.48	34.37	32.84	39.22

b. Construction Companies

According to Law No. 18/1999, construction company consists of consulting and contracting company. Consulting company can be designer and also supervisor engineer. Under a new guideline for construction services certification and registration, the number of certified consulting companies was 4,389 firms consisting of 3,280 firms (G1-G2), 824 firms (G3) and 285 firms (G4) and registered by National Board of Construction Services Development (NBCSD) in 2008. In the same year, the number of certified contracting companies was 112,071 firms registered by NBCSD 2008. These contracting companies consist of G1 up to G7 qualification firms. The number of small contracting companies (G1-G3) was 101,293 firms (90%). The number of

medium contracting companies (G4-G5) was 10,083 firms (9%) and the big contracting company (G6-G7) is only 695 firms (1%). Of the figure, 263 Contractors already hold ISO-9000.

The Number of foreign construction companies has been increasing since a couple of years ago. In this year, the number of foreign contracting companies in Indonesia is 79 firms mostly coming from Japan and it is about 67 consulting companies mostly also coming from Japan. In the period of January to July 2007, 19 foreign contractors and 9 consulting firms were endorsed by the government.

c. Construction Employees and Workforce

Total number of registered engineers is about 71,969 professional engineers. The following table 6 shows the distribution of certificate held by professional engineers according to their expertise.

Table 6 The Number of Professional Engineer

ENGINEER	QUALIFICATION				TOTAL
	BEGINNER	LOWER MIDDLE	MIDDLE	HIGHER	
Landscaping Designer	333	3,294	756	181	4,564
Civil Engineer	4,799	47,200	14,200	1,508	67,707
Mechanical Engineer	63	1,543	437	44	2,087
Other	33	1,669	288	38	2,028
Electrical Engineer	127	4,328	2,778	361	7,594
Architecture	267	960	1,220	227	2,674

Note: a professional engineer may hold more than one certificate of competence.

The number of workforce working in the construction sector is more than 4 million people in average. The following table 7 shows annual number of construction workers.

Table 7 The number of construction workforce

Year	2001	2002	2003	2004	2005	2006	2007
Construction Labour	3,837,554	4,273,914	4,054,741	4,540,102	4,417,087	4,697,354	5,252,581

Source: CBS (2007)

d. Construction Productivity

Productivity in construction varies according to many factors. Current research findings (Wuryanti, 2005) on productivity measurement show different level of productivity in construction works under observation. The following table 8 figures out some findings from productivity analysis of 4 composite columns of reinforce concrete.

Table 8 Some findings of productivity analysis

No	Construction Works	Unit	Man-Minute
01	Steel cutting for reinforce concrete	M ³	21.90
02	Steel fixing for reinforce concrete	M ³	28.50
03	Concreting for sloof foundation	M ³	16.56
04	Formwork dismantling	M ³	4.10
05	Soil stabilisation under floor	M ²	36.10
06	Concrete work	M ³	17.11

Source: Wuryanti (2005)

e. Construction Cost

Indonesia is a large country with high diversity. It is very difficult to get a standard figure of construction cost across archipelago. In Jakarta, skill worker may have 100,000 rupiahs daily wage while in other regions such as Yogyakarta only 40,000 rupiahs. It is similar to natural material price such as sand and stone. In Central Java where sand and cobble stone are easier to get, the cost of sand is roughly 70,000 up to 90,000 rupiahs for 1 m³. It is quite common to buy a truck of sand which is about 2.5 – 3.5 m³ will cost about 300,000 up to 350,000 rupiahs.

f. Export & Import of Construction Services

The Indonesian construction has been working overseas since 1980s, particularly led by State Owned Contracting Companies such as Waskita Karya, Adhi Karya, Hutama Karya in Asean and Middle East countries. Although, the construction export is not so progressive, it built confident level among construction companies working overseas. The number of construction companies doing export is still less than foreign companies coming in Indonesia.

Current figure shows that most foreign construction companies in Indonesia come from Japan, followed by US, China and then Europe. The companies come over through loan agreement policy and international competitive bidding particularly in the oil and gas sector, power plant projects and large infrastructure projects under loan or grant agreement.

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National Construction Services Development Board

PRODUCTIVITY IMPROVEMENT OF THE CONSTRUCTION INDUSTRY: A CASE OF INDONESIA

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SUMMARY

The Indonesian construction industry has played a major role in the national development since many decades ago. In the national level, many public infrastructures, such as roads, water & sanitation, irrigation and dam, drainage systems and buildings both residential and non-residential spreading across the country have been completed and are the evidences of the industry outputs. The industry has contributed up to 8% of GDP. The value of construction output has increased double from 39,050,643 IDR Million in 2003 to 71,943,309 IDR (Million) in 2006. In the company level, many evidences showed that construction projects were completed by national contractors within budget and schedule as well as quality requirement. For example, a building with 847,175 m² and its contract sum 4.964 IDR Billion can be finished within 90 days. However, in general most of industry players need to improve their efficiency of project delivery. Productivity of construction labour varies, for instance, a carpenter working for concrete formwork has a daily productivity about 59 m². For the sake of productivity improvement, the government and the Construction Services Development Board have been promoting the improvement of productivity by such as training for construction labours and improving competence standard for construction people. Currently, under government budget the the government in collaboration with the board are providing a capacity building for more than 2,000 construction engineers across the country as then target. This program will be continuously provided for improving high level competence of the construction industry.

