



RURAL INFRASTRUCTURE AND
AGRO-INDUSTRIES DIVISION

Country case studies

Asia



AGRIBUSINESS
PUBLIC-PRIVATE
PARTNERSHIPS

**A country
report of
Indonesia**





Country case studies

Asia

**Trina Fizzanty
Muhammad Masyhuri**

AGRIBUSINESS
PUBLIC-PRIVATE
PARTNERSHIPS

**A country
report of
Indonesia**

Edited by
Marlo Rankin
Pilar Santacoloma
Nomathemba Mhlanga

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2013

RECOMMENDED CITATION

FAO. 2013. *Agribusiness public-private partnerships – A country report of Indonesia*. Country case studies – Asia. Rome

Cover photo: ©FAO/Jim Holmes

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

© FAO 2013

FAO encourages the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, or for use in non-commercial products or services, provided that appropriate acknowledgement of FAO as the source and copyright holder is given and that FAO's endorsement of users' views, products or services is not implied in any way.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via www.fao.org/contact-us/licence-request or addressed to copyright@fao.org.

FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org.

Contents

Preface	vi
Executive summary	vii
Acknowledgements	x
Acronyms	xi
CHAPTER 1	
Introduction	1
1.1 Problem statement	1
1.2 Purpose	2
1.3 Country selection	2
1.4 Structure of the report	4
CHAPTER 2	
Background and overview	5
2.1 Indonesian development context	5
2.2 Sectoral overview and trends	6
2.3 Agribusiness development and engagement with the private sector	6
2.4 Scope and nature of public–private cooperation in the agricultural sector	9
2.5 Brief overview of the selected cases	9
CHAPTER 3	
Characterization of public–private partnership arrangements	13
3.1 Stated purpose of the PPPs	13
3.2 Direct beneficiaries and the nature of benefits	14
3.3 Nature and levels of financial support, concessions and other services	15
3.4 Public-sector incentives for private partners providing support to beneficiary agro-enterprises	16
3.5 Each partner’s roles and functions in governance, implementation, monitoring and evaluation of the agreements	16
3.6 Formalization of the partnership agreements	19
CHAPTER 4	
Development of public–private partnership arrangements	21
4.1 Circumstances leading to the development of partnerships	21
4.2 Main drivers behind the development of public–private collaboration and the specific roles of drivers	22
4.3 Main reasons advanced by the drivers to convince senior managers (public and private) and partners of the value of public–private partnerships	23
4.4 Procedures and criteria used to identify and assess the market opportunities and prospects of the agribusiness enterprise(s) targeted for assistance	24
4.5 How and over what timeframe did the partners negotiate the deals?	25
4.6 How were the levels, nature and timing of partner contributions determined?	25
4.7 How were expected costs, revenues and returns on investment estimated for the target agribusiness enterprises?	26
4.8 How were expected private and public benefits estimated?	27

4.9	Which aspects of the enabling environment with a potential impact on the partnership were appraised and how were they appraised?	27
4.10	How were decisions made regarding the roles of each partner in strategic and day-to-day management and implementation of the arrangements?	28
4.11	What steps were followed for approval by senior managers of the public and private partners and subsequent formalization of the arrangements?	28
4.12	Formal tools used to support the negotiation and planning processes	29
CHAPTER 5		
	Management and operations	31
5.1	Roles of each partner in strategic and day-to-day management and implementation of the arrangements	31
5.2	Materials, technology and services procured and delivered under the arrangements	31
5.3	New expertise required for implementation; how was it obtained or developed?	32
5.4	Managerial procedures for outsourcing and subcontracting, and capacity to deal with the various procedures and requirements of different partners	32
5.5	Performance monitoring and appraisal mechanisms; uses of monitoring information for improving implementation, performance and impacts	33
5.6	Main risks identified with respect to implementation of the arrangement as planned, and actions taken to mitigate risks	33
5.7	Supplementary support from other public and private partners apart from those directly identified in the partnership arrangements	34
5.8	Key challenges faced by public and private sector officials and managers during implementation	34
5.9	Main problems encountered in maintaining partnership relationships and actions taken to address them	35
CHAPTER 6		
	Performance and development outcomes	37
6.1	Increments to investment, revenues, rates of return on investment and employment	37
6.2	Stimulation of additional agribusiness investment	38
6.3	Product or process innovations	38
6.4	Risks mitigated or created for beneficiary agribusiness enterprises	38
6.5	How did trade, tax, land and other policies affect benefits – what helped, what hurt?	39
6.6	How did the legislative and regulatory framework affect benefits – what helped, what hurt?	39
6.7	How did agricultural sector institutions and services external to the arrangement affect benefits – what helped, what hurt?	40
6.8	Improved market performance (profitability, market share)	40
6.9	Medium-term prospects for commercial viability and sustainability	40
6.10	Indications or expectations of forward and backward linkages	41
6.11	Indications or expectations of improvements in rural income and employment	41
6.12	Expected longer-term societal and developmental impacts	42
CHAPTER 7		
	Appraisal and conclusions	45
7.1	Overall effectiveness of the public–private partnership arrangements in achieving their stated objectives and outcomes	45
7.2	Key issues to be considered in developing agribusiness public–private partnerships	45
7.3	Lessons learned concerning success factors and pitfalls to avoid	46
7.4	How benefits for enterprises and rural development might be further enhanced	48

7.5	Potential for replication within the country and elsewhere, and key requirements for replication	48
7.6	Potential of public–private partnerships as a tool for accelerating agribusiness investment and development	48
REFERENCES		51
ANNEXES		
1.	List of key persons interviewed	53
2.	Location map of the selected public–private partnership cases in agribusiness	55
3.	List of key persons interviewed in West Java Province	57
4.	List of key persons interviewed in Yogyakarta Province	59
5.	Lessons learned from the cassava processing project	61
6.	List of key persons interviewed in Karawang and Indramayu, West Java Province	63
7.	List of key persons interviewed in Ogan Komering Ilir Regency, South Sumatra Province	65
8.	Photos taken during the field survey	67
FIGURES		
1.	Agreement between the parties in the PIR–KKPA partnership scheme	19
TABLES		
1.	Summary of selected public–private partnership case studies	11
2.	Estimated gross revenue of an oil palm estate	27
3.	Comparative matrix summary of the selected public–private partnership case studies in agribusiness	42
PHOTOS		
1.	Discussion session with organizing members of the PSM Cooperative [...]	67
2.	Oil palm plantation belonging to farmers [...]	67
3.	From just an ordinary village, it has now become a bustling small town [...]	67
4.	Farmer’s rice field, Karawang Regency, West Java Province [...]	67
5.	Some of the rice seed varieties [...]	67
6.	Rice seed certification procedures at the Seed Control and Certification [...]	67
7.	Discussion with Mr Hartoyo [...]	68
8.	Jatropha curcas planting estate after pruning, near the coast at Kanigoro village [...]	68
9.	Discussion with Ms Anik Indarwati [...]	68
10.	Greenhouses for sweet pepper cultivation [...]	68
11.	Pak Eman, a farmer member of the Mitra Sukamaju Cooperative [...]	68
12.	Discussion with Dr Nikardi [...]	68
13.	View of farmers’ gardens and houses surrounding Pondok Pesantren Al Ittifaq [...]	69
14.	Permanent brick-built houses and vegetable plants [...]	69
15.	Discussion with Mr Zainal Arifin [...]	69

Preface

It is recognized that high levels of investment are required to unleash the potential of agriculture for sustainable development and poverty reduction in developing countries. However, in recent decades, many countries have decreased their relative budget allocations to the agricultural sector, yet at the same time the expected increase in private sector investment and the associated efficiency improvements have not been forthcoming. The high risk (actual and perceived) of doing business in agriculture often deters private sector participation in agrifood sector investments. Against this backdrop, public–private partnerships are being promoted as an important institutional mechanism for gaining access to additional financial resources, sharing risks and addressing other constraints in pursuit of sustainable and inclusive agricultural development.

While various forms of collaboration between the public and private sectors have existed for some time, limited systematic information is available about current experiences and best practices for using public–private partnerships to initiate agricultural programmes. In addition, despite a surge of interest in public–private partnerships in the agricultural sector in recent years, there remains significant variation in the type of partnerships involved and poor documentation of the real potential for public–private partnerships to deliver on commonly stated objectives associated with rural employment and income generation, food security and increased agricultural competitiveness.

In 2010, FAO initiated a series of appraisals of public–private partnerships implemented in 15 countries in Africa, Asia and Latin America. The primary objective was to draw lessons that can be used to provide guidance to member countries on how to partner effectively with the private sector to mobilize support for agribusiness development. On this basis, a specific subset of public–private partnerships was selected, which conformed to two key criteria: each public–private partnership must involve an agribusiness enterprise; and a formalized relationship between specific public and private partners must be in place. There should also be an expectation of positive societal impacts as a result of the partnership.

Seventy individual case studies were profiled and details provided on the circumstances leading to their formation, management and performance to date. The partnerships analysed cover different topics and intervention areas and involve different types of arrangements and actors. Special attention was paid to identifying specific roles and functions for each partner, including roles in governance, implementation and monitoring. Key results of the study include identification of the factors influencing success or failure in the development and implementation of public–private partnerships, and best practices for creating an enabling environment for greater investment in agriculture by means of public–private partnerships.

FAO is publishing this series of case studies of agribusiness public–private partnerships to help enhance knowledge and information-sharing on such partnerships and so foster informed decision-making on investment promotion and agrifood sector development.

Executive summary

Public–private partnerships are still a new concept in the Indonesian agribusiness sector. However, they have become popular since the Indonesian Ministry of Agriculture announced a new initiative in 2010 to promote sustainable agriculture through public–private partnership schemes. The main goal is to achieve food security and economic growth. In order to secure public–private partnerships as a potential tool for accelerating rural investment and development, it is important to develop guidance to help all stakeholders to implement such a programme.

This study examines the potential benefits of public–private partnerships and attempts to anticipate and mitigate potential problems that may appear in the future. The goal of this study is to obtain knowledge on agribusiness partnerships and to draw lessons from them in order to provide recommendations for the Indonesian Government.

The study uses a multiple case-study approach to obtain in-depth knowledge of the experiences of existing public–private partnerships in Indonesia. The case studies were selected through a review of secondary information, preliminary direct interviews with key informants and discussions with FAO officers. The five cases selected for appraisal in this report are:

- a. Oil Palm Development Plasma Programme under the Perusahaan Inti Rakyat Perkebunan–Kredit Koperasi Primer untuk Anggotanya (PIR–KKPA) Scheme;
- b. Rice Breeder Seeds Partnership Programme;
- c. *Jatropha Curcas* for Bioenergy Project;
- d. Sweet Pepper Pilot Supply Chain Project (HORTIN Project);
- e. LM3 Programme (a development programme for religious institutions in the agribusiness sector).

While each case is unique in terms of its arrangement and objectives, most were established to promote economic development in rural areas. A brief summary of the partners involved in the cases and the objectives of the partnerships are given below:

1. **The Oil Palm Development Plasma Programme under the KKPA (programme credit) Scheme** is an agreement between stakeholders (oil palm farmer cooperatives, state bank and a private enterprise) and the Ministry of Agriculture, with the Ministry of Cooperatives as an oversight body. The programme’s main objective is to enhance farmers’ prosperity by improving their knowledge of oil palm cultivation and management, as well as empowering Koperasi Unit Desa (Village Unit Cooperatives [VUCs]) in their functions and roles.
2. **The Rice Breeder Seeds Partnership Programme** was carried out under a working agreement between rice farmer groups and a state company under the Ministry of Agriculture, with the Ministry of State-Owned Enterprises as an oversight body. The main purpose of this partnership is to produce certified rice seeds and increase farmers’ income and welfare by improving seed productivity and quality in cultivation and harvesting processes, as well as by enhancing food security for the national programme.
3. **The *Jatropha Curcas* for Bioenergy Project** is an agreement between a green energy company and farmers’ groups, facilitated by the Ministry of Forestry, with the Regional Government as an oversight body. The main objective of this project is to provide an energy source for the PURA Group, as well as to promote the use of renewable energy for industrial purposes. The project also aims to utilize marginal land in critical and unproductive areas, such as karst and rocky areas in Gunung Kidul Regency, Province of Yogyakarta, while improving farmers’ income and welfare in rural areas.
4. **The Sweet Pepper Pilot Supply Chain Project (HORTIN project)** operates under a working agreement between the farmers’ cooperative, an exporter, the Indonesian Vegetable Research Institute (IVEGRI – a public research and development body) and a private bank, supported by the Ministry of Agriculture as an oversight body. The aim of this project is to attain competitive, sustainable and efficient sweet pepper supply chains and to contribute to farmers’ economic development and welfare by introducing new technology and securing a market.

5. The LM3 Programme is an agreement between an Islamic Education Institute (*Pesantren*) and local supermarkets, supervised by the Ministry of Agriculture, Ministry of Cooperatives and Ministry of Religious Affairs. The main purpose of this partnership is to improve community moral standards, alleviate poverty and improve economic well-being by enhancing education, knowledge and skills, as well as boosting the community's capital investment, especially in the agribusiness sector.

Most of the programmes obtained direct or indirect funding support from the government through the state-owned bank/enterprises (PT Bank BRI Tbk and PT Pertani Persero) as seen in the Oil Palm Plasma Project and the Rice Breeder Seeds Partnership Programme (cases 1 and 2). Direct funding from the Ministry of Agriculture's state budget was made available for the LM3 Programme (case 5). The Sweet Pepper Pilot Supply Chain (HORTIN) Project (case 4) was funded by the Indonesian Agency for Agricultural Research and Development of the Ministry of Agriculture (IVEGRI) and by the Ministry of Agriculture, Nature and Food Quality of the Netherlands (Wageningen University and Research Centre–Greenhouse Horticulture).

Each partner's roles and functions were defined in the agreement signed by the parties involved. The government actively supports partnerships through policies to regulate and facilitate these programmes and projects, both nationally and locally. In addition, the government has monitored and supervised the system for partnering cooperatives and companies, simplified access to capital and production techniques, and promoted institutional development through extension agencies in the field. The role of farmers is mainly as users and providers of new technologies and innovation. Most farmers belong to Koperasi Unit Desa (Village Unit Cooperatives [KUD/VUCs]). Cooperatives collect and market the products of their members (farmers) and facilitate contacts with external parties, such as financial institutions, retailers and wholesalers. The main role of most companies is to act as the guarantor for the farmers by securing the market and facilitating access to capital. This is because the company's continuity is highly dependent on the supply of products from cooperatives.

In all five cases the partnership programmes were formalized under a working agreement letter between the parties involved. In the oil palm development programme (case 1) and the *Jatropha* project (case 3), local government authorities also provided support through additional policies and regulations/decrees to facilitate the programmes.

In general, agribusiness public–private partnerships have brought benefits to all the parties involved, including improved cultivation techniques to meet specific product quality criteria and secure production continuity. In most of the selected cases, farmers are the direct beneficiaries. It emerges clearly that the majority of partnership schemes improve profitability and market share, as well as establishing new economic growth centres in the region.

In most cases there is a significant improvement in the welfare of the parties involved, especially farmers and the communities living around the site, with new business opportunities being created in the village. In all cases, most of the partners involved, especially farmers, made new investments in the agribusiness sector relating to their core business, including reinvestment in oil palm plantations in other locations (public–private partnership case 1), investment in a new rice milling unit (case 2), and adding more greenhouse units in the village (case 4).

Every public–private partnership case introduced new knowledge and technological innovation to the partners involved; from pruning methods (cases 3 and 5) and integrated pest and disease control (cases 1, 4 and 5), to a new accounting and record system (case 1). In the Rice Breeder Seeds Partnership Programme, a new rice seed variety was developed.

However, a variety of problems were encountered in implementing the public–private partnership programmes relating to: (a) farmers' cultures, habits and customs, with the result that farmers sometimes found it difficult to follow rules and recommendations provided by public parties (in cases 2 and 5); (b) limited funding to develop the programme (in cases 2 and 4); (c) problems associated with technical harvesting and yield productivity (in cases 1 and 3); and (d) labour shortages during the harvesting season (in case 1).

A number of lessons can be drawn from the agribusiness public–private partnership cases to ensure that the arrangement performs well. The first and most important lesson is to involve all partners in the partnership process from the beginning in order to facilitate negotiations. The second lesson is that public private partnerships should be developed under a business and empowerment framework rather

than a social or charity framework. The third lesson is to establish resource sharing among partners based on their capacity. The fourth lesson is to share benefits among the partners transparently and fairly. The fifth lesson, particularly important for Indonesia, is that the government should help small farmers to build cooperatives to enable them to work with private companies. The sixth lesson is to build a relationship of trust and commitment among the partners. The seventh lesson is that the partnership should be designed to be resilient to external shocks where possible (such as changes in land use or climate change). The eighth lesson is that careful consideration should be given to the socio-economic context of the communities involved when implementing a national government programme.

The case studies of public–private partnerships for Indonesian agribusiness development also provided lessons on pitfalls to be avoided:

- The capacity of local partners should be taken into consideration when introducing new technology.
- Public–private partnerships need to be contextualized: the same partnership design should not be applied to different local communities.
- While a subsidy or grant can be a suitable incentive at the beginning of a partnership, there should be an exit strategy as the partnership matures.
- The government should focus only on its facilitating role and not act as an economic player.
- It is important to recognize farmers' experience (indigenous knowledge) about their farms and avoid a situation where they are forced to adopt specific commodity varieties without market certainty.
- Local institutions with strong roots in the local community can make good partners, but this is also dependent on a good business network.
- Partnerships grow stronger as trust among partners grows: without transparent operations and information sharing amongst partners, it is unlikely that the partnership will be sustained.

In the future, public–private partnerships are likely to produce further benefits for enterprises and rural development by supporting the work of all partners within a business framework and taking local conditions into consideration. Public institutions and private companies or small businesses are likely to achieve further benefits if there is clear guidance on how to build a partnership in the Indonesian agribusiness context. Such guidance should provide a set of basic principles that can be followed by partners when establishing and implementing public–private partnerships for agribusiness development.

Acknowledgements

This report was prepared under the guidance and assistance of the Rural Infrastructure and Agro-Industries Division (AGS) of the Food and Agriculture Organization of the United Nations (FAO). This report was based on desk research and reviews, field visits and interviews with local and central government officers, as well as farmers and other parties involved, conducted between June and November 2011.

The following people and organizations provided key input to this report: Bapak Dadang Suherman, Bapak Dedi Mulyadi, Bapak Supriyadi, Ibu Sri Rahayu, Ibu Murdwi Astuti, Ibu Dewi Novia Tarwiyati, Ibu Enni Wijayanti, Bapak Yandri, Bapak Heri Murdiono, Ibu Novita Indriani, Ibu Dewi Sitaresmi, Bapak Mursyid Ma'sum (Ministry of Agriculture of Indonesia); Ibu Ambawani, Bapak Noviarsono, Bapak Mawardi (Central Bank of Indonesia); Bapak Erriek Yodya (Ministry of State-owned Enterprises of Indonesia); Ustad Abdul Hanan Abbas Lc (Pondok Pesantren Darul Falah, Bogor); Bapak Zainal Arifin (Pondok Pesantren Al Ittifaq, Rancabali, Bandung, West Java); Bapak Haji Muchtar (Agriculture Extension Officer of West Bandung Regency); Ibu Pathmi Noerhatini Ismail (LM3 Raudhatul Ummah, Ciwidey, West Java); Dr Nikardi Gunadi (IVEGRI, Bandung); Dr Sri Yuliani (ICARPD, Bogor); Bapak Iskandar Zulkarnain (Horti Chain Center); Bapak Eman and Bapak Cepi (Cooperative Mitra Sukamaju, Pasir Langu, West Java); Bapak Komar and Bapak Gan Gan (PT Alamanda Sejati Utama); Ibu Kwik Sri Kinarsih (PT Rabobank Indonesia); Bapak Hartoyo (PT Jatropha Green Energy); Ibu Anik Indarwati and Bapak Suhartoto (Gunung Kidul Crop Estate Regional Agency); Bapak Samuel (PT Sinar Sukses Sentosa); Professor Murdijati Gardjito (University of Gadjah Mada, Yogyakarta); Bapak Hardi Julendra (Indonesian Institute of Science, Gunung Kidul); Bapak Adi Ngatijan (Jatropha farmer); Bapak Dhodhiet Purwo, Bapak Haji Agus Sukirman, Bapak Kadir, Bapak Syarif Hidayat, Bapak Cece, Bapak Joko Suropto, Bapak Asep Cucu, Bapak Suherman, Bapak Subandji (PT Pertani Persero); Bapak Hidayat, Bapak Koko (Seed Control and Certification Services, Karawang Regency); Bapak Haji Karsim, Bapak Rohman and Bapak Narha (rice farmers); Bapak Susilo Sugiarto, Bapak Yudha, Bapak Ridho, Bapak I Wayan Saren, Bapak Slamet, Bapak Dewa Gede Mahardika (PT Sampoerna Agro Tbk); Bapak Sumarjono Saragih (Oil Palm Producer Association); Bapak Agus Supriyanto, Bapak Khairul Hidayat, Bapak Sutejo, Bapak Supriyanto Sahri, Bapak Heri Yono, Bapak Setiyono, Bapak Sumiyo, Bapak Darmadi, Bapak Sarwono, Bapak Rejani, Bapak Yulianto, Bapak Ketut Sukandra (Cooperatives Head Unit in OKI Regency, South Sumatra); Bapak Bambang and Bapak Iwan (PT Bank BRI Persero Tbk, Kayu Agung, South Sumatra).

Special thanks to Ms Yeti Sumiyati who assisted us in conducting field research in Kabupaten Bandung Jawa Barat Province and Kabupaten Gunung Kidul, Yogyakarta Province. We would also like to thank all the interviewees not mentioned in this list who gave their time to help us put this paper together.

The PPP case study framework was originally designed by Doyle Baker. A team, formed by Eva Gálvez-Nogales, Nomathemba Mhlanga and Marlo Rankin, and coordinated by Pilar Santacoloma, provided technical supervision to the authors of the country case monographs through the study.

Sincere appreciation goes to Larissa D'Aquilio for production coordination, Andrea Broom and Jim Collis for copy editing, Francesca Cabré-Aguilar for proof-reading and Simone Morini for the design and layout.

Acronyms

B2B	Business-to-business
BP2SDM/AEAHRD	Badan Penyuluhan dan Pengembangan Sumberdaya Manusia/Agency Extension and Agricultural Human Resources Development
BPS	Badan Pusat Statistik
BPSB/SCCSA	Balai Pengawasan dan Sertifikasi Benih/Seed Control and Certification Services Agency
BRI	PT Bank Rakyat Indonesia Tbk
CGI	Competitiveness Global Index
CPO	Crude palm oil
FAO	Food and Agriculture Organization of the United Nations
FES	Friedrich Ebert Stiftung
FFB	Oil palm fresh fruit bunches
GAP	Good agricultural practices
GDP	Gross domestic product
GNP	Gross national product
HORTIN	Horticultural Research Cooperation between Indonesia and the Netherlands
IVEGRI	Indonesian Vegetable Research Institute
JGE	PT Jatropha Green Energy (a subsidiary of Pura Group)
KKPA/PCCM	Kredit Koperasi Primer untuk Anggota/Primary Cooperative Credit to Members
KUD/VUCs	Koperasi Unit Desa/Village Unit Cooperatives
LM3/I2RC	Lembaga Mandiri yang Mengakar di Masyarakat/Independent Institution rooted in the Community
MDGs	Millennium Development Goals
MoA	Ministry of Agriculture of Indonesia
MOU	Memorandum of Understanding
MP3EI	Masterplan for Acceleration and Expansion of Indonesia Economic Development
PIR/NES	Perkebunan Inti Rakyat/Nucleus Enterprises System
PIR-BUN	Perusahaan Inti Rakyat Perkebunan
PIR-KKPA	Perusahaan Inti Rakyat Perkebunan-Kredit Koperasi Primer untuk Anggotanya
POM	Palm oil mill
PPA	Pondok Pesantren Al Ittifaq (Al Ittifaq Islamic boarding school)
PPP	Public-private partnership
SOE	State-owned enterprise
WEF	World Economic Forum
WUR-GH	Wageningen University and Research-Greenhouse Horticulture

Chapter 1

Introduction

1.1 PROBLEM STATEMENT

Agricultural development has become more complex because agricultural commodities are used not only for food security (humans) and providing feed for livestock, but also for providing energy. This has boosted demand for agricultural commodities, making past strategies ineffective. In such a competitive market, it is essential to review current agricultural strategies and to promote innovative approaches to agricultural development.

In the past, the role of government was mainly one of direct intervention in the market through subsidies, price regulation, free farming facilities and so on. To a certain extent, these programmes can be effective in promoting small farmers' contribution to agricultural development. Nevertheless, some problems still remain in Indonesian agriculture, such as rising imports of particular agricultural products, poor productivity and low value added (Indonesian Ministry of Agriculture, 2010).

Although the private sector, including farmers and private companies, has contributed to Indonesian agricultural development, investment levels are still low. The role of private business in agricultural investment is expected to rise to between 85 and 90 percent of total agricultural investment in 2011–2014 within the framework of public–private partnerships (PPPs) (Indonesian Ministry of Agriculture, 2010).

In Indonesia, the PPP concept has been popularized in infrastructure development but has not yet taken off in the agribusiness sector. This is because agribusiness partnerships in Indonesia predominantly involve business-to-business (B2B) relationships within a supply chain management framework. For example, it is common to see large-scale horticulture businesses working with small farmers to supply modern markets or export markets. The public sector plays an important role by investing in various government programmes to support agricultural development.

Under the PPP concept, every stakeholder has a critical role. The government must lead, setting the direction for the country's transformation and creating a suitable environment to achieve it. Business should contribute innovation, investment and

competition. Civil society mobilizes and supports communities, manages risks, builds local capacity and bridges any gaps not addressed by the market (WEF, 2010). However innovation tools are effective only when supported by the right policies, infrastructure and market structure. The policy environment must provide incentives for players to invest in agriculture while protecting citizens' welfare and the environment.

