SMALL-SCALE COCOA FARMER PARTICIPATION IN CERTIFICATION: AN EXAMINATION OF ENABLING CONDITIONS IN INDONESIA

by

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ABSTRACT

The thesis investigates why certification has not taken off in the Indonesian cocoa sector, seeking to identify factors that limit engagement with certification among small-scale farmers. The research is qualitative in nature, taking a case study approach by mapping and comparing three different value chains within the cocoa sector in the country. An analytical framework is developed from a review of literature and identifies four main types of enabling conditions for farmers to engage with certification: farmers being organised; having strong links to a new market; availability of external support; and, perceived potential benefits from participation. Data was collected from 43 interviews and 2 focus group discussions with internal and external cocoa chain actors in Indonesia.

The main finding of the study is that participation of small-scale farmers in certified value chain is only possible and thus participating farmers benefit when the four inter-linked conditions are in place. Proliferation of certification among small-scale farmers unprecedentedly aims to transform farmers from being simply peasant into 'farmer plus'. It thus requires organisational capacity, business skills and external support. The findings suggest that there should be a reappraisal of approach to the introduction of certification schemes involving small-scale farmers by applying this framework and prioritising efforts to improve small-scale farmers' wellbeing rather than simply encouraging participation into networks as they are only a means to an end.

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LIST OF ABBREVIATION

ACDI/ VOCA	Agricultural Cooperative Development International- Volunteers in Overseas Cooperative Assistance
AD/ART	Anggaran Dasar/Anggaran Rumah Tangga (Article of Incorporation)
CPB	Cocoa Pod Borer
CSP	Cocoa Sustainability Partnership
FGD	Focus Group Discussion
FLO	Fairtrade Labelling Organisation
GAP	Good Agricultural Practice
GBP	Great Britain Pound sterling
GERNAS	Gerakan Peningkatan Produksi dan Mutu Kakao Nasional - National Program on Cocoa Improvement of Production and Quality
GLOBAL-GAP	Global Good Agricultural Practices
GMP	Guarantee Minimum Price
GoI	The Government of Indonesia
ICCO	International Cocoa Organisation
ICS	Internal Control System
ICRAF	International Centre for Research in Agroforestry/World Agroforestry Centre
IDR	Indonesian Rupiah
IMS	Internal Management System
ISO	International Standard Organisation
LBC	Licensed Buying Company
LEMS	Lembaga Ekonomi Masyarakat Sejahtera - People Co-operative for Welfare
MoA	Ministry of Agriculture
MNC	Multi National Corporation
MSC	Marine Stewardship Council
NGO	Non Governmental Organisation
NSMD	Non State Global Governance
P2WK	Plantation Development in Special Areas
PSIs	Private Standards Initiatives
PT. CEI	Core Exhibit Indonesia Ltd
PRPTE	Rehabilitation and Expansion of Export Crops
PV-SCL	Private, Voluntary Standards, Certification and Labelling
RPJMD	Rencana Pembangunan Jangka Menengah Daerah (Mid-Term Regional Development Plan).
SAN	Sustainable Agriculture Network
SFC	Sustainable Farm Certification International
SNI	Sertifikat Nasional Indonesia - National Certification of Indonesia
SSPG	The Southeast Sulawesi Provincial Government
VAT	Value Added Tax
VCA	Value Chain Analysis
WFC	World Cocoa Foundation

CHAPTER 1
INTRODUCTION

1.1 Introduction and Statement of the Problem

The adoption of private, voluntary standards, certification and labels (PV-SCL), such as Fairtrade, Rainforest Alliance and UTZ, has experienced an exponential rise over the last ten years. This growth is illustrated by the increased market share of certified products such as coffee, tea, cocoa, banana and forestry products. Compared with conventional markets of the same commodities, the growth of certified markets has been much greater, reaching significant levels of market penetration which account for over 10 per cent of global production (Potts et al., 2010).

This exponential growth of PV-SCL, particularly in the agro-food sector, is projected to continue as major food players in the market join the bandwagon. Many have committed to sourcing more of their supplies from certified sources (Welligmann et al., 2010). In the chocolate sector, for example, four big global players, Mars, Mondelēz International, Hershey and Feraro, have committed to source all of their beans from certified supplies by 2020 (Mars, 2012; Nieburg, 2012).

Response to the growth of the certified market and consequently the rise of PV-SCL has, however, been mixed. On the one hand, it is considered to be a positive development in response to critiques of corporations operating under free market conditions (Murray and Raynolds, 2007). The rise of PV-SCL can be viewed as a

