

# TKNREPORT

## *A Survey of Business Models for Agricultural Investment in Indonesia*

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*Tulus T. H. Tambunan*

*December 2012*

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### A Survey of Business Models for Agricultural Investment in Indonesia

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## *Abstract*

This policy paper surveys foreign investment trends in the agricultural sector in Indonesia, and discusses the models used to structure these investments. The paper gives concrete examples of business models that have been adopted in Indonesia, explains the policy and economic drivers behind these models, and discusses their impacts on agricultural productivity, economic growth, and rural livelihoods. The paper proposes several policy recommendations to help achieve positive outcomes from investment in agriculture in Indonesia. In addition to enhancing the capacity of farmers and ensuring clear and consistent regulations, major reforms are required around land ownership. The author also recommends better disclosure of land use in the country, given the significant power that provincial governments possess to issue land concession permits to investors, as well as the possible collusion between the private sector and local governments.

## Table of Contents

Executive Summary .....	1
1.0 Introduction .....	2
2.0 Recent Trends in Indonesian Agriculture and Foreign Direct Investment in Agriculture .....	3
2.1 Trends in the Indonesian Agricultural Sector.....	3
2.2 Trends in Foreign Direct Investment in the Indonesian Agricultural Sector .....	5
3.0 The Role of Government Institutions in Promoting Investment Policy Reform in the Agricultural Sector.....	9
3.1 Government Institutions and Investment in Agriculture.....	9
3.2 Government and Agricultural Policy Reforms .....	9
4.0 Business Models for Investment in Agriculture in Indonesia .....	11
4.1 Contract Farming .....	11
4.1.1 Plasma-Nucleus Partnership.....	11
4.1.2 Subcontracting.....	12
4.1.3 Harvest and Pay.....	13
4.1.4 Operational Cooperation (KSO) .....	13
4.2 Land Concessions.....	13
5.0 The Impacts of Various Business Models of Agricultural Investment in Indonesia .....	15
5.1 Contract Farming.....	15
5.1.1 The PIR/NES System.....	15
5.1.2 Subcontracting .....	16
5.1.3 KSO .....	17
5.2 Land Concessions .....	17
5.2.1 Rights to Exploit (HPH).....	17
5.2.2 Industrial Forest Plantations (HTI).....	18
5.2.3 Cultivation Rights (HGU) and the Rights to Build (HGB) .....	19
6.0 Conclusion and Policy Recommendations.....	21
References.....	22

## Abbreviations and Acronyms

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BKPM	<i>Badan Koordinasi Penanaman Modal</i> (Investment Coordinating Board)
BPTP	<i>Badan Pengkajian Teknologi Pertanian</i> (Center for Agricultural Technology Assessment)
BUMN	<i>Badan Usaha Milik Negara</i> (State-Owned Enterprises)
CPO	Crude Palm Oil
FAO	Food and Agriculture Organization
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
HGB	<i>Hak Guna Bangunan</i> (Rights to Build)
HGU	<i>Hak Guna Usaha</i> (Cultivation Rights)
HKTI	<i>Himpunan Kerukunan Tani Indonesia</i> (Indonesian Farmers Union)
HPH	<i>Hak Pengusahaan Hutan</i> (Rights to Exploit)
HTI	<i>Hutan Tanaman Industri</i> (Industrial Forest Plantation)
IPL	<i>Imbalan Penggunaan Lahan</i> (Incentives to Use the Land)
KKA	<i>Kredit Koperasi Anggota</i> (Cooperative Members' Credits)
KPA	<i>Konsorsium Pembaruan Agraria</i> (Consortium for Agrarian Reform)
KSO	<i>Kerjasama Operasional</i> (Operational Cooperation)
NES	Nucleus Estate Smallholders
PIR	<i>Pola Inti Rakyat</i> (Plasma–Nucleus Partnership)
PPA	<i>Program Pengembangan Agribusiness</i> (Agribusiness Development Program)
PT	<i>Perusahaan Terbatas</i> (Limited Liability Company)
REPELITA	<i>Rencana Pembangunan Lima Tahun</i> (Five Year Development Plan)
TNCs	Transnational Corporations
UUPA	<i>Undang-Undang Pokok Agraria</i> (Basic Principles of Agrarian Law)

## Executive Summary

As in many developing countries, agriculture forms a major part of the Indonesian economy, and has been important to the country's economic resilience. Indonesia's agricultural sector has performed relatively well in recent decades, contributing significantly to gross domestic product (GDP), employment, and poverty reduction. However, the sector's relative contribution to the economy has declined, due in part to the growth of other sectors of the economy, such as industry, mining, and services. In addition, productivity gains for most crops have also slowed significantly, while average land ownership for agricultural purposes has shrunk compared to three decades ago. Realizing the seriousness of these trends, the government has in recent years determined four key policy objectives for the sector: self sufficiency (particularly in rice), greater diversification in the agricultural production, improvements to competitiveness and exports of agricultural commodities, and an increase in the welfare of farmers. To achieve these goals, the government has also decided that investments from the private sector, including from abroad, are needed.

This paper examines the existing trends of investment in agriculture in Indonesia and the models used to organize those investments. It describes examples of business models that have been adopted in Indonesia, explains the policy and economic drivers behind these models, and discusses their impacts on agricultural productivity, economic growth, and rural livelihoods.

The most common business model found in Indonesia today is contract farming, while land concessions are becoming increasingly popular. The paper discusses the fact that both contract farming and land concessions have had mixed costs and benefits for investors, local farmers, and society as a whole. To be effective, agricultural investment in the country should be supported by a viable agricultural policy that is inclusive and takes into account the various socioeconomic possibilities and challenges confronted by Indonesia.

This paper proposes several policy recommendations to improve the climate for investment in agriculture in Indonesia. Aside from enhancing the capacity of its farmers and ensuring clear, transparent, and consistent regulations, major reforms are required around land ownership. Among other things, the introduction of a geographical information system would allow the public and investors solid information concerning land use throughout Indonesia, thereby minimizing possible disputes over land ownership.

## 1.0 Introduction

Agriculture is a central theme on the development agenda: it is a key to triggering growth, reducing poverty, ensuring food security and meeting environmental goals (World Bank, 2008). As in many developing countries, agriculture forms a major part of the Indonesian economy, and has proved important to Indonesia's economic resilience. When Indonesia was hit by the Asian financial crisis of 1997/98, agriculture was the only sector that managed to grow, generating sufficient revenues to fuel the stagnant economy in some parts of the country.

The agricultural sector has performed relatively well in recent decades, contributing significantly to Indonesia's gross domestic product (GDP), employment, and poverty reduction. However, the sector's relative contribution to the economy has declined, due in part to the growth of other sectors of the economy, such as industry, mining, and services.

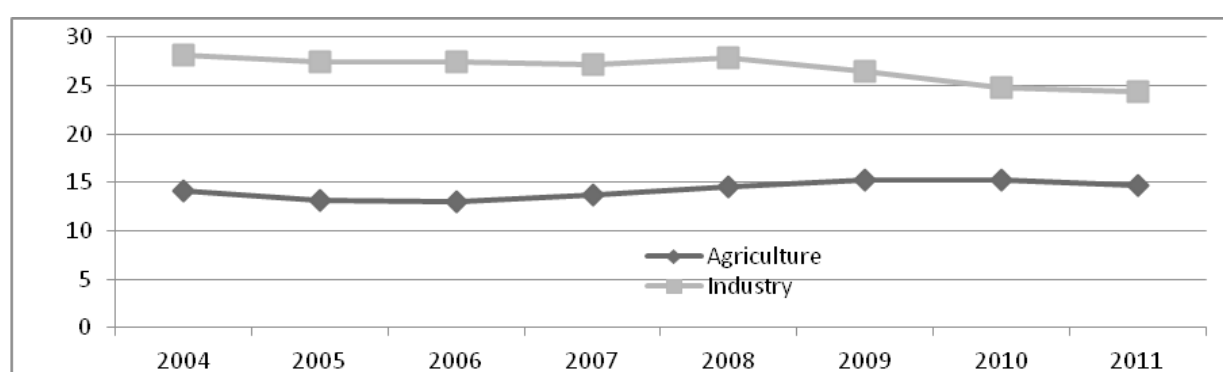
Productivity gains for most crops have also slowed significantly, while average land ownership for agricultural purposes has shrunk compared to three decades ago. Realizing the seriousness of these trends, the government has, in the wake of the 1997/98 financial crisis, determined four key policy objectives: self sufficiency (particularly in rice); greater diversification in agricultural production; improvements to competitiveness and exports of agricultural commodities; and an increase in the welfare of farmers. To achieve these goals, the government has also decided that investments from the private sector, including from abroad, are needed.

