

CHAPTER II

GENERAL IMAGE OF INDONESIA'S AGRICULTURE SECTOR

Indonesia is an archipelago country located in the south East Asia whose is almost half of the territory is consisting of sea territorial. The total land territory area of Indonesia is about 1,904,569 km². It is a country passed by the khatulistiwa line, and lies between two continents, Australia and Asia, and two oceans, Hindi ocean and Pacific Ocean. Indonesia is also supported by its climate which is tropical, and with its vast fertile land and its biodiversity, every year the land can be planted with various plants. It is no wonder that most of the population works in agriculture, especially people living in villages. However it is very ironic that Indonesia cannot fulfill its national food demand, and there are still a lot of problems in the agriculture sector. Having such a gift of natural conditions, Indonesia should be able to give prosperity to the people and agriculture should also become a major contributor for Indonesia's national income. Before revealing Indonesia's agriculture sector condition, it is better to understand what the meaning of agriculture is. Agriculture from the point of view of the language (etymology) consists of two words, namely agri or ager, meaning land and culture or Colere which means management. So, agriculture in the broad sense is defined as land management activities. Management is intended to the interests of plant and animal life, while the soil is used as container or place the management activities, and all of which is to human survival.

People also need to understand what agriculture business activities are. The meaning of that term is activities of agricultural production with the goal of to

sell/exchange partial or the entire production with business risk (rather than farm workers or worker's family). Agricultural business includes business food crops, horticulture, plantation, farming, fishing, and forestry, covering agricultural services. Specialty crops although they are not sold (taken alone) remains covered as a business¹⁵. So, in the concept of agriculture here every business/activity is to utilize biological resource done by human, in order to produce materials especially food product used by society. The business covers agriculture, fishery, animal husbandry and forestry.

2.1 Distribution of Labor and it Productivity in Indonesia

Indonesia is an agricultural country and it is assessed by its total farmer households in Indonesia. Farming is not a popular job for majority of Indonesian people, but farmer is still a huge contributor in Indonesia employment.

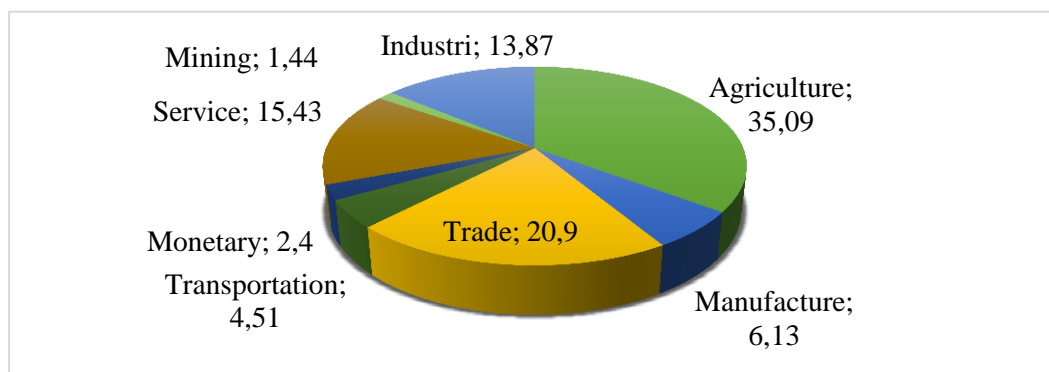


Figure 1.2.1: Employment distribution according to the economic sub-sector 2012

Source: Directorate Food and Agriculture/ Ministry of National Development Planning/ Body of National Development Planning: Analysis of Household, Land and Agriculture Business: Agriculture Census 2013

¹⁵ Directorate Food And Agriculture Ministry Of National Development Planning/ Body Of National Development Planning, Analysis Of Household, Land And Agriculture Business: Agriculture Census 2013, Jakarta : Ministry of National Development Planning, Pg. 135.

