

Transformation of the Informal Sector Workers to the Formal Sector for the Extending Coverage to National Social Security System

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I. INTRODUCTION

1. POLICY PROBLEMS

- a. Employment policy with no DIRECT INVESTMENTS will make lack of social protection for the current social security then will make potential poverty for the current employees that will become poor in the future,
- b. Placement of work without the help of labour market will make the placement of working people not to be n the right place,
- c. A country developing social security system with no employment means a decreasing coverage of employees.
- d. Extension of social security coverage with no additional employment results from decreasing coverage of employees,
- e. Social security with no free health care for the poor will make more people to be poor to be sick, while social security with no pension plan will make more poor elderly.

(Lecture Materials by Purwoko, March 2012)

2. UNDERSTANDING OF SOCIAL SECURITY

- a. It's a protection system for the (working) society against social and employment risks.
- b. Social security is designed systematically and operated by the social security agency based on social security law to prevent the (working) people from poverty due to losses of income and life as a result of sickness, maternity, work-injury, premature death, lay-off and old age
- c. Social security in broader term is linked to the provision of cash transfer to the poor and the empowerment of the vulnerability including the informal sector workers to be transformed to formal employment in stages in order for them to have a better social security system.
- d. Pillars of social protection to be required for the operation of social security:
 - i. Job-creation throughout direct investments,
 - ii. Transformation of the informal economy to formal employment,
 - iii. Wage quality and create descent work,
 - iv. Empowerment program for the vulnerability,
 - v. Social security with a contributory plan and program priority.

(Lecture-Materials by Purwoko, March 2012)

- e. Facilities required for the operation of social security
 - i. Establishment of active labor market,
 - ii. Building health facilities for the patients,
 - iii. Preparation of capital and financial markets,
 - iv. Training and empowerment for the vulnerability.
- f. Principles of social security as good governance
 - i. Solidarity principle as implemented in pay as you go,
 - ii. Compulsory coverage by the social security law,
 - iii. Not for profit in term of organizing the programs,
 - iv. Transparency in operating the programme and managing the funds,
 - v. Accountability,
 - vi. Portability.
- g. Sources of social security financing:
 - i. Employee-employer contributions
 - ii. Income taxes
 - iii. Government budget.

(Lecture-Materials by Purwoko, March 2012)

3. OPERATING PROBLEMS

- a. Low wage of worker and minimum wage to be found in formal employment,
- b. Low rate of contribution to old age programme at less than 8%
- c. Low coverage of employees and contribution evasion by the employer,
- d. Low compliance of the employer with social security law,
- e. Resistance of employer regarding social security pension,
- f. Low intensity in law enforcement by the government,
- g. Lack of labour inspectors in the Ministry of Manpower,
- h. Low operation budget for law enforcement,
- i. Building incapacity of governmental institutions,
- j. Lack of enforcement power in the current social security carrier,
- k. Lack of social protection.

4. THEORETICAL FRAMEWORK FOR FUNDED SOCIAL SECURITY

- a. Employment policy shall be inclusive for all categories of workers,
- b. Employment operation shall be sustainable for all workers at least 20 years,
- c. Improvement of employee's remuneration,
- d. Extension of coverage for all with more campaigns and or law enforcement,
- e. In preparation for social security we need social protection first.

II. EMPLOYMENT AND SOCIAL SECURITY

1. FACTORS INFLUENCING LOW COVERAGE IN SOCIAL SECURITY

- a. Problem of widely range of wages (Table 1),
- b. Different wages of executives which do not match with pension benefit (Table 2),
- c. Large numbers of informal workers with an average of 66.27% (Table 3)
- d. Low wage of the formal sector workers at more than 60%
- e. Applicability of outsourced work in formal employment,
- f. No employment security for current employees as social security coverage,
- g. Long implementation of social security with no pension plan,
- h. Lack of social protection floor (SPF) for the poor and vulnerable people,
- i. Growth orientation in quantity that it must be based on "growth quality"
- j. Shortage of government budget to the funding of social assistance,
- k. Privatization of non-ministerial institutions such as privatization of higher learning institutions, privatization of public utility corporation and privatization of public infrastructure like toll-road across the city.