This paper examines trends in agricultural investment in Indonesia and the models used to organize those investments. The paper draws concrete examples of business models that have been adopted in Indonesia, explains the policy and economic drivers behind these models, and discusses their impacts on agricultural productivity, economic growth, and rural livelihoods. Aside from the existing literature on the subject in Indonesia, the analysis of this policy paper is also drawn from information provide by direct interviews with relevant policy-makers (e.g., the Ministry of Agriculture, and, to a certain extent, the Investment Coordinating Board (BKPM–*Badan Koordinasi Penanaman Modal*)) and stakeholders (e.g., the Indonesian Farmers Union (HKTI–*Himpunan Kerukunan Tani Indonesia*)).

## 2.0 Recent Trends in Indonesian Agriculture and Foreign Direct Investment in Agriculture

### 2.1 Trends in the Indonesian Agricultural Sector

Indonesia is currently the fourth-largest country in the world with a total population of 225 million, and the third-largest agricultural economy in Asia after India and China (in terms of total arable land both used and available for use). The agricultural sector is one of the most important economic sectors in the country, contributing significantly to output and employment.



**FIGURE 1: PERCENTAGE DISTRIBUTION OF GDP IN AGRICULTURE AND INDUSTRY, 2004-2011 (CURRENT PRICES)**

Source: Berita Resmi Statistik, n.d.

However, as in many developing countries, the structure of the Indonesian economy has shifted from agriculture to manufacturing. The agricultural sector's share of national GDP dropped from 18 per cent in 1993 to 15 per cent in 1997. After a rise to 17 per cent of GDP in 1999 during the financial crisis, the sector's share trended downward over the last decade, and appears to have stabilized at a level slightly below 15 per cent (refer to Figure 1).

**TABLE 1: AGRICULTURAL VALUED ADDED IN ASEAN, 1990-2010 (PERCENTAGE OF TOTAL VALUE ADDED)**

COUNTRIES	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brunei	1.0	1.2	1.0	1.1	1.1	1.2	1.1	0.9	0.7	0.7	0.6	0.9	0.8
Cambodia	56.5	49.6	37.9	36.7	32.9	33.6	31.2	32.4	31.7	31.9	34.9	35.7	36.0
Indonesia	19.4	17.1	15.6	15.3	15.5	15.2	14.3	13.1	13.0	13.7	14.5	15.3	15.3
Laos	61.2	55.0	48.5	45.5	42.7	41.0	39.0	36.7	32.4	33.2	32.5	32.5	30.8
Malaysia	15.0	12.7	8.3	7.7	8.7	9.1	9.1	8.2	8.6	9.9	10.0	9.3	10.4
Myanmar	57.3	60.0	57.2	57.1	54.5	50.6	48.2	46.7	43.9	43.3	40.3	38.1	36.4
Philippines	21.9	21.6	14.0	13.2	13.1	12.7	13.3	12.7	12.4	12.5	13.2	13.1	12.3
Singapore	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Thailand	12.5	9.5	9.0	9.1	9.4	10.4	10.3	10.3	10.8	10.7	11.6	11.5	12.4
Vietnam	38.7	27.2	24.5	23.2	23.0	21.8	21.8	21.0	20.4	20.3	22.2	20.9	20.6

Source: Asia Development Bank, 2010.



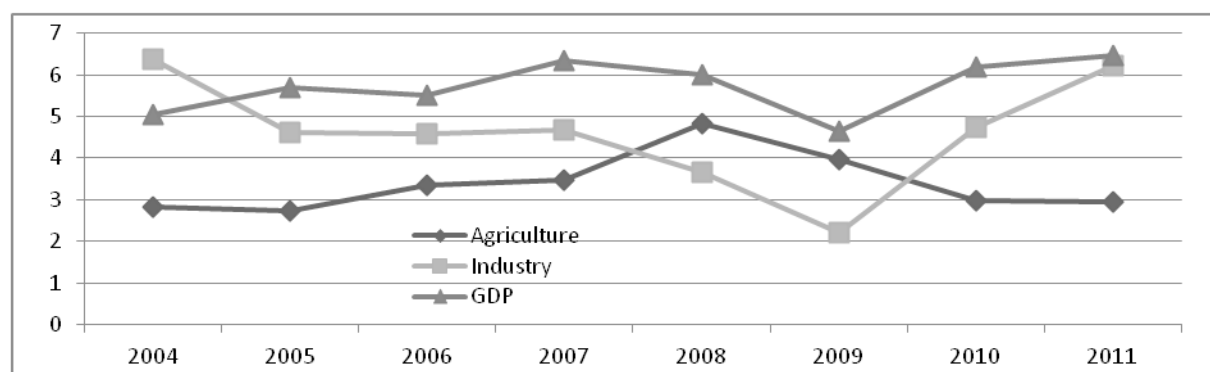
While Indonesia's level of economic development is relatively high compared to other agriculture-based member countries of the Association of Southeast Asian Nations (ASEAN), such as Cambodia, Laos, Myanmar, and the Philippines, the process of structural change to the economy in Indonesia has been slower than those countries. For the period reviewed, the share of agriculture in total output/value added in these four countries declined by almost 36.3 per cent, 50 percent, 36.5 per cent, and 43.8 per cent respectively in comparison of the Indonesian agricultural sectors' 21.1 per cent (see Table 1).

The growth rate of output in the sector has fluctuated significantly. As Table 2 illustrates, in 1990, when the Indonesian economy experienced average GDP growth of 7 and 8 per cent per annum, the real value added in the agricultural sector grew at around 3.1 per cent. This figure, however, declined sharply to 1.9 per cent in 2000. In 2004, the real value added in the agricultural sector increased again to around 2.82 percent, compared to 6.38 per cent in the manufacturing industry, which contributed 5.03 per cent of GDP. In 2011, the agricultural sector reached an output growth rate of 2.95 per cent compared to 6.22 per cent in the manufacturing industry.

**TABLE 2: GROWTH RATES OF AGRICULTURAL REAL VALUE ADDED IN ASEAN, 1990-2010 (%)**

COUNTRIES	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brunei	2.6	2.9	6.6	5.8	5.2	11.3	12.0	1.3	-9.9	-4.5	3.7	5.8	-5.9
Cambodia	1.2	3.5	-1.2	4.5	-3.5	10.5	-0.9	15.7	5.5	5.0	5.7	5.4	4.0
Indonesia	3.1	4.4	1.9	3.3	3.4	3.8	2.8	2.7	3.4	3.5	4.8	4.0	2.9
Lao PDR	8.7	3.1	4.2	-0.6	1.9	2.5	3.4	0.7	2.5	6.5	4.9	3.0	3.0
Malaysia	-0.6	-2.5	6.1	-0.2	2.9	6.0	4.7	2.6	5.2	1.3	4.3	0.6	2.1
Myanmar	1.8	4.8	11.0	8.7	6.0	11.7	11.0	12.1	9.7	7.9	5.6	5.6	4.7
Philippines	0.5	0.9	3.4	3.4	3.3	4.7	4.3	2.2	3.6	4.7	3.2	-0.7	-0.2
Singapore	-8.3	-3.7	-4.9	-10.8	-17.5	-7.9	-3.3	2.1	3.5	1.3	-4.2	-1.7	-0.1
Thailand	-4.7	4.0	7.2	3.2	0.7	12.7	-2.4	-1.8	5.0	1.2	4.2	1.3	-2.2
Vietnam	1.0	4.8	4.6	3.0	4.2	3.6	4.4	4.0	3.7	3.8	4.7	1.8	2.8

Source: ADB, 2010.



**FIGURE 2: PERCENTAGE GROWTH OF GDP AND OUTPUT IN AGRICULTURE AND MANUFACTURING INDUSTRY, 2004-2011 (AT CONSTANT 2000 PRICES)**

Source: Berita Resmi Statistik, n.d.