The data in picture 1.2.1 shows about the distribution of employment. Based on the agricultural survey in 2013, it clearly presents that the majority of Indonesia employment is in the agricultural sector held by 35 percent, or 39.7 million people, followed by trade sector 21 percent. It means that the agricultural sector is still the largest buffer in national employment.

Table 1.2.1: Percentage of Worker Distribution According to the economic Sub-sector 2010 - 2014

Economic sector	2010	2011	2012	2013	2014
Agriculture	38.3	36.4	35.2	34.8	34.0
Industrial	14.0	14.8	15.3	14.8	14.9
Mining	1.2	1.3	1.4	1.3	1.3
Manufacture	12.8	13.5	13.5	13.5	13.6
Service	47.7	48.8	49.5	50.4	51.3
Trade	20.8	20.8	20.9	21.4	21.7
Service except trade	26.9	28.0	28.6	29.0	29.6
Total	100.0	100.0	100.0	100.0	100.0

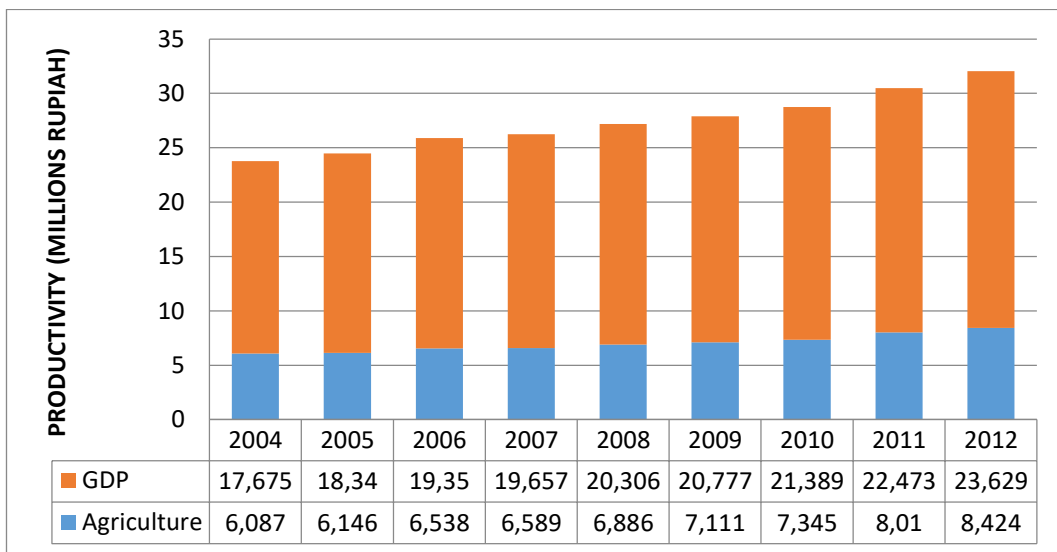
Source: Analysis of the Worker Mobility, Body of Statistics Center: Survey Result of National Workforce in 2014

Table 1.2.1 shows that agricultural sector is still a major contribution in Indonesia employment. However, agricultural sector has decreased regularly than other sectors that were still fluctuating or increasing on a regular basis. Agriculture employment alone in 2010 listed as much as 38.4 percent, while in 2014 it fell into 34 percent. The other non-agricultural sector that has a significant growth rate especially in service sector is trade. It needs to be underlined here in 2014 that the agricultural sector still absorbs a lot of labor.

Although agriculture gives a huge contribution in employment absorption, but it needs to be underlined that the agriculture is still the lowest contribution on worker productivity and tends to decline each year and of course it is far below

from the worker productivity. Data got from publication of Food and Agriculture Directorate Ministry of National Development Planning, shows that there is an increase on agriculture labor productivity. However, its development throughout the years of 2004-2012 does not have any significant change. In 2004, labor productivity of agriculture is only 6.09 million, while the average of the entire sector has reached 17.67 million. In 2012 it slightly increased, but labor productivity on agricultural sector has still much lower average compared to other economic sectors. The productivity of agriculture sector in 2012 amounted to 8.42 million rupiahs and the average across all sectors reached 23.63 million¹⁶.