The solution to the above problems relevant with the extension of coverage of Employees in NSSS is the need for Policy on Labour Transformation

2. DEFINITION OF WAGES, EARNINGS AND INCOME

- a. Wage is basic compensation for labour paid on per unit of time (per hour)
- b. Earnings are payment as accrued over a period of time (per month)
- c. Total compensations are earnings plus other fringe benefit for labour such as social security
- d. Income is total compensations plus unearned income.

Factors causing minimum wage of employee to happen in Indonesia

- a. Surplus of labour,
- b. Inflation and volatility of IDR against hard currencies
- c. Quality of human resources
- d. Ambiguity of employment regulation
- e. Bureaucracy inefficiency
- f. Poor public infrastructure and poor public transportation
- g. Imperfection tax system
- h. Crime and security disturbance
- i. Corruption

(See Tambunan, 2006)

Table 1 List of Monthly Wage of Employee by Country (USD)

No	Country	Monthl	Wage	
		Minimum	Maximum	Range
1	Australia	2500	12,047	1 : 4.8
2	China	138	6,378	1:46
3	Indonesia	71	3,782	1 : 53
		232	3,782	1 : 16
4	Malaysia	261	2,924	1:11
		294	2,924	1 : 10
5	Thailand	209	3,063	1 : 15
6	USA	1256	9,543	1:7.5
7	Vietnam	67	2,478	1 : 37
		74	2,478	1 : 33

Source: www.payscale.com/research/ID/country/2011 (modified by Purwoko)

Table 2 List of Annual Wage of Manager in Indonesia

No	Type of Position of Manager	IDR	USD
1	HRD	146,500,534	15,421.10
2	Business Development	179,000,000	18,645.83
3	Project	191,170,130	19,913.55
4	Information Technology	200,457,577	20,880.99
5	Marketing	240,000,000	25,000.00
6	General	435,699,862	45,385.40

Source: <u>www.payscale.com/research/ID/ 2011/country</u> (modified by Purwoko)

3. ACHIEVEMENTS IN SOCIAL SECURITY

a. Coverage of Employee

Extending coverage of employee refers to increasing number of labour Force (LF) defined as working age at 15-55 years.

- i. Number of LF was 109.94 million in 2007 which increased by 119.92 million in 2012. There was an average increase of 1.48 million or 1.32% pa over 2007-2012.
- ii. Average absorption rate of work was 92.09% but 32.54% were to be employed in formal employment while the rest with large number of 66.27% were to work in informal economy with no social security.
- iii. Number of job-seekers tended to decline from 8.45 in 2007 to 7.7 million in 2011 despite to increase by 8.19 million in 2012.
- iv. Coverage of employee in Indonesia tended to increase from 7.94 in 2007 to 10.34 million in 2012. Coverage to LF ratio was about 10% over 2007-2012 and to formal employment was about 25% (Table 3).

Table 3 Employment and Coverage of Social Security in Indonesia

No	Description	2007	2008	2009	2010	2011	2012
1 2 3 4 5	Labour-force (million) Employed labour-force a. Formal employment b. Informal sector Number of job-seekers Active members of Jstk Unemployment (%)	109.94 99.93 (30.92) (69.01) 10.01 7.94 8.45	111.95 102.55 (31.2) (71.35) 9.39 8.22 8.39	113.83 104.87 (32.14) 72.73) 8.96 8.49 7.87	116.53 108.21 (35.78) (72.43) 8.32 9.34 7.14	117.37 109.67 (41.5) (68.17) 7.70 10.31 6.51	119.92 111.73 (44.09) (67.64) 8.19 10.87 -
6	% Jstk members to a. Labour force b. Formal employment	7.9 25.7	8.0 26.3	8.1 26.4	8.6 26.1	9.4 24.8	9.7 24.6