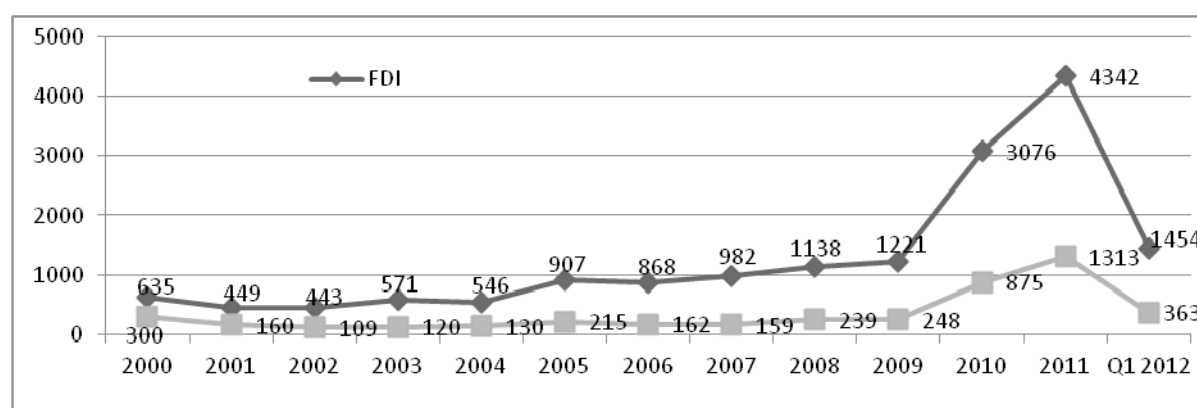
Although both the contribution of the agricultural sector to GDP and the growth rate of the agricultural sector are lower than that of manufacturing, the sector remains the largest source of employment. That said, the proportion of the labour force employed in agriculture declined from almost 56 per cent in 1990 to 38.3 per cent in 2010. As of 2010, Indonesia was ranked third behind Vietnam and Thailand with respect to the importance of agriculture to employment creation (see Table 3).

**TABLE 3: EMPLOYMENT IN AGRICULTURE IN ASEAN, 1990–2010 (PERCENTAGE OF TOTAL EMPLOYMENT)**

COUNTRIES	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brunei	n.a.	2.5	n.a.	1.4	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cambodia	n.a.	81.4	73.7	70.2	70.0	64.8	60.3	60.3	72.3	72.3	72.3	72.3	72.3
Indonesia	55.9	44.0	45.3	43.8	44.3	46.4	43.3	44.0	42.0	41.2	40.3	39.7	38.3
Lao PDR	n.a.	n.a.	n.a.	82.7	82.4	82.2	n.a.	76.3	n.a.	n.a.	n.a.	n.a.	n.a.
Malaysia	26.0	20.0	16.7	15.1	14.9	14.3	14.6	14.6	14.6	14.8	14.0	13.5	13.3
Myanmar	65.6	64.1	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Philippines	44.9	43.4	37.1	37.2	37.0	36.6	36.0	36.0	35.8	35.1	35.3	34.4	33.2
Singapore	0.5	0.2	0.1	0.3	0.3	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2
Thailand	63.3	46.7	44.2	42.4	41.0	41.0	39.3	38.6	39.7	39.5	39.7	39.0	38.2
Vietnam	72.1	71.3	64.4	63.6	56.9	56.9	58.7	57.1	54.3	52.9	52.3	51.5	38.7

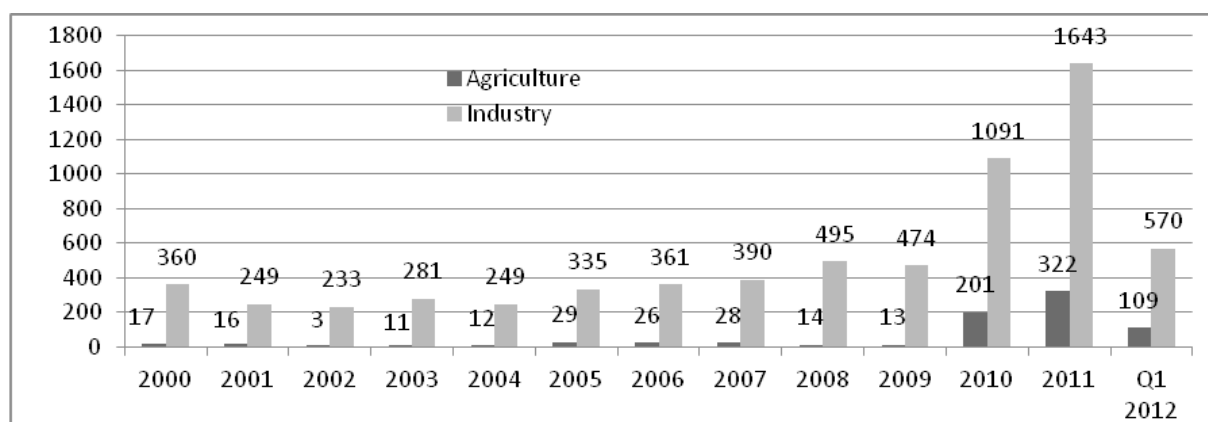
Source: ADB, 2010.

## 2.2 Trends in Foreign Direct Investment in the Indonesian Agricultural Sector



**FIGURE 3: REALIZATION OF FOREIGN AND DOMESTIC DIRECT INVESTMENT, 2000–Q1 2012 (NUMBER OF LICENCES ISSUED/PROJECTS)**

Source: Badan Koordinasi Penanaman Modal, n.db.



**FIGURE 4: FDI IN AGRICULTURE AND INDUSTRY, 2000–Q1 2012 (NUMBER OF PROJECTS)**

Source: Badan Koordinasi Penanaman Modal, n.db.

The agricultural sector receives significantly less foreign direct investment (FDI) than industry. In 2010, there were 200 FDI projects in the agriculture sector compared to 1,000 projects in the industrial sector (Figure 4). Based on the most recent data from the Indonesian Investment Coordinating Board (BKPM—*Badan Koordinasi Penanaman Modal*), there were 109 FDI projects in the agricultural sector in the first quarter of 2012, which included the combination of the following: 95 units in food crops and plantation, four units in livestock, two units in forestry, and eight units in fishery.

**TABLE 4: ALLOCATION OF REALIZED FDI IN INDONESIA BY LOCATION (PROVINCE), Q1 AND Q4 2011**

SECTORS	QUARTER 1		QUARTER 2	
	NUMBER OF PROJECTS	INVESTMENT VALUE (IN US\$)	NUMBER OF PROJECTS	INVESTMENT VALUE (IN US\$)
<b>Primary sector</b>	<b>166</b>	<b>1,445.2</b>	<b>199</b>	<b>417.9</b>
Food crops and plantation	74	419.8	81	205.1
Livestock	2	0.3	3	1.2
Forestry	7	5.2	4	2.7
Fishery	4	1.2	7	1.7
Mining	79	1,018.7	104	207.3
<b>Secondary sector</b>	<b>329</b>	<b>1,308.5</b>	<b>519</b>	<b>1,597.7</b>
Food	61	300.0	107	315
Textile	36	52.5	53	125
Leather goods and footwear	12	55.5	24	73.8
Wood	3	1.5	8	6.5
Paper and printing	10	7.7	12	59
Chemical and pharmaceutical	54	280.0	60	222.4
Rubber and plastic	30	113.1	46	20.3
Non-metallic mineral	5	14.1	14	75.2
Basic metal, metal products, machinery and electronic	81	259.0	118	346.2

Medical prec. & optical instruments, watches & clock	2	0.9	2	41
Motor vehicle and other transport equipment	24	215.7	49	302.7
Other industries	11	8.6	26	10.7
<b>Tertiary sector</b>	<b>407</b>	<b>1,642.0</b>	<b>582</b>	<b>3,114.3</b>
Electricity, gas, and water supply	15	606.7	19	703.1
Construction	11	53.6	16	180.4
Trade and repair	179	144.2	262	166.5
Hotel and restaurant	48	60.3	60	103.8
Transport, storage, and communication	35	593.1	25	1,715.2
Real estate, industrial estate, and business activities	23	20.0	35	46.5
Other services	96	164.1	165	199.0
<b>Total</b>	<b>902</b>	<b>4,395.7</b>	<b>1,300</b>	<b>5,129.9</b>

Source: Badan Koordinasi Penanaman Modal, n.d.b.