PPPs have become a popular concept in agricultural development since the Indonesian Ministry of Agriculture (MoA) announced a new initiative in 2010 to promote sustainable agriculture through public–private partnerships. The goal is to achieve food security and economic growth. Partnerships are formed between international, global and Indonesian companies, the government, civil society, international organizations and farmers' groups. As part of the World Economic Forum's New Vision for Agriculture initiative, fourteen multinational companies have committed to joining the Indonesia initiative, including: Archer, Bunge, Cargill, Daniels Midland, DuPont, Indofood, Kraft Foods, McKinsey, Metro Group, Monsanto, Nestlé, Sinar Mas, Swiss Re, Syngenta and Unilever. This partnership is expected to strengthen investment and technology innovation in Indonesia's agricultural sector, improving production and contributing to food security in both Indonesia and globally.¹

There are a few documented cases of PPPs in Indonesian agribusiness, for example a comparative study in Eastern Indonesia in which the private sector and World Bank/Government of Indonesia promoted a partnership in the beef cattle and cocoa industries (EASRD, 2005). This study focuses on PPPs in dry areas and eastern Indonesia, but there is still very little information available for PPPs implemented on other types of terrain, or for the commodities for which Indonesia is best known, such as plantation crops.

A review of the PPP concept in the context of Indonesian agribusiness practices reveals issues

¹ <http://english.peopledaily.com.cn/90001/90778/90858/90863/7408381.html> (accessed on 30 September 2011).

that need to be addressed in order to analyse the potential benefits and to anticipate and reduce emerging potential risks.

1.2 PURPOSE

The purpose of this study is to collate knowledge on partnerships in the agribusiness sector in Indonesia and to draw lessons from them in order to provide recommendations for the Indonesian Government. These cases, together with studies from other countries, could provide policy-makers with evidence for promoting PPPs as an effective and efficient model.

1.3 COUNTRY SELECTION

The terms of reference for the study defined the criteria for selecting cases. The appraisals focus on a specific subset of the broader range of potential PPPs. The first and most obvious restriction is that each PPP must involve an **agribusiness enterprise**. Agribusiness enterprises might include firms or business entities that produce or provide inputs, produce raw materials or fresh products, process or manufacture food or other agricultural products, transport, store or trade agricultural production, or retail such products. For the purposes of this study, family farms and micro- and small enterprises operating in the informal sector are not included in the target set of agribusiness enterprises.

The appraisals focus only on PPPs that involve explicitly stated collaborative relationships between specific public and private partners for the purpose of increasing investment in and improving the profitability of a specific agribusiness enterprise, or multiple agribusiness enterprises, in specific locations. The relationship may be made explicit in various ways, ranging from project documents (e.g. Memorandum of Understanding [MOU]) to formal contractual and equity arrangements (including joint ownership). Public-sector policies, programmes or initiatives that are not firm or location specific are not covered. Similarly, private-sector contributions that are not firm, location or project specific are not covered.

The following are the additional selection criteria that were taken into account when identifying and proposing specific PPP cases to be appraised:

- The partnership must have been in operation for at least two years in order to provide a sufficient basis for analysis.
- The partnership should increase investment, profitability and/or reduce risk for the target beneficiary agribusiness enterprise(s).

- The partnership agreement should state explicitly that there is an expectation of positive societal impacts (e.g. income, employment, value added).
- The partnership agreement should call for some type of ongoing dialogue, as well as an ongoing role in governance and implementation for both public and private partners.
- The scale of investment mobilized through the partnership should preferably be more than United States dollars (US\$)100 000.

The first stage of the appraisal involved desk research, exploring information from various sources, including online (such as annual reports of companies and/or ministries), and research reports from the Bogor Agricultural Institute library. Based on this information, some potential PPP programmes and institutions and key persons involved in the programmes were identified for further exploration.

The next stage was to conduct preliminary interviews with 16 key informants (Annex 1) with knowledge of the PPP projects. The key persons included not only government officers (MoA, Indonesian Central Bank and Indonesian Ministry of State-Owned Enterprises), but also agricultural associations and private companies. Based on the PPP criteria and discussions with key informants, nine potential cases of PPPs in Indonesian agribusiness were identified.

The third stage was to propose the following nine preliminary PPP cases:

- Case 1: Oil Palm Development Plasma/Farmers Programme
- Case 2: Cocoa Sustainability Partnership Programme
- Case 3: Cassava Traditional Food Processing Project
- Case 4: Jatropha Project for Bioenergy
- Case 5: Livelihood Charter Cocoa Farming Project
- Case 6: Specialty Gayo Coffee Improvement Project
- Case 7: Sweet Pepper Pilot Supply Chain Project
- Case 8: Development programme for religious institutions in the agribusiness sector (LM3 Programme)
- Case 9: Integration system between cattle livestock and oil palm plantations

While a number of other PPP government programmes in the agribusiness sector are in place,

they are not included in this study as they only started in 2011. They are the Development of Rural Fisheries Agribusiness Programme, under the Indonesian Ministry of Fisheries and Marine Affairs, and the Increasing Food Crop Production Movement through Corporate-based Institutions Programme (a collaborative project between the MoA, Ministry of State-Owned Enterprises and state-owned enterprises [SOEs]).

After discussion with FAO staff, the following five PPP cases were selected.

1. Case 1: Oil Palm Development Plasma/Farmers Programme under the Perusahaan Inti Rakyat Perkebunan–Kredit Koperasi Primer untuk Anggotanya (PIR–KKPA) Scheme

Indonesia is currently the world's largest producer of palm oil (Badrun, 2010; Pahan, 2008; World Growth, 2011). To develop palm plantation areas, the Indonesian Government introduced regulations to support and motivate private plantation companies to cooperate with farmers operating in their vicinity under the partnership programme.

2. Case 2: Cassava Traditional Food Processing Project

Cassava has been a well-known traditional staple food in Indonesia for a long time, especially in the Java region, as a replacement for the main staple food: rice (Sinar Sukses Sentosa, 2002). Currently, cassava is used not only for human consumption, but also as an animal feed and as an energy source (Balagopalan, 2002). For various reasons (failure to meet most of the PPP criteria), this case was dropped and has been replaced with the **Rice Breeder Seeds Partnership Programme**, which plays an important role in staple food security and safety in Indonesia (Puspitawati, 2004; Pertani, 2010 and 2011).

3. Case 3: Jatropha Project for Bioenergy

Jatropha curcas has been a well-known bio-energy source in Indonesia since Japanese colonialism (Riswanto, 2011). It is believed that this pilot project could provide an alternative energy source for the future (Pura Group, 2010).

4. Case 4: Sweet Pepper Pilot Supply Chain Project

Even though demand for sweet peppers comes mainly from European countries, climate constraints on the European continent prevent them from being grown throughout

the year (Gunadi *et al.*, 2010). This innovative project aims to make production available all year round and fulfill export demand by growing sweet peppers in greenhouses in tropical areas.

5. Case 5: LM3 Programme (a development programme for religious institutions in the agribusiness sector)

There are many religious institutions (*pesantren*) in Indonesia, most of which are non-profit organizations located in rural agricultural areas (Sudibyoy, 2010). For Indonesian Muslim institutions, which are usually called *Pondok Pesantrens* (Islamic boarding schools), the aim is to educate young students from low-income families. The *Pondok Pesantrens* also equip them with skills and knowledge to support their economic livelihood in the future after completing their schooling (MoA, 2010). The *Pondok Pesantrens* also usually support communities/farmers living in the neighbourhood, helping them to increase their income. To fulfill these objectives, the *Pondok Pesantrens* run agribusiness enterprises where students and the community can work jointly with them to run their own businesses (BP2SDM/AEAHRD, 2010 and 2011).

The next stage was to undertake field surveys and to interview the key informants face to face. The surveys were conducted in three locations: West Java Province, West and South Bandung Regency for case 4 (Sweet Pepper Project) in the island of Java and one location in Sumatra for case 5. The field survey map in Annex 2 shows the five locations.

The first field survey was conducted in the West Bandung Regency, West Java Province for case 4 (Sweet pepper project) and case 5 (LM3 programme). In this survey, 16 key informants were interviewed (Annex 3).

The second field survey was conducted in Yogyakarta Province, Gunung Kidul Regency, for case 2 (cassava processing) and case 3 (Jatropha project). In the second field survey, 11 key informants were interviewed (Annex 4). Following discussions with the manager of the cassava project (case 2), local agricultural agencies and Indonesian researchers working with the project and community, it transpired that the cassava processing project failed to meet the PPP criteria. The project has been terminated and is no longer available to cassava farmers. Lessons learned from this project

could help to prevent similar cases occurring in the future (Annex 5). The case was replaced by the Rice Breeder Seeds Partnership Programme, a PPP between farmers and the state-owned enterprise PT Pertani Persero.

The Rice Breeder Seeds Partnership Programme was conducted in West Java Province, Karawang and Indramayu Regency. These are Indonesia's main rice-producing regions, supported by many paddy farmers involved in the partnership (MoA, 2010). Eighteen key informants were interviewed (Annex 6).

The oil palm PPP between farmers, the company acting as a guarantor and the bank, was conducted in the South Sumatra Province, Ogan Komering Ilir Regency. South Sumatra Province was chosen because there are more farmers involved in this project compared with other provinces; PT Sampoerna Agro Tbk was chosen because it

was recommended by the MoA's Directorate for Estate Crops as a successful private plantation company involving more than 22 000 plasma farmers at 39 oil palm cooperatives (Badrun, 2010). Twenty-two key informants were interviewed (Annex 7). Annex 8 contains photos taken during the interviews.

1.4 STRUCTURE OF THE REPORT

This report consists of seven chapters. Chapter 1 presents the problem statement and purpose of the study. Chapter 2 describes the macroeconomic context of Indonesia, agricultural and agribusiness sector development and the Indonesian experience of working with private companies. Chapters 3, 4, 5 and 6 describe the PPP case studies in terms of characterization, development, performance, outcomes and appraisal. Chapter 7 concludes the country report.

Chapter 2

Background and overview

2.1 INDONESIAN DEVELOPMENT CONTEXT

The business framework within which agribusiness PPPs operate in Indonesia involves a significant market. Indonesia is ranked as the world's 20th economy with the fourth largest population in the world, totaling 237.6 million in 2010, with more than 50 percent living in rural areas (BPS, 2011). Government promotion of PPPs in agribusiness would increase food security, open up job opportunities and generate income for Indonesia's population.

The Indonesian economy has shown tremendous progress, with annual growth in gross domestic product (GDP) rising from 4.2 percent in 2009 to 6.5 percent in 2011, worth US\$539.4 billion in 2009 and US\$695.1 billion in 2010. There has been a similar trend in per capita income, rising from US\$2 329 in 2009 to US\$4 100 in 2010. Indonesian per capita GDP, adjusted for purchasing power parity, stands at US\$3 994 (World Bank). Average Indonesian per capita GDP between 1980 and 2008 was US\$2012.03. In 1980, it was only US\$643, reaching a high of US\$3 994 in 2008.² Higher incomes bring many benefits to agribusiness, including increased demand for higher quality commodities, better services and delivery and a wider variety of available commodities. In this context, PPPs are expected to provide an appropriate strategy to meet demand.

The Competitiveness Global Index (CGI) for Indonesia has shown a slight increase over the past three years. In 2008, CGI was 4.3 and Indonesia ranked 55 out of 133 countries, rising to CGI 4.4 in 2010, ranked 44 out of 133 countries. In terms of competitiveness, in 2011 Indonesia achieved an export surplus equivalent to US\$1 362 million. The major exports are plywood, textiles, rubber, tin, bauxite, silver, copper, nickel, gold and coal.

Indonesia's status based on the Millennium Development Goals (MDGs) is rising gradually.

The updated MDG report³ (2011) states that more than 13 percent of the population of 240 million people still live below the national poverty line, down from 15.97 percent in 2005. The proportion of people with a per capita income of under US\$1 a day has declined from 20.6 percent in 1990 to 5.9 percent in 2008. Indonesia's Human Development Index (HDI) has risen significantly, from 0.39 to 0.60, over the past three decades (1980–2010).

Indonesia's development has helped to create job opportunities for workers, particularly in urban areas. The national unemployment rate declined from 8.1 percent in 2001 to 7.41 percent in 2010 and 6.8 percent in 2011. The report also shows a gradual improvement in the workforce participation rate in urban areas over a 20-year period, from 55 percent (1990) to 65 percent (2010). The workforce participation rate in rural areas decreased slightly over the same period from around 72 percent to 70 percent (Ministry of National Development Planning, 2010).⁴ This indicates that Indonesian development tends to provide more job opportunities in urban areas than in rural areas. The agricultural sector makes the second biggest contribution to the Indonesian economy after manufacturing industry.⁵ In the first quarter of 2011, the average agricultural sector contribution to Indonesian GDP was 15.6 percent, with manufacturing industry contributing 24.1 percent, and mining and drilling in third place with 11.7 percent. However, value added in the agricultural sector still lags behind that of the manufacturing sector. Value added in the manufacturing sector contributes 26 percent of GDP, 10 percent more than value added in agriculture.

Given the focus of the Indonesian Government on value added and corporate management of agri-

² <http://www.tradingeconomics.com/indonesia/gdp-per-capita-ppp> (accessed on 29 September 2011).

³ <http://www.undp.or.id/mdg> (accessed on 29 September 2011).

⁴ Ministry of National Development Planning/BAPPENAS. 2010. Report on the Achievement of Millennium Development Goals Indonesia 2010. Jakarta.

⁵ Source: Table 3. BPS. 2011. Berita Resmi Statistik No. 31/05/Th. XIV, 5 Mei 2011: p.4 (accessed on 29 September 2011).

business, greater investment will be needed both on- and off-farm. In such a context, PPPs would be an appropriate means for fostering agribusiness development in Indonesia.

2.2 SECTORAL OVERVIEW AND TRENDS⁶

Although agriculture and agribusiness have contributed to the Indonesian economy, particularly in terms of developing rural employment and its contribution to food security, a number of challenges remain. The contribution of agriculture and agribusiness to GDP is on a rising trend, reaching 5.16 percent in 2008, with average GDP growth also increasing from 2.5 percent to 3.7 percent over the five-year period from 2005 to 2009 (MoA, 2010). The agricultural sector has an export surplus of US\$17.97 billion. Moreover, 43 million people were working in the sector in 2009, a slight decrease from 43.97 percent of the total population employed in 2005 to 41.18 percent in 2009. While the sector continues to play a significant role in labour absorption, it makes a minor contribution to value added, equivalent to only 14 percent of total value added, and its output was only 5.16 percent of total Indonesian GDP. This shows that labour productivity in Indonesian agriculture is still low compared with other sectors.⁷

Production of several major Indonesian crops has tended to increase over the past five years. Production from plantations, livestock and poultry is growing faster than horticulture and food crops. Among annual crops, the 18.92 percent annual growth in palm oil and 82 percent in rubber production was higher than for other annual crops (2005–2009).

Government investment in the agriculture sector, including price subsidies, fertilizer and seed for farmers, has increased over the past five years. Government subsidies for fertilizer increased by a factor of seven, from 2.54 trillion rupiah (Rp) in 2005 to Rp17.44 trillion in 2009. The government also invested in infrastructure, farming capital and research and development (R&D).

Total private-sector investment in the agricultural sector is lower than government investment. In 2005, domestic investment in agriculture was

estimated at US\$3.376 million and foreign investment, at US\$224.3 million. In 2009, investment dropped to US\$1.739 million and US\$37.9 million respectively.

In order to achieve the four major goals of Indonesian agriculture, higher investment will be required for 2010–2014. The four major goals are: (a) production sustainability; (b) food diversity; (c) added value, competitiveness and exports; and (d) farmers' welfare (MoA, 2010). The required investment is estimated at Rp1 021.907 billion (domestic investment) and Rp377.71 billion (foreign investment). The government clearly states that public and private investment in agriculture and support from other ministries are strategic. Investment in agricultural development in 2010–2014 totals Rp220 trillion (US\$ 22.8 billion) a year. Government will contribute 10–15 percent of the total investment, while the remaining 85–90 percent is to come from banks, private businesses and the community.

The government has identified some potential commodities for the export market. These crops are palm oil, rubber, cocoa, coffee, pepper, cloves, tobacco, tea, *Jatropha curcas* and patchouli (MoA, 2010). *Jatropha* and palm oil are expected to replace three percent of fossil energy in 2014. In order to increase value added, the government is promoting better quality products and processed agricultural products for the export market. It is expected to achieve 15 percent growth in net exports per year and to expand the manufacturing of processed products.

2.3 AGRIBUSINESS DEVELOPMENT AND ENGAGEMENT WITH THE PRIVATE SECTOR

Indonesia's agribusiness sector is in favour of private sector involvement in its development. Furthermore, the partnership concept in agribusiness has already been defined by the Minister in Agriculture Decree 940/Kpts/OT.210/10/1997 (Puspitawati, 2004).

The Indonesian Government is using PPPs as a strategy to leverage development in infrastructure, as well as in other sectors.⁸ The aim of PPPs is to work with the community and business to achieve the desired outcome of the government

⁶ Rencana Strategis Kementerian Pertanian Tahun 2010–2014 (*Strategic Planning of Indonesian Ministry of Agriculture 2010–2014*). 2010. Indonesian Ministry of Agriculture.

⁷ Strategic Planning 2010–2014 Indonesian Ministry of Agriculture (Renstra 2010–2014 Kementerian Pertanian).

⁸ Vice President of Republic of Indonesia on Government Workshop of Discussion Action Plan and Budget Allocation 2012 which was held in Istana Bogor on 29 March 2011.

programme. Both policy action and the budget should strengthen the government's capacity to achieve development outcomes. The Indonesian Government suggests PPPs as a way to overcome limited government financial resources to promote development programmes.

To accelerate and expand Indonesian economic development, the Indonesian Government launched a Masterplan for Acceleration and Expansion of Indonesia's Economic Development (MP3EI) in early 2011.⁹ The master plan states explicitly that the national vision is to create a self-sufficient, advanced, just and prosperous Indonesia. The long-term goal of Indonesian development is to achieve per capita income of US\$14 000 and total GDP of US\$4.0–4.5 trillion by 2025, significantly higher than the current level of about US\$3 000 per capita. This significant progress aims to place Indonesia in the world's top ten advanced economies by 2025 and the world's top six by the year 2050. The master plan has made adding value to the prime economic sector a key element of various development programmes. To achieve these objectives, real economic growth of 6.4–7.5 percent is expected between 2011 and 2014.

Under the MP3EI (2011), Indonesian agribusiness development will be managed as six corridors. Each corridor will focus on creating higher value added for a certain commodity. The first is the Sumatra economic corridor, which focuses on the production and processing of palm oil and rubber as the nation's energy reserves. The second is the Java economic corridor, focusing on the food and beverage industry. The third is Kalimantan, for palm oil and timber. The fourth is the Sulawesi corridor, focusing on agriculture (rice, corn, soybean and cassava), cocoa and fisheries. The fifth is the Bali-Nusatenggara corridor, focusing on fisheries and livestock production. The sixth is the Papua and Kepulauan Maluku corridor, focusing on agriculture and fisheries for food.

Historically, the Indonesian Government has introduced various programmes to assist small farmers, as well as small businesses, while at the same time calling on private companies to take part in agricultural development programmes, in different schemes and at different periods.

1970–1990

In Presidential Decree 11/1974, the Indonesian Government defined the PIR–BUN (Perusahaan Inti Rakyat Perkebunan Kelapa Sawit) pattern development programme policy (the Nucleus Estate and Smallholder for Oil Palm Plantation Development Programme) (Badrun, 2010; Iriana, Peni and Riyanto, 2009; Suci, 2011; Sulistianawati, 2010). The state-owned plantation companies were appointed as the nucleus and the farmers operating in the vicinity (local community) acted as plasma members, working together and contributing within sustainable partnerships. This programme was intended to enhance farmers' prosperity by increasing their income from the oil palm plantation business. The programme received World Bank funding of around US\$655 million between 1977 and 1983. The PIR–BUN programme succeeded in involving smallholders in the 12 provinces and covered around 213 000 hectares of oil palm estates. The success of the PIR–BUN programme encouraged the Indonesian Government to extend it to other plasma members through Presidential Instruction 1/1986 and Minister for Agriculture Decree 333/Kpts/KB.510/6/1986 on the plantation development using the PIR model in connection with the transmigration programme (PIR–Trans). The programme succeeded in developing around 360 000 hectares of oil palm estates in the ten Indonesian provinces (Ardiansyah, 2009; Badrun, 2010).

In 1983, the Indonesian Government introduced Decree 3/1983 on the development of small business enterprises operating in the vicinity of state-owned enterprise locations (Bakir, 2007). This programme was funded by taking 2 percent of the annual profits from state-owned enterprises. Up to 2010, around Rp14.7 trillion (equivalent to US\$1.7 billion) was allocated to this programme, which involved more than 690 000 small business enterprises.

1990–2010

In 1991, the LM3 empowerment and development programme for agribusiness through an embedded subsystem of local community institutions (*Program Pemberdayaan dan Pengembangan Usaha Agribisnis Lembaga Mandiri yang Mengakar di Masyarakat*), was launched by Joint Decrees of the Ministers for Agriculture and Religion numbers 346/1991 and 94/1991. Initially the LM3 programme was supposed to develop agribusiness sectors in traditional *Pondok Pesantren* Islamic boarding schools in Indonesia alone. Up to 2006, there were more than 16 000 *Pondok Pesantrens* in

⁹ Masterplan for Acceleration and Expansion of Indonesia's Economic Development. 2011. Coordinating Ministries for Economic Affairs. Jakarta.

Indonesia with over 3 million students (Sudibyo, 2010). In 2006, the LM3 Programme was extended to include not only Muslim institutions but all religious institutions, including churches, temples and other institutions. Up to 2010, the programme succeeded in developing agribusiness enterprises in 33 provinces, involving more than 5 700 religious institutions.

In 1998, Joint Decree 73/Kpts/KB.510/2/1998 of the Minister for Agriculture and Minister for Cooperatives and Small Enterprise Promotion and Joint Decree 01/SKB/M/11/98 on the extended version of PIR–BUN, introduced the PIR–KKPA Scheme Project (*PIR–Koperasi Kredit Primer untuk Anggota*)/Primary Cooperative Credits for Members) for oil palm plantations. Funding for this scheme came from the state-owned bank and involved private plantation companies as a nucleus and smallholders operating in their vicinity.

In 2007, the Minister for Agriculture and the Central Bank of Indonesia launched the skilled graduate programme for the development of villages and small-to medium-scale clusters. The first programme was intended to develop and improve farm husbandry and increase agribusiness capital investment in rural areas. The second programme aimed at promoting and developing small enterprises in the real sector, mostly in rural areas. Both programmes were funded from the national budget. Up to 2010, more than 600 smallholder farmer groups were involved and more than 35 clusters were developed.

In 2008, the Minister for Agriculture initiated the Development of Rural Agribusiness Enterprises Programme. The programme aimed to promote, support and develop small-scale agribusiness enterprises in rural areas, especially for horticulture and food crops, funded from the national budget to the tune of more than Rp2.9 trillion (or US\$341 million). Up to 2010, more than 29 000 farmers were involved in 33 provinces.

In 2009, the Minister for Agriculture launched the Cocoa National Movement Programme to improve national cocoa productivity and export quality, as well as to increase farmers' income. The programme was carried out in nine Indonesian provinces, especially in cocoa production centres, including Sulawesi, Maluku, East Java, North Sumatra and Papua.

In 2010 and 2011, programmes for the development of rural fisheries agribusiness and for increasing food crop production through the corporate institutions programme were launched by the Minister for Marine Affairs and Fisheries, the Minister

for Agriculture and the Minister for State-Owned Enterprises, respectively. The fisheries programme aimed to support, promote and develop rural fisheries value chains, including inland and sea fishing activities. The purpose of the food crop programme was to support, increase and develop more than 570 hectares of paddy fields in Indonesia by involving state-owned enterprises whose core business is in agricultural sectors such as seed production, fertilizers and other agricultural inputs.

Food Estate: the latest programme

In 2011, the Indonesian Government promoted a new programme related to the MP3EI for implementing the PPP concept in agribusiness. The goal of the new programme (Food Estate Programme), initiated by the Indonesian Ministry for Agriculture, is food security. The objectives are to increase productivity and food production and to reduce food imports, as well as to promote exports where there is a food surplus. The programme also aims to achieve a rice surplus of 10 million tonnes by 2014. Although this is still a new programme, it shows that PPP is a promising strategy for the future of Indonesian agribusiness.

A number of partners will work closely in the Food Estate Programme: national government, local government and private businesses. To develop this project, cross-collaboration is required between certain ministries, including the MoA, Ministry of Public Works, Ministry of Labour and Transmigration, Ministry of State-Owned Enterprises, and Regional Offices. The regional office secures land for the estate, while the Food Estate Programme promotes partnerships between large businesses and small farmers.

The first food estate was launched in Bulungan (East Kalimantan, Borneo) on 26 September 2011.¹⁰ Each partner in the food estate has its own responsibilities. Local government (the Regency Office of Bulungan) has a facilitation role for private and other partners and secures land for the estate. There are 30 000 hectares of land ready for the estate. Three investors have taken part in Delta Kayan, Bulungan; two are private companies (PT Agro Mandiri Kencana and PT Nusa Agro Mandiri) and one is a state-owned enterprise (PT Sang Hyang Seri-Persero). The private business partners are to

¹⁰ Investor Daily, 27 September 2011, page 24, *Food Estate Kaltim Diluncurkan: Tiga Perusahaan Investasi Rp 255 Milyar* (Launch of a food estate in East Kalimantan: three companies invested 250 billion rupiah).

provide training, fertilizer and seeds for farmers. The farmers involved in this project are those living in the transmigration area of East Kalimantan. They are expected to work their farmland intensively. As it is more costly to prepare land for a food estate outside Java Island than in Java, the MoA subsidizes farmers to develop rural agribusiness and infrastructure.