Source: Central Bureau of Statistics; Jstk (Jamsostek) Report and *the Author

b. Growth of Social Security Funds

- Total assets of social security were at IDR 62 trillion in 2007 then changed to IDR 133 trillion in 2012. Assets grew by an average of IDR 12 trillion or 14.13% pa over 2007-2012 (Table 4).
- ii. The investment funds as major assets accounting for 95% of the total assets were recorded as IDR 59 trillion in 2007 then changed to IIDR 128 trillion in 2012. The funds grew with an average of IDR 14.14 trillion or 14.19% pa over 2007-2013.
- iii. Provident fund account achieved in 2007 was IDR 53 trillion then has changed to IDR 113 trillion in 2012. An average increase was IDR 12 trillion or 15.85% pa over 2007-2012.
- iv. Another indicator of progress in the operation of social security over 2007-2012:
 - Asset per member : IDR 9.96 million or USD 1,048
 - Investment per member : IDR 9.60 million or USD 1,010
 - Provident fund per member : IDR 8.53 million or USD 899

Table 4 Financial Highlights of Jamsostek

No	Description	2007	2008	2009	2010	2011	2012*
1 2	Total assets (IDR Trillion) Investment as major assets	62 59	64 62	84 81	103 99	117 112	128 -
3	Old age account as major sources of investment funds	53	55	72	87	99	113
4 5 6	Asset / member (IDR Mil) Investment / member Average individual account	7.9 7.5 6.7	7.8 7.6 6.7	9.9 9.5 8.5	10.7 10.5 9.3	11.3 10.8 9.6	12.2 11.7 10.4

Source: Jamsostek and the author from no 4 to 6

c. Performance of Social Security in term of National Economy

- Progress in the operation of social security to be measured in term of GDP, bank time deposits (BTD) and circulation of base money (BM) Table 5).
- ii. The investment funds, as major assets accounting for 95% of the total assets, were IDR 59 trillion in 2007 then changed to IIDR 128 trillion in 2012. As noted, the funds grew with an average of IDR 14.14 trillion or 14.19% pa over 2007-2013.
- iii. Provident fund account achieved in 2007 was IDR 53 trillion then has increased by IDR 113 trillion in 2012. So there was average increase by IDR 12 trillion or 15.85% pa over the same period.
- iv. Another indicator of progress in the operation of social security over 2007-2012 as follows:
 - Asset per member : IDR 9.96 million or USD 1,048
 - Investment per member : IDR 9.60 million or USD 1,010
 - Provident fund per member : IDR 8.53 million or USD 899

Table 5 Economic and Financial Indicators (IDR Trillion

No	Description	2007	2008	009	2010	2011	2012*
1 2	GDP at current price Government revenues (GRs)	3951 708	4951 849	5613 982	6357 992	7020 1086	8000 1200
3 4	Bank time deposits (BTD) Base money (BM)	664 183	819 209	894 226	1003 260	1122 307	1250 340
5 6 7 8	% Jstk asset to GDP % Jstk asset to GRs % Jstk asset to BTD % Jstk asset to BM	1.5 8.7 9.3 34	1.3 7.6 7.8 31	1.5 8.6 9.4 37	1.6 10.4 10.3 40	1.7 10.7 10.4 38	1.6 11.1 10.6 39

Source: Bank Indonesia and the Author from no 5 to 8

III. PENSION PROVISION FOR ALL EMPLOYEES

- 1. Essence of social security programme is the provisions of health care for all citizens, unemployment insurance and pension plan for employee. However, health care is beyond the capacity of this study.
- 2. Pension provision as provided in this study is open and one pension plan with no restriction on the membership of employee by social security law called as social security pension (SSP) (details see Table 6).
- 3. SSP is a long term plan for the provision of monthly flat benefit for the retired at specified pension age until death of the breadwinner then to be continued to the widow (er) until her or his death and final payment in retail to the heirs until age 23.
- 4. The funding of SSP shall derive from the joint contributions of employer and employee and the qualification for the eligibility to pension benefits varies from one country to another, that is 15 years of contribution as minimum coverage due to age 55 years (Law No 40 of 2004 on NSSS).