In the food subsector, the involvement of transnational corporations (TNCs), from upward activities (i.e., plantations) to downward activities (i.e., marketing), has expanded significantly in the last two decades. In some parts of the Indonesian food and beverages industry, TNCs own up to 100 per cent of the operation, while in others they establish partnerships with local companies (Table 5). Investment Law No. 25/2007 allows some sectors/subsectors/industries to be opened for foreign investment, but with conditions that encourage TNCs to form partnership with local firms.

**TABLE 5: TNCs IN INDONESIAN FOOD AND BEVERAGE INDUSTRY, 2011**

NAME OF PRODUCT	TYPE OF PRODUCT	INVESTORS	COUNTRY	SHARE (%)	OWNERSHIP
ABC	Soy sauce	HJ Heinz	United States	65	PT ABC Central Food
Sari Wangi	Tea	Unilever	United Kingdom	100	PT Sari Wangi
Bango	Soy sauce	Unilever	United Kingdom	100	PT Sakura Aneka Food
Taro	Snack	Unilever	United Kingdom	100	PT Rasa Murni Utama
Aqua	Beverage	Danone	France	74	PT Tirta Investama
Helios, Nyam-nyam	Cracker	Campbel	United States	100	PT Helios Arya Putra
Ades	Beverage	Coca Cola	United States	100	PT Adel Alfindo Putra Setia
SGM	Baby milk/food	Numico	Belgium	82	PT Sari Husada

Source: Sawit (2011).

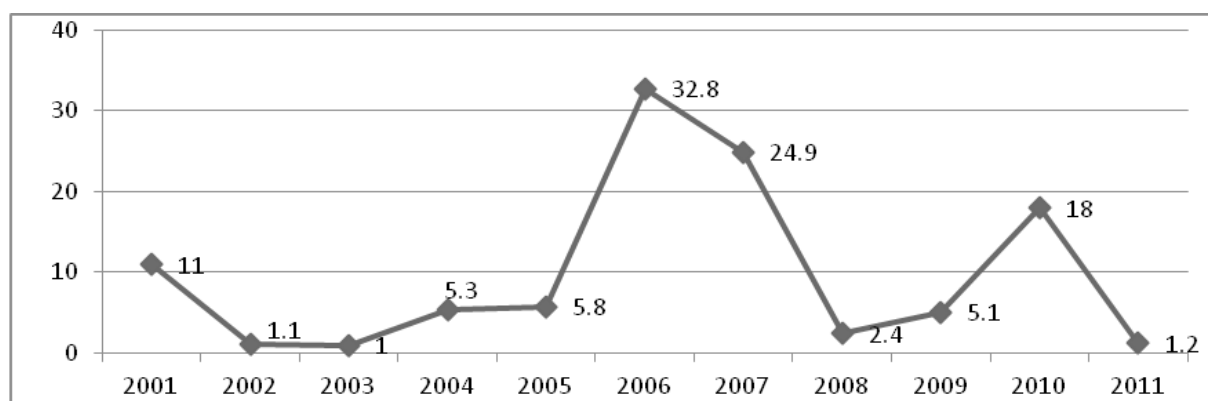
In the plantation subsector, palm plantations that produce crude palm oil (CPO) have been highly attractive to foreign investors. The number of foreign companies from various countries operating in the country's palm oil plantation has increased significantly in the past ten years. Malaysia has been the lead investor in Indonesia's palm oil plantations (Table 6). Due to increasingly limited space for CPO production in Malaysia, many Malaysian producers have moved overseas to expand their production.

**TABLE 6: FDI IN INDONESIAN PALM PLANTATIONS BY REGION AND COUNTRY OF ORIGIN, 2011**

COUNTRY OF ORIGIN	COMPANIES	AREA (HECTARE)	REGIONS
Malaysia	Kumpulan Guthrie Berhad	220,204	Riau, Jambi, South Kalimantan, Central Kalimantan, Aceh, and Central Sulawesi
	Kulim Berhad	97,263	West Sumatra, Central Kalimantan, West Kalimantan, and South Sumatra
	Golden Hope Plantation Berhad	96,000	West Kalimantan
	Kuala Lumpur Kepong Berhad	91,170	Riau, Kalimantan, and Belitung
United Kingdom	REA Holdings	66,136	East Kalimantan
	MP Evans Group Plc.	47,290	Bangka, East Kalimantan, North Sumatra, Bengkulu, and Aceh
	Anglo Eastern Plantations	37,502	Bengkulu, North Sumatra, and Riau
Belgium	SA Sipef NV	65,993	North Sumatra
Luxembourg	Socfinasia SA-Plantations	44,992	South Sumatra, West Sumatra, West Kalimantan, North Sumatra, and Riau
	Nord Sumatra Ltd.	n.a.	n.a.
Singapore	Wilmar Holdings	198,285	South Sumatra, West Sumatra, West Kalimantan, North Sumatra, and Riau
United States	Hindoli-Cargill Inc.	10,000	South Sumatra
Sri Lanka	Carson Cumberbatch & Co. Ltd.	27,500	Central Kalimantan

Source: Kompas, 2011b.

The data in Table 4 show that other agricultural subsectors are generally less attractive to foreign investors. In the first quarter of 2011, for example, there were only four approved FDI projects in fisheries, compared to 74 projects in food crops and plantations. In the fourth quarter of 2011, meanwhile, there were only seven approved FDI projects in the fisheries subsector against 81 approved FDI projects in the food crops and plantation subsector.



**FIGURE 5: VALUE OF APPROVED FDI PROJECTS IN INDONESIAN FISHERY SUBSECTOR, 2001-2011 (IN US\$ MILLION)**

Source: Kompas (2011a).

## 3.0 The Role of Government Institutions in Promoting Investment Policy Reform in the Agricultural Sector

### 3.1 Government Institutions and Investment in Agriculture

As noted by Patrick (2004), the government of Indonesia has undertaken a number of important actions to accelerate rural and agricultural development: (i) various monetary and fiscal policies (e.g., the reduction of export taxes, rescheduling of subsidy packages, and offering of production and consumption credits); (ii) facilitation and the promotion of agro-industry development; (iii) reform of the marketing system, legal institutions, and cooperation policies in the agricultural sector; (iv) development of infrastructure and institutional policies; (v) improvement of agricultural research and development; (vi) support to smallholder farmers through education and training; (vii) improvement of natural capital as well as natural resource management and environmental protection and renewal; and (viii) implementation of food safety policies.

While there are numerous government-related agencies that deal directly or indirectly with the agricultural sector, there are two key government ministries that mainly deal with investment issues, the Ministry of Agriculture and the BKPM. While the former deals with policies and regulations pertaining to agricultural production generally, the latter is primarily responsible for the development of policies to regulate the foreign investment in the sector.

The Ministry of Agriculture is not directly involved in influencing the types of business models that have emerged in the sector, although it has carried out monitoring activities on the nature and extent of contract farming arrangements through the Center of Agricultural Technology Assessment (BPTP—*Balai Pengkajian Teknologi Pertanian*). In addition, the Ministry also established the Agribusiness Development Program (PPA—*Program Pengembangan Agribisnis*) in 2007 to provide information and consultancy services to farmers (Saptana & Ashari, 2007). Finally, the Ministry of Agriculture also provides various credit schemes for farmers, such as the Cooperatives' Members Credits (KKA—*Kredit Koperasi Anggota*) for palm oil growers.

### 3.2 Government and Agricultural Policy Reforms

In 2007 the government enacted a new investment law, Law No. 25/2007,<sup>1</sup> which replaced the investment law of 1967.<sup>2</sup> Under the new law, all policies or regulations that affect directly or indirectly investment activities in Indonesia (e.g. labour policies that affect the hiring of foreign workers in FDI-based firms, tariffs for imported raw materials and other inputs issued by the Ministry of Trade and the Ministry of Finance) are to be coordinated by BKPM.

The investment law has eased restrictions on foreign investment. It adopts the so-called “negative list” approach to investment liberalization, which opens up sectors to foreign investors unless explicitly listed as closed or open with certain conditions.<sup>3</sup> The new law also includes provisions on transparency and introduces various new incentives to attract investment.