2.4 SCOPE AND NATURE OF PUBLIC–PRIVATE COOPERATION IN THE AGRICULTURAL SECTOR

Public–private cooperation in the agricultural sector is driven mostly by government programmes. Public institutions include ministries, regional government offices, government banks, public R&D institutes and universities and state-owned enterprises, which have used funding from the national government or foreign funding institutions to implement development programmes.

The main objective of such partnerships is to give small farmers an opportunity to increase their income and expand job opportunities. This is in line with the objective of national economic development, not only for economic welfare, but also for social and political purposes through widespread involvement of the community in economic activities. The programmes therefore tend to be broad-based and do not focus on a particular objective.

The private sector is involved in the programmes partly because the government obliges big companies to work with smallholders. Consequently the government gives them priority for credit applications to government banks.

However, the nature of PPP cooperation has changed over the past decade because of fierce market competition and a significant increase in demand for agricultural commodities. Public–private cooperation now aims to build capacity, improve market efficiency, secure inputs for businesses and make infrastructure accessible.

2.5 BRIEF OVERVIEW OF THE SELECTED CASES

Five typical Indonesian cases that are responding to the dynamic business environment have been selected. They are the: (a) Oil Palm Development Plasma Programme under the PIR–KKPA Scheme; (b) Rice Breeder Seeds Partnership Programme; (c) *Jatropha Curcas* for Bioenergy Project; (d) Sweet Pepper Pilot Supply Chain Project; and (e) LM3 Programme, a development programme for religious institutions in the agribusiness sector. Below is a brief overview.

Case 1: Oil Palm Development Plasma Programme under the PIR–KKPA Scheme

The PIR–KKPA Scheme is the third stage of a partnership scheme (after the PIR–BUN Scheme in 1974 and the PIR–Trans Scheme in 1986) in the oil palm development programme between a company (as a nucleus) and smallholder farmers living near plantation sites (Perdana, 2008; Sinaga, 2011). The government launched the initial programme in 1998 (Badrun, 2010; Pahan, 2008). The main purpose of the programme is to enhance farmers' prosperity by improving their knowledge of oil palm cultivation and management, as well as empowering the functions and roles of KUD/VUCs. Under this scheme, the lead nucleus estate acts as a guarantor for the repayment of bank loans, with installments taken from the proceeds of the plasma farmers' sales of oil palm fresh fruit bunches (FFB) (Sinaga, 2011). The programme is being implemented in ten Indonesian provinces, mainly in Sumatra and the Kalimantan islands, which are well-known oil palm plantation centres (Badrun, 2010). Funding for this programme came from the state-owned bank under a subsidized loan scheme. In this case, the state-owned PT Bank BRI Tbk acts as a public partner while PT Sampoerna Agro Tbk and the Village Unit Cooperatives act as private partners. Between 2002 and 2006, PT Sampoerna Agro Tbk developed its plantation under this scheme in South Sumatra Province (Sampoerna Agro, 2011).

Case 2: Rice Breeder Seeds Partnership Programme

The Rice Breeder Seeds Partnership Programme was initiated in 1997/1998, backed by Government Law 29 of 2000 on seed protection, which ordered the agricultural based state-owned enterprise to produce rice seeds by partnering with farmers. The purpose of this partnership is to produce certified rice seeds and increase farmers' income and welfare by improving seed productivity and quality in cultivation and harvesting processes, as well as by contributing to food security for the national programme (Ishaq, 2009). The project was funded from the state budget and implemented in rice production centres across Indonesia, including in the West Java Province. In this case, PT Pertani Persero acts as a public partner and farmers' groups act as private partners. As an SOE, PT Pertani Persero has focused its business on the agricultural commodity sector, especially in the areas of procurement, production and marketing of agricultural inputs and commodities – mainly staple foods such as rice (Pertani, 2010; Ratnasari, 2002).

Case 3: *Jatropha Curcas* for Bioenergy Project

The *Jatropha Curcas* for Bioenergy Project was launched by Presidential Decree 1 in 2006 (Palupi, 2009). The partnership project was implemented in Yogyakarta Province in 2007 by PT *Jatropha Green Energy* (JGE)–PURA Group as a private partner and Gunung Kidul Government Regency as a public partner. It involved farmers in more than 144 villages and covered 40 000 hectares (Forestry and Plantation Office, 2011). The project's main objective is to provide an energy source for the PURA Group and to promote the use of renewable energy for industrial purposes, while improving farmers' income and welfare in rural areas (Pura Group, 2010). It utilizes marginal land in unproductive areas, such as karst and rocky areas in Gunung Kidul Regency. At the start of the project, the PURA Group funded almost all investment while the Gunung Kidul Regency provided nursery land and agricultural extension officers (JGE, 2010).

Case 4: Sweet Pepper Pilot Supply Chain Project

This project, known as the HORTIN Project, started in 2003 and was terminated in 2010 (Gunadi, *et al.*, 2010). The HORTIN project involved horticultural research cooperation between Indonesia and the Netherlands, namely between IVEGRI and the Wageningen University–Greenhouse Horticultural Research Unit (WUR–GH) as public partners. Farmer members of the Mitra Sukamaju Cooperative acted as sweet pepper growers while PT Alamanda Sejati Utama acted as an exporter, both as private partners. The partnership project is located in Pasir Langu Village (West Bandung Regency, West Java Province), which is well known as a major sweet pepper producer in Indonesia, exporting mainly to Singapore (Nadhwatunnaja, 2008). The aim of the project is to achieve competitive, sustainable and efficient sweet pepper supply chains and to contribute to farmers' economic development.

Case 5: LM3 Programme, a development programme for religious institutions in the agribusiness sector

The LM3/I2RC Programme (Lembaga Mandiri yang Mengakar di Masyarakat/Independent Institutions rooted in the Community) was initiated in 2006 and completed in 2009. The main purpose of the LM3 Programme was to improve the community's moral standards, alleviate poverty and improve economic welfare by developing skills

and capabilities, as well as strengthening the community's capital investment, especially in the agribusiness sector. The programme targeted all religious institutions/foundations across Indonesia engaged in specific agribusiness activities involving the surrounding communities. Funding for this programme came from the state budget through the MoA (Agency Extension and Agricultural Human Resource Development). In this case, the Islamic boarding school Pondok Pesantren Al Ittifaq (PPA) located in Rancabali (South Bandung Regency, West Java Province) was chosen as one of the best and most successful LM3 Programme implementations in Indonesia. It is a model in Indonesia for the successful development of horticultural agribusiness products by religious institutions in partnership with the community.

TABLE 1
Summary of selected public–private partnership case studies

Agribusiness public–private partnership	Type of public–private partnership	Start-up year	Main objectives	Actions undertaken	Public partners	Private partners	Location
Case 1 Oil Palm Development Plasma Programme under the PIR–KKPA Scheme	Loan subsidies; land concession; technical and knowledge development programme	2002	Promoting and developing farmer plantations and empowering village unit cooperatives in their functions and roles	Improving smallholder cultivation and management in oil palm estates; supplying seeds and fertilizer	PT Bank BRI Tbk, Ministry of Agriculture's Directorate General of Plantations, Minister for Cooperatives	PT Sampoerna Agro Tbk; Village Unit Cooperatives	Ogan Komering Ilir Regency (South Sumatra Province)
Case 2 Rice Breeder Seeds Partnership Programme	In-kind subsidies, technical and knowledge development programme	1997/1998	Production of certified rice seeds; increasing farmers' income; food security for the national programme	Supplying rice seed raw material to farmers; improving farmers' knowledge and skills on rice breeder seed cultivation	PT Pertani Persero; Seed Control and Certification Services Agency	Farmers' Group in Karawang (Rengasdengklok District)	Karawang Regency (West Java Province)
Case 3 Jatropha Curcas for Bioenergy Project)	In-kind (seed materials); technical and knowledge development programme	2007	Implementing government regulations on bioenergy raw materials; meeting PURA Group's energy needs	Supplying Jatropha seeds; securing market and sales distribution	Gunung Kidul Government Regency	PT Jatropha Green Energy; farmers	Gunung Kidul Regency (Yogyakarta Special Province)
Case 4 Sweet Pepper Pilot Supply Chain Project (HOR-TIN Project)	Cofinancing investment between Indonesia and the Netherlands; technical and knowledge development programme	2003	Attaining competitive, sustainable and efficient sweet pepper supply chains and improving farmers' economic welfare	A new greenhouse technique and knowledge development; sweet pepper cultivation techniques	Indonesian Vegetable Research Institute; Wageningen University Research Centre–Green-house Horticulture	Farmer Members of Mitra Sukamaju Cooperative; PT Alamanda Sejati Utama; PT Rabo-bank Indonesia	West Bandung Regency (West Java Province)
Case 5 LM3 Programme	Grant, technical and knowledge development programme	2006	Improving the community's moral standards and economic welfare; alleviating poverty in rural areas	Introducing new horticultural products and capacity-building of the local Islamic boarding school (Pondok Pesantren Al Ittifaq) and the community	Ministry of Agriculture (Agency Extension and Agricultural Human Resource Development); Ministry of Religion; Ministry of Cooperatives	Pondok Pesantren Al Ittifaq; retailers and supermarkets	Bandung Regency (West Java Province)

Source: authors, 2011

Chapter 3

Characterization of public–private partnership arrangements

3.1 STATED PURPOSE OF THE PPPS

Promoting economic development in rural areas is the main objective of the five selected agribusiness PPP cases. In addition, each case has its own specific purposes, including securing the consistent supply of a commodity (case 4: sweet pepper project), promoting economic and social responsibility (case 1: oil palm development programme; and case 5: LM3 development programme), environmental purposes (case 3: *Jatropha* project), and supporting food security (case 2: Rice Breeder Seeds Partnership Programme).

The main objective of the Oil Palm Development Plasma Programme under the PIR–KKPA scheme (case 1) is to improve income for local communities by promoting and developing farmer plantations, as well as empowering KUD/VUCs in their roles and functions (Sulistianawati, 2010). The development of oil palm plantations naturally takes place in remote and unproductive areas. Under this partnership scheme, farmers should become members of the KUD/VUC in their area. Every KUD/VUC exclusively provides and serves its members in one village only. Based on a joint decree of the Ministers for Agriculture and Cooperatives 73/Kpts/OT.210/2/98, the stated purposes of the PIR–KKPA Scheme are as follows (Sinaga, 2011):

- to increase farmers' income and the earnings of KUD/VUC participants by developing the oil palm plantation business in the area;
- to enhance KUD/VUC efforts through the partnership programme;
- to develop the role and functions of KUD/VUCs by realizing full interaction between KUD/VUC members to improve productivity and efficiency;
- to empower KUD/VUCs to take advantage of business opportunities in the area of plasma/farmer development;
- to improve guidance and control in oil palm plantation development;
- to optimize the management and utilization of land resources and investment capital in order to increase productivity and efficiency.

In the Rice Breeder Seeds Partnership Programme (case 2), the stated purpose of the partnership is to produce certified rice seeds. It also aims to increase farmers' income by improving productivity and quality and to ensure food security for the national programme (Puspitawati, 2004).

The *Jatropha Curcas* for Bioenergy Project (case 3) has several purposes (JGE, 2010):

- to meet the JGE's energy demand;
- to utilize marginal land, forest and unproductive land;
- to give farmers an opportunity to earn additional income;
- to secure the *Jatropha* market for growers/farmers;
- to promote renewable energy for industrial purposes.

The Sweet Pepper Pilot Supply Chain (HORTIN) Project (case 4) aims to achieve competitive, sustainable and efficient sweet pepper supply chains and to contribute to local economic development.

The focus of the HORTIN project is (Gunadi, *et al.*, 2010):

- to develop sustainable sweet pepper production using new greenhouse technology, a fertigation drip system, good agricultural practices (GAP), and integrated pest/disease control;
- to increase the productivity and quality of sweet peppers through co-innovation between research and development centres and farmers and between the governments of Indonesia and the Netherlands to fulfill local and export market demand.

The purpose of the LM3/I2RC programme (case 5) is to improve community moral standards by developing education and skills, as well as strengthening capital investment in the agribusiness sector, which can boost community wealth in the future (BP2SDM/AEAHRD, 2011).

3.2 DIRECT BENEFICIARIES AND THE NATURE OF BENEFITS

Overall, agribusiness PPPs benefited all the parties involved in various ways, such as improving cultivation techniques to meet specific product quality requirements and securing production continuity and market guarantees from the companies involved. In most of the selected cases, the direct beneficiaries are farmers.

In the Oil Palm Development Plasma Programme (case 1), the direct beneficiaries are farmers, KUD/VUCs and the private plantation company (PT Sampoerna Agro Tbk). The PPP involved 2 500 farmers organized into five KUD/VUCs with a total plantation area of 5 000 ha. According to Perdana (2008), the main benefits for farmers are: (a) technical knowledge and education in oil palm cultivation provided by the partners, from both PT Sampoerna Agro Tbk and the local government agency; (b) improving their harvest products; (c) securing the market and contract payment for FFB by selling them to the nucleus company; (d) obtaining knowledge and experience in partnering and managing a cooperative (KUD/VUC); (e) obtaining a bank loan facility to improve and continue to develop their agribusiness enterprise. The KUD/VUCs also obtained benefits, including: (a) new knowledge and training to manage a cooperative using best practices learned from the local cooperative agency; (b) opening up new business opportunities that could improve their welfare. For instance, in several KUD/VUCs, new businesses/investments were formed, ranging from grocery stores to savings and loans businesses for their members at preferential interest rates. The benefits for the private plantation company included (PT Sampoerna Agro Tbk, 2011b): (a) maintaining a consistent supply of raw materials for its business from farmers for its crude palm oil (CPO) products; (b) opening up a large new market for its products and thereby increasing sales; (c) partnering with farmers operating in the vicinity, which could sustain its business in the future.

In the Rice Breeder Seeds Partnership Programme (case 2), the direct beneficiaries are both PT Pertani Persero, as a public partner, and breeder farmers engaged in this partnership programme. PT Pertani is an Indonesian state-owned agricultural products company. The company was established in 1956 and based in Jakarta, with operations all over Indonesia. PT Pertani's main business consists of producing and distributing rice seed, palawija and fertilizer, and warehousing management. The company benefited from the

partnership by: (a) securing the quality, quantity and continuity of its seed production; (b) improving the efficiency, productivity and risk sharing of its operations; (c) improving the control of production and post-harvest processes; (d) maintaining price stability; (e) introducing and developing new seed varieties, such as *Ciherang* and *Mikonga* seeds; (f) supplying specific customer needs and demands (for a niche market), such as McDonald's restaurants in Central and West Java Province; (g) improving control of logistics/stock items through a storage system; and (h) promotion among other farmers not yet involved in the partnership programme. There were 150 farmers involved in this partnership who were organized into 12 farmers groups and planted an area of 790 hectares annually in the Karawang Regency. Nationally there are 450 farmer groups involved in the programme covering an area of approximately 20 000 hectares. The benefits for rice breeder farmers are: (a) more efficient agricultural business management and higher productivity than non-partnership farmers; (b) higher incomes than non-partnership farmers; (c) securing agricultural inputs, as recommended; (d) securing payment for output/harvest products; (e) technical assistance from partners to improve farmers' skills and knowledge; (f) reducing the role of middlemen acting as illegal lenders (*tengkulak*), which is a common practice in village areas; (g) fair trading; (h) additional bank credit facilities.

In the *Jatropha Curcas* for Bioenergy Project (case 3), the most direct beneficiary is a private company, the PURA Group, because the *Jatropha curcas* is intended to supply the company's energy needs (Pura Group, 2010). Additionally, rural communities/farmers (around 5 000 farmers involved in planting a land area of 5 000 hectares) in Gunung Kidul Government Regency (Forestry and Estate Department) have secured benefits from this programme, obtaining additional income by selling *Jatropha* seeds through their small village shops, and the afforestation programme by planting *Jatropha* trees in rocky and hilly areas.

In the Sweet Pepper Project (case 4), the direct beneficiaries are 50 farmers or members of the Mitra Sukamaju and Dewa Cooperative in Pasir Langu Village (West Bandung Regency, West Java Province), retailers and PT Alamanda Sejati Utama as an exporter. As a result of the partnership more than 150 people were employed directly or indirectly in Pasir Langu Village to support the development of this supply chain. The IVEGRI research institute has also benefited from new

knowledge of innovative sweet pepper technology using a greenhouse system.

The direct beneficiaries of the LM3 Programme (case 5) are all communities and students living in and around the PPA religious institution in the Rancabali District (South Bandung Regency, West Java Province). Around 280 students and more than 200 farmers are involved in the programme with a planting area of 240 hectares. Through this programme, PPA and its community are boosting both their agricultural productivity and income.

3.3 NATURE AND LEVELS OF FINANCIAL SUPPORT, CONCESSIONS AND OTHER SERVICES

Overall, most of the programmes obtained direct or indirect government funding through the state-owned bank/enterprises (PT Bank BRI Tbk and PT Pertani Persero) for the Oil Palm Plasma Project and the Rice Breeder Seeds Partnership Programme (cases 1 and 2), or through the MoA's state budget in the case of the LM3 Programme (case 5). The Sweet Pepper (HORTIN) Project (case 4) was funded by the Indonesian Agency for Agricultural Research and Development of the MoA (IVEGRI) and by the Ministry of Agriculture, Nature and Food Quality of the Netherlands through WUR–GH. In this case, the private bank, PT Rabobank, was also involved in funding farmers' greenhouses and other technical support, where the exporter acted as a guarantor. In the *Jatropha* project (case 3), all funding came from the private company; nevertheless there are plans to obtain future funding from the local central bank through the Central Bank Cluster Programme¹¹. In addition, farmers and/or cooperatives also obtained technical support and training from private partners/government.

In the Oil Palm Plasma Development Programme (case 1), the state-owned bank (PT Bank BRI Persero Tbk) provides farmers with funding through the KUD/VUCs, where the private plantation company (PT Sampoerna Agro Tbk) acts as a guarantor to the bank and provides training and technical services to farmers. However, at the beginning of the project (up to 48 months), the private company is required to fully fund and develop

farmers' estates until they reach maturity. The total investment in the partnership was Rp151.25 billion (US\$16.7 million)¹² of which the company invested around Rp96.5 billion (US\$10.6 million) during the development stage. Public sector contributions were in the form of in-kind support and subsidies. Production training and subsidized fertilizer for farmers was delivered by local government agencies such as the local agricultural and cooperative offices; and the state-owned bank (PT Bank BRI Persero Tbk) lent money to farmers via the KUD/VUCs at a lower interest rate of 16 percent per annum compared to the commercial rate of 25 percent.

The Rice Breeder Seeds Partnership Programme (case 2) is funded by PT Pertani Persero as part of the government budget to promote the national food security programme. Support was given to farmers in kind by providing stock seeds and other agricultural inputs. The total investment in the national programme is Rp6 billion (US\$662 000) per annum for 20 000 hectares across Indonesia, and for this case study in Karawang Regency it was Rp236 million (US\$26 000) for 790 hectares.

In the *Jatropha* project (case 3), funding in kind came mainly from the private company. The private company distributed *Jatropha curcas* plants free to farmers (5 million seed plants in 2007). The company has invested more than Rp40 billion, equivalent to US\$4.4 million, to provide seeds and other agricultural inputs. The company and the local official agency are responsible for agricultural extension services. The Gunung Kidul government agency provides land for nursery and extension services. In addition, the forest and estate agency facilitated Indonesian Central Bank collaboration with the private company in developing the *Jatropha curcas* plantation in this area by signing an MOU in May 2011.

The Sweet Pepper Project (case 4) was sponsored and funded by the Indonesian Agency for Agricultural Research and Development of the MoA (IVEGRI) and by the Ministry of Agriculture, Nature and Food Quality of the Netherlands (WUR–GH), with a total annual budget of around €0.6 million (US\$780 000) between 2003 and 2010. Furthermore, the exporter, PT Alamanda Sejati Utama, had already invested in the construction of a packaging line before the project began, which was also suitable for sweet peppers for export.

¹¹ The Central Bank Cluster Programme was initiated in 2007 by the Central Bank of Indonesia through its representative offices in the major provinces of Indonesia. The aim of this programme is to provide access to funding that will support the development of local business clusters which are already established and have the potential to be expanded further through value-chain approaches.

¹² Exchange rate as per Indonesian Central Bank figures year end 2011 (US\$1 = 9068 Indonesian Rp)

The LM3 Programme (case 5) was sponsored and funded by the MoA (Agency Extension and Agricultural Human Resources Development). The institutions involved in this grant-funded programme have special requirements. The Islamic boarding school (i.e. PPA) obtained more than Rp1.5 billion (US\$165 500), in a combination of cash and in-kind facilities, such as buildings and distribution trucks. This grant programme was intended to promote capacity-building and boost the capital of the agribusiness unit, which had already been operated previously by PPA. The local agricultural extension and cooperative officers provided regular training for PPA students and the community to improve their agribusiness-related knowledge and skills.

3.4 PUBLIC-SECTOR INCENTIVES FOR PRIVATE PARTNERS PROVIDING SUPPORT TO BENEFICIARY AGRO-ENTERPRISES

All programmes received government support in the form of policies and regulations to improve the partnership system, as outlined in the presidential decree and related ministerial orders.

The Oil Palm Development Plasma Programme (case 1) is supported by Indonesia's Estates Laws 18/2004 and MoA regulations 26/2007 on licensing guidelines for plantation businesses. Under these laws and regulations, any oil palm plantation company wishing to develop oil palm plantations and form partnerships with farmers by providing them with a minimum land area of approximately 20 percent of the total plantation area, shall have its business license for plantations extended to 35 years. In addition, the government subsidizes bank interest in order to alleviate the burden on farmers.

In the Rice Breeder Seeds Partnership Programme (case 2), the MoA offered incentives and commitments to farmers, including seed price subsidies of up to 20 percent of the market seed price, and improved education by involving farmers in the Field School of Food Integration Management.

In the Jatropha project (case 3), the Yogyakarta provincial agency, through the Forest and Estate Department, provides around 13 hectares of land for nurseries in the Gunung Kidul Regency, while the Ministry of Finance (in accordance with Presidential Decree 1/2006) supports biofuel as an energy source through incentives and fiscal policies.

In the Sweet Pepper Pilot Supply Chain Project (case 4), the research institute (IVEGRI) actively transferred technology and new knowledge to

farmers to improve their sweet pepper productivity and quality standards. In this case, a research institute (IVEGRI), as the initiator, obtained technical support from Wageningen University (the Netherlands).

In the LM3 Programme (case 5), the MoA's local agricultural agency and the Ministry of Cooperatives supported PPA and farmers operating in the vicinity by conducting regular agricultural extension training, as well as several internal and external business workshops.

3.5 EACH PARTNER'S ROLES AND FUNCTIONS IN GOVERNANCE, IMPLEMENTATION, MONITORING AND EVALUATION OF THE AGREEMENTS

The roles and functions of each partner were defined in an agreement signed by the parties involved.

The government plays an active role in supporting all partnerships through policies to regulate and facilitate the programmes and projects, both nationally and locally. In addition, the government has monitored and supervised the partnership system between cooperatives and companies and simplified access to capital and production techniques, in addition to supporting institutional development through extension agencies in the field.

The role of farmers is mainly as users and providers of technology and innovation to meet market demand. Most farmers are incorporated into KUD/VUCs.

The cooperatives collect and market the products of their members (farmers) and make contact with outside parties, such as financial institutions and retailers or wholesalers.

The main role of most companies is to act as a guarantor for farmers. This is because the company's continuity is highly dependent on the supply of products from cooperatives.

In the Oil Palm Plasma Programme (case 1), farmers have several roles and functions, including: (a) carrying out palm tree maintenance, drainage and transport of FFB; (b) transporting FFB to the palm oil mill (POM) belonging to the nucleus company PT Sampoerna Agro Tbk; (c) selling the entire harvest (FFB) to the nucleus company; (d) complying with the provisions and regulations laid down by the nucleus company; (e) carrying out FFB harvesting in accordance with instructions and technical guidance from the nucleus company.

Unlike the other programmes, which engage in seasonal commodities, the role of cooperatives

(KUD/VUCs) in the Oil Palm Plasma Programme is relatively significant and complex and can be divided and differentiated into four stages: early preparation stage; construction stage; installment period to loan completion stage; and post-loan completion stage.

In the preparation stage, KUD/VUC roles and functions include: (a) explaining palm plantation development to its members and prospective members; (b) drawing up an inventory of members' and prospective members' land to calculate the land area and obtain the names of potential participants; (c) collecting the required administrative documents from prospective recipients of credit loans, i.e. identity cards.

In the construction stage, KUD/VUC roles and functions include: (a) monitoring and overseeing the progress of plantation development by the nucleus company; (b) conducting a site visit for the bank together with the nucleus company and an independent monitoring consultant; (c) helping the nucleus company to obtain agricultural inputs, labour, transportation vehicles and other tools and equipment.

In the installment period to loan completion stage, KUD/VUC roles and functions include: (a) administration and preparation of material needed for the definitive measurement of land for a certificate issued by the National Land Board; (b) explaining farm management systems to farmers together with the nucleus company and local village government; (c) together with the nucleus company, designing the farmers' group and explaining it to farmers; (d) assisting the nucleus company with farmer training and preparation; (e) drawing up a list of names of the farmers selected as members; (f) setting up a management and funding system for estate upkeep and maintenance with the nucleus company's assistance; (g) coordinating and administering farmers' estate activities, such as harvesting, distribution and transportation, fertilization and selling FFB products to the nucleus company; (h) acting as the farmers' representative in price negotiations with the nucleus company; (i) administering loans for each farmers' group in a transparent and accountable manner.