- 5. Under contributory social security pension, the process of paying contribution of active employee to social security carrier applies to defined contribution (DC) until the qualification for 15 years coverage to be met by the retired whereas the type of plan as DC is to be transformed automatically to defined benefit (DB).
- Formula of simple benefit and its contribution to SSP as follows:
 a. Pension benefit is as percentage of earnings to whether it is as 33% (1/3); 50% (1/2); 67% (2/3) and 75% (3/4).
 - b. Imposed rate of contribution is based on ceiling wage, for example 5 x employee earning with free income tax, that is IDR 2 million or USD 210 per month.
 - c. Contribution is a function of wage, viz. 8.33% (1/12); 10% (1/10); 12.5% (1/8); 16.7% (1/6); 20% (1/5) and or 25% (1/4).

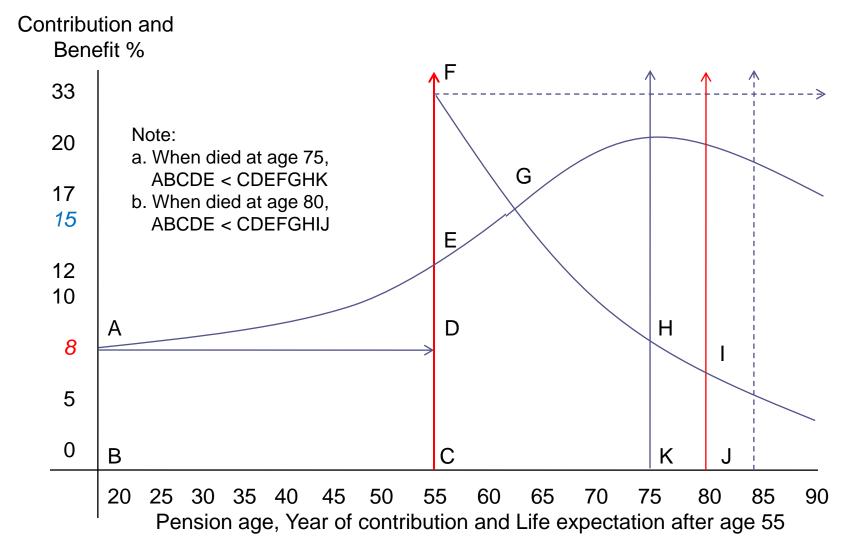
If pension benefit	so the contribution	If less	Years of contribution
33%	8.25%	deficit	maximally 30 years
50%	12.25%	deficit	sufficiently 25 years
67%	16.75%	deficit	sufficiently 20 years
75%	18.75%	deficit	minimally 15 years