<sup>1</sup>For further details on the new Investment Law No. 25/2007, see BKPM (2007).

<sup>2</sup>A complementary regulation to attract FDI in the form of Presidential Regulations (PR) No. 36/2010 was later introduced in 2010. This new regulation determines the way in which investments can be pursued in 17 sectors that are conditionally open to FDI, which include agriculture, banking, communications and information technology, culture and tourism, defense, education, energy and mineral resources, finance, forestry, health, industry, manpower and transmigration, marine and fisheries, public works, trading, transportation, and security. For further details on the Presidential Regulation No. 36/2010, see BKPM (2010).

<sup>3</sup>See, in particular, Article 12 (1) of the new investment law. The list of sectors that are closed or open with certain conditions (or “negative list”) is determined by the Presidential Regulation No. 77/2007. This list is to be reviewed every three years.

Several key features of the new investment law are worth noting. These include the guarantee of equal treatment to all investments, no minimum capital requirements, free repatriation of investment and profits, dispute settlement procedures, and investment services. The law also offers incentives to any foreign investors that expand local employment, improve infrastructure development, transfer technology, develop alternative energy, conduct business in remote areas, partner with micro, small, and medium businesses, and use capital goods, machinery, or equipments produced locally. In addition, tax incentives, such as tax holidays for new firms, tax credits for new investments, and exemption from import duties, are also added to promote greater investment in the country.<sup>4</sup>

As far as land rights and ownership are concerned, the new investment law allows foreign investors the right to: (i) cultivate land (HGU—*Hak Guna Usaha*) for commercial use for a period of 25 years, which can be extended for another 25 years, and further extended to another 35 years; (ii) establish buildings (HGB—*Hak Guna Bangunan*) for 30 years, which can be extended for another 35 years, and renewed for another 20 years; and (iii) the rights to use land (*Hak Pakai*) for non-commercial purposes for up to 25 years, which can be extended for another 20 years, and renewed for another 25 years. If the land will be used for commercial purpose, the investor must rely on HGU, instead of HP, for the legal premise of the investment.

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<sup>4</sup> To avoid incidental double taxation on certain types of incomes such as profits, dividends, interests, fees, and royalties, Indonesia has also signed double taxation treaties with 59 countries. For details on these countries, see BKPM (n.d.a.).

## 4.0 Business Models for Investment in Agriculture in Indonesia

Investors use a variety of models to structure their investments in the agricultural sector. Vermeulen and Cotula (2010, p. 6) define business models for agriculture investment as “the way in which a company structures its resources, partnerships and customer relationships in order to create and capture value.” Broadly speaking, two approaches to investment are commonly applied in Indonesia: contract farming and land concessions. It should be stressed, however, that investments in agriculture often do not fall neatly into one of these categories. Moreover, data with regard to the business models that are commonly used in Indonesia are also neither straightforward nor readily available.

### 4.1 Contract Farming

Contract farming generally involves pre-agreed supply arrangements between local producers (i.e., farmers and growers) and buyers (usually large agribusiness firms). It is by far the most popular approach to investing in agriculture in Indonesia, both for domestic firms and TNCs. Under these arrangements, local farmers normally grow and deliver their products at a specified quantities and qualities on an agreed date, and often in exchange for upfront inputs, such as credits, seeds, fertilizers, pesticides, and technical advice.<sup>5</sup>

The specific characteristics of the partnerships between smallholder farmers and agribusiness firms depend on various aspects, such as the availability of institutions to support production, the commodity being produced, the resource base of the producers, and the capacity of the agribusiness firms (Patrick, 2004). A review by Simmons, Winters and Patrick (2005), suggests that the technical requirement and associated costs for production are the key factors that influence contract farming arrangements.

Four types of contract farming arrangements are commonly found in Indonesia: plasma–nucleus partnership, sub-contracting, harvest and pay, and operational cooperation (KSO—*Kerjasama Operasional*) (Patrick, 2004).

#### 4.1.1 Plasma–Nucleus Partnership

A plasma-nucleus partnership (PIR—*Pola Inti Rakyat*), or “core-periphery” partnership, is the most popular form of contract farming arrangement in Indonesia. In practice since the late 1970s,<sup>6</sup> this scheme has been credited with improving the welfare of smallholder farmers, or the plasma, through a partnership they establish with an agricultural firm, or the *nucleus* or *inti*. The implementation of PIR was made possible through the issuance of Presidential Decree No. 11/1974, which encouraged state-owned plantation enterprises to serve as the “cores” that provide guidance to smallholders around them (Chotim, 1996, p. 3). In its development, the PIR program was not only implemented by state-owned plantation enterprises, but also by the private sector and co-operatives (Chotim, 1996, p. 3).

Under PIR arrangements, agribusinesses often provide inputs, such as capital, seeds, fertilizers, pesticides, and technical expertise, to farmers or farmer cooperatives. Smallholder farmers involved in this arrangement are usually required to produce the required commodities at an agreed quantity, quality, and price.

<sup>5</sup> The United Nations Conference on Trade and Development (UNCTAD) (2009) finds that contract farming forms a significant component of TNCs’ participation in agricultural production. Contract farming arrangements may allow the TNCs better control over supply and product specifications, while for farmers such an arrangement provides them with predictable incomes, guaranteed access to markets, as well as support in areas such as credits and know-how.

<sup>6</sup> This model was officially launched in Indonesia in 1977 at the commencement of the PIR/NES I implementation in East Aceh and Tebanan, South Sumatra (Chotim, 1996: 25).



In the palm oil industry, the plasma-nucleus partnership is often associated with the Nucleus Estate Smallholders (NES) scheme. As stipulated in the Presidential Decree No. 1/1986, plantation firms are obliged to develop palm oil plots for individual farmers in the so-called plasma area, which usually includes two hectares of palm oil plantation and another hectare for other food crops in the area around the firm's own plantation, also known as the nucleus. The nucleus plantation provides technical support and transfers ownership of the land to farmers after a minimum of three years or a maximum of five years following the first harvest. In return, smallholder farmers are obliged to pay land fees, normally for 10 years. This type of partnership was an integral part of the Indonesian government's resettlement, or *transmigrasi*, programme, whereby low-income or poor families from the most populated islands in the country (i.e., Java and Sumatra) were relocated to other, less-populated islands. Thus, many, though not all, of the plasma smallholder farmers were relatively new settlers (Vermeulen & Goad, 2006).

Since the mid-1980s, plasma-nucleus partnerships have been further enhanced with the injection of capital from the private sector, including from abroad. This trend has allowed the expansion of various plantations in Riau, Jambi, South Sumatra, and Kalimantan, as well as a steady supply for Indonesian palm oil exports to other global markets. Although the plasma-nucleus system remains in use today, the government's sponsorship of expansion, which was supported by World Bank financing, ended in 2001 following the implementation of regional autonomy and fiscal decentralization processes, which transferred some functions of the central government to regional and local governments (Vermeulen & Goad, 2006).

#### 4.1.2 Subcontracting

Subcontracting refers to an agreement between an agribusiness firm and a third party in the food chain, such as a supermarket, for the former to supply commodities to the latter. Under this arrangement, an agribusiness firm normally subcontracts the production of the agricultural produce to smallholder farmers based on a pre-agreed quantity, quality, and price. This model is also increasingly used by large firms (normally with numerous suppliers in developing countries) which serve as contractors to fulfill global demand for their products (Sumiyati, 1992, p. 30). These large firms normally collaborate with smaller domestic firms that act as subcontractors to work with smallholder farmers.

For the contractors, subcontracting arrangements offer the benefits of low labour costs and a more efficient working environment. But there are also risks for contractors; for example, the quality and delivery of products may not always meet the requirements set in the contract. For farmers, subcontracting arrangements provide the benefits of production continuity, technical and management guidance, the supply of raw materials, and, in some cases, they potential additional assistance from the government. However, there are also risks for farmers, such as the possibility of late payments from the contractors, mismanagement, and low prices set on individual units ordered by the contractor (Sumiyati, 1992, p. 8).

In Indonesia, the subcontracting model is usually applied to off-farm<sup>7</sup> products, such as rattan, pandan leaves, or dairy products. The widespread use of the model has been made possible by the surge in demand for certain agricultural products, such as milk, furniture made from rattan, or pandan mats. Skill improvements among smallholder farmers have also triggered interest from large agribusiness firms (Sumiyati, 1992, p. 36).