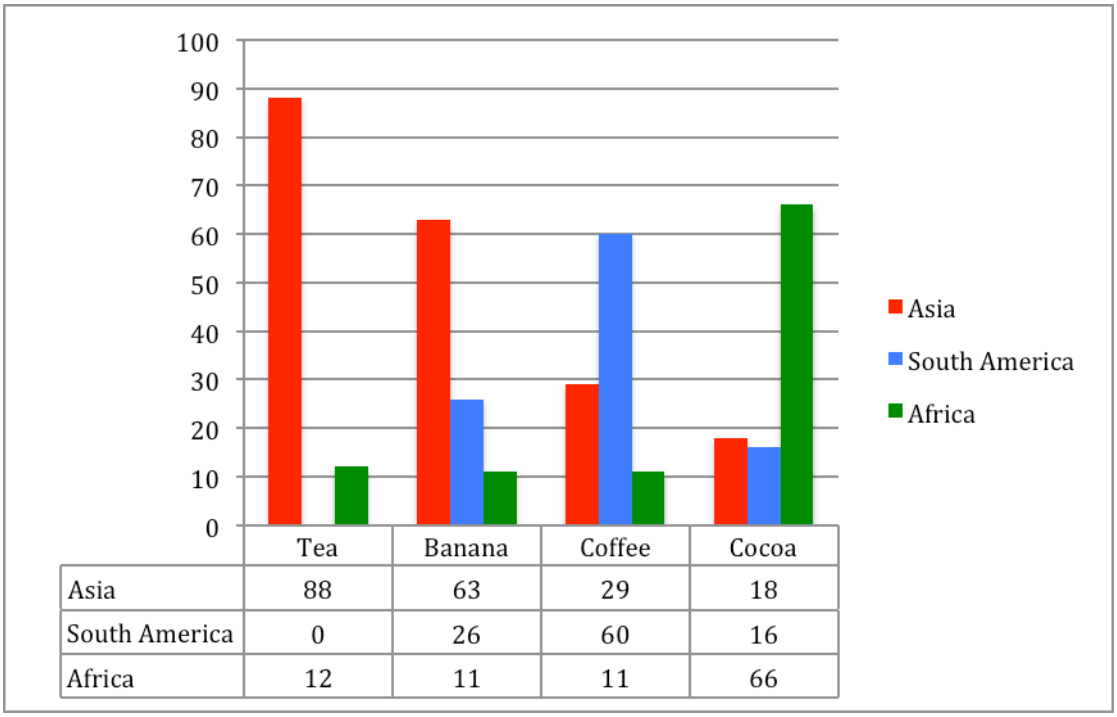
positive response to the inadequate returns to small-scale farmers in developing countries. A number of studies have demonstrated considerable benefits from voluntary certification which can be classified into three categories: economic, environmental and social. Voluntary certification has, for example, been seen to protect small-scale farmers from global price volatility and provides credit to farmers, which has in turn contributed to welfare improvements of small-scale farmers (Ronchi, 2006). In terms of environmental benefits, the schemes have raised awareness among small-scale farmers about the benefits of preserving nature by reducing or eliminating the use of the harmful chemicals, with benefits to their health (Arnould et al., 2009; Jaffee, 2007). Further, socially, it is perceived that the building of schools, roads, bridges and other community facilities from certification premiums has illustrated how communities have benefited from certification schemes (Bacon, 2010). Certification is even further considered as a means for poverty alleviation (Taylor, 2002).

Having said that, on the other hand, a number of studies have cast doubt over benefits from the rise of the certified market and certification schemes. In terms of farmers' income, for example, differences between participants of a certification scheme and non-participant farmers are relatively small and insignificant (Beuchelt and Zeller, 2011; Barham and Weber, 2011; Valkila, et al., 2011; Calo and Wise, 2005; Robins, et al., 1999).

Apart from the mixed results from participation, it has been found that only a small percentage of small-scale farmers participate in certification schemes. In other words,

despite the rise of certification, scaling up participation of farmers is a major challenge (Paschall and Seville, 2012). Further, scrutinising the spread of the growth of certification globally, it has been uneven, concentrated among a small number of countries and for particular products (Potts et al., 2010; Reardon et al., 2009). Certified coffee and bananas, for example, are predominantly sourced from South American producers, meanwhile certified tea comes from Africa's producers. Certified cocoa is dominantly from those same two continents: South America and Africa.

The Asian continent, including Oceania, compared with those two continents, has experienced less inclusion in certification networks despite Asia being a major global producer of certifiable products as illustrated by Figure 1 (FAO Stats, accessed January 2013). Asia's small share of the global certified markets is illustrated by Hutchen (2011), asserting that it is 15 years behind its counterparts in South America and Africa. Asian production, moreover, according to Blackmore et al. (2012) is characterised by a dominance of small-scale production, limited economic and agricultural opportunities, high poverty levels and pockets of food insecurity. Despite the fact that these characteristics correlate well with the objectives of many certification schemes, it is not clear why certification is not so prevalent in Asia.



	Tea	Banana	Coffee	Cocoa
Asia	88	63	29	18
South America	0	26	60	16
Africa	12	11	11	66

Figure 1 Global Production of Most Certified Commodities

Source: Graph compiled from FAO Stats at www.faostat.fao.org and table compiled from Rainforest Alliance website at http://www.sustainablefarmcert.com, Fairtrade at http://www.flocert.net and UTZ at https://www.utzcertified.org/index.php/404 (accessed. January 2012)

The uneven reach of certification to small-scale farmers in Asia is exemplified by the cocoa sector. Participating farmers in this certified commodity network are dominantly from South America and Africa. In Indonesia, despite being the largest producer of cocoa in Asia, and the third globally, engagement with certification is very limited. This is demonstrated in Figure 2 and Table 1, which shows that the inclusion of small-scale farmers in Indonesia in the cocoa certification network is very limited compared with their counterparts in South American and African countries. As shown in Table 1, the adoption rate of certification schemes in Cote d'Ivoire and Ghana has shown an increase although Ghana's adoption is relatively small, with only one Fairtrade certification scheme. However, the Fairtrade cocoa certification in the country is the first and the

oldest. Despite being awarded to only one cocoa farmer organisation, participant farmer or membership of the Fairtrade certified producer organisation, Kuapa Kokoo co-operative, reached 65,000 farmers in 2013 (Kuapa Kokoo, accessed 11 January 2013). The certified cocoa beans from this certification alone account for around 5 per cent of total production (Fairtrade, accessed 11 January 2013).