Table 2.2.1: Agriculture Productivity compared to Total Economic Productivity



Source: Directorate of Food and Agriculture/ Ministry of National Development Planning/ Body of National Development Planning: Analysis of Household, Land and Agriculture Business: Agriculture Census in 2013

¹⁶ Ibid.,

2.2 Development of Farmer Household, Peasant and Agriculture Company in Indonesia

According to the census in 2000 Indonesia total population was about 206,264,595. It has been increasing year by year and in 2009 it was about 230.472.833 and Indonesia is number four in world, in terms of country total population¹⁷. Before going further to know how many of total of farmer in Indonesia is, it should be understood the definition about farmer itself. In English definition, there are two terms for people who work in agriculture sector. The first is farmer and the second is peasant. The difference between farmer and peasant is in their social position. Peasant in feudal system is they are who serve the land owner and they serve under a Lord. They must farm the land in order to fulfill their duty and just have a very small land. In Indonesia, peasant also called “*petani gurem*”. Farmer is not a social position but rather a profession. Farmer is a free person who owns real big farm. Definition of farmer, according to the BPS (*Badan Pusat Statistik*/Body of Statistic Center) farmers are those who pursue agriculture (people food crops and plantations) at his own risk for the purpose of sale, either as farmer or sharecropper (rent / lease / revenue-sharing). People who working in the fields of others to expect a wage (peasant) are not included as farmers¹⁸.

However, in the BPS census, they are more likely to use the terms of farm household, and its definition is : farming household is one where at least one

¹⁷ Geografi Indonesia : Indonesia Government Portal, Data retrieved from Indonesia Government Portal website: <http://www.indonesia.go.id/>

¹⁸ Glossary : Badan Pusat Statistik. retrieved from Badan Pusat Statistik web site:[http://www.bps.go.id/index.php/istilah/index?Istilah\[katacarian\]=pertanian&yt0=Shows](http://www.bps.go.id/index.php/istilah/index?Istilah[katacarian]=pertanian&yt0=Shows)

member of the household carries out farming or plantation activities such as planting trees or timber; farming fish in artificial ponds, baskets placed in streams or in ponds made by damming streams; working as fishermen; hunting or catching wild animals; farming cattle/poultry; or carrying on any farming activity, with the aim that a part or a whole of the yield will be sold, or to obtain income/profit at one's own risk¹⁹.

According to the agriculture census in 2013 Indonesia farmer household was decreasing from the agriculture census in 2003. Meanwhile, according to the agriculture census in 2003, total of farmer household is about 31.23 million people and in 2013 agriculture census on total of farmer house hold is about 26.14 million people. So, it can be clearly seen that is decreasing of farmer household about 16.32 percent or 1.77 percent per year. To see more about the decreasing, it is presented in the table according to the agriculture subsector total of farmer household in Indonesia in 2003 and 2013.

¹⁹ Ibid.,

Table 3.2.2:
Total of Farmer Household according to the Sub-sector in 2003 and 2013

Subsector		Farmer Household			
		ST2003 (000)	ST2013 (000)	Change	
				Absolute (000)	%
Agricultural sector		31.232.18	26.135.47	-5.096.72	-16.32
SUBSECTOR:					
1	Crops	18.708.05	17.728.16	-979.89	-5.24
	- Rice	14.206.36	14.147.86	-58.49	-0.41
	- <i>Palawija</i>	10.941.92	8.624.23	-2.317.69	-21.18
2	Horticulture	16.937.62	10.602.14	-6.335.48	-37.40
3	Plantation	14.128.54	12.770.57	-1.357.97	-9.61
4	Livestock	18.595.82	12.969.21	-5.626.62	-30.26
5	Fisheries	2.489.68	1.975.25	-514.43	-20.66
	- Fish cultivation	985.42	1.187.60	202.19	20.52
	- Fishing	1.569.05	864.51	-704.54	-44.90
6	Forestry	6.827.94	6.782.96	-44.98	-0.66
7	Agriculture service	1.846.14	1.078.31	-767.83	-41.59