For the illustration deficit payment in financial term, see curves 1 to 3

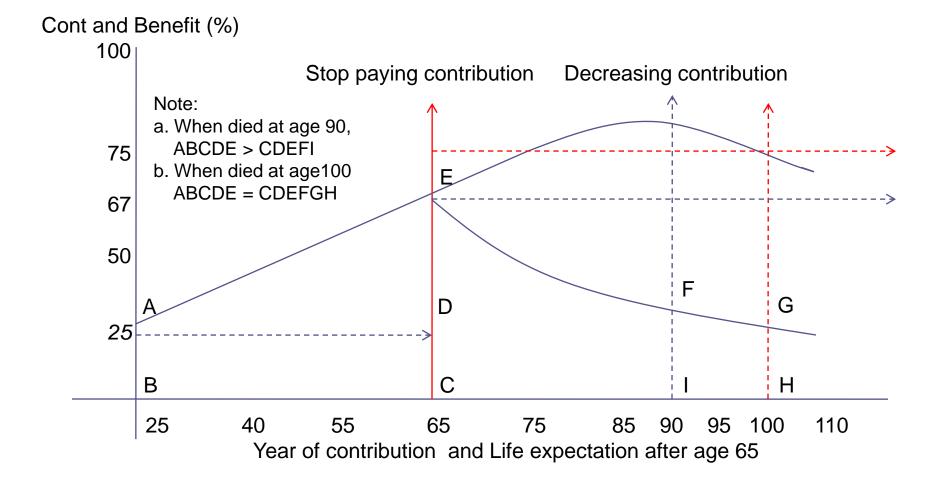
Table 6. Kind of Pension Provision

No	Description	Universal Pension	Social Pension	Social Security Pension	Occupational Pension
1	Definition	Retirement income support,	Monthly cash transfers	Pension for all employees	Supplementary pension
2	Financing or contribution	Tax-based plan	Government budget	Employer and employee	Employer and employee
3	Beneficiaries	All senior residents	All poor elderly	Employee and the family	Employee and the family
4	Coverage	-	-	Compulsory	Voluntary
5 6	Type of plan Qualification	- Pension age	- No income	Defined Benefit Pension age	DB or DC Pension age
7	Benefit size	Minimum	Minimum	Flat benefit	67-75% wage
8	The principle	Horizontal	No	Horizontal and	No
9	of solidarity Carrier	Ministry	Ministry	pay as you go SSC	Employer

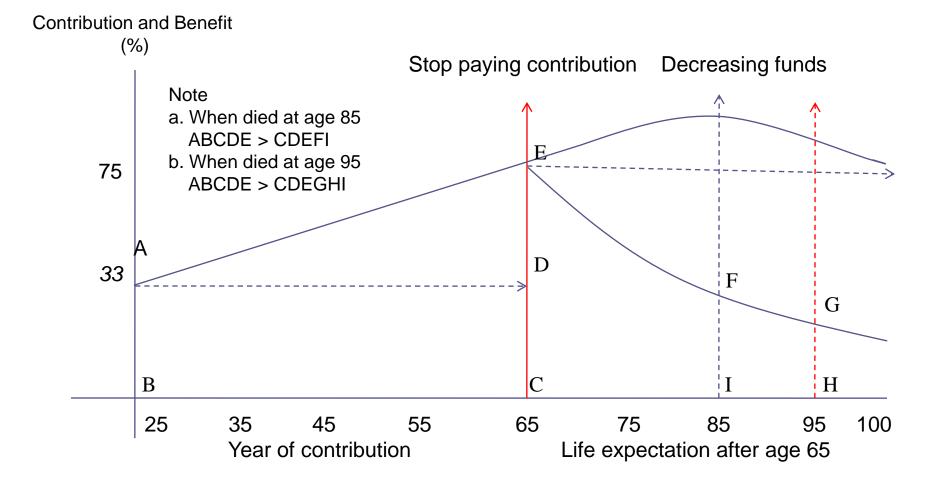
1st Curve: 8% Contribution and 33% Pension Benefit



2nd Curve: 25% Contribution and 67% Pension Benefit



3rd Curve: 33% Contribution and 75% Pension Benefit



IV. LABOUR TRANSFORMATION POLICY

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- 1. One of the difficulties in extending coverage of members in social security was large numbers of the informal workers amounting to almost 70% of LF,
- 2. Another crucial problem of the informal sector workers was uncertain sustainability of their earnings,
- 3. Any social security programmes as designed to all employees do not match with the need for the protection of the informal sector workers due to their financial incapacity,
- 4. The informal workers were definitely not as the poor even not as vulnerable people while those employed in the informal sectors were unregistered, temporary and low even unpaid work thereby causing earning uncertainty to happen with their work environment,
- 5. There is no choice for the government to pursue policy on labour transformation in order for all informal workers to have better social protection. In preparation for labour transformation, Cobb-Douglas (1928), Manly (1976), Bodie (1995) and Xaolu (2009) were in use for the development of a new model.