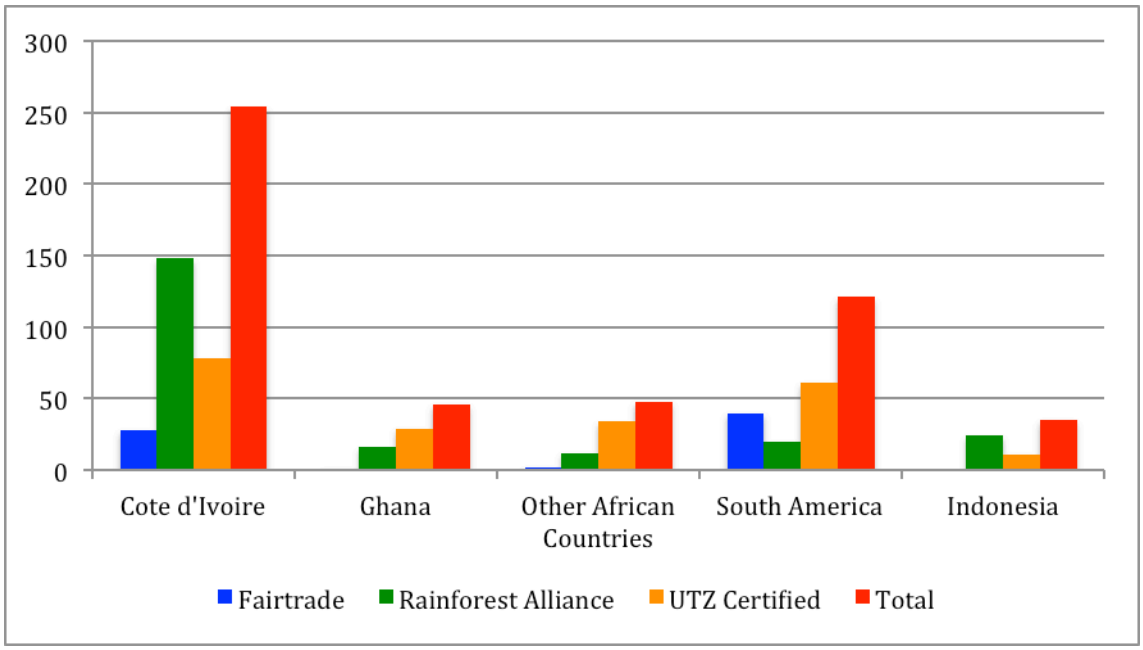


Figure 2 Certification Uptake among Cocoa Producing Countries

Source: Graph compiled from Rainforest Alliance website at http://www.sustainablefarmcert.com, Fairtrade at http://www.flocert.net and UTZ at https://www.utzcertified.org/index.php/404 accessed December 2012

Certification Schemes/Countries	Cote d'Ivoire	Ghana	Other African Countries	South America	Indonesia	Total
Fairtrade	28	1	2	40	0	71
Rainforest Alliance	148	16	12	20	24	220
UTZ Certified	78	29	34	61	11	213
Total Certification Proliferation	254	46	48	121	35	504

Table 1 Certification Uptake in Number among Cocoa Producing Countries

Source: Graph compiled from Rainforest Alliance website at http://www.sustainablefarmcert.com, Fairtrade at http://www.flocert.net and UTZ at https://www.utzcertified.org/index.php/404 accessed December 2012

Given the importance of cocoa production to Indonesia and globally, the question arises as to why certification has not been significantly taken up in the Indonesian cocoa sector and what the factors are behind this situation. Further, the question is raised as to what it is about the structure of the cocoa market in the country, the characteristics of its farmers, the support, government policy and other aspects that impedes certification.

This question is even more intriguing given the level of adoption of certification in Indonesia's agricultural sector such as the coffee sector, for example. Fairtrade and Starbucks C.A.F.E. standards have been adopted for quite some time, around a decade. Meanwhile in the forestry sector, Indonesia was awarded the world's first forest certification under SmartWood in 1990 (Cashore et al., 2006). In the Indonesian coffee sector, certification has taken off to a more advanced level as shown by Table 2. Those certified, however, are certified traders and only a small number of producers have been certified; all certified by Fairtrade.

CERTIFICATIONS	Producer	Trader	Total
Fairtrade	14	16	30
Rainforest Alliance	0	21	21
UTZ Certified	0	13	13

Table 2 Certification Uptake in Indonesian Coffee Sector

Source: Graph compiled from Rainforest Alliance website at http://www.sustainablefarmcert.com, Fairtrade at http://www.flocert.net and UTZ at https://www.utzcertified.org/index.php/404 accessed December 2012

Given these questions, this study investigates why there is so little certification in the cocoa sector in Indonesia. The study devises a conceptual framework of enabling conditions for certification by identifying factors that enable or impede the uptake of certification. There are four main variables that are seen as being essential for the uptake of certification. These are: farmers being organised; link to new markets; external support availability; and, perceiving of potential benefits from participation. These are set out as enabling conditions in an analytical framework to investigate the potential for farmers to participate in private voluntary certification, standards and labelling (PV-SCL).

1.2 Aims and Objectives of the Study

Given the lack of certification in the cocoa sector in Indonesia, the main aim of this research is to identify the conditions that have hindered the uptake of certification and what might encourage adoption. The specific objectives are:

1. To identify the enabling or impeding conditions for small-scale cocoa farmer participation in certification schemes
2. To identify efforts that are needed for certification to take off.

1.3 Main Research Questions and Sub-Questions

The study investigates why certification schemes have not taken off in the Indonesian cocoa small-scale farmer sector. In other words, why do Indonesian cocoa farmers participate less in the global certified cocoa network than farmers in other parts of the world. The overarching research question is as follows:

Why has certification not taken off in the Indonesian cocoa sector?

Sub-questions are divided into four headings according to the variables that have been identified as key factors:

A. Farmers being organized:

1. What is the history and feasibility of forming groups or co-operatives in Indonesia particularly in the cocoa sector?
2. What is government policy towards farmer organisations and co-operatives to enable or impede the feasibility of forming groups?
3. Apart from policy factors, what other factors are there that impede or enable cooperation?