Source: Agricultural census year 2013

From the table 3.2.2 about 2013 agricultural census the majority of the farmer house hold was in the crops subsector (17.28 million people) and in livestock (12.96 million People). Almost all of those subsectors have significant decreasing in the ten years from the last census in 2003 and only fish cultivation that increased. Fishing, horticulture, and also livestock are the biggest contributors in the farmer household decrement.

**Table 4.2.2:
Total of Agriculture Company according to the Subsector 2003 and 2013**

	Subsector	Company			
		AC2003 (000)	AC2013 (000)	Change	
				Absolute (000)	%
	Agricultural sector	4,010	4,165	155	3.87
SUBSECTOR:					
1	Crops	87	114	27	31.03
	- Rice	69	75	6	8.70
	- <i>Palawija</i>	18	47	29	161.11
2	Horticulture	225	185	-40	-17.78
3	Plantation	1862	2216	354	19.01
4	Livestock	475	636	161	33.89
5	Fisheries	631	379	-252	-39.94
	- Fish cultivation	520	279	-241	-46.35
	- Fishing	111	100	-11	-9.91
6	Forestry	730	656	-74	-10.14

Source: Agricultural Census year 2013

Table 4.2.2 shows total of company in agriculture sector in Indonesia is increasing. The increasing is about 3.87 percent of total agriculture company and it is dominated by Plantation Company which is based on the palm oil production. The number of agriculture companies incorporated plantation subsector in agricultural census 2013 is many as 2.216 companies, while the numbers of Forestry Company are 656 companies. Even though total of Crop Company is still few, but it there is an increase based on the agriculture survey in 2013, 87 companies compared to 2013 about 114 companies²⁰.

²⁰ Statistic Center Body, Report result of agriculture census 2013. 2013

Condition of agricultural households is not worth with the effort. It can be seen from the land control owned by Indonesian farmers which are very small. This kind of farmer is classified as “*petani gurem*” in Indonesia or as peasant that only has small land or has less than 0.5 ha. In the agricultural census from 2003 to 2013 there was a declining of land ownership which was may be due to a declining of farming households in Indonesia, which is seen by overall decline in land owner approximately -16.32 percent, or a decrease of approximately 5,096,715 million people. In 2013, land owner under 0.1 ha (1000m²) looked drastically reduced as many as 4.34 million households, and decreased by 53.75 percent which is compared to 2003, totaled 9.38 million households. Land owner with an area of land held between 0.10 to 0.19 ha (1000-1999 m²) in 2013 is 3.55 million households, decreased by 1.45 percent compared to 2003 recorded for 3.6 million households. Group 0.20 to 0.49 ha land area (2000-4999 m²) in ST013 has recorded the number of farming households as many as 6.73 million households, decreased by 83.58 thousand households compared to 2003.

Table 5.2.3: Total of Agriculture Farmer Household according to the Total of Land Area Ownership in Agricultural Cencus (AC) in 2003 and 2013.

Land Total Categorized (m ²)		AC2003	AC2013	Change	
				Absolut	%
1	<1.000	9 380 300	4 338 847	-5 041 453	-53.75
2	1.000–1.999	3 602 348	3 550 185	-52 163	-1.45
3	2.000–4.999	6 816 943	6 733 364	-83 579	-1.23
4	5.000–9.999	4 782 812	4 555 075	-227 737	-4.76
5	10.000–19.999	3 661 529	3 725 865	64 336	1.76
6	20.000–29.999	1 678 356	1 623 434	-54 922	-3.27
7	≥30.000	1 309 896	1 608 699	298 803	22.81
total		31 232 184	26 135 469	-5 096 715	-16.32