In the post-loan completion stage, KUD/VUC roles and functions include: (a) maintaining farmers' estate productivity; (b) continuing to sell FFB products to the nucleus company's POM; (c) together with the nucleus company, drawing up a replanting programme and explaining it to farmers; (d) developing farmers' other productive businesses during the replanting period.

The roles and functions of the nucleus private plantation company in the Oil Palm Plasma Programme include: (a) creating the palm estate design and the farmers' group; (b) helping to explain the credit programme and farm management systems to participating farmers; (c) conducting palm estate development in accordance with the plans in the feasibility study; (d) conducting training and transferral of palm cultivation technologies to farmers; (e) buying farmers' FFB products in accordance with the provisions concerning applicable rates; (f) helping the cooperative to calculate FFB sales for each farmer/group and providing funds for loans and palm estate maintenance; (g) allocating the proceeds to farmers' loan installments, maintenance costs and farmers' income; (h) helping KUD/VUCs to develop effective farm management systems to increase farm productivity; (i) helping KUD/VUC members with the replanting programme.

The roles and functions of the state-owned bank PT Bank BRI Tbk include: (a) processing applications for KUD/VUC credit; (b) distributing credit in accordance with the credit disbursement stages; (c) monitoring and evaluating the implementation of plantation development by the nucleus company; (d) helping to disseminate the KUD/VUC credit programme to farmers; (e) providing banking services to the KUD/VUC's farmer members.

In addition, in the Oil Palm Plasma programme, the local government agency (Estate and Cooperative Department) has the following roles and functions: (a) establishing a local monitoring and supervision plantation development agency; (b) processing land permits, licenses and certification; (c) forming an FFB price monitoring and evaluation team; (d) supervising and guiding the plantation development and partnership programme between cooperatives and the nucleus company.

In the Rice Breeder Seeds Partnership Programme (case 2), the Indonesian Government has ordered the SOEs to produce rice seed in accordance with Law 29/2000 on seed production. As rice is a strategic commodity and a staple food in Indonesia, the government is required to secure and protect rice seed varieties in the community. As a public partner, PT Pertani Persero provides stock seeds and other agricultural inputs and distributes them to farmers. PT Pertani Persero also buys all seed production that has been certified by the Seed Control and Certification Services Agency (SCCSA). As private partners, farmers provide their dedicated land and cultivate certain

varieties of seeds as recommended by PT Pertani Persero and follow all recommendations in the agreement. The SCCSA is an independent party responsible for monitoring, evaluating seed quality and issuing certification labels for successful seed production.

In the *Jatropha* project (case 3), as the public partner, the main role of the Head of the Gunung Kidul Regency (Bupati) is to facilitate legal formalities for the private company (JGE) and provide political assistance in working with official agencies. The Gunung Kidul Regency office also issued an official decree to help private companies working with local government agencies in district and village offices, and to secure land specifically for future planting of *Jatropha* trees. In addition, the Forestry and Plantation Office Agency has several roles and functions, including: (a) facilitating the private company working with the community; (b) preparing the MOU between the company and the farmers' group. As a private company, JGE has the following main roles and functions: (a) providing *Jatropha* trees for farmers under an agreement; (b) securing the market for *Jatropha* seeds at a reasonable price; (c) educating farmers in the cultivation of *Jatropha curcas* and; (d) convincing farmers that business prospects are good. The roles of other parties, such as farmers, are to maintain, cultivate and secure *Jatropha* tree production; the KUD/VUCs collect farmers' harvested products from small retail shops and act as a collection point. The small shops also sell other products, acting as a convenience store in the village. Farmers and the community may sell the dried *Jatropha* seeds to small shops, based on the price determined in the agreement. Farmers and the community do not usually obtain cash from the transaction but use their credit to barter for other everyday products in the shops.

In the Sweet Pepper Project (case 4), farmers have several roles and functions, which include: providing land for sweet pepper and greenhouse cultivation; implementing and applying GAP in sweet pepper cultivation, which is conducted, monitored and evaluated by IVEGRI/WUR-GH; maintaining, harvesting and selling the product to exporters. Farmers also produce high quality sweet peppers by applying and adopting the new technology recommended in the HORTIN project.

The roles and functions of IVEGRI/WUR-GH include: providing technical advice; monitoring and evaluating the implementation of good agricultural practices for the farmers; and providing evaluation and recording forms, which the farmers

should complete on a regular basis. This research centre also assisted farmers by teaching sweet pepper cultivation, pest and disease control techniques, the fertigation technique and the seedling management system, as well as by introducing a new greenhouse model.

As an exporter acting as the sole buyer, the roles and functions of PT Alamanda Sejati Utama include buying farmers' commodities as per the negotiated quantity and quality levels. The exporter also provides market information to farmers and acts as a guarantor for farmers' cooperative loans (from the bank) for the greenhouse development programme, the installation of fertigation units and other agricultural inputs. In addition, the exporter buys the farmers' products only if they meet IVEGRI's standards and requirements. The price is negotiated on a weekly basis between the exporter and the farmers' cooperatives (according to information from the Singapore market and the local supermarket chain).

As a bank lender, the roles and functions of PT Rabobank include educating and training farmers in good business management practices to ensure that they are profitable and have business prospects in the agricultural industry.

In the LM3 Programme (case 5), the MoA's roles and functions are to provide grants to PPA, as one of the selected religious institutions in the agribusiness sector. In addition, through its local government agency in West Java Province and Bandung Regency, it gives advice and monitors and evaluates the programme regularly. This local government agency also provides agricultural technical support through the Ciwidey district agricultural extension officer. PPA optimized use of the grant based on the business plan specified in the signed agribusiness proposal (a binding part of the working agreement). As a *Pesantren* is a Muslim religious institution and not a charity organization, it can create income-generating business activities through cooperatives in order to support its education activities and to empower the surrounding community and students in an entrepreneurial business model. The *Pesantren* teaches that 'giving hands' are much more honoured than 'receiving hands', meaning that they have to work or run their own business to support their livelihood.

Students, farmers and farmers' groups involved directly with PPA have responsibility for managing all horticultural activities (including planting/cultivating, upkeep, harvesting and packing) and distribution to retailers and supermarkets. PPA has signed a separate agreement with Hero

and Giant Supermarket to sell its horticultural commodities for one year under a weekly price arrangement.

3.6 FORMALIZATION OF THE PARTNERSHIP AGREEMENTS

In all five cases, the partnership programmes were formalized in a working agreement letter between the parties involved. In the Oil Palm Development Programme (case 1) and the Jatropha project (case 3), local government authorities provided additional institutional support by defining policies, regulations and decrees to facilitate the programmes.

In the Oil Palm Plasma Programme (case 1), there were at least two separate working agreements:

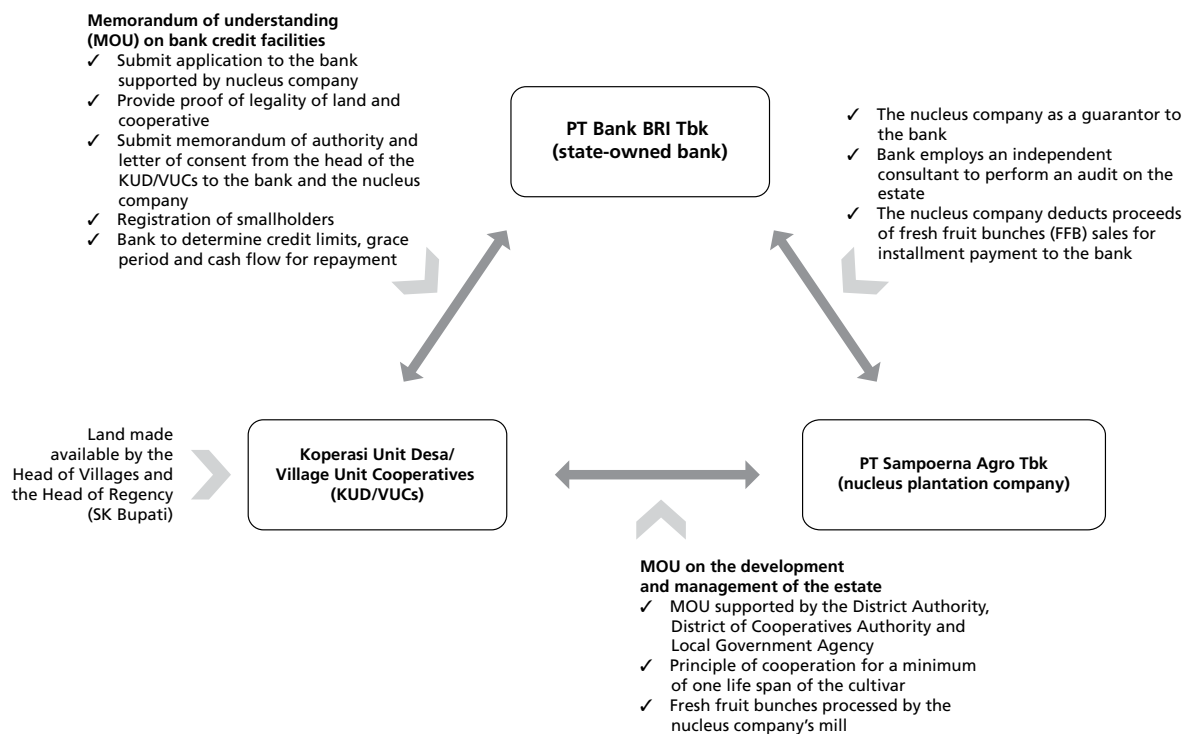
1. A working agreement between the two parties (KUD/VUCs and the nucleus plantation company), which was witnessed and approved by the local village authorities and the estate crop local agency.
2. A working agreement between the three parties (KUD/VUCs, the nucleus plantation company and the state-owned bank), as shown below.

The MOU between the KUD/VUCs and the nucleus company focused on developing and managing the oil palm estate, supported by local government authorities, such as the estate and cooperative office agencies. Moreover, the nucleus company is responsible for processing the harvested products (FFB) in its POM and for establishing a partnership with the KUD/VUCs for at least one life span of the cultivars, which is usually between 20 and 30 years.

The MOU between the bank and the nucleus company contained a commitment from the nucleus company to act as a guarantor, as well as a mechanism for deducting from FFB proceeds to cover installment payments to the bank. To control and monitor the process, the bank appointed an independent consultant to conduct regular audits of smallholder estates, usually twice a year.

The agreement between the bank and the KUD/VUCs focused much more on administration processes, including cooperative legalization, land availability and KUD/VUC smallholder member registration, as well as determining the bank's credit limits and grace period. In addition, the bank must receive a letter of consent from the KUD/

FIGURE 1
Agreement between the parties in the PIR–KKPA partnership scheme



VUCs in order to allow the nucleus company to make deductions from farmers' FFB proceeds.

In the Rice Breeder Seeds Partnership Programme (case 2), the agreement was formalized under a working agreement letter signed periodically between the public partner PT Pertani Persero and the head of farmers' groups, as a private partner, defining the area of land concerned, the respective parties' obligations, loan values, the implementation period, underwriting of seed and crop failure and their legal consequences, and the partnership domicile. To monitor and control farmers' output, PT Pertani Persero appointed and signed an agreement with the SCCSA in Karawang Regency (West Java Province).

In the Jatropha project (case 3), the mutual understanding between the private company (JGE) and the official agency (Gunung Kidul Government Regency Office), begun in 2006, and was officially supported by a MOU and a working agreement letter. In such an agreement, the obligations and rights of each partner involved are stipulated. To support this project, the Gunung Kidul Government Regency also issued regulations and policy decrees regarding the use of certain land for Jatropha tree estates in its area. Furthermore, in May 2011, facilitated by the Gunung Kidul Government Agency, JGE signed the MOU with the Yogyakarta Province Central Bank to improve the availability of funding sources in the Jatropha project development in the future.

In the Sweet Pepper Pilot Project (case 4), the agreement was formalized under a working agree-

ment letter between the parties involved. There were two separate agreements, as follows:

- a. An agreement between the MoA (IVEGRI) and the Netherlands Ministry of Agriculture (WUR–GH). This agreement defined the knowledge and education exchange programme for the transfer of sweet pepper research innovation and technology between the two research institutes, as well as the funding provided by both countries.
- b. An agreement between IVEGRI/WUR–GH and Mitra Sukamaju Cooperative representing sweet pepper growers, PT Alamanda Sejati Utama as an exporter and PT Rabobank Indonesia as a loan provider for the cooperative. This agreement focused mainly on implementation of the partnership for the sweet pepper supply chain, from growers to end customers.

In the LM3 Programme (case 5), the agreement was formalized under a working agreement letter signed by the MoA (Head of Agency Extension and Agricultural Human Resources Development) and the Head of PPA. This agreement defines both parties' obligations and rights, focusing on the responsibilities of PPA. PPA used grants to build the capability and capacity of its agribusiness enterprises and to involve many surrounding communities in order to enhance their economic welfare. The implementation of this agreement was monitored and controlled regularly by the local government agency, usually every quarter.

Chapter 4

Development of public–private partnership arrangements

4.1 CIRCUMSTANCES LEADING TO THE DEVELOPMENT OF PARTNERSHIPS

While the circumstances leading to the development of PPPs differed from case to case, all the PPP cases were developed in response to socio-economic conditions. At least six major conditions influenced partnership development: (a) history or past experience of partnership programmes; (b) customer demand; (c) limited production factors; (d) government obligations and programmes; (e) social and economic responsibility; and (f) community support.

History or past experience of partnerships has the potential to influence the development of other partnerships. Positive experiences in creating and enhancing the benefits for the partners involved can trigger the creation of other partnerships, as seen in the Oil Palm Development Plasma Programme (PPP case 1) and the Rice Breeder Seeds Partnership Programme (case 2).

The *Jatropha Curcas* for Bioenergy Project (case 3) and Sweet Pepper Project (case 4) are examples of partnerships that were developed in response to customer demand.

Limited production factors, such as land availability for PT Pertani Persero, were a key condition for developing the partnership with farmers in the Rice Breeder Seeds Partnership Programme (case 2).

External factors, such as a government obligation to work with small farmers or to support a government afforestation programme, also underpinned the partnership in the Oil Palm Plasma Programme (case 1) and *Jatropha Curcas* for Bioenergy Project (case 3).

The LM3 Programme (case 5) is a good example of socio-economic responsibilities driving the development of a partnership programme in a rural area.

Local community support is a major prerequisite for creating and developing a partnership. It applies to all cases, from the Oil Palm Plasma Programme (case 1) to the LM3 Programme (case 5).

Partnership development circumstances in the Oil Palm Plasma Programme (case 1)

Since the outset of its operations in the 1990s, PT Sampoerna Agro Tbk has involved farmers and cooperatives in the surrounding area in developing its palm plantation through partnership programmes (the Nucleus–Farmers/Plasma Partnership for Transmigrant Scheme and the Oil Palm for Community Partnership Scheme). Around 34 cooperatives (KUD/VUCs) with more than 43 000 hectares and 22 000 farmers in Ogan Komering Ilir Regency (South Sumatra Province) are involved and have a good relationship with PT Sampoerna Agro Tbk. They are still selling FFB products to the company's POM and there were no significant disputes between the company and KUD/VUCs. In addition, more than 90 percent of all farmers' loans have been fully repaid and, as a result, these partnership schemes could bring further benefits and improvements to farmers' lives and prosperity.

The PIR–KKPA partnership scheme programme was developed between 2002 and 2006, involving more than 2 500 farmers and around 5 000 hectares in five KUD/VUCs in the Mesuji District (Ogan Komering Ilir Regency, South Sumatra Province). Two main circumstances led to the development of the PIR–KKPA partnership:

- the MoA's obligation (MoA Decree of 1998 regarding the development of oil palm plantations) to involve farmers/local communities living near the plantation company wishing to expand their businesses;
- the past and present success of farmers involved in the oil palm plantation partnership programme with PT Sampoerna Agro Tbk.

Both are viewed as major factors for other farmers to join this partnership scheme.

Partnership development circumstances in the Rice Breeder Seeds Partnership Programme (case 2)

The seed breeder partnership programme was initiated in 1997/1998 and has been operated successfully across Indonesia up to the present day. Currently more than 20 000 hectares and around 450 farmers' groups are involved in the programme.

A major factor driving this programme was limited land availability for PT Pertani Persero to produce certified rice seeds, as stipulated by the government. This makes this partnership programme with breeder farmers unique and essential in maintaining the mandated operations of PT Pertani Persero.

Partnership development circumstances in the Jatropha Curcas for Bioenergy Project (case 3)

At the outset, no serious working partner/farmers wished to form a partnership with JGE in Gunung Kidul Regency. This was because of previous bad experiences with other private partners breaking their commitment by abandoning farmers' production and forcing them into loss. For this reason, farmers were less motivated to grow *Jatropha curcas* trees and were reluctant to form a partnership with a new private company. To overcome this problem, the Gunung Kidul government invited a new prospective company with the commitment and capability to continue the project. JGE was chosen in 2007 because of the company's growing need and demand for *Jatropha* seeds as a source of bioenergy fuel for its plant. This partnership also enabled the government to promote and support an afforestation programme in critical land areas in coastal and rocky areas of Gunung Kidul, as well as to enhance the economic welfare of farmers and the communities in the area.

Partnership development circumstances in the Sweet Pepper Pilot Supply Chain Project (case 4)

This project was developed in 2003 and completed in 2010. Circumstances leading to the project were the increasing importance of standardization, quality and food safety in the domestic market and even more so in the international market, for Indonesian vegetable and fruit export products. In other words, customer demand for this commodity has been growing both internationally and domestically. Furthermore, the Pasir Langu villagers supported this partnership project because it could enhance their income and welfare.

Partnership development circumstances in the LM3 Programme (case 5)

The LM3 partnership programme was developed in 2006 and completed in 2009. Factors or circumstances leading to the partnership were PPA's responsibilities for its students and local people living in and around this Islamic boarding school, and its commitment to empowering and capitalizing on the existing agribusinesses already formed by such religious institutions. In addition, the community living near PPA was eager to help and enjoyed this partnership scheme because the people saw significant improvements to their economic and social welfare. By 2011, PPA had already developed 375 hectares of horticultural estates in the five villages in Rancabali District (Bandung Regency, West Java Province).

4.2 MAIN DRIVERS BEHIND THE DEVELOPMENT OF PUBLIC-PRIVATE COLLABORATION AND THE SPECIFIC ROLES OF DRIVERS

There are many drivers behind the development of a PPP collaboration. They may include the ministry, local officials, the private company, the community, the university or religious organizations. The ministry may act as a regulator, as in the Oil Palm Development Programme (case 1) and Rice Breeder Seeds Partnership Programme (case 2), or it may be a technopreneur, as in the Sweet Pepper Project (case 4). The private company may be the main driver in cases where it needs to secure supplies of a particular standard (e.g. Oil Palm Programme [case 1], Rice Breeder Seeds Partnership Programme [case 2] and *Jatropha* project [case 3]). Most companies play a significant role in standardizing production, providing inputs and securing markets for farmers' output. The community may play a role by supplying raw materials and harvesting commodities (in the Oil Palm [case 1], *Jatropha* [case 3] and LM3 Programme [case 5]). In some cases, local officials play a role in facilitating relations between the private company and the local community (in the *Jatropha* project [case 3] and Oil Palm Development Programme [case 1]).

In the Oil Palm Development Programme (case 1), several parties may be seen as the main drivers of the partnership programme, including:

1. The local village agency (the formal head of the village agency) is seen as one of the main drivers of this partnership. Its role is mainly to secure and promote the benefits of the partnership scheme for the community.

2. Transmigrants from other Indonesian provinces (Lampung and Riau Provinces) with experience in developing palm plantations. Their roles were viewed as motivators, inspirers and agents of development in their community. Many came from Balinese and/or Javanese tribes, well known for their tenacity and toughness in coping with a harsh environment.
3. The company's extension officers who are responsible for developing and maintaining a good relationship with communities/farmers living in the vicinity of the company plantation.
4. The estate crops and cooperative local agency officers responsible for developing palm plantation estates using best practices by encouraging the active participation of communities living around the company plantation in order to improve their income and welfare.

In the Rice Breeder Seeds Partnership Programme (case 2), at least three parties can be viewed as the main drivers of the partnership programme: (a) PT Pertani Persero's Seed Processing Unit; (b) the MoA's Seed Control and Certification Services Agency; and (c) the younger breeder farmers involved in the partnership.

In the *Jatropha* project (case 3), the private company, JGE, is viewed as the main driver, as it needed a continuous supply of *Jatropha* seeds for its renewable energy plant. The role of JGE is to ensure that the community and local agency expand *Jatropha* tree cultivation by developing the nucleus estate, base camp and field extension officers, as well as by inviting all parties involved to visit its factory power plant in Kudus (Central Java Province).

In the Sweet Pepper Project (case 4), the main drivers are the government (MoA), the vegetable farmers' group and other communities that realize the importance of food safety and food/vegetable quality standards to satisfy customer and market demand.

In the LM3 Programme (case 5), the main driver of the project was the head of PPA (Kyai Haji Fuad Affandi). He started small agribusiness enterprises within the religious institution, empowering all students and farmers in the community by cultivating vegetables in PPA's garden to meet their daily needs, in addition to increasing their income.

4.3 MAIN REASONS ADVANCED BY THE DRIVERS TO CONVINCe SENIOR MANAGERS (PUBLIC AND PRIVATE) AND PARTNERS OF THE VALUE OF PUBLIC–PRIVATE PARTNERSHIPS

The main reason given by the parties involved in PPP case 1 was the importance of obtaining benefits from the partnership that would be accepted not only by farmers, but also by the private plantation company in the future. Moreover, boosting the income of local farmers could create new economic growth centres in remote areas. As can be seen in the field, many expanding small towns are becoming new economic centres for the region.

In the Rice Breeder Seeds Partnership Programme (case 2), the Seed Processing Unit of PT Pertani Persero, with the support of the SCCSA, has been tireless in promoting and conducting field demonstrations of breeding seeds in the Rengasdengklok and Karawang rice fields. The aim was to persuade PT Pertani Persero senior management at that time that smallholder production of certified rice seed was feasible. Furthermore, younger breeder farmers were eager to make changes to the breeding seed cultivation processes, which were relatively new at the start of the programme (younger breeder farmers were early adopters and pioneers of this programme), as recommended by PT Pertani Persero and the SCCSA.

In the *Jatropha Curcas* for Bioenergy Project (case 3), the selected area was suitable for *Jatropha curcas* trees (farmers are traditionally familiar with these trees). In addition, JGE needs to harvest large quantities of *Jatropha* seeds as the main energy source for biofuels to replace coal in its power plant. Local government officers were also able to persuade farmers to cultivate *Jatropha curcas* trees on their land. JGE reassured both local government officers and farmers about the economic benefits of *Jatropha* by inviting them to visit their existing factories in Kudus (Central Java Province).

In the Sweet Pepper Project (case 4), the main reason was to kick-start the development of food safety and quality management in the vegetable production system, as well as to develop a protocol for growers and farmers for controlling food safety and quality.

In the LM3 Programme (case 5), the main reasons for the partnership were as follows:

1. To maintain horticultural commodities as the historical livelihood source of communities in the Ciwidey district, and to provide vegetables to supply consumer demand in

Bandung, the capital city of West Java Province, as well as in Jakarta.

2. The need for further investment to raise productivity by strengthening the agribusiness capital of farmers and PPA students. Mr Fuad, the Head of PPA at that time, applied to the MoA for funding and other technical support for his communities' businesses.

4.4 PROCEDURES AND CRITERIA USED TO IDENTIFY AND ASSESS THE MARKET OPPORTUNITIES AND PROSPECTS OF THE AGRIBUSINESS ENTERPRISE(S) TARGETED FOR ASSISTANCE

Market information is important for agribusiness enterprises. Many methods have been used to obtain market information during the design stages of the PPPs, such as world statistics and government information, market research, field observation, workshops and producers' forums, pre-selling or selling trials.

In the Oil Palm Development Plasma Programme (case 1), there are still ample market opportunities and prospects for the use of CPO products, both domestically and internationally. According to World Growth (2011), worldwide CPO consumption grew by 8.5 percent annually between 2000 and 2009. China and India were the largest consumers, with 15.2 percent and 7.0 percent annual growth respectively. Indonesia is now the largest palm oil producer in the world, with around 46.4 percent total market share; together with Malaysia, Indonesia controls 85.4 percent of total world palm oil production.

Based on MoA policy and regulation 395/2005 on guidelines for determining the purchase price of oil palm planters' FFB production, farmers must follow certain criteria and procedures to meet government requirements, including procedures for harvesting, sorting, transporting, setting the weight of FFB, sanctions and incentives. In addition, to meet world consumer requirements, PT Sampoerna Agro Tbk (as a nucleus plantation company) has already obtained the Roundtable Sustainable Palm Oil (RSPO) certificate from TUVNORD (an independent consultant), meaning that it complied with RSPO principles and criteria for sustainable palm oil production in 2010, such as zero-burning planting principles and promoting the afforestation programme. This certificate helps the company to market the product internationally (Putra, 2010).

In the Rice Breeder Seeds Partnership Programme (case 2), PT Pertani Persero was ranked number two in terms of market share, with around 34 percent of total national rice seed production after PT Sang Hyang Seri. To maintain and improve its position, PT Pertani Persero applied several procedures and criteria, including careful selection of farmers for every partnership period and maintaining cultivar purity levels for stock seeds.

In the *Jatropha Curcas* for Bioenergy Project (case 3), JGE is a large industrial company with a number of business lines, supplying markets around the world. The firm has built a renewable energy plant as a captive market for *Jatropha curcas* seeds. The firm invited farmers' representatives, the head of Gunung Kidul Regency and the official forestry agency to visit the JGE energy plant in Kudus Regency (Central Java Province). In this partnership, the main customer is the private company itself because JGE owned a power plant to supply bioenergy to its subsidiaries. JGE has also developed *Jatropha curcas* trees in other regions in the East Java, Central Java and Yogyakarta Provinces.