<sup>7</sup> "Off-farm" mainly refers to agricultural activities conducted after the harvest period, or other income-generating activities pursued by farm households aside from their main farming activities. Off-farm income, therefore, includes agricultural wages, non-agricultural wages, self-employed income, remittances, and other income, such as capital earnings and pensions (Babatunde & Qaim, 2009, p. 8).

An example of a subcontracting arrangement can be found in Baturiti, Bali. Here, agricultural traders have been contracted to supply a variety of agricultural products, such as paprika, tomato, lettuce, and cabbage, to various hotels and restaurants. The agricultural traders, in turn, subcontract the production of this produce to farmers. Unlike the nucleus-plasma contract farming arrangement, the subcontract arrangement does not oblige agricultural traders to provide technical or management assistance to the farmers; rather, traders agree to purchase certain volumes of a farmer's produce at certain intervals, at a specified quality, and at the spot market price (Patrick, 2004).

### 4.1.3 Harvest and Pay

Harvest and pay is commonly referred to as *ijon* in Indonesia. This form of contract farming generally occurs in small-scale agricultural production. It involves a local trader who provides credit to smallholder farmers to purchase inputs. At harvest time, the farmers will be required to pay back their loans, at an amount that is determined by the cost of the credit and the spot market price. Payments may be either in-kind or cash. The form of partnership has helped address the difficulty that smallholder farmers often face in accessing credit (Patrick, 2004).

### 4.1.4 Operational Cooperation (KSO)

Operational cooperation (KSO) normally involves a firm acting as a contractor that provides inputs and fees to farmers in exchange for land use (also known as the incentives to use the land (IPL—*Imbalan Penggunaan Lahan*), usually at the market rental value of the land, for a season or more. The IPL is paid at the beginning of the contract (usually with advanced cash payment), which serves as a base payment to be topped up depending on the outcome of the harvest. This advance payment serves as a minimum wage for the length of the KSO, which is often added with a bonus should the production outcomes exceed the expectation. KSO partnerships have been in place since 1988 when the government formed PTP Nusantara XI, a state-owned plantation agribusiness, which mediates between smallholder farmers and sugar mills. The scheme has been credited with improving cane farmers' income security, while sugar-producing firms also benefit from guaranteed production for their mill (Patrick, 2004). This form of partnership is particularly useful for crop products that require long waiting periods prior to harvest, such as sugar cane.

## 4.2 Land Concessions

Land concessions involve granting “the use of land and associated water resources to an investor for a period of time” (Campbell, Knowles, & Sayasenh, 2012, p. 1). Land ownership and land tenure in Indonesia are regulated under Law No. 5/1960 concerning the Basic Principles of Agrarian Law (UUPA—*Undang-Undang Pokok Agraria*).<sup>8</sup> This regulation stipulates that only Indonesian citizens and legal entities established under Indonesian law and with a presence in the country, such as limited liability companies (PT—*Perusahaan Terbatas*), may obtain land ownership. Accordingly, foreign citizens are prohibited from owning the land, though they can qualify to obtain the rights to build (HGB—*Hak Guna Bangunan*), cultivate (HGU—*Hak Guna Usaha*), use (*Hak Pakai*), and lease (*Hak Sewa*). The law, moreover, also grants any private enterprises, whether foreign or domestic, the rights to build and the rights to exploitation.

Land concessions are also given by the state to investors, both domestic and foreign, on forested areas. The State technically owns all the forests in Indonesia, and can grant decades-long land concessions to a community or private enterprises (Integrated Regional Information Networks (IRIN), 2010). Foreign and domestic investors are

<sup>8</sup> For further details on the content of Law No. 5/1960, see, inter alia, Hukum Online (n.d.).

also required to observe Law No. 41/1999, which concerns the production, conservation, and protection of forests.<sup>9</sup> While conservation and protected forests can only be used for environmental-related purposes (e.g., biodiversity management, etc.), production forests can be used for commercial and industrial purposes.

Furthermore, Forestry Ministry Regulation No. P50/Menhut-II/2010 concerning forest production also stipulates three rights that can be granted to private enterprises and state-owned enterprises (BUMN—*Badan Usaha Milik Negara*): the Rights to Exploit (HPH—*Hak Pengusahaan Hutan*), the Industrial Forest Plantation (HTI—*Hutan Tanaman Industri*), and the Ecosystem Reforestation Rights (*Hak Reboisasi Ekosistem*).<sup>10</sup> The HPH is the concession given by the government to private sector to manage the country's forest without converting them into agricultural use, while the HTI is a form of concession that is given to private sector by the government which allows land to be planted with forest products for commercial use. Meanwhile, HRE is normally granted to private and/or BUMN for reforestation of forested areas previously used for commercial and/or industrial purposes.

It is important to note, however, that the HGU can also be applied to both forested and non-forested areas. Both domestic and foreign investors can be granted an HGU for a period of 25 years, which can subsequently be renewed for another 25 years, and extended by another 35 years. The government sells land permits each year for investors to use publicly owned land for specific purposes, such as agriculture, logging, and mining. Prices for such a concession vary depending on the land's location and intended use.

Aside from the HGU, the non-forest concession also covers the HGB, or the Rights to Build. The HGB is regulated by Articles 35–40 of Basic Principle of Agrarian Law (UUPA—*Undang-Undang Pokok Agraria*). It is essentially a title that grants a landowner the right to build and own a construction on a private or a state land. The period covered by the HGB, however, differs from those granted under the HGU. For the HGB, both domestic and foreign investors can be granted an HGB license for a period of 30 years, and this can subsequently be renewed for another 20 years. To be eligible for such a licence, the applicant must be an Indonesian citizen or legal entity, such as a limited liability company, or PT, and have a presence in the country. For a PT, this can be 100 per cent foreign-owned, a joint-venture arrangement, or a 100 per cent Indonesian-owned company. This right can technically be transferred to another person or legal entity, be it through sales or inheritance, or can be used a collateral for loans (Bachriadi, 2001, p. 4).

Land regulations will soon be reformed with the introduction of Law No. 2/2012 on Land Acquisition, to be put into effect in 2013. Under this law, the government, BUMN, and private investors are able to obtain or use land when the government decides that any of these parties require land for infrastructure and public facilities. The previous owner of the land should be compensated for their loss of property, with the amount to be negotiated and agreed upon by the parties involved.

The land acquisition law has come under criticism from civil society groups. The Consortium for Agrarian Reform (KPA—*Konsorsium Pembaruan Agraria*), a Jakarta-based NGO, argues that the soon-to-be-implemented law is too favourable to investors, at the expense of the rights of local communities. The KPA is planning to lead a group of civil society organizations to apply for review of the law by the Constitutional Court (*Harian Kontan*, 2011, p. 2).

<sup>9</sup> For further details on Law No. 41/1999 on Forestry, see, inter alia, UGM (n.d.a.).

<sup>10</sup> For further details on Law No. 41/1999 on Forestry, see, inter alia, UGM (n.d.a.).

## 5.0 *The Impacts of Various Business Models of Agricultural Investment in Indonesia*

The impacts of the various business models for agricultural investment are difficult to assess in Indonesia due to a lack of data.<sup>11</sup> However, a handful of qualitative research studies shed some light on how various models have performed. The next section discusses the impacts of contract farming and land concessions on agricultural productivity, economic growth, and rural livelihoods.

### 5.1 Contract Farming

The previous section reviewed four different types of contract farming arrangements in Indonesia. Amongst these four models, plasma-nucleus partnerships (PIR), and its nucleus estate smallholder (NES) variation, subcontracting, and operational cooperation (KSO) are still commonly found in Indonesia. The use of the harvest and pay system, meanwhile, has been in decline in recent years. It is also important to note that information concerning the different types of contract farming varies, with data on the PIR/NES system easily available both in print and online, while subcontracting and KSO it is harder to come by. The assessment of the trends around these different types of contract farming reflects this imbalance.