Source: Agricultural census year 2013

Farm land owner is dominated by Indonesia farmer household. It means that most of Indonesia farmer household is the owner of its own land even most of them is peasant. From total 26.14 million people of farmer household in Indonesia as much as 98.53 percent is land owner (25.75 million household). In addition, the rest is not the land owner. Then, new category is made out of two big groups of farmer household that only control small land, about less than 0,5 ha and more than 0,5 ha. The result from total of 98.53 percent, 55.3 percent (14.25 million household) is peasant household, and 44.67 percent (11.50 million household) is not peasant²¹.

2.3 The Development of Total Food Agriculture Land, Production and Productivity in Indonesia

As been said before, Indonesia has a very broad and very fertile territory but indeed it is regrettable that the use of land for agriculture has not optimally done by the Indonesian government. Based on BPS data in 2013, Indonesia has a land area of 191.09 million hectares. Only about 95.81 million hectares are potentially for agricultural activity, consisting of 70.59 million hectares of dry land, 5.23 million hectares of non-marsh wetlands, and 19.99 million hectares of wetlands. Most of that potential land is already used for agriculture activity. So, the land reserve is about 34.7 million hectares in which the area of cultivation is about 7.45 million hectares, 6.79 million hectares and approximately 20.46 million hectares in Production Forest²².

²¹ Ibid.,

²² Ministry of Indonesia, Strategic Plan of Agriculture Ministry, 2015

Table 6.2.3: Land Area by Utilization in Indonesia, 2009-2013

Land type	Year					Growth 2013 over 2012
	2009	2010	2011	2012	2013	
Wetland	8,068,427.00	8,002,552.00	8,094,862.00	8,132,345.91	8,112,103.00	-0.25
a. Irrigated wetland	4,905,107.00	4,893,128.00	4,924,172.00	4,417,581.92	4,819,525.00	-9.10
b. Non irrigated wetland	3,163,220.00	3,109,424.00	3,170,690.00	3,714,763.99	3,292,578.00	-11.37
Dry land	11,782,332.00	11,877,777.00	11,626,219.00	11,947,956.00	11,876,881.00	-0.59
Shifting cultivation	5,428,689.00	5,334,545.00	5,697,171.00	5,262,030.00	5,272,895.00	0.21
Temporary unused land	14,880,526.00	14,754,249.00	14,378,586.00	14,245,408.00	14,213,815.00	0.22

Eventhough the condition of agriculture gives a huge contribution in labor absorption there is declining or agriculture land shifting. Moreover, farmer performance need to get attention. The performance of agriculture productivity can be seen by looking of the productivity of agriculture itself. Productivity itself is calculated from total production per hectare of agricultural land.

Table 7.2.3: Productivity by Commodity in 2007-2013

Commodity	2007	2008	2009	2010	2011	2012	2013
Rice	47.05	48.94	49.99	50.15	49.80	51.36	51.52
Corn	36.60	51.79	49.54	48.44	48.99	45.65	44.36
Soy beans	15.51	14.16	13.48	13.73	13.68	13.48	13.13
Peanut	11.95	13.52	12.49	12.56	12.56	12.49	12.15
Green beans	10.53	11.24	10.91	11.48	11.30	11.60	11.24
Cassava	233.55	224.60	214.02	202.96	202.17	187.46	180.57
Sweet potato	152	147.47	139.29	123.29	113.27	111.92	107.80

Source: Center for Agriculture Data and Information System, Secretariat General – Ministry of Agriculture 2014

2.4 Indonesia Agriculture Export-Import Development

The development of Indonesian agricultural export imports always experiences a fluctuation which is caused by various internal and external factors. Data of export and import are important to see how the general condition of Indonesia agriculture is. In terms of international trade, export and import are two things that are very important. However, it needs to emphasize that too many importing commodities give indication that the state condition was not too good.