B. Strong links to markets

1. What are the links between individual farmers and groups with different actors in the market chain?
2. What challenges are experienced by farmers in reaching new markets?
3. Do traders have a particular role to encourage farmers to participate in certification?

C. External support availability

1. Are there any NGOs, what kinds of NGOs and projects, working within the cocoa sector that could or do support farmers in linking with new markets?
2. How do the NGOs, if available, link farmers to certification?
3. What kinds of support have been provided by different levels of government?
4. What agricultural extension support is available and how far does it support efforts that might enable farmers to engage with certification schemes?

D. Potential impact to address cocoa farmer challenges

1. What are the main challenges faced by Indonesian cocoa farmers?
2. How are those challenges being addressed?
3. How are these challenges linked to potential engagement with certification schemes?
4. Could a new market under certification benefit farmers?

1.4 Justification of the Study

Most studies recommend the inclusion of farmers into certified networks as it is considered beneficial for small-scale farmers. Particularly for the cocoa commodity, the desire for small-scale farmers to be included in the certified network is even greater as the global cocoa sector has its own unique features. Compared with the coffee sector, for example, where supply outstrips demand, cocoa, on the contrary, is confronted by an unsustainable supply despite growing demand. Cocoa production is vulnerable to declining production due to pest and disease attacks, ageing trees, lack of human capital and, in some cases, unhealthy farming practices (ICCO, 2011; Oxfam, 2009; Barrientos et al., 2008; Saphiro and Rosenquist, 2004; Panlibuton and Meyer, 2004). Unsustainable

production has been a threat for global chocolate industries. This is demonstrated by market demand that has exceeded supply for almost a decade (ICCO, 2011).

The other important fact for encouraging inclusion of small-scale farmers into certified value chain is due to the change in downstream (closer to end-user) chain of the sector. Most major players of the chocolate industry have committed to joining the 'bandwagon' of PV-SCL. They have stepped into a commitment to supply all their raw material from certified products (Welligmann et al., 2010; Mars, 2012; Nieburg, 2012). This generates an important implication for absorbability of market demand. Certified cocoa will be able to be absorbed by firms' demand. In other words, certified cocoa farmers do not necessarily share the same challenges as faced by certified coffee farmers, that their certified coffee is not all sold through the certified network.

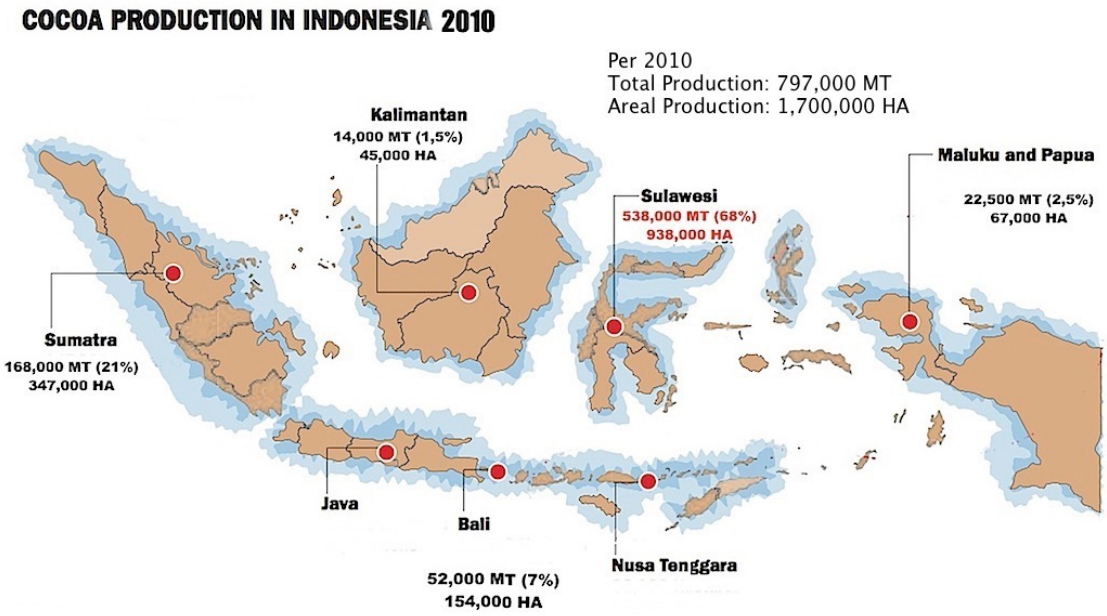
In spite of this change in the downstream chain of the global cocoa sector, with higher demand for certified cocoa, it has not automatically resulted in a significant change at the level of the upstream chain (producers). The majority of cocoa farmers have not engaged in the certified market. This is indicated by the limited participation of farmers in the certified global cocoa market as illustrated by Figure 2. Further, scaling up farmers' inclusion into the certified market is a serious challenge (Paschall and Seville, 2012). This study, therefore, examines which conditions limit farmers' participation in the certified market and what possible steps could be taken to encourage famers' participation.

Further, the study of the Indonesian cocoa sector is not only deemed important due to its potential contribution to global studies on cocoa farmers' participation but also its implications for practical uses. There have been few studies on the inclusion of cocoa farmers into the certified value chain. Thus, this study attempts not only to identify and understand the conditions for inclusion in or exclusion from the value chain *per se.* As Ponte (2008) proposed, this study, more importantly, identifies conditions that could make a substantial impact on inclusion in certification schemes.