In the Sweet Pepper Project (case 4), in order to assess market opportunities and prospect the market, the partnership conducted a series of research programmes, progress workshops, farmers' field days and market research and supply chain activities, supported by the Horti Chain Center, an institution focusing on horticultural supply chain development by forging better links between producers and local and foreign dynamic market segments. The main export market for sweet pepper products is wholesale traders in Singapore who re-export the product to other countries.

In the LM3 Programme (case 5), procedures have been implemented to identify and assess the market including:

- Pre-selling commodities through cooperatives (KUD/VUCs) in different districts;
- After several selling trials, the supermarket sent its technical officer to PPA to discuss and supervise how to manage and fulfill supermarket requirements;
- With assistance from the local agricultural extension officer, the partnership between PPA, the farmers' group and the supermarkets was made binding through a contractual agreement.

4.5 HOW AND OVER WHAT TIMEFRAME DID THE PARTNERS NEGOTIATE THE DEALS?

The partnership agreements were negotiated and reviewed over differing periods. In some cases the agreements were short or for one season only (case 2), subject to annual review (case 1), or every two to three years (cases 3, 4 and 5). The prices for commodities were usually negotiated fortnightly (case 1) or weekly (case 5). The partnership deals were monitored regularly by a team (case 1), or regular discussions took place with government agencies and cooperatives (case 5).

In the Oil Palm Development Plasma Programme (case 1), the partnership agreement between farmers and the nucleus plantation (as well as between KUD/VUCs, the state-owned bank and the nucleus plantation company) is a commitment made between all partners for one economic cycle of the plantation which is a period of 25 years. Naturally, the specifics of this agreement can be reviewed annually. However, FFB price determination is reviewed fortnightly by the FFB price monitoring and evaluation team (based on MoA policy and regulations 395/2005 on guidelines for determining the FFB purchase price from palm planters/farmers). The Monitoring and Evaluation team (M&E) considers the world price and the local price of CPO as the basis for determining FFB price. The quantity of products to be harvested is predetermined in the initial agreement.

In the Rice Breeder Seeds Partnership Programme (case 2), the partnership agreement is reviewed and re-negotiated for every period of the growing season, usually between 110–120 days, with preliminary field checking during the vegetative and generative phase and preharvesting field monitoring. These agreements were concluded under SCCSA supervision. The price and quantity is determined at the beginning of the agreement between the parties involved.

In the *Jatropha* project (case 3), the private company started working with farmers in 2006 and notified the official agency informally. At first the business partnership failed to develop satisfactorily, until the company invited local government agencies to work with them through extension services. Officially, the partnership started to grow and an agreement (mutual understanding) was reached between the company and local government in 2007. The price agreement was negotiated annually and the harvesting quantity was arranged at the beginning of the agreement and was subject to change, depending on weather conditions.

The sweet pepper (or HORTIN) project (case 4) was divided into two sections. The HORTIN I project, which ran from 2003 to 2006, focused on six main activities including: (a) training of Indonesian researchers on food quality, supply chain developments and quality management systems; (b) analysis of the vegetable supply chain in West Java province; (c) identification of hazards in the Indonesian vegetable supply chain; (d) development of a GAP protocol; (e) organization of a field test with farmers; and (f) monitoring and evaluation to control the development process. The HORTIN II project, which ran from 2007 to 2010, focused on how to combine technical innovation in production with innovation in the sweet pepper value chain, including a combination of innovative research at the research station and implementation in the field, to satisfy market and export demand in terms of product quality. It was divided into two phases: the formation phase in 2007–2008 and the implementation phase in 2008–2010. Farmers and the exporter determined the price and quantity in the implementation stage agreement.

In the LM3 Programme (case 5), both the MoA and PPA communicate and negotiate the partnership's activities biannually or annually, depending on the urgency of the problem. For partnerships with a supermarket, the contractual agreement is renegotiated every year, but the commodity price is determined on a weekly basis.

4.6 HOW WERE THE LEVELS, NATURE AND TIMING OF PARTNER CONTRIBUTIONS DETERMINED?

The levels, nature and timing of contributions were determined in PPP agreements after a series of discussions among partners. The partnership was reviewed regularly, taking into account the partners' knowledge and skills, as well as their resources and capacity.

In PPP case 1, each partner's contributions were determined on the basis of the partnership agreement letter. In general, during the 48 months of the early planting development stage (immature stages), the nucleus plantation company was responsible for estate management, assisted by the respective farmers. At the end of this 48-month stage, the nucleus plantation company hands over palm estate management to the respective farmers under its supervision, witnessed and approved by KUD/VUCs organizing committees and local agency officers. Subsequently, farmers are responsible for their palm trees up to the harvesting season. The nucleus plantation company is required

to buy all farmers' FFB products at a price determined by the price team. As a lender, the state-owned bank (PT Bank BRI Tbk) oversees and monitors credit disbursement and repayments from farmers/planters.

In PPP case 2, each partner's contributions were determined on the basis of the working agreement letter, which was reviewed at the beginning of every growing season, usually before the start of the summer or rainy season. At the beginning of the programme, PT Pertani Persero provided breeder farmers with both stock seeds and other agricultural inputs (e.g. fertilizer). However, after the programme had been running for 2-3 years, the company changed its policy to provide seeds only, as they found that often the breeder farmers did not use the inputs and would sell them to local middlemen.

In PPP case 3, each partner's contributions were determined at the local agency at a regular or biannual discussion meeting.

In PPP case 4, each partner's contributions were determined on the basis of the MOU which outlined the roles and responsibilities of the partners at the beginning of the project at informal and formal meetings of the partners involved, under the supervision of both the Indonesian and the Dutch Ministries of Agriculture.

In PPP case 5, each partner's contributions were determined on the basis of the clausal section in the working agreement between parties, which can be reviewed annually or biannually.

4.7 HOW WERE EXPECTED COSTS, REVENUES AND RETURNS ON INVESTMENT ESTIMATED FOR THE TARGET AGRIBUSINESS ENTERPRISES?

The total investment, revenues and returns were estimated for the partnerships before the working agreement was signed. Most commonly it is the investors (in particular private partners) who estimate the expected revenue and return on investment. Not all of the partners involved in the case study PPPs were willing to disclose information related to revenue generated and return on investment from the partnerships.

In PPP case 1, the partnership project was budgeted at around Rp30.25 million (\pm US\$3 361) per hectare, a total of around Rp151.25 billion (US\$16.7 million) for 5 000 hectares of palm plasma plantation. In most cases the nucleus plantation company covers funding of the first 48-month development stage for the plantation

before the KUD/VUCs obtain credit from the bank. The investment cost for the establishment period was Rp96.5 billion (US\$10.6 million).

In PPP case 2, the estimated budget for seeds was around Rp300 000 per hectare, or Rp236 million (US\$26 000) for a total of 790 hectares annually in Karawang Regency. This is equivalent to Rp6 billion (US\$662 000) for a total of 20 000 hectares across Indonesia. Farmers are aiming to increase their harvest from 5 tonnes per hectare to 6–7 tonnes per hectare each season.

The estimated cost for inputs for 1 hectare (for seed breeders) in 2010 was: fertilizers, Rp2.35 million/hectare; pesticides, Rp200 000/hectare; labour, Rp3.5 million/hectare; seeds, Rp300 000/hectare. The total production cost was around Rp6.35 million/hectare (US\$700/ha). The yield was 6 tonnes/hectare, and at a seed price of Rp8 000/kilogram (kg), the total income was Rp48 000 000/hectare (US\$5 300/ha). Net income was Rp48 million–Rp6.35 million, equivalent to Rp41.65 million/hectare/season (US\$4 600/ha). PT Pertani Persero purchases the seeds from the seed breeders at Rp 8 000/kg and sells them to rice farmers in Indonesia at the price of Rp9 000/kg. The return on investment for PT Pertani Persero was estimated at 5.29 times.

In PPP case 3, the total investment was Rp40 billion (US\$4.4 million) for the establishment of 5 000 hectares of *Jatropha*. There was no discussion about the return on investment and investment payback period because this project was viewed as a pilot project.

In PPP case 4, the project was budgeted at around €0.6 million (US\$780 000) annually as a grant programme with collaboration between the MoA (Indonesia) and the Netherlands. No further information on costs, revenues and returns on investment were available. The exporter involved in the project (PT Alamanda Sejati Utama) did not wish to disclose further information about the investments made in establishing the sweet pepper packing line.

In PPP case 5, the project was funded by the MoA as a grant programme and the recipient is required to report monthly and quarterly results. The total grant allocation was Rp1.5 billion (US\$165 500). At the end of the programme the recipient institution is expected to act as a model institution for developing agribusiness enterprises and capacity-building. This allows the institution to serve as a learning and education centre for other religious institutions in the agribusiness sector.

4.8 HOW WERE EXPECTED PRIVATE AND PUBLIC BENEFITS ESTIMATED?

In most cases all partners, both public and private, were expected to derive benefits in the short, medium (5–10 years) or long term (25–30 years).

In PPP case 1, oil palms have an economic life cycle of 25 to 30 years. After one life cycle they need to be replanted with young trees and can be harvested as young as 36 months old (three years after planting). As specified by the MoA, every farmer owned two hectares of palm estate. For 5 000 hectares, assuming an FFB selling price of Rp1 500/kg, it is estimated that farmers can earn gross revenue as shown in Table 2. Up to 25 years after planting, farmers could earn an average of around Rp4.25 million per month (US\$470/month) or Rp51 million per year (US\$5 600/year). This makes palm farmers' income much higher than the current Indonesian gross national production (GNP) per capita of around US\$3 000 (2010).

In PPP case 2, it was estimated that both PT Pertani Persero and farmers could benefit directly in every single growing season through the production and sale of certified rice seeds as discussed under section 4.7. Farmers were expected to earn a net income of approximately Rp41.65 million per hectare per season (US\$4 600/ha/season), again much higher than the current GNP per capita.

In PPP case 3, JGE estimated that profits could be made five to ten years after planting. Farmers want the benefits of a project as soon as possible. The public partner, in this case the estate crops and forest local agency, expects the project to start generating income benefits for farmers five years after planting.

In PPP case 4, it was estimated that farmers and the exporter would benefit from the programme

between one and three years after the end of the project as a result of developing a stable export market for sweet peppers.

In PPP case 5, the public partners expected the programme to succeed and be replicated in other sectors. As for the private institution, this programme was expected to benefit not only the community living nearby, but also other institutions that could emulate and replicate the partnership system.

4.9 WHICH ASPECTS OF THE ENABLING ENVIRONMENT WITH A POTENTIAL IMPACT ON THE PARTNERSHIP WERE APPRAISED AND HOW WERE THEY APPRAISED?

It is clear that in all cases, support from both central and local government policies had a significant impact on the development of partnerships. In addition to supportive government policies, some other mechanisms were also introduced into the partnerships to cope with external challenges.

In PPP case 1, extreme weather (such as extreme heat or a prolonged rainy season) is the main factor that could affect the continuation of the partnership scheme. These conditions would harm the FFB harvest and thus the raw material available to the nucleus company's POM. As a result, farmers would be unable to repay their loan installments. The bank has already established a mitigation mechanism to cope with this problem, by deducting a small percentage of FFB proceeds from the various bank accounts to set up a contingency fund.

Similarly in PPP case 2, weather conditions, such as a long dry season or a heavy rainy season, could impact on the partnership. In the event of

TABLE 2
Estimated gross revenue of an oil palm estate

Planting year	Average oil palm fresh fruit bunches/hectare/year (tonnes)	Total gross revenue (millions of rupiah)	Gross revenue/hectare/year (millions of rupiah)	Gross revenue/farmer/month (millions of rupiah)
Year 3 (36 months)	7	52.5	10.5	1.75
Year 4 (48 months)	15	112.5	22.5	3.75
Years 5–10	18	135	27.0	4.50
Years 10–20	22	165	33.0	5.50
Years 20–25	18	135	27.0	4.50
Average	17	127.5	25.5	4.25

Source: author's compilation and discussion with company staff, 2011.

a long drought, farmers are recommended to use and plant the stock seeds cultivar in their fields; conversely in the event of a heavy rainy season, farmers are recommended to use and plant the foundation stock cultivar seeds in their fields. Both methods impact on seed harvesting and yield, which can be appraised at the beginning of the growing season.

In PPP case 3, Presidential Decree 1/2006 on the supply and use of biofuel as an alternative energy source was viewed as an enabling factor for the partnership. The Ministry of Domestic Affairs and Ministry of Forestry issued joint decrees to allocate land for biofuel as an alternative energy source for this project.

In PPP case 4, the main enabling factor was sweet pepper export demand of 100 tonnes per month, which farmers were unable to meet. Another factor was the need for higher quality standards for sweet peppers (based on export market requirements).

In PPP case 5, the main enabling factor was the history of vegetable growing by the community living in the villages near the institution. The MoA also issued a regulation to facilitate this partnership programme.

4.10 HOW WERE DECISIONS MADE REGARDING THE ROLES OF EACH PARTNER IN STRATEGIC AND DAY-TO-DAY MANAGEMENT AND IMPLEMENTATION OF THE ARRANGEMENTS?

In general, strategic decisions were discussed and agreed upon between both partners (public and private). However, field visits and regular meetings were the commonest method used to implement the arrangements. Managers and extension workers usually handled the day-to-day management.

In PPP case 1, to facilitate the smooth development of partnerships with farmers, the nucleus company appointed field extension supervisors to handle the day-to-day management of the cooperatives and farmers' group through regular visits and meetings with them. The KUD/VUC organizing committee and members held regular quarterly meetings. The cooperatives' local agency officers always attended the annual general meeting of members in the KUD/VUCs office in the village to provide information about new regulations or policies relating to the oil palm plantation development project in the region.

In PPP case 2, each partner's decisions were based on a series of regular and ad hoc discussions and field visits, with both formal and informal

meetings. In PPP cases 3 and 4, decisions were based on a series of discussions and regular consultations, including workshops and field trips to farms and markets.

In PPP case 5, decisions were made by evaluating each partner regularly (monthly and quarterly) under the supervision of local agricultural agency extension officers.

4.11 WHAT STEPS WERE FOLLOWED FOR APPROVAL BY SENIOR MANAGERS OF THE PUBLIC AND PRIVATE PARTNERS AND SUBSEQUENT FORMALIZATION OF THE ARRANGEMENTS?

Several steps were generally followed to obtain approval from senior managers (both public and private partners), including: (a) drafting the MOU; (b) meeting and signing the MOU; and (c) group partnership formation.

In PPP case 1, to obtain approval for the PIR-KKPA partnership scheme, certain preparation steps were required, including:

- farmer participants should become KUD/VUC members;
- farmer participants should own legalized land (at least 2 hectares) to be planted with oil palms;
- the KUD/VUCs should form a partnership with the private plantation company as a nucleus company, bound by a written agreement;
- the bank should appoint an independent consultant to make a feasibility study and report on the project approved by the state-owned bank acting as a lender;
- the partnership should collaborate with the local government agency (National Land Board) to obtain a new land utilization certificate.

In PPP case 2, to formalize the arrangements in the agreement, certain requirements needed to be met, including:

- drafting a working agreement letter between PT Pertani Persero and the breeder seed farmers;
- signature of a letter of ability to pay debt waiver by farmers;
- drafting the minutes of a meeting on seed price negotiations between the farmers' group and PT Pertani Persero's seed processing unit;
- signature of a letter of acknowledgement of debt;

- providing a control and monitoring card for planting breeding seeds in every single planting area.

In PPP cases 3 and 4, formalization of the agreement was based on regular formal and informal meetings and discussions with key partners, especially from the local agency (Crop Estate Agency) and from the Indonesian and the Netherlands counterparts.

In PPP case 5, to obtain formalization of the agreement, the religious institution initially made a business proposal to the local government agency. Following several selection and verification processes by the MoA team, checking fulfillment of at least four criteria (including general, technical, administrative and competency aspects), the partnership working agreement was signed by both parties. It takes from 6 to 12 months to complete this agreement process.

4.12 FORMAL TOOLS USED TO SUPPORT THE NEGOTIATION AND PLANNING PROCESSES

Most cases used analytical and financial tools to support the PPP negotiations and planning. However, only some PPP cases used a participatory approach, such as cases 2, 3 and 4.

In PPP case 1, some formal tools were used to support the partnership scheme, including a feasibility study, which covered operations, resources, finance and cost projections, as well as the environmental impact report for the project.

In PPP case 2, formal tools were used to support the negotiation and planning processes, including an assessment of land availability provided by each farmers' group and previous performance records of farmers involved in the partnership. Every farmers' group should have adequate technical skills for irrigating their rice field, as well as for participating in the partnership programme.

In PPP case 3, a participatory process and financial tools were used to support the partnership formulation process. In PPP case 4, a supply chain analysis model, evaluation logic model, production and marketing cost analysis and participatory processes were used.

In PPP case 5, the religious institution (as a grant applicant) submitted to the MoA a business plan and a proposal with financial and production details, as well as market targets for the next three to five years, using them as the main tools to support negotiation of the partnership process.

Chapter 5

Management and operations

5.1 ROLES OF EACH PARTNER IN STRATEGIC AND DAY-TO-DAY MANAGEMENT AND IMPLEMENTATION OF THE ARRANGEMENTS

Most farmers, as PPP partners in all cases, are involved in day-to-day management and implementation activities, supported by agricultural extension officers.

For the day-to-day management of the Oil Palm Development Plasma Programme (case 1), the nucleus plantation company appointed several extension officers with direct roles in overseeing, monitoring, advising and recommending on field-related issues. Based on the extension officers' reports, the senior members of the nucleus plantation company held regular meetings with the KUD/VUC organizing committee to discuss and formulate strategic management activities relating to the continuity of the partnership project, either monthly or quarterly depending on the urgency.

In the Rice Breeder Seeds Partnership Programme (case 2), PT Pertani Persero monitored and evaluated daily farming operations jointly with the SCCSA, by means of field controls and visits and discussions on the agricultural aspects of seeds and the cultivation system. The farmers and farmers' group manage and maintain seed planting based on GAP, as recommended by PT Pertani Persero and the SCCSA. PT Pertani Persero conducts regular monitoring biannually or annually for strategic management purposes.

In the Jatropha project (case 3), JGE was responsible for day-to-day management and implementation. The official agency staff also worked with JGE on strategic planning. Farmers were responsible for cultivation and land maintenance.

In the Sweet Pepper Project (case 4), IVEGRI/WUR-GH, together with farmers, conducted operations and built a greenhouse on the farmers' land, monitoring and controlling the results of the sweet pepper planting process and recording all activities on a daily basis. Rabobank provided funding for farmers, giving advice and educating them in bookkeeping and management. The exporter, PT Alamanda Sejati Utama, provided export and

market information on a weekly or monthly basis, and also acted as a guarantor for farmers.

In the LM3 Programme (case 5), PPA, together with the agricultural extension officers, students and farmers, were educated by means of several workshops, training and field work on a daily and weekly basis. For strategic management, the MoA, through its local agency officers provided, supervised, monitored, mentored and evaluated the partnership programme activities on a monthly and quarterly basis.

5.2 MATERIALS, TECHNOLOGY AND SERVICES PROCURED AND DELIVERED UNDER THE ARRANGEMENTS

There is clear evidence that new knowledge, materials and technology were delivered in all cases, such as new cultivation and technical knowledge relating to oil palm cultivation in case 1, the use of certified rice seeds in case 2, a new variety of Jatropha plant in case 3, introducing new wood-metal greenhouses and a fertigation system in case 4, and a new cultivation and packaging method in case 5.

In the oil palm programme (case 1), materials, technology and services were procured and delivered, including:

- new cultivation and planting knowledge and skills relating to oil palms;
- technical knowledge on oil palm management for optimizing the upkeep and harvesting system;
- utilization of the natural enemies of palm pests, such as owls to protect against rat infestations;
- a new accounting method for payment of installments and distribution of reports to farmers through KUD/VUC offices.

In the Rice Breeder Seeds Partnership Programme (case 2), materials, technology and services were procured and delivered, including for:

- saving seeds;
- using only certified rice seeds;
- uniformity of growth, flowering and ripening phases that can be harvested all at once;

- higher yielding varieties with uniform seeds of standard quality.

The *Jatropha* project (case 3) introduced the best variety of *Jatropha curcas* tree and implemented a biofuel technology breakthrough using *Jatropha* seeds as an energy source.

In the Sweet Pepper Project (case 4), materials, technology and services were procured and delivered for introducing:

- a new form of wood–metal greenhouse construction;
- new fertigation drip techniques;
- a new pruning technique and optimized seedling use;
- an integrated pest–disease control system.

In the LM3 Programme (case 5), new materials and technology were introduced, including:

- a new distribution vehicle for PPA to transport its commodities to retailers and supermarkets;
- new cultivation techniques and packaging methods;
- a new form of the cooperative system (the Aliff Cooperative¹³).

5.3 NEW EXPERTISE REQUIRED FOR IMPLEMENTATION; HOW WAS IT OBTAINED OR DEVELOPED?

Some new expertise was required and obtained in all PPP cases, including: the use of computers for recording data in PPP case 1; conducting self-inspection and discarding non-uniform plants in PPP case 2; a new pruning and fertilization technique in PPP case 3; optimization of seedling usage and a watering technique in PPP case 4; and a new cultivation technique and packaging method recommended by the MoA in PPP case 5.

In the oil palm programme (case 1), PT Sampoerna Agro Tbk, as a nucleus plantation company, introduced computers for farmers to handle KUD/VUC harvesting and distribution records, as well as for their monthly installments and administra-

tion reports. The nucleus company trained and educated some KUD/VUC staff to use computers properly and efficiently in order to ease the nucleus company's administrative burden and facilitate progress monitoring of KUD/VUC organizing committee members.

In the Rice Breeder Seeds Partnership Programme (case 2), experienced farmers with longer involvement in the partnership obtained new knowledge on how to conduct self-inspections and to discard plants by themselves, as variable results can harm all other plants in the field and prevent the harvesting of uniform seeds.

In the *Jatropha* project (case 3), JGE provided new farming expertise such as pruning, selecting the best seeds, fertilizing and planting arrangements, as well as transporting the harvested products to the factory.

In the Sweet Pepper Project (case 4), new knowledge was required for farmers to produce high-quality sweet peppers using cultivation techniques such as optimization of seedling usage, pruning and watering techniques. These processes were learned through a series of workshops and learning processes, supported by IVEGRI/WUR–GH researchers.

In the LM3 Programme (case 5), new knowledge was required to produce high-quality, healthy vegetable products by implementing agricultural methods recommended by both local agricultural agency officers and retailers and supermarket technical officers. These processes were learned at a series of workshops and through field training provided by the MoA, involving vegetable research centres in West Java Province.

5.4 MANAGERIAL PROCEDURES FOR OUTSOURCING AND SUBCONTRACTING, AND CAPACITY TO DEAL WITH THE VARIOUS PROCEDURES AND REQUIREMENTS OF DIFFERENT PARTNERS

Only two PPP cases used outsourcing and subcontracting to facilitate the partnership. In the Oil Palm Development Programme (PPP case 1), outsourcing contractors were used during the estate preparation phase for land clearance, road construction and drainage. This usually required the use of heavy vehicles, such as dump trucks, loaders and graders. The outsourcing parties are appointed biannually or annually to perform maintenance work on road and drainage systems.

In the LM3 Programme (PPP case 5), outsourcing was used mainly to supply products not

¹³ The Aliff Cooperative is a legal cooperative entity under PPA (as a subsidiary) which operates business activities related to the supply, packaging and distribution of vegetables in accordance with Syariah laws and regulations. According to Indonesian law, PPA as an educational foundation is classified as a non-profit organization, and therefore is not allowed to run any profit-generating business activities. For this reason the Aliff Cooperative was established.

produced by PPA. Sometimes PPA outsourced and subcontracted to other religious institutions in other areas to supply certain vegetables that could not be grown by farmers in Ciwidey village in order to meet their partner's demands.

5.5 PERFORMANCE MONITORING AND APPRAISAL MECHANISMS; USES OF MONITORING INFORMATION FOR IMPROVING IMPLEMENTATION, PERFORMANCE AND IMPACTS

Performance monitoring and appraisal mechanisms play an important role in all PPP cases. All used a monitoring and performance mechanism regularly, with quarterly and biannual meetings. In PPP case 1 daily random checking was also used at the POM on the FFB received from farmers. In PPP cases 2 and 5, independent parties applied the monitoring and appraisal mechanism in several stages, from the preliminary to the implementation stage.

In PPP case 1, regular monitoring of oil palm maintenance was carried out quarterly and biannually, by both nucleus extension officers and KUD/VUC staff. FFB crops were monitored daily in the nucleus POM with random checking by POM staff. Jointly with bank staff, nucleus finance staff and the KUD/VUC organizing committee monitor and appraise the farmers' credit performance on a quarterly basis.

In PPP case 2, the monitoring and appraisal mechanism is divided into four steps: (a) preliminary farmers' field performance inspection, including history of field utilization and performance; (b) the first field inspection during the vegetative period, 30–50 days after planting; (c) the second field inspection during the generative period 25–30 days before harvesting; (d) the third field inspection carried out one week before harvesting. All the monitoring and appraisal processes were performed by the SCCSA team, accompanied by PT Petani Persero's seed processing unit team. For the second and third field inspections, uniformity of seed variety was examined for form and colour.

In PPP case 3, there are regular meetings and supervision of limited indicators, such as determination of price, income, productivity, supply quantity and standard quality, using regular management reports and official agency reports.

In PPP case 4, there are regular meetings and supervision of the entire process, recording all daily activities in the evaluation and monitoring books/forms provided by the IVEGRI research team.

In PPP case 5, monitoring and appraisal were performed regularly by the MoA team in three

phases: preparation (*ex ante* monitoring); implementation (ongoing monitoring) and after implementation (*ex post* monitoring). This was done using an audit, review and evaluation method under the general inspectorate of the MoA department.