#### 5.1.1 The PIR/NES System

One of the earliest investigations of the PIR/NES system is found in a staff appraisal of a World Bank project in 1983 (World Bank, 1983, p. 38–40). The appraisal focused on a sugar plantation in South Kalimantan. However, the appraisal was conducted only a year after the launch of the NES scheme, and, thus had little to say about the actual impacts of the project on contracted farmers. The appraisal expected that the annual average net income after debt service among contracted farmers would range from US\$1,700/year for newly settled families to US\$2,000/year for existing smallholder families, although these figures were made under the assumption that the various determinants in sugarcane production went in favour of the project.

Chotim (1996, Pp. x-xi) examined the impacts of the PIR system on the pineapple agroindustry in Subang district, West Java. While positive in its objectives (e.g., to increase productivity, improve income and welfare of small farmers, and increase access to technology for small-holder farmers), the study found that system largely failed to deliver. A key problem was that the firm that was to act as the nucleus failed to effectively delegate the primary production processes to local farmers. The study argued that the firm also did not effectively bind farmers contractually, leading to failures to follow through on the original agreements. The accumulation of these problems had significant consequences in the form of high economic and social costs.

Various econometric approaches had also been employed to assess the effectiveness NES system. For example, Suwartini, Coffin and Gunjal (1997) estimated the welfare effect of the implementation of the NES system in the poultry industry following the issuance of Presidential Decree No. 50/1981, which restricted the scale of enterprises to 10,000 birds for layer farms and 15,000 birds for broiler, in an effort to improve the participation of small farmers

<sup>11</sup> The BKPM currently does not consider important the adopted types of business partnership in its approved FDI projects. The Board is primarily concerned with the ability of an investment applicant to meet all the requirements it sets. Should an investor be interested in investing in the country's agricultural sector, particularly in a subsector that is open to foreign investment, but with certain conditions, then the BKPM would require said investor to form a business partnership with local farmers. The investor, however, is not required to explain to the BKPM the business model it intends to form with its local business partners. The interview with a representative of the BKPM took place in Jakarta, on May 11, 2012 (BKPM, n.d.b.).

in the industry. However, the policy led to aggregate losses for producers, amounting to 8 per cent of average annual total producer revenue for chicken meat production. Meanwhile, the estimated loss experienced by consumers corresponded to 14 per cent of estimated consumer expenditure for chicken meat. Because of these problems, the policy was phased out in the early 1990s.

A representative of the Indonesian Farmers' Association (HKTI—*Himpunan Kerukunan Tani Indonesia*) has also emphasized that not all partnerships between the core, or inti, firms and the plasma farmers or growers in Indonesia have been successful.<sup>12</sup> The HKTI has been assisting local farmers who have lost incomes as a result of failed partnerships. This respondent highlighted a case where a producer of crude palm oil used land certificates from its contracted local farmers to obtain a loan from Bank Mandiri, the largest state-owned bank in the country. Since the loan was considered as debt by the bank, the local farmers were prevented from using the land even after the expiration of their contract arrangement with the firm.

Concerns were also shared by a representative from the Ministry of Agriculture.<sup>13</sup> According to this official, there were many cases where the core firms were unable to provide the necessary access to the market for the commodities that they promised to the local farmers. Firms also failed to provide the necessary capital injection, technologies, and/or other services as stipulated in the contract agreement with local farmers.

However, there have also been positive assessments of these partnerships. Daryanto and Oktaviani (2003) and Patrick (2004), for example, found a range of benefits for both smallholder farmers and agribusiness firms. Some NES arrangements, such as those related to rice seed production in Bali and the poultry industry in Lombok, have allowed farmers greater access to inputs, credits, and marketing opportunities. Elsewhere, an assessment by the Asian Development Bank (ADB) (2006) on the NES scheme in the shrimp industry in Lampung also suggested that the arrangement appeared to have improved the general welfare of the *plasma* farmers. Meanwhile, a similar NES scheme observed by Jelsma, Giller and Fairhurst (2009) in a palm oil plantation in West Sumatra also enabled contracted farmers to maintain a high level of production and earn good incomes.

### 5.1.2 Subcontracting

Subcontracting arrangements are commonly found in agricultural- and forestry-related industries. They are often used in sectors that involve products that require specific certification, technologies, and skills. Sumiyati's study (1992, p. 29) on subcontracting in the rattan industry in Tegalwangi, in the subdistrict of Cirebon, found that the majority of rattan craftsmen in the area tended to have relatively high levels of economic and social welfare.

Ulfa (2002) found mixed results from subcontracting in her observations of partnerships between small- and medium-sized handicraft enterprises and small mat crafting households in a village in the Tasikmalaya district. Ulfa found that the arrangement generally benefitted poor households in the village (p. 96), by, among other things, providing the opportunity for poor farmers in the area to earn extra income from off-farm activities. However, the payments tended to be lower compared to those earned by non-subcontract labourers. Ulfa also maintained that the low wages earned by mat crafters allowed them only minimum welfare. In addition, the arrangement also made many men and women in the village too dependent on their contractors, and, in many cases, put them in a weaker bargaining position.

<sup>12</sup> An interview was carried out by the author with Ir. Benny Pasaribu, M.Ec. (Secretary General), HKTI, in Jakarta, on 18 June 18, 2012.

<sup>13</sup> An interview was carried out by the author with Professor Pancar Simatupang (Specialist staff for the Minister), the Ministry of Agriculture of the Republic of Indonesia, in Jakarta on May 22, 2012.

Positive impacts were evident in the case of Bimandiri Indonesia, which served as an intermediary that enabled small-scale farmers to supply to supermarkets (Vorley, Lundy, & MacGregor, 2009, pp. 202–203). Initially a wholesaler, Bimandiri became a specialized intermediary that supplied fruits and vegetables to Carrefour in Indonesia. The firm encouraged its farmers to cooperate in producer organizations, and supplied technical assistance and credit, while negotiating prices with the farmers transparently.

### 5.1.3 KSO

Unlike PIR/NES and subcontracting models, the KSO model is not well-recorded, and there is little documented evidence of its success or failures. This model, as mentioned in Section 4, normally involves an agreement between a large firm, as a provider of inputs, and farmers, as providers of land. In the agricultural sector, the KSO model has been used by some agribusiness firms involved in corn, sugar, and other plantation sectors, as well as those in the poultry business. Most readily available data focusses on sugar plantations involving BUMN. This partnership was officially launched in 1988 along with the formation of PTP Nusantara XI, a BUMN, in North Sumatra. PTP Nusantara XI provided sugar processing facilities and marketing assistance to local farmers to help improve the quality of their products (BUMN, 2012).

KSO partnerships in sugar plantations have also been made between BUMN and private sector firms. One example is the KSO between PTP Nusantara XI and PT. Kencana Gula Manis for the milling of sugar in Kediri, East Java. The need for new technology and extra capital encouraged PTP Nusantara XI to pursue the arrangement with PT. Kencana Gula Manis. In 2008, however, PTP Nusantara decided to cancel its contract with PT. Kencana Gula Manis as a result of the failure of the latter to comply with the substance of the agreement (Kontan, 2008).

## 5.2 Land Concessions

Land concessions in Indonesia have been increasingly prevalent since the introduction of greater regional autonomy in 1999, which provided local authorities the power to issue land-related licences. Although introduced to promote economic growth, the distribution of land concessions by local governments to private investors has been the source of land disputes. The sources of these tensions are described below.

### 5.2.1 Rights to Exploit (HPH)

**TABLE 7: THE TOTAL NUMBER OF HPH LICENCES ISSUED, 1993–2011**

PERIOD/YEAR	TOTAL NUMBER OF UNITS	FOREST COVERAGE (IN MILLION HECTARE)
1993–1994	575	61.70
1994–1995	487	56.17
1995–1996	487	56.17
1996–1997	447	54.09
1997–1998	427	52.28
1998–1999	420	51.58
1999–2000	387	41.84
2000	362	39.16
2001	351	36.42

2002	270	28.08
2003	267	27.80
2004	287	27.82
2005	285	27.72
2006	322	28.78
2007	324	28.27
2008	308	26.16
2009	304	25.77
2010	304	24.69
2011	292	23.41

Source: Ministry of Forestry of the Republic of Indonesia, 2012, p. 175.

The HPH, as mentioned earlier, is the right granted by the state to private sector actors to exploit forests. As highlighted in Table 7, the number of HPH licenses issued by the government has decreased since 1993-1994, when a total of 575 licenses were issued. In 2011, 292 HPH licenses were issued. The coverage of the forested areas affected by the issuance of HPH license has also decreased over the years, from 61.70 million hectares in 1993 to 39.16 million hectares in 2000, and 23.41 million hectares in 2011.