The case of the Indonesian cocoa sector is deemed important due to the fact that cocoa production in the country plays an important role for global cocoa industries as a third world producer. The sector also provides livelihood sources to almost a million small-scale farmers across the country. The cocoa sector makes a significant economic contribution to the country's income, with foreign exchange earnings of around USD701 million per 2002, the third after rubber and palm oil (KPPU, 2009). Furthermore, its geographic location is considered strategic to the new centre of economic growth, Asia, which has a high demand for raw materials. The projected growing market, theoretically, gives greater opportunity to farmers to benefit from the increasing demand. This country also has potential for expanding production as the country, in terms of size, is vast and has abundant population as workforce for the sector. However, when it comes to certified market participation, inclusion of Indonesian small-scale farmers into the global certified market is limited and understanding why this is can contribute to more effective policy and practical approaches in this sector.

1.5 Locus, Scope and Delimitation of the Study

This study is concerned with the participation of small-scale farmers in certified networks. The locus of this study is Indonesia as Asia's largest producer and the third global largest producer of cocoa. The main locus of the study in terms of cocoa producing regions is in Sulawesi. Sulawesi is an island where cocoa production accounts for 70 per cent of the country's total production (see Map 1). Bali and Java Islands also are places where data was obtained as NGOs and certification body issuers reside there (see Map 2). Participants in this study are cocoa farmers who are participant or non-participants of PV-SCL, local traders, traders/exporters, NGOs, government officials and certifiers.



Map 1 Indonesian Cocoa Producing Map Per 2010

Source: Map is originally obtained from Tempo English online magazine at https://magz.tempo.co/konten/2012/01/18/OUT/24074/Cocoa-Island/21/12 and compiled with data from Indonesian Ministry of Agriculture at http://aplikasi.pertanian.go.id/bdsp/newkom.asp

Map 2 Data Collection Sites

Source: Google maps at https://map.google.com/ and compiled with map tags based on locations where data collected for this study

As this study focuses on identifying enabling conditions for small-scale cocoa farmers to participate in certified networks, the scope of this study is limited to chain actors at the meso-level in Indonesia, including cocoa farmers, local traders, exporters and certifiers. Indirect chain actors such as government officials, NGOs and organisations concerned with cocoa were also included as participants of this study. Given the scope of the study, the results are limited in terms of generalisability to other countries although some particular inferences can be made to wider areas and context. It also does not include a systematic or exhaustive impact examination of certifications although it covers, to some extent, farmers' perceptions on benefits during their participation in the schemes.

As illustrated in Map 1, Sumatra accounts for more than 20 per cent of total production in the country. Sumatra is where the researcher comes from in the country. However, due to the limitation of certification implementation in the region, the researcher opted to focus on Sulawesi Island. Further, in order to minimise any bias in the process of data collection, the researcher deliberately opted for Sulawesi Island as a locus of the study. Given that the researcher's mother and relatives are small-scale cocoa farmers themselves, obtaining data from them would be quite risky in terms of objectivity. Nevertheless, the researcher's interest in cocoa derives from engagement with those cocoa farmers when the researcher worked as an NGO worker. In order to fully understand the challenges they are confronted with and how to address the issues, the researcher set out an intention to carry out research on this topic in his proposal prior to commencing the study. This is one of the researcher's main motives in carrying out this study.

1.6 Structure of the Thesis

This thesis is composed of seven Chapters. Each chapter addresses a particular aspect of the study. It is designed in a logical sequence towards answering the research questions. Chapter 1 introduces the research problem, aims and objectives, research questions, justification and the scope, limitation of the study and the structure of the thesis. Chapter 2 examines literature on voluntary certification. Its purpose is to identify the extent of the problem as discussed in Chapter 1. This chapter examines literature to identify factors that have enabled or constrained farmers' participation in certification schemes in other parts of the world. From the examination of the literature, an analytical framework is developed that informs the design of the data collection and the process of analysis. Chapter 3 presents methodology, fieldwork accounts and the analytical framework. The analytical framework and methodological constructs are devised to address the research problem. The Enabling Conditions Analytical Framework is used as a guide to the formulation of research questions and analysis, meanwhile the methodological strategy is set out to collect data to answer the research question. Interpretive and pragmatic approaches are introduced as guidance for the fieldwork and analysis of data. The Qualitative Case Study approach is deemed to be the most appropriate approach for the data collection and how it is employed in this study is explained. This Chapter also recounts the activities in gaining access to respondents, the process of data collection and its administration. The data was collected through in-depth interviews and focus group discussions. The Chapter ends with a discussion of the approach used to analyse the data to answer the research questions.

Chapter 4 sets out the background of this study in the Indonesian cocoa sector. The focus of this Chapter is to present the input, output structure of the commodity within the country, the dynamics of production over time, cocoa boom and bust driving factors in the country, and challenges faced by small-scale farmers. This chapter also highlights the approach of Indonesian government to this sector. Chapter 5 presents the findings which are structured according to the main themes of enabling conditions for participation into PV-SCL, revealing new insights which contribute to private certification literature. Chapter 6 answers the main research questions concerning small-scale farmer participation in the certification network and how the certification network addresses challenges faced by the Indonesian cocoa sector. Finally, Chapter 7 concludes the study, setting out its contribution to knowledge, theory and literature. This chapter also presents an account of how far the research has answered the research question. Finally, the chapter identifies further research areas that could be pursued.

CHAPTER 2
ENABLING SMALL-SCALE FARMER PARTICIPATION IN CERTIFICATION SCHEMES

2.1 Introduction

Chapter 2 reviews literature in two key areas. Firstly, literature on what certifications are, their characteristics in terms of their objectives, codes and standards, adoption approach, rate of adoption and the nature of their markets is reviewed. Secondly, it discusses how farmers are involved in the schemes as this reveals the types of challenges that are experienced and what enabling conditions are needed for effective participation. This section identifies and establishes variables to develop an enabling conditions framework for farmers' inclusion in certification schemes. The chapter concludes with the development of this analytical framework, which was used in the development of the data collection approach and tools and to guide the subsequent analysis.