5.6 MAIN RISKS IDENTIFIED WITH RESPECT TO IMPLEMENTATION OF THE ARRANGEMENT AS PLANNED, AND ACTIONS TAKEN TO MITIGATE RISKS

One of the main risks for the oil palm programme (case 1) was *force majeure*, including harsh weather conditions (either a long drought or a prolonged heavy rainy season). For instance, if heavy rain fell over several months, road conditions in the farmers' palm estates became very poor and trucks could not be used, meaning that farmers were unable to deliver their FFB products and consequently could not repay their installments for several months. To overcome this problem, the bank lender and nucleus company as a guarantor set up a contingency plan using a special account funded by the farmer's FFB proceeds, usually capped at 10 percent.

The main risks for the Rice Breeder Seeds Partnership Programme (case 2) were also *force majeure*, such as harsh weather conditions (either a long drought or flooding), and pest and disease outbreaks, which could ruin the entire harvest. A partnership programme is one way to spread the risk among partners.

The main risks for the Jatropha project (case 3) also included weather conditions (for example too much rain could reduce the production of Jatropha seeds), coupled with: a long production period; abandonment of the farm (poor motivation among farmers); no government incentives for the firm to apply the green energy programme; and poor commitment from public institution personnel to facilitate the partnership.

The main risk for the Sweet Pepper Project (case 4) was managing production with a highly innovative technological process while working collaboratively with farmers and researchers with differing perspectives: in other words, ensuring a similar perception of partnership benefits for all parties involved.

The main risk for the LM3 Programme (case 5) was ensuring an adequate quantity and quality of continuous vegetable production under the terms of a contract signed with retailers and supermarkets. To mitigate this problem, crop rotation and intercrop planting were implemented by farmers or farmers' groups.

5.7 SUPPLEMENTARY SUPPORT FROM OTHER PUBLIC AND PRIVATE PARTNERS APART FROM THOSE DIRECTLY IDENTIFIED IN THE PARTNERSHIP ARRANGEMENTS

Each case obtained additional support from related parties in the agribusiness sector, such as: fertilizers subsidized by the state-owned enterprise (PPP case 1); support from the public rice research centre (PPP case 2); support from the public estate crop research centre (PPP case 3); support from the Horti Chain Center as a private company (PPP case 4); and support from other retailers and supermarkets as private parties (PPP case 5).

In PPP case 1, farmers usually obtained subsidized fertilizers and other agricultural inputs from other state-owned enterprises, such as PT Pupuk Sriwijaya Persero, which produce the main fertilizers such as Urea and NPK Ponska.

In PPP case 2, the programme is facilitated by assistance from other agricultural agencies, such as the agricultural research agency, the rice research centre producing breeder seed cultivars, and the Seeds Directorate which conducts seed extensification to form foundation seeds and stock seeds.

In PPP case 3, public research and development for plantations in Malang (East Java Province) has led to the development of a new variety of *Jatropha curcas* on a demonstration plot. In addition, the Indonesian Central Bank and JGE have agreed to a technical assistance collaboration partnership for a *Jatropha* cluster pilot project, giving farmers access to financial institutions and information-sharing on potential production areas.

In PPP case 4, the project is assisted by the Horti Chain Center as an independent party, providing support in the form of supply chain analysis and forging better links between producers and local and foreign dynamic market segments.

In PPP case 5, support came from the retailers and supermarkets, which sent technical officers directly to farmers and farmers' groups to mentor and educate them in good packaging and distribution practices. These retailers were not part of the original partnership agreement, however based on the demonstrated strong performance of PPA in supplying to its partner supermarket (Hero Supermarket), the network of customers is expanding.

5.8 KEY CHALLENGES FACED BY PUBLIC AND PRIVATE SECTOR OFFICIALS AND MANAGERS DURING IMPLEMENTATION

Some of the key challenges faced by the parties involved in PPP programmes included harsh weather conditions (PPP cases 1 and 2), limited funding from the local government regency to support the PPP development programme (PPP case 3), concerns about the limited number of exporters involved in the partnership (PPP case 4), and the reluctance of farmers to follow the recommended cultivation and crop rotation practices to meet market demand (related to farmers' cultures and habits) in PPP case 5.

In PPP case 1, one of the key challenges during the implementation stage was how to cope with bad weather conditions during the rainy season, with difficulties in sending heavy vehicles to remote palm areas on poor roads to carry out road and drainage repair.

In PPP case 2, the key challenges faced by public and private sectors were how to cope with harsh conditions (bad weather and pest and disease outbreaks) and to minimize interference by middlemen in the partnership programme. These middlemen act as illegal lenders, offering a quick source of funds to farmers but at higher interest rates so that farmers are unable to pay installments on their short-term debt.

In PPP case 3, a key challenge was how to convince farmers of the economic value of *Jatropha* by securing the market and obtaining the limited funding available from local government to promote extension and increase *Jatropha curcas* productivity.

In PPP case 4, partners face two key challenges: (a) the nature of the sweet pepper plant, which grows robustly only under cover; and (b) the exporter involved. At the end of the supply chain, this project involved a single exporter, PT Alaman-da Sejati Utama, which agreed to become involved in the partnership. However, if anything should happen to this exporting party, the programme would grind to a halt instantly and farmers would be at risk. The need to expand the partnership and collaborate with other exporters was raised.

In PPP case 5, one of the key challenges came from unwillingness by farmers and farmers' groups to implement the recommended rotation and inter-crop planting method for fear of losing short-term income. This can be solved by approaching farmers directly and educating them in an informal manner.

5.9 MAIN PROBLEMS ENCOUNTERED IN MAINTAINING PARTNERSHIP RELATIONSHIPS AND ACTIONS TAKEN TO ADDRESS THEM

A range of problems was encountered in the PPP programme, relating to:

- a. farmers' cultures, habits and customs, making it difficult for some farmers to follow rules and recommendations stipulated in the agreement with private parties (PPP cases 2 and 5);
- b. limited funding to develop the programme (PPP cases 2 and 4);
- c. technical harvesting and yields (PPP cases 1 and 3);
- d. labour shortages during the harvesting season (PPP case 1).

In PPP case 1, the main problems affecting partnerships between farmers and the nucleus company usually occurred during the peak harvesting season between October and March. These problems stemmed from a shortage of labour for the harvest of FFB and for operating the palm nursery. In addition there was often a long queue of transporters waiting to deliver farmers' FFB to the nucleus POM. To cope with the problems of harvest labour shortages, the nucleus company jointly with the KUD/VUCs recommended a cyclical rotation of harvesters for farmers' estates. Normally the FFB can be harvested every 10 to 15 days. To deal with the long queues at the POM, the nucleus company applied a harvesting quota for each farmer in each KUD/VUC to match the POM's daily processing capacity. For example, the installed capacity of the nucleus POM in the Belida Estate is 60 tonnes of FFB an hour, meaning that the POM can process only around 960 tonnes of FFB operating 16 hours a day (or 24 000 tonnes of FFB a month).

In PPP case 2, PT Pertani Persero encountered problems relating to such areas as: (a) availability of funds; (b) skills and management capacity; (c) market control; and (d) slow adoption of new technologies by farmers. The problems encountered by

farmers were: (a) late payment for seed purchases; (b) unilateral cancellation of seed/crop harvesting; (c) delays in collecting seed grain from the field; and (d) delays in seed distribution to farmers/growers. PT Persani Persero took the following steps to solve some of the abovementioned problems: (a) searching for other public funding sources such as through the Ministry of Agriculture and Ministry of State-Owned Enterprises; (b) improving staff skills through training and education; and (c) hiring a new officer with the necessary skills and motivation to liaise effectively with farmers.

In PPP case 3, there were problems with the high-yielding *Jatropha* variety developed by the public research and development agency. The main problem was the disappointing yield obtained from this variety when planted on farmers' land when compared to trial conditions. To overcome this problem PT *Jatropha* Green Energy was assisted by the local government agency to set up a demonstration plot that was developed into a nursery so that seedlings could be grown and then transferred to the farmers' plots. This process was supervised by the public R&D institution, PT JGE and local government agency staff.

In PPP case 4, problems were encountered with farmers' capacity to follow new innovative production techniques such as the drip fertigation technique; and also to secure sufficient funds required for the construction of a new greenhouse. To cope with this problem, PT Rabobank Indonesia provided sufficient investment funding, guaranteed by the exporter, on the condition that farmers met certain requirements as recommended by IVEGRI and the bank.

In PPP case 5, there were similar problems with farmers' customs and habits, as not all farmers or farmers' groups complied with the partnership scheme and planted the specific vegetables recommended. To cope with this problem, the head of PPA, held regularly monthly meetings on Thursday nights, inviting all formal and informal leaders to discuss and decide on the best solution to these problems.

Chapter 6

Performance and development outcomes

6.1 INCREMENTS TO INVESTMENT, REVENUES, RATES OF RETURN ON INVESTMENT AND EMPLOYMENT

In all cases, there has been a significant improvement in the welfare of the parties involved, especially for farmers and the community living near the site, with new business opportunities in the village.

In the Oil Palm Development Plasma Programme (PPP case 1), there have been significant increases in farmers' wealth and a change in their daily economic life. Details of income increases were presented in section 4.8 and are reflected in the field, with many permanent houses and even four-wheel drive vehicles and motorcycles belonging to farmers are now a common feature in most villages. Furthermore, many farmers' children can now afford to continue in higher education at the university located in the Jawa province. A number of other businesses have also been successfully developed by KUD/VUCs, such as savings and loans businesses for their members and convenience stores to meet the basic everyday needs of their members and the surrounding communities. As a result, many small villages and districts are becoming new economic centres or small regional towns in remote areas.

In the Rice Breeder Seeds Partnership Programme (PPP case 2), significant increases in farmers' wealth have resulted in job creation, lower unemployment and new business opportunities in the village. As highlighted under section 4.7 expected returns per hectare of seed produced was Rp41.65 million (US\$4 600) per season. In the Rawamerta District, Karawang Regency, the head of one farmers' group stated that since he became involved in the seed breeder partnership programme in 1991, the area of rice fields he owns has risen from around 5 to 85 hectares in 2010 and he now owns a new rice milling unit, two trucks, two cars and eight motorcycles.

In the *Jatropha* project (PPP case 3), the number of farmers involved in the partnership has increased from a few hundred to more than 5 000. Consequently, the land area planted has

also increased from around 200 hectares to more than 5 000 hectares. Since this project is still new and initial yields were lower than expected, it was not considered possible at this time to accurately determine net increases in income for farmers or returns on investment for the company. However the *Jatropha* price increased from Rp600/kg to Rp2 000/kg in 2010 with an expected price of Rp3 000/kg in 2011, thus once the project is fully functioning, the potential for returns to farmers is strong due to strong market demand.

There have been significant increases in investment and benefits in the Sweet Pepper Project (PPP case 4): (a) the number of greenhouses producing sweet peppers has risen from around 60 units to 80 units each measuring 1 500 square metres; (b) sweet pepper production and its market have increased from only 150 kg to 3 tonnes per week; (c) the total planted area of sweet pepper plants has risen to 35 hectares in this village alone, and it has become the largest sweet pepper production centre in Indonesia; (d) employment rates in the village have improved, accompanied by a lower crime rate. While the specific details of net income generated per farmer were not provided by the cooperative, as an indication, at an average price of Rp10 000/kg, revenue has increased from Rp1.5 million (US\$165) for 150kg per week to Rp30 million (US\$3 300) per week.

The number of students and farmers involved in the LM3 Programme (PPP case 5) demonstrates the success of this partnership programme as income generated is reinvested in the community and is used to extend the programme. Participation has increased from around 60 to 280 students, with more than 200 farmers currently under supervision. Planting areas also increased from around 8 hectares to 240 hectares, with the number of vegetable items sold to retailers and supermarkets in Jakarta rising to 27 items. In Bandung, 130 items are supplied on a weekly basis. Production has increased from around 100 kg to 2 tonnes of vegetables for distribution per week. In addition, an official school and a new cooperative have been built under the programme.

6.2 STIMULATION OF ADDITIONAL AGRIBUSINESS INVESTMENT

In all cases, most of the partners involved, especially farmers, brought new investment relating to their core business in the agribusiness sector, including reinvestment in oil palm plantations in other locations (PPP case 1), investment in a new rice milling unit (PPP case 2) and additional greenhouse units in the village (PPP case 4).

In PPP case 1, many farmers reinvested in oil palm plantation businesses by buying new land for palm tree cultivation in their village or district, or even invested in other locations. Most farmers also planted around half a hectare of rubber trees in their gardens. In addition to palm and rubber estates, some farmers also commercialized nesting houses for swallows to collect their valuable saliva for sale in a market attracting a high price; other villagers have opened motorcycle and car workshops.

In PPP case 2, the partnership programme has stimulated new agribusiness investments, such as increasing numbers of private breeder farmers and new rice milling units, as well as additional agricultural input stores in the district.

In PPP case 4, additional investment was needed to meet the growing demand for sweet peppers in the export market of around 100 tonnes per month. This translated into further investment to build new greenhouses and install fertigation drip systems to boost the quantity and quality of sweet pepper production.

In PPP case 5, the additional agribusiness investment was used to stimulate new business activities in different kinds of vegetable commodities. Historically, farmers in the Ciwidey district planted only cabbage and tomatoes. Since the programme was introduced they have planted more vegetable varieties, such as radishes, leeks and lettuce.

6.3 PRODUCT OR PROCESS INNOVATIONS

Every PPP case introduced new knowledge and innovative technology to the partners involved, ranging from pruning methods (PPP cases 3 and 5) and integrated pest and disease control (PPP cases 1, 4 and 5), to a new accounting and record system (PPP case 1). A new product was also created with a new rice seed variety in PPP case 2.

Innovations introduced in the Oil Palm Development Programme (case 1) include technical knowledge and skills relating to oil palm cultivation management. This entails not only palm cultivation and maintenance methods, but also the

application of integrated pest control using natural enemies and biological pesticides, as well as best-practice harvesting methods. Further innovations were an accounting and record system introduced by the state-owned bank and the nucleus plantation company.

The Rice Breeder Seeds Partnership Programme (case 2) has already released more than 20 higher-quality, more productive seed cultivars since the beginning of the partnership. Currently farmers are using and planting Ciherang and Mikonga seed cultivars, producing more than 7 tonnes of seeds per hectare per growing period, compared with the former 5 tonnes of seed per hectare. In the *Jatropha* project (case 3), the innovative pruning method was new to farmers.

In the Sweet Pepper Project (case 4), innovative cultivation techniques and processes were new to most farmers, including: optimized seedling usage; a new pruning technique; and integrated pest and disease control methods. In greenhouse construction, the innovation was the use of wood-metal greenhouses and fertigation drip techniques. New grading and packaging techniques complying with food safety and product quality standards were also introduced for distribution to the exporter.

In the LM3 Programme (case 5), an innovative cultivation process was introduced, including: optimized land usage; a new pruning technique; and integrated pest and disease control. In this village, former PPA students and farmers also created an ecotourism village destination by combining strawberry harvesting and fishing activities in one location.

6.4 RISKS MITIGATED OR CREATED FOR BENEFICIARY AGRIBUSINESS ENTERPRISES

Every case has encountered different risks, usually relating to the supply chain. In PPP case 1, there was a risk that farmers (partnership scheme members) might sell their FFB products to other external parties instead of to the nucleus company's POM. Fortunately, this did not happen as PT Sampoerna Agro Tbk has always maintained good relationships with its partners and farmers in KUD/VUCs over a long period without any disputes and has always kept its promises to the farmers that signed an agreement letter. An additional risk and challenge that might occur in the future (five to ten years from now) relates to the oil palm replanting scheme, with fears that farmers are not ready to deal with it. During the replanting period lasting up to four years, farmers are expect-

ed to derive no income at all from the immature oil palm plantation. The nucleus plantation company, state-owned bank and cooperatives' committee have therefore recommended that farmers take a number of steps, including saving money to cover replanting costs and investing in other businesses to generate income during this time. Some farmers have already started to invest in rubber estates as a mechanism to offset this risk.

As mentioned earlier, the major risks facing both parties in PPP case 2 are external factors such as harsh weather conditions (long drought, heavy rain or pest and disease outbreaks). These factors can be mitigated by working closely with farmers and following the recommendations of the Rice Research Agency to plant a seed variety resistant to adverse weather conditions and pests and diseases.

In PPP case 3, productivity at harvest is still low. As a result, supply is still insufficient to meet JGE's requirements, which can have a significant impact on the PURA Group power plant, and may be unable to supply its energy needs.

In PPP case 4, there is a risk of the exporter collapsing or going bankrupt, which would be detrimental to farmers' and growers' productivity, resulting in the entire supply chain grinding to a halt. In fact, several other exporters work in the same area but do not handle sweet peppers. The sweet pepper exporter has been accredited as the sole buyer/importer from Singapore to buy sweet peppers from Pasir Langu farmers. Fortunately, there is also local market demand for sweet peppers, with its own high-end customers.

In PPP case 5, as in PPP case 4, there is a risk of the retailer and supermarket collapsing or going bankrupt, which could be detrimental to farmers and growers. However, this problem has already been mitigated by PPA forging partnerships with several other supermarkets and wholesalers in the region.

6.5 HOW DID TRADE, TAX, LAND AND OTHER POLICIES AFFECT BENEFITS – WHAT HELPED, WHAT HURT?

In all PPP cases, the policy for land permit licenses and land usage was defined by the local government regency. Land permit licenses are needed to facilitate partnership implementation in the field.

In the Oil Palm Plasma Programme (case 1), some prices and land policies are determined by local government agencies. FFB prices are determined fortnightly by the FFB price monitoring and evaluation team, which consists of local government agencies, local estate crop staff, officers

from the private nucleus company, farmers' representatives and other related parties. This guidance is based on MoA regulatory decree 395/2005, which ensures that farmers obtain a fair price for their harvested products. The land title certificate is issued by the National Land Board subject to approval by the head of the local regency. This certificate ensures that the farmer has legal ownership of the land. In general, these policies help farmers to improve their palm estate businesses when partnering with private companies.

In the Rice Breeder Seeds Partnership Programme (case 2), the MoA decree on the food safety programme and price subsidy policy has a significant direct impact on benefits for farmers and PT Pertani Persero.

In the Jatropha project (case 3), the government issued a regulation relating to tax rates and land title. The tax rates for renewable energy are lower than for fossil energy. In addition, local government has secured land for Jatropha farming estates, allocating only marginal land and unproductive land for such trees.

In the Sweet Pepper Project (case 4), compliance with the rules and quality standards for trade in export markets could increase farmers' margins and improve their income. However, the limitation on land for planting may hinder this growing opportunity and constrain growers' productivity.

In the LM3 Programme (case 5), the local government regency issued regulations relating to land for agricultural purposes to secure farmers' productivity and improve their welfare.

6.6 HOW DID THE LEGISLATIVE AND REGULATORY FRAMEWORK AFFECT BENEFITS – WHAT HELPED, WHAT HURT?

In all PPP cases, policies and regulations issued by the government (MoA), as well as by the local government regency, brought benefits to the partnership programmes.

In the Oil Palm Development Plasma Programme (case 1), several laws and related regulations affected the development of oil palm estates in remote areas of Indonesia, including: Plantation and Estates Laws 18/2004; MoA Regulation 26/2007 on Estate Permit Licenses and the Development of Partnerships in the Plantation Location; Joint Decision Regulations by the MoA and Ministry of Cooperatives 73/1998 on the Development of Plantation Businesses through the use of Primary Cooperative Credit to Members (KKPA/PCCM) Partnership Scheme. All these

regulations and laws helped farmers to improve their palm estate businesses in partnership with private companies.

In the Rice Breeder Seeds Partnership Programme (case 2), the 1997 MoA Decision Decree on partnership programmes in the agriculture sector helped to strengthen the partnership programme conducted by PT Pertani Persero and farmers.

In the Jatropha project (case 3), Presidential Decree 1/2006 promotes the development and utilization of renewable energy sources. It helps the project to operate smoothly and gives it prospects for the future. While the ministry concerned has yet to issue a decree to implement the presidential decree (giving tax breaks and other incentives), the local government facilitates administrative procedures with the local community and extension services.

In the Sweet Pepper Project (case 4), international food safety and quality standards, such as Codex Alimentarius, have affected this project significantly. In the LM3 Programme (case 5), the legislative members jointly with local government define policy regulations to allocate funding under the regency budget for maintaining the region's farming activity and productivity.

6.7 HOW DID AGRICULTURAL SECTOR INSTITUTIONS AND SERVICES EXTERNAL TO THE ARRANGEMENT AFFECT BENEFITS – WHAT HELPED, WHAT HURT?

It has been demonstrated that support from other agricultural institutions resulted in advantages in all PPP cases, especially assistance from local agricultural extension officers.

In the Oil Palm Development Programme (case 1), support from other agricultural institutions and agencies, such as the monitoring and supervisory plantation team under an independent consultant and the state-owned agricultural fertilizer company, made farmers more eager to do business with the oil palm plantations.

In the Rice Breeder Seeds Partnership Programme (case 2), support from other agricultural agencies such as the rice research institute, agricultural input producers, the seeds directorate and other farmers' cooperatives, are very helpful to the partnership and the sustainability of seed production.

In the Jatropha project (case 3), extension workers from the regional agency offices help farmers to expand the project and make it more productive.

Further support from local agricultural extension offices is needed for the future development

and success of the Sweet Pepper Project (case 4). This could take the form of collaborative education and training in the field school for integrated pest control, run by the local agricultural agency together with IVEGRI and farmers.

In the LM3 Programme (case 5), support from other agricultural sector institutions, such as fertilizer producers, agricultural input organizations and other companies, had both a direct and indirect impact on the programme. For instance, raising the price of agricultural inputs would damage farmers' future income.

6.8 IMPROVED MARKET PERFORMANCE (PROFITABILITY, MARKET SHARE)

It is clear that the majority of the partnership schemes improved profitability and market share, and have the potential to create new economic growth centres in the region.

As stated previously, in PPP case 1 there have been many improvements under the partnership scheme that directly impact on the welfare of farmers' families, as well as all communities living in the districts and villages, with the emergence of many new small towns as centres of economic growth in the South Sumatra Province.

In PPP case 2, more than 80 percent of Karawang Regency farmers growing seeds are planting Ciharang and Mikonga seeds, which have higher productivity and are resistant to pests and diseases. As a result, Ciharang and Mikonga seeds dominate the rice seed market, not only in Karawang Regency but also in West Java province, with 75 percent to 80 percent of market share.

In PPP case 3, low yields and productivity have meant that the project still has little impact on farmers' incomes.

In PPP case 4, after following and applying the recommendations of this partnership project, farmers' improved productivity and quality by a factor of 20, with sweet pepper production rising from 150 kg to 3 tonnes per week.

As in PPP case 4, farmers' productivity in PPP case 5 improved significantly from around 100 kg to 2 tonnes of vegetables for distribution per week. There was a steady improvement in performance over the three years.

6.9 MEDIUM-TERM PROSPECTS FOR COMMERCIAL VIABILITY AND SUSTAINABILITY

Each case has a different medium-term objective: PPP case 1 focused on improving the internal management system in the KUD/VUCs; PPP

case 2 focused on increasing the number of farmers involved; PPP case 3 aimed to maintain a stable price to ensure high yields and productivity; PPP case 4 endeavoured to implement the rules recommended by IVEGRI; and PPP case 5 focused on maintaining productivity and educating more of the students and farmers involved.

In PPP case 1, over the medium term (one to five years) the key informants, especially from the KUD/VUC organizing committee, wished to improve their internal management systems and to build the capacity of young farmers to enable them to join the cooperatives' committee.

In PPP case 2, to achieve programme viability and sustainability over the medium term, key informants recommended increasing the number of farmers involved and releasing a new rice seed variety, as the lifetime of seed varieties during which time they can withstand pests and diseases is between one to five years.

In PPP case 3, the medium-term objectives were to achieve a stable price for supply continuity and a high-yielding variety for improved productivity.

In PPP case 4, key informants recommended farmers to comply with the rules and implement the techniques they had learned, as well as encourage other farmers in Pasir Langu village and other nearby areas to replicate this cultivation system.

To achieve medium-term viability and sustainability in PPP case 5, key informants recommended that PPA should maintain its productivity and quality and promote and educate more students and farmers, as well as the local community, not only in the village but also in neighbouring districts.

6.10 INDICATIONS OR EXPECTATIONS OF FORWARD AND BACKWARD LINKAGES

In PPP case 1, in relation to backward linkages, cooperatives (KUD/VUCs) realized that they needed to establish other businesses, such as savings and loans businesses for members and convenient agricultural input stores. In terms of forward linkages for PT Sampoerna Agro Tbk, the market for palm oil products remains strong thus their customer base is diverse.

In PPP case 2, there is no indication of any other forward or backward linkages arising from the PPP at present because of the nature of the state-owned enterprise, which is determined by the Ministry of State-Owned Enterprises in a notarized deed and the company articles of association.

In PPP case 3, with respect to backward linkages, farmers have shown more interest in producing *Jatropha* trees, and Gunung Kidul Regency is expected to become a centre for *Jatropha* producers in the Central Java Province. With respect to forward linkages, export demand for biofuel is expected to increase, but this might be unrealistic unless there are government tax incentives for biofuel programmes.

In PPP case 4, the key informants expected backward and forward linkages in the supply chain to be maintained for the mutual benefit of all parties concerned, especially for sweet peppers, which require high-quality seeds (in the backward chain) to improve productivity.

In PPP case 5, the key informants expected existing backward and forward linkages in the supply chain to be maintained for the mutual benefit of all parties concerned.

6.11 INDICATIONS OR EXPECTATIONS OF IMPROVEMENTS IN RURAL INCOME AND EMPLOYMENT

In all PPP cases there are major indications that improvements in farmers' income and welfare are key expectations.

In the Oil Palm Plasma Programme (PPP case 1), it was clear that this partnership scheme has brought many improvements to farmers and their families, as well as the surrounding communities, such as increased levels of prosperity.