a. Labour transformation using exponential power

$$T_{(g)} = \frac{e^g - 1}{L}$$
 and $T_A = T_{(g)} \times IL$

- T_(g): Transformation rate based on the government plan (g) as stated in % of total labour force (L) which is equivalent with 100% or equal 1. The rate of government plan must not exceed 50% for a equilibrium reason that informal sector is the saviour of the nation in economic crisis.
- e^g: Power eg is the government plan to transform subject to change depending on the financial capacity of the government and the parliament approval.
- T_A: Admitted transformation of informal labour to formal employment as determined on the proportion of total informal labour (IL).
- b. Labour transformation using relocation

$$T = aL$$
 and or $L = \frac{Fe}{le}$

T is labour transformation as referred to government plan from 5-25% maximally; L is labour proportion and a is rate of labour relocation that is less than 1 meaning it is more informal workers and if equal 1 meaning fifty-fifty.

c. Tolerated labour transformation

$$T_{t+1} = \frac{R_{t+t} - R_t}{PxZ}$$
 Where $R_{t+1} > R_t$.

 T_{t+1} = Labour transformation for the next year, P = action plan for the next transformation and R_{t+1} is the proposed economic growth which is higher than previous economic growth R_t and Z = is the statistic value depending on the level of confidence.

- d. The following is hypothesized labour transformation (see Tables 6-9)
 - i. Government plan to transform from 5-25% of total informal workers
 - ii. Average proportion of informal labour to LF was 66% over 2007-201
 - iii. Proposed budget line for labour transformation is 5%
 - iv. Government proposal to labour relocation is between 10-15%
 - v. The ratios of formal employees and informal workers to total labour force in 2012 as presented in Table 3 were 39.46% and 60.54% respectively.
 - vi. Confidence levels in use for tolerated transformation from 80% to 99% with additional economic growth by 2%

Table 6 Government Transformation Plan and Admitted Transformation

Νο	Government transforming plan	Informal labour to labour force	Maximum transform- ation by government	Admitted transform- ation	Proposed budget line
1	0.05	0.66	0.051	0.034	0.05
2	0.10	0.66	0.105	0.069	0.05
3	0.15	0.66	0.162	0.106	0.05
4	0.20	0.66	0.221	0.146	0.05
5	0.25	0.66	0.284	0.187	0.05

Table 7 Prediction of Labour Proportion and 10% Relocation (%)

Description	207	2008	2009	2010	2011	2012	Average
1. Proportion	45	44	44	49	61	65	51
2. Relocation	22	23	23	20	16	15	19

Table 8 Prediction of Labour Proportion and 15% Relocation (%)

Description	2007	2008	2009	2010	2011	2012	Average
1. Proportion	45	44	44	49	61	65	51
2. Relocation	33	34	34	31	24	23	29

Table 9 Tolerated Level of Labour Transformation

Year (1)	Additional growth (%) (2)	Action Plan (%) (3)	Confidence Level (%) (4)	Statistic Value (5)	Tolerated Level (%) (6)
1 2 3 4 5	2 2 2 2 2 2	5 7 10 12 15	99 98 95 90 80	2.58 2.33 1.96 1.65 1.28	15.50 12.26 10.20 10.10 10.40

V. CONCLUSION AND RECOMMENDATION

- Social security system in Indonesia was not well protected systematically and might be at risk for the members, because the current social security programmes have not yet to be integrated with other pillars of social protection as well.
- 2. Employment is fundamental to employee social security as basic foundation to extending coverage of new members inclusively to meet social solidarity and portability principles as well.
- 3. Employment may be created internally or externally provided that the Government shall provide some incentives for local investors to create local employments while the Government should encourage local investors to invest directly in overseas countries to spread risk while generating long term benefits and or to welcome foreign investors to Indonesia to give help to the creation of local employment opportunities.
- 4. Prior to implement NSSS in 2014, it is necessary for the Government of Indonesia throughout this Study by the Author while considering the study by ILO in 2002 to create more jobs and to extend coverage of Jamsostek for all employees regardless of informal workers or not.