The agriculture in sub sectors of food crops is presented in table 8.2.4. The data of export-import development plant were not so good. Annually, the demand for imported commodities increased gradually and did not match with the balance of trade. It is only plantation and horticulture that have a quite increasing especially of course it is for palm oil export commodities in which they are mostly dominated by large companies or even worse overseas companies.

Table 8.2.4: Agricultural Export Import in Indonesia by Sub Sector in 2008 - 2015

<i>Sub sector Food Crops</i>								
	Year							
	2008	2009	2010	2011	2012	2013	2014	
Volume (ton)								
<i>Export</i>	812,290	786,627	892,454	807,265	234,274	357,333	367,664	
<i>Import</i>	7,414,293	7,788,215	10,504,604	15,363,009	14,440,737	16,780,553	18,195,889	
<i>Balance of Trade</i>	-6,602,003	-7,001,588	-9,612,150	-14,555,744	-14,206,463	-16,423,220	-17,828,224	
Value (US\$000)								
<i>Export</i>	348,883	321,261	477,708	584,861	150,705	185,960	205,531	
<i>Import</i>	3,526,957	2,737,862	3,893,840	7,023,936	6,306,808	7,519,061	7,690,127	

<i>Balanc e of Trade</i>	-3,178, 074	-2,416, 601	-3,416, 132	-6,439, 075	-6,156, 103	-7,333, 101	-7,484, 596	
Sub sector Horticulture								
Volume (ton)								
<i>Expor</i>	524,48 5	447,60 9	364,13 9	381,64 8	426,57 6	364,21 3	441,134	
<i>Import</i>	1,429,9 67	1,524,6 66	1,560,8 08	2,052,2 71	2,138,8 02	1,543, 105	1,651, 547	
<i>Balanc e of Trade</i>	-905, 482	-1,077, 057	-1,196, 669	-1,670, 623	-1,712, 226	-1,178, 892	-1,210, 413	
Value (US\$000)								
<i>Export</i>	433,92 1	379,73 9	390,74 0	491,30 4	504,53 8	434,38 5	522,985	
<i>Import</i>	926,04 5	1,077,4 63	1,292,9 88	1,686,1 31	1,813,4 05	1,529,8 23	1,637,0 67	
<i>Balanc e of Trade</i>	-492, 124	-697, 724	-902, 248	-1,19 4,827	-1,30 8,868	-1,09 5,439	-1,11 4,081	
Sub sector Plantation								
Volume (ton)								
<i>Expor</i>	25,182, 681	27,864, 811	27,017, 306	27,863, 746	29,826, 443	32,540, 504	35,027, 290	
<i>Import</i>	2,683,7 39	2,963,5 32	3,578,0 61	4,311,9 82	3,954,2 02	4,501,5 46	4,037,4 50	
<i>Balanc e of Trade</i>	22,498, 943	24,901, 279	23,439, 245	23,551, 764	25,872, 241	28,038, 958	30,989, 840	
Value (US\$000)								
<i>Export</i>	27,369, 363	21,581, 669	30,702, 864	40,689, 768	32,479, 157	29,476, 882	29,722, 438	
<i>Import</i>	4,535,9 18	3,949,1 91	6,028,1 60	8,843,7 92	4,518,7 84	4,241,3 66	4,028,5 69	
<i>Balanc e of Trade</i>	22,833, 445	17,632, 479	24,674, 704	31,845, 976	27,960, 373	25,235, 516	25,693, 869	
Sub sector Livestock								
Volume (ton)								
<i>Expor</i>	635,30 4	473,18 2	494,18 6	906,99 7	185,67 5	220,27 1	235,390	
<i>Import</i>	1,065,2 35	1,124,7 37	1,231,5 25	1,190,6 30	1,201,7 42	1,393,4 39	1,485,1 41	
<i>Balanc e of</i>	-429, 931	-651, 555	-737, 339	-283, 633	-1,01 6,067	-1,17 3,168	-1,24 9,751	