2.2 Defining PV-SCL

In literature, depending on the discipline, multiple terms are used to describe the PV-SCL (Private and Voluntary Standard, Certification and Labelling) such as private regulatory system (Bush and Bain, 2004), Non-State Market-Driven (NSMD) (Bernstein and Cashore, 2007), market-based private regulatory action (Jaffee, 2012), transnational private governance (Gereffi et al., 2001), private governance or certification network (Gandenberger et al., 2011), voluntary certification and labelling initiatives (Raynolds et a., 2007; Roberts, 2012), private standards initiatives (PSIs) (Tallontire, 2007), environmental and social standards, certification and labelling

(Lawrence, 2003) or simply voluntary sustainability standards (Sexsmith and Potts, 2009). In addition, further terms such as eco-labelling, eco-certification, ethical labels and sustainable certifications are used. These various terms are drawn from multi-disciplinary angles: from political science, environmental to management studies referring to the same subject. The various terms come from different theoretical explanations of multi-disciplinary studies (Prakash and Potoski, 2007; Bartley, 2007; Reardon et al., 2009). Given the various terms used, however, this study will use the term of Private and Voluntary Standards, Certification and Labelling (PV-SCL), which is explained after reviewing its basic concepts, in order to avoid confusion from the myriad terms.

In spite of being different but related entities, standards, certification and labels have different meanings and mechanisms which do not always go together. In this context of PV-SCL, standards are defined as a set of requirements to be followed covering both characteristics of a product and particular processes carried out in creating the products (Renard and Loconto, 2013). In other words, the standards do not only set particular technical characteristics or quality of the product but also set specific social, environmental and economic features in the process of making or manufacturing a product (Bartley, 2007).

A further concept of this system is that of certification. According to the International Standards Organisation (ISO), certification is defined as:

> *"the provision by an independent body of written assurance (a certificate) that the product, service or system in question meets specific requirements"*

(Accessed in December 2014 at http://www.iso.org/iso/home/standards/certification.htm)

In the process of ensuring conformity with the standards, participants' conformity is based on third party audits. Fairtrade, for example, works with FLO-Cert GmbH, an independent organisation that certifies the whole chain from producers to retailers. In the case of the Rainforest Alliance, its decision to issue a certification to an applicant is based on audits conducted by Sustainable Farm Certification International (SFC) against the Sustainable Agriculture Network (SAN). Based on the third party audits, the certification bodies issue certification as an assurance that the participants have met the standards they set. In other words, compliance with standards is followed by obtaining a certification.

Obtaining a certification comes along with a given right to use a mark, label or seal attached to a product. This label is usually in simple sign form to communicate with consumers that the products have met certain standards regulated by certification setters.

Given the basic features of the standards, certification and labelling, there are two distinguishing characteristics associated with such schemes: private and voluntary. These two distinctive characteristics reflect how the system is created and implemented. The term "private" refers to a non-state regulatory system contrasting with state regulations and institutions particularly under government or inter-governmental institutions (Bush and Bain, 2004). Further, the private characteristic refers to the origin of the regulation itself which is mostly driven by the private sector. The regulations of

PV-SCL are generally initiated, developed and set as rules or standards by civil society organisations, firms and other private actors. Hence, in terms of its operationalisation, it is administered by private institutions rather than government bodies. Bernstein and Cashore (2007) emphasise the nature of its non-governmental origin by coining these initiatives as Non-State Market-Driven global governance (NSMD) indicating the strong involvement and engagement of private institutions. They define NSMD as

> *"deliberate and adaptive governance institutions designed to embed social and environmental norms in the global marketplace that derive authority directly from interested audiences, including those they seek to regulate, not from sovereign states" (p. 3).*

Meanwhile the voluntary attribute here refers to the nature of the engagement with the system which is based on voluntary engagement. Actors can participate or withdraw from the PV-SCL scheme whenever they want to do so. It differentiates itself from mandatory and coercive forces of government regulations.

The PV-SCL is set by diverse actors and has diverse characteristics, goals and principles. The private actor is not a single player but rather a myriad of players, including firms, engaging and defining the system. The system covers aspects of trading, social, economic, environmental sustainability, labour conditions, human rights, traceability or a combination of these. It sets the standards along the global supply chain. The PV-SCL covers a range of commodities and services from apparel, footwear to natural resources (Bartley, 2007; Gereffi et al., 2001; Cashore et al., 2004; Hughes, 2001; Raynolds et al., 2004). Given the account of the basic concepts and characteristics of the system, this study uses the term of Private and Voluntary Standards, Certifications and Labels (PV-SCL) to refer to the system.

2.3 Characteristics of Certification Schemes and Farmers Participation

Given the basic concept of PV-SCL discussed earlier, it shows that certification schemes and, more specifically as discussed in this thesis, Fairtrade, Rainforest Alliance and UTZ, have different objectives and emphases depending on what they want to achieve. This is due to the fact that each certification emerged from a particular historical background and different types of actors have shaped the schemes. Fairtrade, for example, aims to achieve fair trading relationships between producers and traders (Raynolds et al., 2007). Meanwhile, Rainforest Alliance is primarily concerned about the disappearance of the world's rainforests and aims to halt deforestation and preserve biodiversity (Wille, 2004; Tallontire et al., 2012; Blackmore et al., 2012). UTZ, which was initiated mostly by private companies, aims to ensure that good agricultural practices are undertaken by producers and that the supply of commodities can be sustained (UTZ, 2008). But in short, all these schemes aim to improve social, environmental and economic conditions of producers.