- 5. In this study, the need for labour transformation to formal employment in place of job-creation and job-security shall be set up as part of social protection rebuilding and labour empowerment programmes.
- 6. From the point of theoretical view, the definition of social protection shall be directed to labour transformation to formal employment in order for its success in the transformation to be participated in health care under NSSS.
- 7. The following are some recommendations on the application of labour transformation using three (3) approaches as developed in this study, viz. labour transformation using exponential power; labour transformation using relocation of resources and tolerated labour transformation:
 - a. Under labour transformation using exponential power, the government plans to transform 15% of 66% informal workers is to find maximum transformation as estimated at 16.2%. However, labour transformation is admitted at 10.6% due to the budget constraint.
 - b. Under labour transformation using relocation, the government intends to transform 15% while considering labour proportion of 65% and then labour relocation is found to be 23%.

- c. Under tolerated labour transformation, the government expects a highly economic growth with at least addition to 2% for the preparation of labour transformation by 15%. The impact of such an additional growth on successful transformation which has a confidence level of 80% is tolerated by 10.4% of 15% transformation as proposed by the government.
- 8. The labour input as a labour proportion needs to be related to proposed economic growth as a basis for labour transformation due to the budget constraint.
- 9. The impact of labour transformation to formal employment on the national economy will be more suitable in term of development planning as referred to the expectation on economic growth for coverage planning of employees in National Social Security System than using labour transformation with exponential power and based on relocation as a simple economic model.

The following are brief explanation on NSSS, NSSC, SSA and Social Security Programes and Contributions (see Tables 10-12).

Table 10 Tolerated Level of Labour Transformation

No	Programmes and Organizations	Function, Scope and Relationship
1	National social security system (NSSS)	 To protect (working) society in the event of sickness, work accident, old age and death Compulsory coverage and nationally managed programmes Relationship between and Citizens.
2	National social security council (NSSC)	 To prepare a general policy on social Security for the President Implementation and external controller Government partnership
3	Social security carrier (SSC)	 To operate NSSS programmes To extend coverage for all citizens To pay social benefits for beneficiaries To maintain communication with stake- holders

Source: Law No 40 of 2004 on NSSS and Law No 24 of 2011 on SSA

Table 11 Jamsostek's Programmes and Contribution

No	Programmes	Shared Contributions (%)			Remarks
		Employer	Employee	Total	
1	Work-accident	0.24-0.74	-	0.24-1.74	Fixed rate
2	Death benefit	0.3	-	0.3	"
3	Old age security	3.7	2.0	5.7	"
4	Health care	3-6	-	3-6	"
	Grand total	7.24-10.74	2.0	9.24-12.74	

Table 12 NSSS and Proposed Contributions by Programmes

No	Programmes	Shared Contributions (%)			Remarks
		Employer	Employee	Total	
1	Health care	3	2.0	5.0	Proposed
2	Work accident	0.25-0.75	-	0.25-0.75	"
3	Old age security	3.7	2.0	5.7	Jamsostek
4	Pension plan	5.0	3.0	8.0	Proposed
5	Death benefit	0.3	-	0.3	Jamsostek
	Grand total	12.25-	7.0	19.25-	
		12.75		19.75	

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VII. Brief CV of Prof. Bambang Purwoko, MA, PhD

- Dr. Purwoko was graduated from University of Sydney's Department of Economics in 1995 with his dissertation on pension economics in the case of Indonesia and completed his Master Degree on Economic Planning from State University of Antwerp in Belgium in 1985 while his Bachelor Honour in Managerial Economics was obtained from Universitas Nasional (UNAS), Jakarta, in 1983.
- 2. Prof. Purwoko is now as Chair-Person of Study Programme on Economic Doctorate at the Pancasila University and has experienced in providing university lectures on finance theory and risk management at Pancasila University's Faculty of Economics since 1988 until recently and on social security system as Visiting Professor at MIKM-FKMUI and MPKP FEUP since 2005 until recently. In managerial career, Dr. Purwoko was Director of Jamsostek over 1998-2003 and is now as Member of NSSC or DJSN since 2008 until recently.

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