The introduction of HPH was intended to improve economic growth and management of forests (Alam, Supratman, & Alif, 2009). In reality, however, professional management of the country's forests has tended to be poor. Greater regional autonomy has led to wide distribution of HPH licences to private investors without sufficient oversight (UGM, n.d.b). One of the latest cases concerning the misuse of an HPH license involved the bribery of the regent of Buol in South Sulawesi, Amran Batalipu, by a local firm to acquire a land to be converted into a palm oil plantation. Corruption and the lack of transparency also facilitate the poorly targeted issuance and misuse of HPH (Rastika, 2012).

## 5.2.2 Industrial Forest Plantations (HTI)

**TABLE 8: THE TOTAL NUMBER OF HTI LICENCES ISSUED, 2006-2011**

PROVINCES	UP TO 2006		2007-2011		TOTAL	
	UNIT	COVERAGE (HA)	UNIT	COVERAGE (HA)	UNIT	COVERAGE (HA)
Aceh	1	2,945.0	-	-	1	2,945
North Sumatra	11	69,569.0	-	-	11	69,569
West Sumatra	5	16,611.9	-	-	5	16,611
Riau	29	123,942.0	4	25,600	33	149,542
Jambi	1	174	-	-	1	174
South Sumatra	7	25,214.5	4	64,777	12	89,991.50
Bengkulu	-	-	-	-	-	-
Lampung	-	-	-	-	-	-
Riau Islands	-	-	-	-	-	-
West Nusa Tenggara	1	5.0	-	-	1	5.0



East Nusa Tenggara	1	850.0	-	-	1	850
West Kalimantan	6	51,999.0	2	26,048	8	78,047
Central Kalimantan	10	121,515.0	6	63,644	16	185,159
South Kalimantan	5	52,190.0	-	-	5	52,190
East Kalimantan	1	16,350	-	-	1	16,350
North Sulawesi	-	-	-	-	-	-
Central Sulawesi	1	31,750	1	5,980	2	37,730
South Sulawesi	-	-	-	-	-	-
Southeast Sulawesi	-	-	-	-	-	-
Gorontalo	-	-	-	-	-	-
West Sulawesi	-	-	-	-	-	-
Maluku	3	4,049.0	-	-	3	4,049
North Maluku	1	48.0	1	1,485	2	1,533
Papua	-	-	4	131,000	4	131,000
West Papua	2	35,120.0	7	141,913	9	177,033
Total	85	552,332.4	25	460,447	115	1,012,779

Source: Ministry of Forestry of the Republic of Indonesia, 2011, p. 36.

A positive impact related to the use of HTI is associated with the development of pulpwood plantations. The introduction of the HTI in the late 1980s was in large part a result of rapid growth of Indonesia's pulp industry (Poyry, 1993). Large tracts of forests were given to major pulp producers, as well as several investors in the pulp and paper subsector. Barr (2001, p. 7) maintains that, in developing their HTIs, many Indonesian plantation firms introduced a number of fast growing pulpwood species, such as *acacia mangium*, *acacia crassicaarpa*, and, to lesser extent, *gmelina arborea* and *Eucalyptus deglupta*. Among these species, *acacia mangium* has been the dominant species, accounting for approximately 80 per cent of the total area planted (Poyry, 1998).<sup>14</sup> Over the past decade, the productivity of this species has increased steadily, and by the mid-1990s these land areas were able to provide an average harvest yield of 150–190 cubic metres/hectare (Poyry, 1998).<sup>15</sup> The ability of Indonesian pulp producers to obtain such yields every 7–8 years provided them with a competitive advantage over their counterparts in North America and Scandinavia (Barr, 2001).

### 5.2.3 Cultivation Rights (HGU) and the Rights to Build (HGB)

The HGU, as mentioned earlier, are rights granted by the government to private investors to exploit state land for agricultural, fisheries, and animal husbandry purposes. The HGB, on the other hand, grants the right to build in forested areas. A number of land conflicts between local communities and investors are associated with HGU licences, or linked to both the HGB and the HGU.

Much of the problem is linked to overlapping claims over land ownership. During the Dutch colonial period, the colonial government claimed most of the land in the Dutch East Indies. In the 1950s, several years after the country gained its independence, the Sukarno administration launched a nationalization process that allowed the government to take ownership over land previously claimed by the Dutch colonial government. However, the different arrangements

<sup>14</sup> As cited in Barr (2001, pp. 7–8).

<sup>15</sup> As cited in Barr (2001, p. 8).



governing land ownership between the Dutch administration and the post-independence government has led to competing claims, an issue that persists today.

The HGU was increasingly used by the government following the issuance of the Basic Principle of Agrarian Law (UUPA) in 1960. Over the years, the distribution of HGU has caused significant tensions between the government, private sector, and the local communities who often have longstanding claims over the disputed lands. Another HGU-related problem results from misuse of the land by the HGU recipient. For example, there have been cases where the HGU recipient either failed to use the land according to the purpose stated in the certificate, or where management over the land was given to other party.

The case of PT. Pagilaran in Batang, Central Java from 1990 to 2000 helps illustrate the conflicts (Pahlefi, 2004). Following the expiration of the HGU certificate of PT. Pagilaran in 1983, the firm intended to extend its HGU for another 25 years. The Ministry of Interior, through Ministerial Decree No. 15/HGU/DA/1983, granted the extension of PT. Pagilaran's HGU to 2008. The HGU extension covered 1,113,838 hectares, which was 450 hectares larger than the land coverage covered by the previous HGU. Much of the farmland included in the additional 450 hectares was affected by this new decision, leading to conflict between local farmers and PT. Pagilaran. While the affected farmers felt that the lands on which they worked had been passed on through generations, PT. Pagilaran argued that the extra 450 hectares was land that had been granted to it by the state.

## 6.0 Conclusion and Policy Recommendations

This paper has surveyed investment trends in Indonesia's agricultural sector, and discussed the models used to structure these investments. Contract farming arrangements are common, as are investments in agricultural land through the use of land concessions.

The literature on contract farming arrangements in Indonesia reveals a mix of risks and benefits for investors and local communities. In some cases, contract farming has given farmers better access to markets, more stable wages, and assistance in the form of credit, inputs and expertise. However, issues around fair pricing, the standardization of products, and the consistent quality of output have also led to problems under these arrangements.

To a large extent, however, many of the problems confronted by firms and contract farmers are not due to the business model per se, but are often the result of an unfavourable business environment prevalent in the country. To be effective, agricultural investment in the country should be supported by a viable agricultural policy that is inclusive and takes into account the various socioeconomic possibilities and challenges confronted by Indonesia.

The author thus proposes several key policy recommendations. First, in light of common problems found in many existing business partnership in the agricultural sector (particularly contract farming), the government should consider enhancing its capacity-building initiatives (e.g., training, technical assistance, access to credit, and so on) to further empower local farmers involved in business partnerships.

Second, clear, transparent, and consistent regulations with regard to investment in agricultural sector must be put in place. Clarity on the regulations concerning land ownership and appropriate methods of settling land disputes would, in particular, improve investment in the sector significantly.

Third, in order to better control land distribution, the central government needs to consider creating a geographical information system that would allow the public and investors better information on land use and ownership throughout Indonesia. This is especially important given the significant power that provincial governments now possess to issue land concession permits to investors, as well as the possible collusion that may emerge as a result of encounters between the private sector and local governments that issue such permits.

Fourth, the government should be more proactive in facilitating the establishment of business partnerships between agribusiness firms and local farmers, but without too much intervention that would create market distortions in the process. Government intervention in this context should be limited to ensuring that the local farmers involved in business partnerships obtain fair treatment. The government, moreover, should also consider offering incentives, such as tax holidays, to investors capable of pursuing business partnership with local farmers, particularly in the most vulnerable regions in the country.

Fifth, business partnerships should be encouraged that enable local production to link to wider global value chains, creating more value added for both investors and the local farming communities.

Finally, for the purpose of sustainable agriculture, standards on sustainable agriculture practices should be developed, and governments should regulate and ensure the availability of quality control and certification mechanisms to enable farmers to meet quality standards required by their buyers.

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