The different objectives and background of each certification have implications for the schemes in practice: first of all Fairtrade and UTZ emphasise their codes and standards in meeting social, economic and economic criteria while the Rainforest Alliance emphasises mainly environmental and social measurements. Secondly, approaches to the inclusion of small scale farmers into the networks differ from one to another in which Fairtrade, for example, puts emphasis on small scale farmers inclusion into the network, meanwhile the other two are more open to work with large scale producers such as plantations. Having said this, this does not mean that Fairtrade does not work

with plantations nor the other two schemes do not work with small-scale farmers. Fairtrade has worked with plantations, which termed its system as a hired labour model, for some commodities such as banana, tea, coffee but the hired labour model does not operate in cocoa.

Despite those differences, the different approaches to enabling the participation of small-scale farmers in certification networks is the focus of this thesis. The different approaches taken by schemes raises questions about how effective the approaches are for enabling participation by small-scale farmers and what challenges small-scale farmers face in entering and staying in certification schemes. The term 'small-scale farmers' here is a combination of the International Federation of Agricultural Producers' definition which is based on size of landholding which is usually two hectares or less (Dixon et al., 2004; Vorley et al., 2012) and the definition of Murphy's (2012) referring to the nature of production which is lack access to inputs, land, technologies, seeds, capital, market, credit and information. The question of how the small-scale farmers become and stay involved in the schemes is discussed in the next section.

2.4 How Farmers are Involved in Certification Schemes; Challenges and Enabling Factors

Existing literature describing accounts of how farmers are involved in certification schemes is very limited with the exception of literature on Fairtrade certification. However, exploring and examining available accounts on Fairtrade and other

certification schemes enables the identification of challenges and conditions that can hinder or assist the participation of farmers in certification networks.

The first question that emerges when it comes to farmers' involvement in certification is how hundreds if not thousands of individual farmers actually participate in a certification scheme? Either certification attempts to reach them or they approach the certification; how is it possible for thousands of farmers to apply for a certification as it is not possible for one individual farmer to do so? Literature shows that farmers have to unite into many forms of groups, with different terms used: farmer groups, farmer organisation, producer organisation, producer groups, associations, partnerships and co-operatives (Lyon, 2011; Vasquez-Leon, 2010; Paschall and Seville, 2012; Beal, 2012; Tiffen, 2002; Liu, 2009; Vorley et al., 2012; Kuit and Waarts, 2014). This is a requirement in order to be able to participate in a certification scheme. The Fairtrade scheme, for example, explicitly requires small-scale farmers to be organised into an independent and democratic organisation. For buyers, they are required to buy directly from small-scale farmers who are organised in democratic associations (Lyon, 2009). This is set through the standard of the scheme. This stringency is still applied particularly for two commodities, coffee and tea.

The Rainforest Alliance and UTZ Certified require farmers to form groups as well, although with slightly different levels of stringency. The Rainforest Alliance through the Sustainable Agriculture Network (SAN) sets standards for the establishment of an Internal Management System as part of group farmer management system (SAN Group Certification Standard March 2011 v2.doc, 2012). Similarly, UTZ Certified requires the

establishment of an Internal Control System (ICS) as part of the farmer group (UTZ Code of Conduct, 2012). In sum, in spite of varying degrees of stringency, all the certification schemes require farmers to form a group or organisation in order to participate in these schemes.

With regard to certification and farmer group establishment, the question is what the challenges are. In literature, organising themselves into a formal structure is identified as one of the challenges (Torgerson et al., 1997; Vasquez-Leon, 2010) and very often this process is considered as the most significant barrier to small-scale farmers' participation (Paschall and Seville, 2012; Beal, 2012). The challenge starts from setting up a group or organisation, running it and maintaining it as a business unit.

The degree of this challenge varies from one group to another, however. Taylor's (2003) study on seven South America co-operatives linked to Fairtrade shows that farmer groups were initially assisted by either religious missionary team or government. Accounts on group formation in South America are strongly related to government initiation as suggested by other authors (Murray et al., 2003; Lyon, 2011; Vasquez-Leon, 2010).

Having said that, accounts on African farmer group context is slightly different from South America's. The farmer group formation, in form of co-operatives, under Fairtrade in Ghana, for example, was initiated by private sector or individuals when opportunity became available in which the Ghanaian government partly liberalised its cocoa sector market (Tiffen, 2002; Ronchi, 2002; Doherty and Tranchell, 2005).

Despite the feasibility of forming a group, as many governments' policies allow to do so, a further challenge lies in running the group or organisation to function as a social and economic agent (Vasques-Leon, 2010, Lyon, 2011). Exploring literature on other schemes and literature on co-operatives, it can be seen that farmers face huge challenges in terms of managerial skills and investment. Santacoloma (2007), on organic certification, observes that in order to function as a business agent, a farmer group under a certification scheme has to obtain managerial skills on planning, marketing strategies, logistics, ICS (internal control system), preparation of documents, post-production management and many related documentations as required by the certification.

The importance of strong farmer organisation establishment is associated with many aspects of certification such as ensuring standard compliance, reducing costs, increasing bargaining position with buyers, access to credits, collective marketing and economies of scale (Liu, 2009; Vorley et al., 2012; Beal, 2012; Kuit and Waarts, 2014). Given the importance of farmer organisations to the participation of small-scale farmers in certification, therefore, farmer group formation is one of the variables that is essential for enabling farmers to participate in certification.