In the Rice Breeder Seeds Partnership Programme (PPP case 2), there are clear indications of an improvement in farmers' income and welfare in the Rengasdengklok and Rawamerta districts, with greater motorcycle and car ownership by farming families and increasing numbers of permanent brick-built houses.

In the *Jatropha* project (PPP case 3), low yields and productivity have meant that the project still has little measurable impact on farmers' incomes to date. However demand for *Jatropha* remains strong and farmers' interest in this partnership project has increased as evidenced by the expanding land area planted.

In the Sweet Pepper Project (PPP case 4), there are noticeable improvements in farmers' income in Pasir Langu village. The lower unemployment rates as a result of the project have meant that no serious crime has been committed in the village. According to information from local officers and the community, more young people in the village are finding jobs on sweet pepper farms.

As in PPP case 4, in the LM3 Programme (PPP case 5), there are improvements in farmers' income in Pasir Jambu and Ciwiday villages, as well as lower rates of unemployment in the adjacent villages.

6.12 EXPECTED LONGER-TERM SOCIETAL AND DEVELOPMENTAL IMPACTS

In PPP case 1, the head of the KUD/VUC said that, in the long run, he would like all cooperative members to become even more prosperous and to achieve more equitable incomes, bringing their villages further crime-free wealth and development.

In PPP case 2, in the long run the partnership is expected to increase the number of private certified breeder seed producers by not only enhancing farmers' welfare but also contributing to the security and sustainability of national rice production.

In PPP case 3, in the long run the partnership could influence the use of biofuel, promoting a green environment and afforestation, and creating more jobs for rural society. In the future, JGE will build a *Jatropha* refinery and processing factory in the Gunung Kidul Regency if they can procure supplies of at least 12 000 tonnes of dried *Jatropha* seeds per day.

In PPP case 4, the key informants expect the pattern of this partnership to be replicated in other regions of Indonesia in the future, based on the same and/or different commodities.

In PPP case 5, in the future the key informants expect PPA to become a development agent not just in its village but also further afield in the West Java Province.

TABLE 3

Comparative matrix summary of the selected public-private partnership case studies in agribusiness

Agribusiness public-private partnership	Type of public-private partnership	Legal formality	Key partners	Oversight body	Policy and regulation drivers	Sustainability factors	Technology and innovation improvements
Case 1 Oil Palm Development Plasma Programme under the Perusahaan Inti Rakyat Perkebunan-Kredit Koperasi Primer untuk Ang-gotanya (PIR-KKPA) Scheme	Loan subsidies; land concession; technical and knowledge development programme	Contractual agreement with stakeholders (cooperatives, PT Bank BRI Tbk, PT Sampoerna Agro Tbk)	PT Sampoerna Agro Tbk; Village Unit Cooperatives; PT Bank BRI Tbk	Ministry of Agriculture's Directorate General of Plantations; Ministry of Cooperatives	Cross-sector ministerial policies and regulations on plasma programme development; land utilization; cooperative development and funding schemes	Involvement from the outset of all stakeholders in developing the partnership programme; all partners obtain benefits from the programme; robust and intensive monitoring and supervision	Cultivation and management skills in oil palm estates; a professional cooperative management system
Case 2 Rice Breeder Seeds Partnership Programme	In-kind subsidies, technical and knowledge development programme	Working agreement letter between farmers and PT Pertani Persero	PT Pertani Persero, farmers group; Seed Control and Certification Services Agency	Ministry of Agriculture and Ministry of State-Owned Enterprises	National food security programme; promotion and support for the production of a rice seed variety in the central rice-producing provinces	Both farmers and PT Pertani Persero need this partnership to support their daily business and livelihoods, and obtain benefits from the programme	Knowledge and skills concerning rice breeder seed cultivation techniques

TABLE 3 (continued)

Agribusiness public-private partnership	Type of public-private partnership	Legal formality	Key partners	Oversight body	Policy and regulation drivers	Sustainability factors	Technology and innovation improvements
Case 3 <i>Jatropha curcas</i> for Bioenergy Project	In-kind subsidies (seed materials); technical and knowledge development programme	Memoranda of Understanding; price and market agreements	PT <i>Jatropha</i> Green Energy (JGE); farmers group; PURA group	Gunung Kidul Government Regency; Ministry of Agriculture; Ministry of Cooperatives	Presidential Decree to promote and support the biofuel programme; local government support to JGE to provide land for <i>Jatropha curcas</i> plantations	Awareness of the importance of <i>Jatropha curcas</i> trees not only for biofuel, but also for the afforestation programme on marginal land, such as in the Gunung Kidul Regency	A new type of <i>Jatropha</i> seed
Case 4 Sweet Pepper Pilot Supply Chain Project (HORTIN Project)	Cofinancing investment between Indonesia and the Netherlands; technical and knowledge development programme	Contractual working agreement between the Ministry of Agriculture of Indonesia and the Netherlands, and agreement between the Indonesian Vegetable Research Institute (IVEGRI), cooperative, exporter and bank	Farmer members of Mitra Sukamaju Cooperative; PT Alamanda Sejati Utama; PT Rabo-bank Indonesia; IVEGRI	Ministry of Agriculture of Indonesia and the Netherlands; Wageningen University Research	The Ministry of Agriculture (through IVEGRI) supports this project to develop new agricultural knowledge in the sweet pepper production centre and to increase productivity	Enlarging and prospecting the market for sweet peppers; access to input credit/loans for farmers; continuity and trust factors from wholesalers and exporters; compliance with IVEGRI procedures and market requirements	A new greenhouse model and knowledge development; sweet pepper cultivation techniques
Case 5 LM3 Programme	Grant, technical and knowledge development programme	Working agreement between the Ministry of Agriculture and the Islamic boarding school (Pondok Pesantren Al Ittifaq)	Pondok Pesantren Al Ittifaq; retailers and supermarkets	Ministry of Agriculture; Ministry of Cooperatives; Ministry of Religious Affairs	The Ministries concerned promote and develop a new agribusiness enterprise model in rural communities	Developing the market for horticultural commodities; maintaining the trust of all partners involved; maintaining production and quality to satisfy market requirements	Diversification into several horticultural commodities and capacity-building of Pondok Pesantren Al Ittifaq and its community.

Source: authors' compilation, 2011

Chapter 7

Appraisal and conclusions

7.1 OVERALL EFFECTIVENESS OF THE PUBLIC–PRIVATE PARTNERSHIP ARRANGEMENTS IN ACHIEVING THEIR STATED OBJECTIVES AND OUTCOMES

Overall the five cases of agribusiness PPPs in Indonesia have contributed to the welfare of PPP participants and stakeholders, however some challenges remain. Most PPP arrangements were designed to promote the sustainability of agribusiness enterprises. Within this concept, they were also designed to achieve economic, sociopolitical and cultural objectives.

The five PPP cases are promising in terms of achieving economic objectives, particularly for the partnership's members (discussed further in sections 7.2 and 7.3). PPP case 1 demonstrates the effectiveness of PPPs in Indonesian agribusiness by both partners' high level of involvement since the start of the partnership process. Effective partnerships provide benefits for all partners involved (in the short term) and to all stakeholders (in the long term). Such an effective arrangement evolves gradually rather than instantaneously, and in this case, with a high level of government support for the project (effective and efficient policies and regulations). The major challenge in this case is the social dimension: for instance, how to motivate the local community to work as PPP partners just as hard as transmigrant farmers do, allowing both the local community and transmigrants to build better relationships.

PPP case 2 (breeder seeds) demonstrates the partnership's ability to meet the stated objectives. Both partners have developed their relationship over a long period and obtained benefits, such as higher incomes for farmers, knowledge and skills, as well as securing quality, continuity and business productivity. The challenge in this case is more one of external conditions, such as changes in land use for other commercial purposes (particularly industry and housing) and extreme weather conditions.

In PPP case 3 (*Jatropha*), previous bad experiences with other partners made it challenging for the company to convince farmers to work with them. Strong local government support and the

company's commitment finally persuaded farmers to develop this partnership in the future. One of the major challenges is to provide a high-yielding variety of *Jatropha curcas* trees for farmers. The company is working with a public R&D institution to achieve this objective.

In PPP case 4 (sweet peppers) the aim was to secure supplies for the international market and to increase farmers' income. Farmers' knowledge of GAP and new technology increased significantly through this PPP project. As a result, more farmers produce a standard commodity for the export market. The biggest challenges are: the supply chain risk owing to the fact that there is only one exporter acting as a partner for farmers in the chain; and the high cost of technological innovation required by the project.

In PPP case 5 (LM3 Programme) the partnership provided job opportunities for rural communities, increasing community income and ultimately alleviating poverty. Beyond this programme, there is a determination to encourage hard work in the community in order to enhance its economic and social status, instead of relying on charity. This project is relatively new compared with the previous two cases and its ongoing effectiveness depends on the continued vision of the leader of the religious organization, market access and the religious organization's agribusiness experience and capacity.

7.2 KEY ISSUES TO BE CONSIDERED IN DEVELOPING AGRIBUSINESS PUBLIC–PRIVATE PARTNERSHIPS

A number of key issues have been identified from the five cases for promoting agribusiness PPPs in Indonesia.

The first key issue is that all partners should be involved in partnership-building. Intensive dialogue among partners at all stages of the process can help them to work closely as equal partners. In some cases, the partnership was set up following a national government initiative, or in response to a national government programme. Governance of such PPPs can be sustained if there is adequate time for both partners to get to know and learn from one another as equals.

The second key issue is that PPPs should be developed under a business and empowerment framework, rather than a social or charity framework. This principle is essential to encourage both partners to work in collaboration to achieve real goals that deliver economic benefits to all parties involved. Most PPP cases in Indonesia show the importance of a business framework in promoting the partnership. Within this framework, the government plays a major role in increasing farmers' ability to forge links with private business by transferring knowledge and skills to farmers and promoting farmers' cooperatives. The private business partners usually have better business knowledge and information and better access to financial institutions and markets. This capacity should be used to strengthen their partners' abilities, particularly to ensure that farmers satisfy market requirements.

The third key issue is that both partners should obtain benefits proportional to their contribution. Agreement at the outset on how to distribute the benefits among partners would contribute greatly to creating conditions of trust. While an MOU or contract can be a useful instrument for supporting the distribution of agreed benefits among partners, it is not essential. Benefits may be tangible or intangible and economic or non-economic. For example, private partners obtain benefits in the form of income, knowledge and skills, market certainty, supply certainty, food safety, and so on. Public-sector benefits include creating job opportunities, environmental solutions and community participation. If all partners see clear and fair benefits for them, this could secure the partnership over the longer term.

The fourth key issue is that conditions of trust should be created at the very outset of the partnership process. The PPP cases achieve this in various ways, but most believe that information-sharing is important. Some, particularly private enterprises, invited partners to visit their factory or workshop to show how they work and who their customers are. Conditions of trust are also created through government support to facilitate collaboration between business partners and farmers. Government involvement in a facilitating role can help to increase inclusiveness by ensuring that that small farmers have an opportunity to work with business enterprises on more equal footing.

The fifth key issue is to carefully consider the socio-economic context when implementing a PPP that is linked to a national government programme. The socio-economic context could

involve the promotion of an environmental programme (PPP cases 1 and 3), an alternative bio-energy programme (PPP case 3), a food security programme (PPP case 2), or a poverty alleviation programme (PPP cases 1 and 5).

The sixth key issue is to build and strengthen the roles and functions of cooperatives. Most of the selected PPP cases involve cooperatives in each village. This is in line with the Indonesian Government's policy to consolidate KUD/VUC roles and functions as the backbone of local economic growth.

The seventh key issue is the partnership's ability to adapt to external shocks (such as changes in land use or climate change). As an emerging economic country, Indonesia has experienced many problems relating to changes in land use, with land used to build industrial estates rather than for agriculture, as well as land disputes between the local community and private enterprises. All these external factors could impact on the behaviour of the partners involved in partnerships and might influence the sustainability of partnership collaboration in the future.

7.3 LESSONS LEARNED CONCERNING SUCCESS FACTORS AND PITFALLS TO AVOID

Some lessons could be learned from the PPP agribusiness cases to ensure that such arrangements perform well. The first lesson is to involve all partners in the partnership process from the beginning – this is the most important factor during the partnership-building stage to facilitate the negotiation process. During the formation process, both partners should aim to learn from each other through discussions and mutual visits to increase their understanding of what the partners do and expect. For example, JGE invited local government and several farmers to visit their energy plant to inform them about what the company does (PPP case 3).

The second lesson is to establish resource-sharing among partners based on their capacity. Where the public and private partners have differing capacities and resources, this should create the conditions for them to work together. For example, shortages of land have become a problem in Indonesia over the past two decades as a result of industrialization and population growth. To overcome this problem and secure a supply of the best quality seeds for distribution to the community, the company in PPP case 2 worked with farmers to breed the seeds on their land. At the same time, farmers also reaped economic benefits by working with the company.

The third clear lesson is that benefits must be fairly shared among partners. This principle involves sharing both resources and expertise as discussed above, and the benefits that emerge as a result of the partnership. This might include transferring knowledge or expertise, securing supplies, increasing productivity and quality, securing markets, increasing prices and incomes, and providing capital or acting as a bank guarantor. As long as the partnership creates benefits for all partners involved and shares them fairly, the likelihood of sustaining the partnership is increased.

The fourth lesson is that for a PPP in the context of Indonesian agribusiness, the government should help small farmers to build cooperatives and to make this type of business entity viable to work with private companies. This is an acceptable strategy in Indonesian communities as it is part of the local culture, known as *gotong-royong* or voluntary works to achieve social and business objectives. This social capital is rooted in the Indonesian community and is still clearly present in rural communities.

The fifth lesson is that a relationship of trust and commitment must be established among partners. Relationships of trust are likely to occur when both partners share information on their capacity and the problems they face. Confidence-building can take the form of inviting potential partners to visit the private company and informing them about their customers and their market (PPP case 3). Local government must also assist the private sector by formally instructing all local staff to support the partnership and to provide data on potential areas and farmers. There must be a commitment to keep promises, for example by securing markets, buying at the agreed price, securing supplies of the required quality, and capacity-building for farmers.

In addition, some lessons can be learned from the case studies about the pitfalls to be avoided when designing and implementing agribusiness PPPs in Indonesia.

The first lesson is that the introduction of a new technology should take into consideration the capacity of local partners. A lack of understanding by private companies of the socio-economic conditions in the local community could minimize and undermine the potential benefits of new technology adoption. For example, introducing a new type of greenhouse to sweet pepper farmers without the necessary financial resources limits the number of farmers who could benefit from this type of innovation. It would be helpful for

financial institutions to provide financial products to farmers in such cases.

The second lesson is that the same partnership design should not be applied to different local communities without assessing the specific context. Differences in terms of business types, partners' capacity and local competitors are key considerations that must be taken into account when considering the development of new PPPs based on previous models. Forcing a partner to grow a certain commodity to a certain standard while the market is not yet secure should be avoided. At the same time, it is important to consider whether local competitors for a similar commodity could secure supplies for the PPP. Failing to pay attention to competitors is a potential problem. To make PPP design responsive, it is vital for all stakeholders to participate in developing the PPP from the very outset.

The third lesson is that while subsidies or grants can provide a suitable incentive at the start of a partnership, they should be discontinued once the partnership has matured. The financial incentive should be backed by capacity-building and supervision (non-economic incentives) in order to increase the sustainability of the partnership beyond the incentive period. The use of economic incentives alone could potentially attract 'free riders' to capture benefits for themselves, and thus diminish the potential for impact from PPPs.

The fourth lesson is that the government should focus solely on its facilitating role and not act as an economic player. The government could invest in infrastructure, regional information and databases, local extension staff, research and development, and capacity-building for small farmers. Based on the oil palm and rice breeder seed cases (PPP cases 1 and 2), public organizations can work directly with private companies if the public organization operates as a business entity itself, for example as a state-owned enterprise or state-owned bank.

The fifth lesson is to recognize farmers' experience (indigenous knowledge) about their farms and never force them to adopt a certain type of commodity without market certainty. If farmers have followed the requirement without a market guarantee, they have less trust in the private company.

The sixth lesson is that local institutions rooted in the local community can act as highly valuable partners in PPP models (PPP case 5), but this depends on a good business network and the leaders' vision of community empowerment and entrepreneurship. In other words, it is essential to select as PPP partners only those local institutions that meet these criteria.

The seventh lesson is that the partnership evolves as trust among partners grows. The government should not force partners to work under a formal contract or MOU at the beginning of the partnership. All stakeholders in the partnership should be left to interact naturally and negotiate before the formal process begins. The most important role of government is to ensure that all partners work collaboratively by boosting their capacity and providing public facilitation and market information.

7.4 HOW BENEFITS FOR ENTERPRISES AND RURAL DEVELOPMENT MIGHT BE FURTHER ENHANCED

Further benefits can be achieved for enterprises and rural development within a PPP arrangement if all partners work under a business framework that takes into account local conditions. Small farmers can work with private enterprises provided they work in cooperatives backed by a capacity-building programme, capital investment and that the most knowledgeable members are selected to manage the cooperatives.

Rural communities are likely to copy innovative agribusiness practices by following a successful PPP model. This makes the selection of partners for a PPP in a rural area critical, particularly where there is no prior experience of working with private enterprises or bad past experience. In the beginning it is better to work with a small group of committed members than with a large number of participants.

Enterprises can increase the benefits for rural development if they also work in collaboration with research institutes. In some cases enterprises introduce new technology to small farmers without considering local capacity. In such cases, a research institute could act as a technology mediator between the partners. The research institute can test the new technology or even modify it to meet local community demands. Extension workers could also facilitate links between research institutes and small farmers and enterprises.

Enterprises involved in PPPs can increase the benefits derived from the partnership and also create greater opportunities for rural development if local government also works collaboratively with other local authorities. In this era of regional autonomy, local governments should promote investment in their regions by providing public facilities and reliable and professional information regarding local economic opportunities in their regions. Reducing various local taxes and bureaucracy could ensure that PPPs develop smoothly.

Both public institutions and private companies or small businesses can obtain further benefits if there is clear guidance on how to build such a partnership in the Indonesian agribusiness context. This guidance should be regarded as a prerequisite for building PPPs in the Indonesian agribusiness sector. All stakeholders should have good knowledge of such matters and put it into practice.

7.5 POTENTIAL FOR REPLICATION WITHIN THE COUNTRY AND ELSEWHERE, AND KEY REQUIREMENTS FOR REPLICATION

Case 1 (Oil Palm Development Programme), case 2 (Rice Breeder Seeds Partnership Programme) and case 5 (LM3 Programme) have already succeeded and been replicated in several provinces of Indonesia. The other two cases (cases 3 and 4) could be replicated in other Indonesian provinces if they meet certain requirements.

The main requirements for replication in other regions are: (a) availability of appropriate land and specific soil nutrients for plants such as oil palms (case 1), rice seeds (case 2), *Jatropha* trees (case 3) and sweet pepper plants (case 4); (b) readiness of cooperatives and their members in each village to promote and support partnerships; (c) deep and direct involvement of partners in the partnership process, including support from local government agencies and both formal and informal leaders in each village and community; (d) appropriate and supportive government policies and regulations; (e) good networking with all supply chain actors to facilitate the partnership process; (f) a clear objective and defined timeframe, as well as benefits for all partners involved.

7.6 POTENTIAL OF PUBLIC-PRIVATE PARTNERSHIPS AS A TOOL FOR ACCELERATING AGRIBUSINESS INVESTMENT AND DEVELOPMENT

PPPs are becoming a strategic tool in Indonesia for accelerating agribusiness investment and development. With political support and attractive economic conditions, a PPP is a potential tool for achieving these goals. Political support for PPPs for accelerating agribusiness development has been in place since the Indonesian Government launched the MP3EI in early 2011. This master plan clearly states the importance of PPPs as a tool for agribusiness development and is expected to cover development across six growth corridors throughout Indonesia. The agribusiness PPP policy is also clearly stated in the MoA's strategic planning

for 2011–2014. Owing to the limited government budget available for the agricultural sector, the MoA promotes PPPs for agribusiness development in which private enterprises are expected to contribute 70 percent of the total investment, with government investment of around 30 percent. The MoA suggests using the PPP concept for developing several commodities, including rice, corn, soybean, sugarcane and livestock (beef).

PPPs are also potentially economically viable because of market opportunities in Indonesia. According to the Global Competitiveness Index

(World Economic Forum, 2010), the Indonesian market is ranked 15 out of 142 countries. This large market is able to attract investors to collaborate with public institutions in Indonesian agribusiness.

However, land disputes among local communities and investors, combined with a lack of infrastructure, can reduce the potential of PPPs as a rural development tool. Central government and local authorities should therefore work in collaboration with communities to solve the problem. This makes land regulation a critical factor for the success of PPPs.

References

- Ardiansyah.** 2009. *Faktor-faktor yang berhubungan dengan produktivitas kerja petani kebun plasma kelapa sawit (studi kasus kebun plasma PTP Mitra Ogan, Kecamatan Peninjauan, Sumatera Selatan)* [Factors associated with work productivity of oil palm plantation plasma farmers (case study at PTP Mitra Ogan, Peninjauan District, South Sumatra)]. Bogor Agriculture University, Bogor. (Thesis)
- Badrun, M.** 2010. *Tonggak perubahan: melalui PIR kelapa sawit membangun negeri.* [Milestone of change: developing a nation through oil palm “PIR”]. Ministry of Agriculture. Jakarta, Estate Crops Department Press.
- Bakir, L.H.** 2007. *Kinerja perusahaan inti rakyat kelapa sawit di Sumatera Selatan: analisis kemitraan dan ekonomi rumah tangga petani.* [Performance of the oil palm nucleus enterprise system in South Sumatra: analysis of partnership and farmers’ household economics]. Bogor Agriculture University, Bogor. (Thesis)
- Balagopalan, C.** 2002. Cassava Utilization in Food, Feed and Industry (Chapter 15). In *Cassava: biology, production and utilization*. CAB International.
- BP2SDM/AEAHRD.** 2010. *Direktory LM3 model 2006-2009: dari akar religi menjadi gerakan agribisnis yang mengakar di masyarakat* [Directory I2RC Model 2006–2009: from the roots of religion into agribusiness movement rooted in the community]. Jakarta, Ministry of Agriculture.
- BP2SDM/AEAHRD.** 2011. *Pedoman pemberdayaan dan pengembangan usaha agribisnis Lembaga Mandiri yang Mengakar di Masyarakat.* [Guidelines for empowerment and development of agribusiness independent institution rooted in the community]. Jakarta, Ministry of Agriculture.
- BPS (Badan Pusat Statistik).** 2011. *Sensus Populasi Indonesia 2010* [Indonesia population census 2010]. Jakarta.
- Coordinating Ministry for Economic Affairs.** 2011. *Masterplan for Acceleration and Expansion of Indonesia Economic Development (MP3EI).* Jakarta.
- Diennazola, R., Utama, S., Peni, S.P. & Windi, L.** 2011. *Karya besar wujudkan ketahanan pangan.* [Major work to realize food security]. Jakarta, *Majalah Agrina Vol 7 No. 162.*
- Dinas Kehutanan dan Perkebunan/Forestry and Plantation Office.** 2011. *Proposal Pengembangan Jarak Pagar di Kabupaten Gunung Kidul* [The development of *Jatropha curcas* in Gunung Kidul Regency]. Yogyakarta.
- Directorate General of Estate Crops.** 2007. *Pedoman umum program revitalisasi perkebunan* [General guidelines for plantation revitalization programme]. Jakarta, Ministry of Agriculture.
- EASRD (Rural Development & Natural Resources East Asia & Pacific Region).** 2005. *Public private partnerships for agriculture in Eastern Indonesia: a comparative study of the beef cattle and cocoa industries.* Jakarta, World Bank Technical Note.
- Gunadi, N., Adiyoga, W., Doorneweert, B. & Zulkarnain, I.** 2010. *HORTIN II Co Innovation Programme: towards cost-effective, high quality value chains.* Hortin II-Research Report no. 21. Wageningen (Netherlands), Jakarta (Indonesia).
- Iriana, D.W., Peni, S.P. & Riyanto, S.** 2009. *Menakar peran perkebunan rakyat.* [Measuring the role of smallholder plantations]. *Majalah Agrina.* Jakarta.
- Ishaq, I.** 2009. *Petunjuk teknis penangkaran benih padi.* [Technical Guide: rice seed breeding]. West Java, *Balai Pengkajian Teknologi Pertanian (BPTP)/Agricultural Technology Assessment Agency, Research and Development Department, Ministry of Agriculture.*
- MoA (Ministry of Agriculture).** 2010. *Rencana strategi 2010-2014.* [Strategic plan 2010–2014]. Jakarta.
- Nadhwatunnaja, N.** 2008. *Analisis pendapatan usahatani dan faktor-faktor yang mempengaruhi produksi paprika hidroponik di Desa Pasirlangu, Kecamatan Cisarua, Kabupaten Bandung.* [Analysis of farm income and the factors that influence the production of hydroponic sweet peppers in the Pasir Langu Village, Cisarua District, Bandung Regency]. Bogor Agriculture University, Bogor. (Thesis)

- Pahan, I.** 2008. *Panduan lengkap kelapa sawit: Manajemen agribisnis dari hulu hingga hilir* [Complete guide to oil palms: agribusiness management from upstream to downstream]. Penebar Swadaya. Jakarta.
- Palupi, S.N.D.** 2009. *Analisis kelayakan usaha pengembangan jarak pagar sebagai sumber energy alternative di Desa Lempopacci, Luwu, Sulawesi Selatan*. [Feasibility analysis of developing *Jatropha curcas* as an alternative energy source in the Lempopaci village, Luwu, South Sulawesi Province]. Bogor Agriculture University, Bogor. (Thesis)
- Perdana, A.** 2008. *Dampak pelaksanaan program kredit kepada koperasi primer untuk anggotanya (KKPA) terhadap pendapatan usahatani kelapa sawit (studi kasus PT Sinar Kencana Inti Perkasa, Kabupaten Kotabaru, Kalimantan Selatan)*. [The impact of implementation of credit programmes to primary cooperative members on oil palm farmers' income. (Case study at PT Sinar Kencana Inti Perkasa, Kotabaru Regency, South Kalimantan)]. Bogor Agriculture University, Bogor. (Thesis)
- PT *Jatropha Green Energy*.** 2010. *Corporate video profile*. Kudus, Central Java.
- PT Pertani Persero.** 2010. *Company profile*. Jakarta.
- PT Pertani Persero.** 2011. *Annual Report*. Jakarta.
- PT Sampoerna Agro Tbk.** 2011a. *Paparan public*. [Public presentation]. Jakarta.
- PT Sampoerna Agro Tbk.** 2011b. *2010 annual report*. Jakarta.
- PT Sinar Sukses Sentosa.** 2002. *Prospektus pengembangan tiwul instan*. [Prospectus of instant traditional cassava food development]. Jakarta.
- Pura Group.** 2010. *Company video profile*. Kudus, Central Java.
- Puspitawati, E.** 2004. *Analisis kemitraan antara PT Pertani (Persero) dengan petani penangkar benih padi di Kabupaten Karawang*. [Analysis of partnership between PT Pertani Persero and paddy breeder seed farmers in the Karawang Regency]. Bogor Agriculture University, Bogor. (Thesis)
- Putra, H.** 2010. *RSPO certification assessment public summary report on PT Sampoerna Agro Tbk*. Assessed by PT. TUVNORD Indonesia System Certification Management. Jakarta.
- Ratnasari, W.** 2002. *Analisis strategi pemasaran benih padi bersertifikat pada PT Pertani (Persero) wilayah Jawa Barat*. [Marketing strategy analysis of certified rice seeds at PT Pertani Persero in the West Java Region]. Bogor Agriculture University, Bogor. (Thesis)
- Riswanto, Y.** 2011. *Laporan khusus: geliat jarak pagar di Gunung Kidul*. [Special report: the Stretching of *Jatropha curcas* in Gunung Kidul]. Jakarta, Media Perkebunan Edisi 93 hal 22-24
- Sinaga, E.** 2011. *Pengembangan Kebun Kelapa Sawit Pola KKPA* [Oil palm plantation development through the KKPA scheme] (available at <http://e7naga.blogspot.com/2011/01/pengembangan-kebun-kelapa-sawit-pola.html>). (Accessed on 6 September 2011)
- Suci, FH.** 2011. *Kajian kemitraan pada PT Agrowiyana. Kabupaten Tanjung Jabung Barat, Propinsi Jambi*. [Partnership study on PT Agrowiyana, Tanjung Jabung Barat Regency, Jambi Province]. Bogor Agriculture University, Bogor. (Thesis)
- Sudibyo, R.P.** 2010. *Integrasi, sinergi dan optimalisasi dalam rangka mewujudkan pondok pesantren sebagai pusat peradaban muslim Indonesia* [Integration, synergy and optimization to create boarding schools as a civilization centre of Indonesia's Muslims]. *Journal Salaam*. Vol 13 no. 2. Universitas Muhammadiyah (University of Muhammadiyah), Malang, East Java, Indonesia.
- Sulistianawati.** 2010. *Strategi dan kelayakan pengembangan usaha perkebunan kelapa sawit pola kemitraan PT Anugerah Tani Bersama dengan masyarakat (kasus perkebunan kelapa sawit di Kabupaten Banyuasin, Sumatera Selatan)*. [Strategy and the feasibility of developing oil palm plantation business through partnership scheme between PT Anugerah Tani Bersama with the community (Case study in Banyuasin Regency, South Sumatra)]. Bogor Agriculture University, Bogor. (Thesis)
- WEF (World Economic Forum).** 2010. *Realizing a new vision for agriculture: a roadmap for stakeholders*. Prepared in collaboration with McKinsey & Company. Geneva, Switzerland.
- World Growth.** 2011. *The Economic Benefit of Palm Oil to Indonesia*. Palm Oil Green Development Campaign. Virginia, USA.