CURRENT STATE OF THE INDUSTRY PRODUCTIVITY

Productivity can be defined as a measure of activities' output within a certain unit of time. The following cases may describe a construction productivity in the project level rather than labour level. The Tukad Bangkung Bridge Project located in Bali was constructed by ISTAKA-HUTAMA KARYA Jo Contractor. Its contract price of phase I was IDR 26,254,000,000.00 and project period of construction was 810 days (September 2001 to December 2003). The second contract of phase II was IDR 23,676,115,000.00 and period of construction was 868 days (16 June 2004 to 31 October 2006). Type of Bridge is Concrete Box Girder Balanced Cantilever, Length of Bridge is 360 meters, Wide of Bridge is 9.6 meters, type of Girder is Single Box Girder with Concrete Pre-stressed, Pier is Concrete Pre-stressed, Distance between piers is 120 meters. The Highest of Pier is 71.14 meters, Type of Foundation of pier is Caisson with Secant Pile, 41 meters deep, Type of Foundation of Abutment is Pile Concrete diameter 60 centimeters. This project included 1.3 kms road betterment approaching the bridge. The total contract amount of this project was IDR 49,930,115,000.00 for the project duration 1,678 days. It means that the contractor's daily productivity in term of financial measure was about IDR 29,756,000 (www.hutama-karya.com).



The other bridge construction project with the following specification was completed within 720 days. This project was located in Kalimantan Island. The bridge has the following specification: the



highway standard: A class, 7 ms width; Width of bridge: 9 ms; Total length : 560.743 ms; Vertical Clearance : 15 m; for the Main Span, Span length : 200 ms; Super Structure: Stell truss (SM 490 YB); Arch heigth: 36 ms; Deck: Reinforced concrete K-350 U-40; and Sub Structure : Steel pipe dia. 1000 mms. For approaching span, Span length : 12 x 30 ms; Structure type : H beam steel, composite girde; Sub Structure : Steel pipe dia. 600 mms. The contract amount of this

project was 105 IDR Billion. This means that the daily output measuring under financial term is about 145.800.000 IDR. These two cases above show variability of production rate for construction projects under different specifications and locations as well as local people involved. In this case, production rate of a construction project will vary according to many factors including technology applied for and complexity of construction project itself. The following table shows the daily output of construction project in term of financial measure.

Table 1 Daily Output of Construction Projects

No	Name of Construction Project	Construction Value (Billion IDR)	Project Completion (Days)	Daily Value Output (Million IDR)
1	The Legian Nirwana Suites	150.933	450	335,4
2	DPRD Building	4.964	90	55,2
3	Tukad Bangkung Bridge	49.930	1678	29,8
4	The Calyx Villas Project	7.624	330	23,1
5	Hill Side Villa and Ancillaries Building	7.734	240	32,2
6	BNI Bank Building Mataram Branch	8.250	360	22,9
7	Rehabilitation of PTPN-10 Building Surabaya	14.737	270	54,6
8	Jembrana Sport Center	13.199	360	36,7
9	Terminal & Sea Tourism Building Tuban	28.342	420	67,5
10	Martadipura Bridge 560 ms	105.000	720	145,8

Source: PT. Hutama Karya (www.hutama-karya.com)

The table above shows the productivity feature of the construction industry in financial term. It looks that the more complex the project is the more time required and therefore it will imply the productivity achievement. It should be noted that most construction projects mainly involve casual works and therefore workmanship or labour performance will affect the industry productivity.

Productivity in construction varies according to many factors. Current research findings (Wuryanti, 2005) on productivity measurement show different level of productivity in construction works under observation. The following table 2 figures out some findings from productivity analysis of 4 composite columns of reinforce concrete.

Table 2 Some findings of productivity analysis

No	Construction Works	Unit	Man-Minute
01	Steel cutting for reinforce concrete	M ³	21.90
02	Steel fixing for reinforce concrete	M ³	28.50
03	Concreting for sloof foundation	M ³	16.56
04	Formwork dismantling on sloof	M ³	4.10
05	Soil stabilisation under floor	M ²	36.10
06	Placing concrete	M ³	17.11
07	Cutting steel profile	M ³	22.00
08	Setting anchor on steel profile	M ³	28.57
09	Painting column	Unit	43.83
10	Setting door framework	Unit	11.32
11	Setting formwork for column	Unit	32.15
12	Setting a coulmn on based plate foundation	Unit	15.26
13	Digging for based plate	M ³	9.33

Source: Wuryanti (2005)

Many studies uncover many factors affecting productivity in construction. They are grouped into different cluster, such as management factors, technology factors, regulatory factors, labour and craftsmen factors, engineering design factors, and other factors. Those factors are summarised as follows:

Management factors:

- Planning and Scheduling
- Organisation and supervision
- Human Factors including motivation
- Site Layout
- Information System
- New and improved construction materials

Technology factors:

- Innovation, methods and technologies
- Equipment utilization

Regulatory factors:

- Local and central government rules and regulation
- Codes and Standards,

Labour and craftsmen factors:

- Motivation
- Training and skills improvement
- Absenteeism/turnover and mobility
- Temporary work assignments
- Overtime
- Motivation, incentives

Engineering design factors:

- Standardisation
- Constructability
- Errors/omissions in plans and specifications
- Design complexities
- Types of contracts

Other factors:

- delays and change orders
- Weather conditions

- Quality requirements
- Economic conditions
- Safety requirements
- Site conditions
- Construction Accidents
- Attitude of work force
- Impractical QA/QC tolerances
- Temporary facilities
- Fundings availability

A study on waste factors affecting project performance (Putra, 2007) found that waiting materials is the highest rank followed by delayed schedule, unskilled labour, waiting for equipment repair, and then waiting for equipment on site.

MEASURES FOR PRODUCTIVITY IMPROVEMENT

Currently there are some ongoing measures for productivity improvement for the Indonesian construction industry covering construction regulation revision, affirmative policy for the construction industry development, strengthening the industry through registration system improvement for contractors and engineering consultants, and also capacity building for professional engineers and construction labours.

The government is currently revising the government act No. 28 Year 2000 of construction services. In the beginning of this year, The Ministry of Public Work has also issued the new standard form of contract and also introduce a new billing rate standard for professional engineer applicable for public work projects. The Ministry also issued a new guideline for health and safety in construction. In order to provide competence standard for engineers, the government also introduces many competence standard for engineering expertise both related to engineering design and engineering supervision. These policies are expected to improve productivity of construction players.

In 2007, the National Construction Services Development Board has also issued a new guideline for contractor and consultant registration and certification systems for contractor and consultant's qualification. In this guideline, the contractor's qualification is ranked into Grade 1 up to G7 and consultant's qualification is ranked into G1 up to G4. Contractors having G7 and G7 are required to have quality assurance system under ISO and also safety standard such as OHSAS.

In order to improve accessibility of capital support for small scale contractors, The Board has also signed a Memorandum of Understanding with the BRI Bank. In this case, a contractor does not need to provide a collateral back up for bank loan, but its contract will be enough for the Bank to issue a loan for the contractor. This will help small scale contractors in particularly to have a capital support for their projects.

The Construction & Human Resource Development Agency, Ministry of Public Work in collaboration with the National Construction Services Development Board are currently pursuing the improvement of professional engineers' competence. By the end of this year, these two institutions are targeting almost 2,000 profesional engineers to have a capacity building programme funded by the government. This programme is designed to help professional engineers to increase their qualification. In this case, the Ministry of Public Work has introduced an affirmative policy for any consultants whose engineers already joined the programme will have 20 score of qualification

assessment in pre-qualification in the government procurement. Another capacity building programme conducted by the Board was international workshop on FIDIC Form of Contract. The Board also issued the contract form translation.

Since earthquake disaster occurred in Aceh, Yogyakarta and West Sumatera, the government has provided a training programme for construction labours, particularly for earthquake resistant of non-engineered housing, such as bricklayers, concreters, joiner and steel fixers.

FUTURE DEVELOPMENT

- In the near future, the Board will introduce a standard form of sub-contract. In this case, the form is required to provide better business engagement between main dan sub-contractors and also to support both parties working under fair contract agreement and better relationship.
- The government and the Board will promote consistently construction export in Middle East Countries. This coming November, Indonesia will join the Big Five Expo in Dubai and roadshow across the region. Currently, some national contractors have already engaged construction projects in UAE, Kuwait, Libya and Qatar.
- The government are currently accelerating infrastructure development both through public spending and promoting PFI (Private Financing Initiative) for infrastructure development. This will increase construction value across the country.
- The government also started to introduce e-procurement for government projects. Currently, semi e-procurement has already applied and in the near future, full e-procurement will be applied. This will make the industry to increase their capacity in order to get better competition.
- Technology development and construction process innovation and also introduction of lean construction are among major targets for the construction industry development. This will achieve through research and development collaboration among academia, business, government and community.

CONCLUSION

Productivity is a key element of the industry to survive in this global era. The higher productivity will benefit the industry as competitiveness increased and finally more added value introduced to society. As a developing nation, the Indonesian construction industry has shown progressive development in term of its capacity, competence and competitiveness both in the industry level and company level. The government and the National Construction Services Development Board have put many attempts to improve the industry productivity. Revisited the construction law, provision of affirmative policies, capacity building programme for professional engineers and labours are provided for empowering the industry. Further attempts have been designed for improving the industry such as increasing construction value both by infrastructure financing and construction export. A capacity building programme will be continuing for different aspects of the construction industry development.

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