<i>Trade</i>								
Value (US\$000)								
<i>Export</i>	1,148,170	754,913	951,662	1,599,071	556,527	592,692	587,798	
<i>Import</i>	2,352,219	2,132,800	2,768,339	3,044,801	2,698,100	3,175,011	3,798,795	
<i>Balance of Trade</i>	-1,204,049	-1,377,887	-1,816,677	-1,445,730	-2,141,573	-2,582,319	-3,210,997	
Agriculture								
Volume (ton)								
<i>Export</i>	27,154,761	29,572,229	28,768,085	29,959,656	30,672,967	33,482,321	36,071,479	
<i>Import</i>	12,593,233	13,401,150	16,874,998	22,917,892	21,735,483	24,218,643	25,370,028	
<i>Balance of Trade</i>	14,561,528	16,171,080	11,893,087	7,041,764	8,937,484	9,263,678	10,701,451	
Value (US\$000)								
<i>Export</i>	29,300,337	23,037,582	32,522,974	43,365,004	33,690,927	30,689,919	31,038,752	
<i>Import</i>	11,341,139	9,897,316	13,983,327	20,598,660	15,337,098	16,465,261	17,154,557	
<i>Balance of Trade</i>	17,959,198	13,140,266	18,539,647	22,766,344	18,353,830	14,224,658	13,884,195	

Source: Statistic Center Body (BPS), PUSDATIN

2.5 Role of Indonesia Agriculture to Indonesia GDP (Gross Domestic Product)

To see how Indonesian agricultural development and its achievements in the establishment of the Indonesian economy, it can be seen in terms of agriculture role in Indonesia GDP formation. Total value which was created by the agricultural sector in 2004 was amounted to IDR. 217 trillion and in 2012 increased to IDR. 314 trillion. Meanwhile, its contribution to development of the Gross Domestic Product (GDP) National in 2004 was 14.34 per cent and in 2012 slightly increase to 14.44, or on average over the period from 2004 to 2012 its contribution to GDP was only about 14 percent with the trend that has not

relatively changed much, even in the last three years it was likely to decline. The highest contribution occurred in 2009 and 2010, and the lowest occurred in 2006. Relatively unchanged agricultural sector's contribution in the development of national GDP gives a strong indication that the productivity of the agricultural sector is still lower when compared to other economic sectors²³. When viewed the agriculture GDP contribution per subsector food crops remained the highest contributor in the GDP contributor of the agricultural sector although it trend tends to decline and only fishery sub sector was likely to rise.

Table 9.2.5: Agriculture Sub-Sector Contribution for Indonesia GDP

Business Field	2004	2005	2006	2007	2008	2009	2010	2011	2012
Food Crops	50,30	49,79	49,48	48,92	48,81	48,90	48,95	48,56	48,25
Plantation	15,08	15,50	14,63	15,07	14,79	12,99	13,81	14,08	13,42
Livestock	12,35	12,14	11,79	11,32	11,62	12,24	12,11	11,85	12,27
Forestry	6,16	6,20	6,94	6,67	5,63	5,26	4,90	4,74	4,61
Fisherie	16,11	16,38	17,16	18,03	19,15	20,60	20,23	20,77	21,45

Source: Directorate Food and Agriculture/ Ministry of National Development Planning/ Body of National Development Planning

Table 2.5.1 shows that Agriculture GDP does not seem to get attention from the government because it is declining gradually. It is also affected by the shifting of farm land, decreasing total number of farmer. However, food crop is still the largest contributor to Indonesia GDP. It indicates that food crops are still important for Indonesia's agriculture sector.

²³ Food and agriculture directorate of ministry of National Development Plan / Body of National Development Plan. Analysis of household, land, and Agricultural Business in Indonesia : Agriculture Cencus in 2013, 2014, Pg.12.