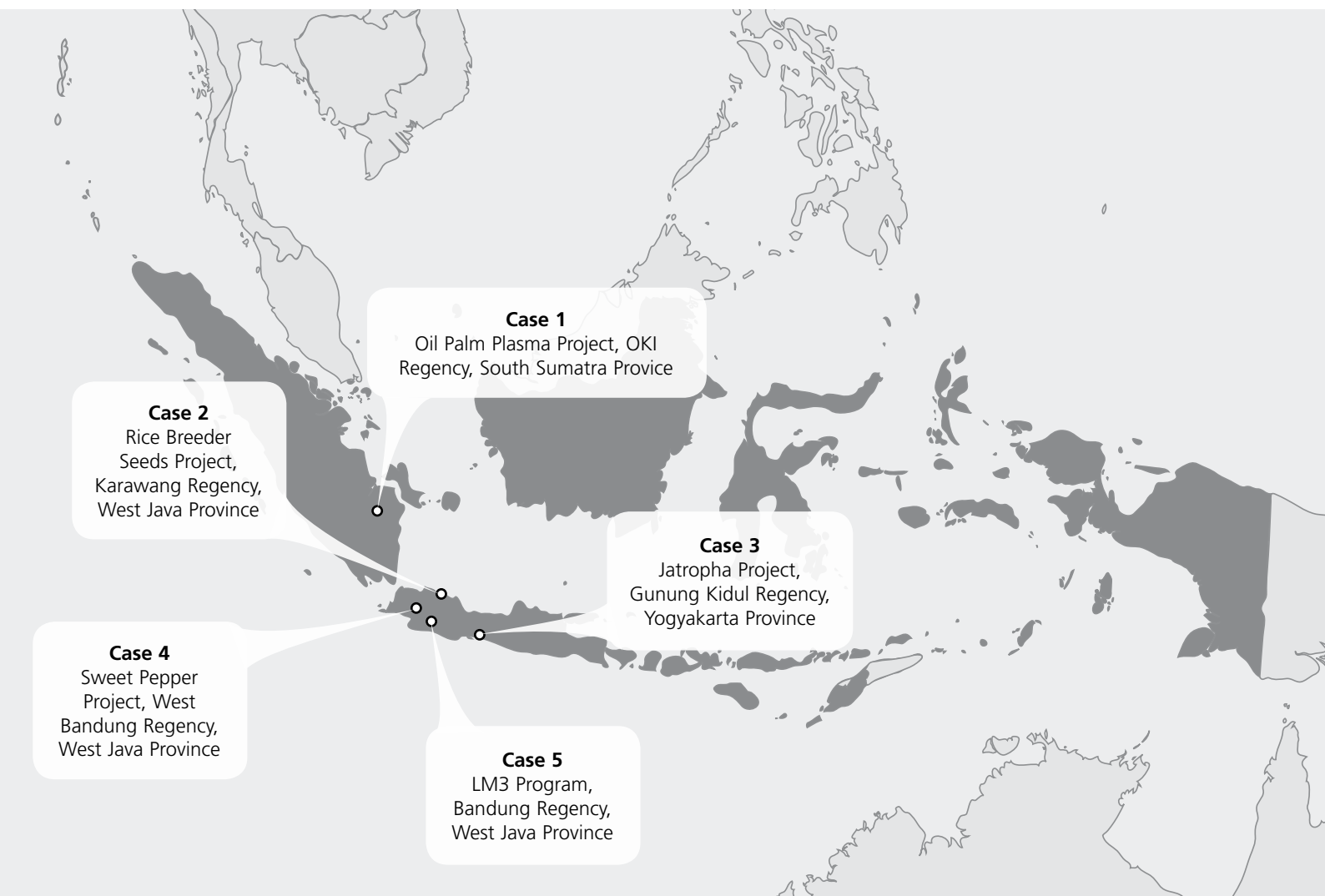
Annex 1

List of key persons interviewed (Stage 1)

Number	Name	Institution	Position
1	Dewi Novia Tarwiyati	Ministry of Agriculture, Republic of Indonesia	Head of Administration
2	Enni Wijayanti	Ministry of Agriculture, Republic of Indonesia	Directorate General of Processing and Marketing for Agricultural Products
3	Yandri	Ministry of Agriculture, Republic of Indonesia	Financing Subhead, Directorate General of Agricultural Infrastructure
4	Heri Murdiono	Ministry of Agriculture, Republic of Indonesia	Gernas Cocoa Team Secretary
5	Novita Indriani	Ministry of Agriculture, Republic of Indonesia	Financing Staff, Directorate General of Agricultural Infrastructure
6	Muhammad Ikhwan	Ministry of Agriculture, Republic of Indonesia	Financing Staff, Directorate General of Agricultural Infrastructure; Agribusiness Institution and Empowerment
7	Ibu Ambawani	Indonesia Central Bank	Technical Support and Development of Microfinance Institutions Team
8	Ibu Dewi Sitaresmi	Ministry of Agriculture, Republic of Indonesia	Crops Directorate Subdivision Head
9	Bapak Noviarsono	Indonesia Central Bank	Technical Support and Development of Microfinance Institutions Team
10	Bapak Mawardi DH Ritonga	Indonesia Central Bank	Technical Support and Development of Microfinance Institutions Team
11	Bapak Rizaldo	Indonesia Central Bank	Technical Support and Development of Microfinance Institutions Team
12	Bapak Erriek Yodya Asriza	Ministry of State-Owned Enterprises	Staff of Deputy Assistant for Partnership and Environment Programme
13	Bapak Mursyid Ma'sum	Ministry of Agriculture, Republic of Indonesia	Director of Animal Feed, Directorate General of Livestock and Veterinary Affairs
14	Bapak Fachtudin	Association of Sugar Cane Farmers	Head of Association
15	Mr Samantha/ Mr Vijaj/ Pak Andi	PT Olam Indonesia	Director and Marketing Manager
16	Ajis Warman	PT PP London Sumatra Indonesia Tbk	Manager of Plasma, Financing and Administration

Annex 2

Location map of the selected public–private partnership cases in agribusiness



Annex 3

List of key persons interviewed in West Java Province (*case 4: Sweet Pepper Project and case 5: LM3 Development Programme*)

Number	Name	Institution	Position
1	Bapak Dadang Suherman	Ministry of Agriculture, Republic of Indonesia	Steering Head of LM3 Association; Agency Extension for Agricultural Certificate Board
2	Ustad Abdul Hanan Abbas Lc	Pondok Pesantren Darul Falah	Leader of Pondok Pesantren Darul Falah
3	Dedi Mulyadi	Ministry of Agriculture, Republic of Indonesia	Planning Staff; Agency Extension and Agricultural Human Resources Development
4	Sri Rahayu	Ministry of Agriculture, Republic of Indonesia	Planning Staff; Agency Extension and Agricultural Human Resources Development
5	Bapak Supriyadi	Ministry of Agriculture, Republic of Indonesia	Head of Planning; Agency Extension and Agricultural Human Resources Development; LM3 Programme Coordinator
6	Bpk Zainal Arifin (Pipin)	Pondok Pesantren Al Ittifaq, Rancabali, West Java	Secretary of Pondok Pesantren Al Ittifaq
7	Bpk Haji Muchtar	UPT Lebak Muncang, Ciwidey, West Java	Extension Officer (Local Agency) of Pondok Pesantren Al Ittifaq
8	Pathmi Noerhatini Ismail	LM3 Raudhatul Ummah, Pasir Jambu, West Java	Head of LM3 Brotherhood Forum of Bandung Municipality Pondok Pesantren
9	Dr Nikardi Gunadi	Indonesian Vegetable Research Institute (IVEGRI)	Researcher
10	Dr Sri Yuliani	Indonesian Centre for Agricultural Postharvest Research and Development (ICAPRD)	Researcher
11	Iskandar Zulkarnain	Horti Chain Center, Indonesian Netherlands Association (INA)	Facilitator/ Mediator
12	Eman	Cooperative Mitra Sukamaju	Farmer and Cooperative Treasurer
13	Cepi	Mitra Sukamaju Cooperative	Farmer and Head of Cooperative
14	Komar Muljawibawa	PT Alamanda Sejati Utama	Fruit and vegetable exporter
15	Bpk Gan Gan	PT Alamanda Sejati Utama	Fruit and vegetable exporter, Partnerships Officer
16	Mrs Kwik Sri Kinarsih	PT Rabobank Indonesia	Head of Bandung Branch

Annex 4

List of key persons interviewed in Yogyakarta Province (*case 3: Jatropha Curcas for Bioenergy Project*)

Number	Name	Institution	Position
1	Hartoyo	PT Jatropha Green Energy	Branch Manager
2	Suhartoto	Crop Estate Regional Agency	Head of Crop Estate Regional Agency
3	Adi Ngatijan	Jatropha farmer, Dukuh Kepil	Farmer
4	Mrs Anik Indarwati	Crop Estate Regional Agency	Head of Crop Estate and Forestry Regional Agency
5	Samuel	PT Sinar Sukses Sentosa	Commercial/ Marketing Manager
6	Ani	PT Sinar Sukses Sentosa	Marketing Staff
7	Mr Fajar Ridwan	Food Security Local Agency. Ministry of Agriculture	Food Security Staff, Gunung Kidul Extension Officer
8	Mr Puryanto	Food Security Local Agency, Ministry of Agriculture	Food Consumption Quality Development, Food Security and Extension Officer
9	Mr S. Sudarso, SPd	Food, Beverages and Tobacco Industry, Ministry of Industry, Trade and Cooperative Local Agency	Head of Office
10	Mr Hardi Julendra	Indonesian Institute of Science	Head of Office
11	Professor Murdijati Gardjito	Food and Nutrition Learning Centre, Gadjah Mada University	Expert

Annex 5

Lessons learned from the cassava processing project (*the dropped case*)

Food industry development of tiwul instant factory.

Case: PT Sinar Sukses Sentosa. Location: Gunungkidul district, Yogyakarta Province.

Tiwul instant is one of the traditional cassava-based foods from Central Java/Yogyakarta produced by stripping, drying and powdering cassava in stages into food that can be processed into a sweet-savoury snack usually served with grated coconut, or used as a substitute for wheat flour in a variety of traditional foods. In the past, it was used as a rice substitute during lean times but now the government is promoting it as a food in an effort to achieve food diversification and reduce the dependence of Indonesian society on rice.

PT Sinar Sukses Sentosa began industrial development at the tiwul instant food factory in 2002 in the Gunung Kidul Regency (Province of Yogyakarta). The original concept was to have a company with local stakeholders, namely the government and local/public investors. The parties would contribute to its development. For instance, the local government facilitates licensing, plant location, outreach and infrastructure, local investors provide funding, human resources and natural resources, while PT Sinar Sukses Sentosa itself contributes funding, networking, mentoring and training, as well as technology and management of products licensed from PT Bogasari. However its development has been impeded by several factors:

- Poor coordination between PT Sinar Sukses Sentosa and the local government, failing to implement a mutually supportive system, mainly in terms of explanation and institutional facilitation in the field to enable farmers' groups to become partners that could supply raw materials (cassava).
- The dried cassava used for making instant tiwul must be of high quality, so handling it also requires drying time and better facilities. As the selling price of dried cassava for animal feed is almost the same, farmers prefer to sell cassava for animal feed because it is easier to handle.

- The factory was established in the Gunungkidul District to be close to the source of raw materials. While data from Badan Pusat Statistik estimated the potential of cassava plants at 600 tonnes a year, a survey by PT Sinar Sukses Sentosa estimated only 100–400 tonnes a year. Despite this potential, not all farmers wish to supply the tiwul plant, although the machines to grind the raw material have a capacity to handle between 250 tonnes and 300 tonnes a year. As the raw processed materials require only around 50 percent of this capacity, the factory is not optimized. The result is economically inefficient factories that now operate only if there are orders (under-utilized machinery).
- Because cassava is a raw material that is in demand for various purposes (food, animal feed, fuel and industry), instant tiwul has to compete for supplies. The price could go as high as Rp1 300/kg for raw materials, double the initial price of only Rp600/kg, making it less profitable.
- In the opinion of Professor Murdijati Gardjito (Expert Staff for Traditional Food Study Center in the University of Gajah Mada, Yogyakarta), it is more appropriate for a rural home industry to develop traditional food where there are plentiful raw materials because most farmers are smallholders, and many cassava farmers will choose a more attractive price with easier specifications.

Cassava processing industries should therefore involve farmers in no more than one or two villages to set up a small-scale operation rather than attempting a large-scale industry because of the nature of cassava production in rural areas, especially in Central Java and Yogyakarta Provinces.

In summary, the cassava case failed to fulfil the PPP criteria in terms of the partnership timeframe or agreement among the parties involved (there are no farmers and little local government support) and total investment is less than US\$100 000.

Annex 6

List of key persons interviewed in Karawang and Indramayu, West Java Province (*case 2: Rice Breeder Seeds Partnership Programme*)

Number	Name	Institution	Position
1	Mr Dhodhiet Purwo	PT Pertani Persero	Head of Partnership Division
2	Mr Daulat	PT Pertani Persero West Java Branch	Head of West Java Branch
3	Mr Kadir	PT Pertani Persero Warehouse	Head of Warehouse Receipt
4	Mr Hj. Agus Sukirman	PT Pertani Persero	Head of Karawang Branch
5	Syarif Hidayat	UPTD (Unit Pelaksana Teknis Dinas)	Head of UPTD
6	Sutikno	UPTD (Unit Pelaksana Teknis Dinas)	Head of UPTD
7	Sofyan Hidayat	PT Pertani Persero	Spot Walker
8	Bapak Rohman	Langgeng Sari Farmers' Group	Head of Farmers' Group
9	Bapak Narha	Karya Mukti Farmers' Group	Head of Farmers' Group
10	Bapak Cece	PT Pertani Persero	GP3K Partnership Head of Karawang Project
11	Bapak Joko Suropto	PT Pertani Persero Seed Production Unit	Head of Seed Production Unit; Head of UPB and UPBS (Unit Produksi Benih Sumber)
12	Bapak Sulaeman	PT Pertani Persero Seed Production Unit	Head of Farmer Partnership/Operation
13	Bapak Asep Cucu	PT Pertani Persero Seed Production Unit	Head of Seed Drying/Warehouse
14	Bapak Subandji	PT Pertani Persero Rice Milling Unit	Head of Rice Milling Unit
15	Bapak Hidayat	Seed Control and Certification Services (BPSB)	Head of Unit
16	Bapak Koko	Seed Control and Certification Services (BPSB)	Staff
17	Hj. Karsim	Farmers' Group Tani Mukti I	Head of Farmers' Group
18	Pak Ikin	Seed Control and Certification Services (BPSB)	Staff

Annex 7

List of key persons interviewed in Ogan Komering Ilir Regency, South Sumatra Province (case 1: Oil Palm Development Programme PIR–KKPA Scheme)

Number	Name	Institution	Position
1	Dr Herdradjat N	Directorate General of Estate Crops, Ministry of Agriculture, Republic of Indonesia	Director for Post-Harvest and Business Development
2	Murdwi Astuti	Ministry of Agriculture, Republic of Indonesia	Director General for Post-Harvest and Business Development Senior Staff
3	Sumarjono Saragih	Oil Palm Producers' Association, South Sumatra Branch	Head of GAPKI
4	V. Susilo Sugiarso	PT Sampoerna Agro Tbk	GM Plasma Division
5	Mr Yudha	PT Sampoerna Agro Tbk	Staff Plasma Division
6	Mr Ridho	PT Sampoerna Agro Tbk	Legal and Land Permit Staff
7	I Wayan Saren	PT Sampoerna Agro Tbk	Plasma Manager
8	Mr Slamet	PT Sampoerna Agro Tbk	Plasma Extension Officer
9	Agus Supriyanto	Village Unit Cooperative Panca Sawit Makmur (PSM)	Head of Cooperative/plasma farmer
10	Khairul Hidayat	Village Unit Cooperative Panca Sawit Makmur (PSM)	Secretary of Cooperative/plasma farmer
11	Bpk Sutejo	Village Unit Cooperative Tekad Mandiri (TM)	Treasury of Cooperative/plasma farmer
12	Bpk Supriyanto Sahri	Village Unit Cooperative Tekad Mandiri (TM)	Secretary of Cooperative/plasma farmer
13	Bpk Dewa Gede Mahardika (Dike)	PT Sampoerna Agro Tbk	Plasma Extension Officer
14	Bpk Heri Yono, Bpk Satukan, Bpk Supriyadi	Village Unit Cooperative Tunas Harapan (TH)	Head of Cooperative, Treasury of Cooperative, Crop Estate Unit Head (plasma farmers)
15	Bpk Setiyono	Village Unit Cooperative Supriyadi	Head of Cooperative/plasma farmer
16	Bpk Sumiyo	Village Unit Cooperative Supriyadi	Secretary of Cooperative/plasma farmer
17	Bpk Darmadi	Village Unit Cooperative Mulya Jaya	Head of Cooperative/plasma farmer
18	Bpk Sarwono	Village Unit Cooperative Mulya Jaya	Treasury of Cooperative/plasma farmer
19	Bpk Rejani	Village Unit Cooperative Sumber Rezeki	Head of Cooperative/plasma farmer
20	Bpk Yulianto	Village Unit Cooperative Mekar Sari	Head of Cooperative/plasma farmer
21	Bpk. Ketut Sukandra	Village Unit Cooperative Mekar Sari	Ex Treasury of Cooperative/plasma farmer
22	Bpk Bambang & Iwan	Bank BRI Office	Plasma Credit Officer

Annex 8

Photos taken during the field survey

PHOTO 1

Discussion session with organizing members of the PSM Cooperative (Cooperative Head, Treasurer and Secretary) (PPP case 1)



©FAO

PHOTO 2

Oil palm plantation belonging to farmers (PPP case 1)



©FAO

PHOTO 3

From just an ordinary village, it has now become a bustling small town: Pematang Panggang Village, Mesuji Raya District, Ogan Komering Ilir Regency, South Sumatra Province) (PPP case 1)



©FAO

PHOTO 4

Farmer's rice field, Karawang Regency, West Java Province (PPP case 2)



©FAO

PHOTO 5

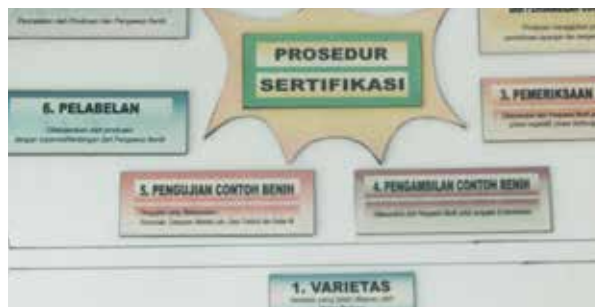
Some of the rice seed varieties. Haurgeulis District, Indramayu Regency, West Java Province (PPP case 2)



©FAO

PHOTO 6

Rice seed certification procedures at the Seed Control and Certification Services Agency (PPP case 2)



©FAO

PHOTO 7

Discussion with Mr Hartoyo, Head of Partnership Programme, PT Jatropha Green Energy, and Mr Suhartoto, Head of Estate Crop Regional Agency, Gunung Kidul Regency, Yogyakarta Province (PPP case 3)



©FAO

PHOTO 8

Jatropha curcas planting estate after pruning, near the coast at Kanigoro village, Gunung Kidul Regency, Yogyakarta Province (PPP case 3)



©FAO

PHOTO 9

Discussion with Ms Anik Indarwati, Head of the Crop Estate Regional Agency, Wonosari, Gunung Kidul Regency, Yogyakarta Province (PPP case 3)



©FAO

PHOTO 10

Greenhouses for sweet pepper cultivation in Pasir Langu village, Cisarua District, West Bandung Regency, West Java Province (PPP case 4)



©FAO

PHOTO 11

Pak Eman, a farmer member of the Mitra Sukamaju Cooperative, Pasir Langu village, shows his sweet pepper plants inside the greenhouse (PPP case 4)



©FAO

PHOTO 12

Discussion with Dr Nikardi, an Indonesian Vegetable Research Institute (IVEGRI) researcher for the HORTIN project in Lembang District, West Java Province (PPP case 4)



©FAO

PHOTO 13
View of farmers' gardens and houses surrounding Pondok Pesantren Al Ittifaq, Rancabali District, Bandung Regency, West Java Province (PPP case 5)



©FAO

PHOTO 14
Permanent brick-built houses and vegetable plants in the garden surrounding Pondok Pesantren Al Ittifaq, Rancabali District, Bandung Regency, West Java Province (PPP case 5)



©FAO

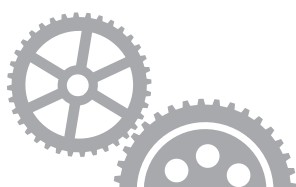
PHOTO 15
Discussion with Mr Zainal Arifin, Secretary of Pondok Pesantren Al Ittifaq, Rancabali District, Bandung Regency, West Java Province (PPP case 5)



©FAO

AGRIBUSINESS
PUBLIC-PRIVATE
PARTNERSHIPS

A country
report of
Indonesia



Public private partnerships (PPPs) are being promoted as an important institutional mechanism for gaining access to additional financial resources, sharing risks, and addressing other constraints in pursuit of sustainable and inclusive agricultural development. While various forms of collaboration between the public and private sector have existed for some time, there is limited systematic information available about the current experiences and best practice for using PPPs to initiate agricultural programmes.

In 2010, FAO initiated a series of appraisals of PPPs implemented in 15 countries in Africa, Asia and Latin America. The primary objective was to draw lessons that can be used to provide guidance to member countries on how to partner effectively with the private sector in order to mobilize support for agribusiness development. The outcome of FAO appraisals is presented in this series of Country case studies as a contribution to enriching knowledge and sharing information on PPPs mechanisms for informed decision making on investment promotion for engendering agrifood sector development.

Rural Infrastructure and Agro-Industries Division (AGS)
Food and Agriculture Organization of the United Nations (FAO)

Viale delle Terme di Caracalla, 00153 Rome, Italy
www.fao.org/ag/ags | AGS-Publications@fao.org | fax: +39 06 57053057