Having identified the challenge for farmer group establishment, a further question is raised regarding how farmers access the certified market and engage with certified buyers. Assuming that most small-scale farmers are limited in terms of access to information, to find a right buyer who is under a certification scheme must be a challenge. Conventional buyers or intermediaries might be in place but a certified buyer

with advantages to offer a better deal is a challenge. Intermediaries in the literature on South America, known as *coyotes*, are often associated with exacerbation of the low price received by farmers (Jaffee, 2007; Milford, 2014). Therefore, getting direct access and trading with certified buyers is an advantage. Examining literature on accounts of how farmers were linked to direct buyers shows that the certification body often assists producer organisations to learn about markets, permits, legal procedure, export and import (Taylor, 2003). In the case of Ghanaian cocoa farmers Kuapa Kokoo (Tiffen, 2002), farmers were bridged to a buyer, Twin Trading, or now called Day Chocolate Company, to bypass local buyers who were accused of cheating them.

Having a direct link to a buyer seems not only to benefit farmers for all legal or business procedures to be taken care of but also assists them in addressing capital limitations. Committed buyers can co-invest with farmers in the whole process of participating in certification as certification is quite costly (Seville et al., 2011). In cases of Fairtrade certification, farmers can also ask for payment upfront from buyers. The other schemes, Rainforest Alliance and UTZ, also allow to do so albeit it is not regulated by their standards (Blackmore et al., 2012; Kuit and Waarts, 2015).

A further area of importance in having a direct link to a certified buyer is the fact that being certified does not mean guaranteed sales. In other words, a certification body does not guarantee that the certified commodities will be purchased by certified buyers (Blackmore et al., 2012). Given the importance of being linked to a new market or new buyer, this factor is considered as an important variable to link farmers into a successful engagement with certification scheme.

As mentioned earlier that farmers face those two important factors to engage with certification, with so many limitations a further question is raised: how is it possible for small-scale farmers to get going and participate in certification? In other words, who helps farmers to engage with certification? Participation requires capacity to run a group or organisation and technical knowledge to meet certification standards, substantial investments which all need expertise and time. Given this fact, these challenges could prevent farmers from participating. Many cases discussed in the literature suggest that the presence of external agents is needed to support farmers to participate in certification networks (Barret et al., 2002; Liu, 2009; Blackmore et al., 2012, Basso et al., 2012; Kuit and Waarts, 2015). Liu (2009 p.95) even argues that small-scale farmers are "unlikely to obtain certification without external assistance". In other words, availability of external support is an important factor in enabling farmers to participate. Therefore, this external support variable is treated as an enabling condition for participation. This is illustrated by the case of Mexican peasant farmer co-operative UCIRI, for example, which was supported by Max Havelaar Foundation (Audebrand and Pauchant, 2009). Similarly, in a study conducted by Taylor (2003), seven co-operatives in Mexico, Guatemala and El Salvador were supported by NGOs to enable them to participate in the Fair Trade network.

External support is deemed pivotal. Depending on the primary constraints faced by a group of farmers, various sources of external support can play roles. The case of Kuapa Kokoo, which is often discussed in the literature on cacao certification, was supported by two external actors: an NGO, SNV, and a commercial actor, TWIN, a company based in the UK, with different scopes of interventions. TWIN offered a commercial

framework and SNV supported Kuapa Kokoo with organisational development. TWIN offered the farmers' co-operative operational and financial advice and provided a start-up loan and a loan guarantee to cover working capital and funds for the first of 22 villages to buy 'tools of the trade' (sacks, scales, tarpaulins and wooden pallets). The commercial framework was set, not as a grant, so the farmers had to pay back to TWIN within four years after the soft launch with interest charged at a rate of 12 per cent. Meanwhile, SNV offered village-level development and participatory training of committees, bookkeepers and workers (Tiffen, 2002).

Having said that, the availability of external support such as from NGOs does not necessarily guarantee participation of farmers. Inappropriate approaches of NGOs or donors could lead to the opposite effect: failure of farmer groups or co-operatives. The challenge is finding an appropriate approach between 'giving fish or a fishing rod'. Coulter et al.'s (2009) study on agricultural co-operatives in Sub-Saharan Africa illustrate a case when farmers were simply given donated equipment which undermined self-help initiatives expected from the farmers, required to run their groups (Smith, 2011; Nelson et al., 2012).

A final key factor in encouraging farmers to participate in certification is the perception of benefits from a scheme. Exploring literature on benefits of certification, it appears that the reward of participation in a certification scheme is not clear-cut in the sense that it is hard to make farmers believe that they would get benefits from participation, particularly economic benefits, which is often the main motive of farmers to participate (Giovanucci and Koekoek, 2003; Jena et al., 2012). Therefore, in order to find out why

farmer participate less or more in a certification, the potential for, and perceptions of, benefits from participation should be examined. Potential benefits offered by the scheme itself is an equally important variable for examining level and the nature of participation of small-scale farmers.

Reviewing the challenges faced by farmers in this thesis, these challenges are turned into enabling condition variables that need to be present to help farmers participate and benefit. In other words, the challenges identified in the literature can equally be considered as enabling conditions which are further examined in the next section. The challenges are grouped into four enabling condition variables: farmers being organised; links to new markets; external support availability; and, perceived potential benefits from participation.

2.5 Enabling Conditions for Small-scale Farmers Inclusion into Certification

2.5.1 Farmers being Organised

As identified in section 2.3.1, one of variables for participation in certification is that farmers are organised in groups. Having identified one of the enabling conditions variables, a further question is what exactly the issues are concerning group formation and its operation by looking in-depth at the challenges and how they are overcome as discussed in literature on certified groups and literature associated with the issue.

The importance of establishing farmer groups is suggested for many reasons. Firstly, to ensure compliance with the standards. It is not only a requirement for applying a certification, but group formation aims to build capacity of farmers to comply with

standards. A farmer group or co-operative can ensure the monitoring of standards compliance over time. Audits can be carried out efficiently (Blackmore et al., 2012). Further, benefits from certifications can be shared transparently within a group (Lyon, 2011).

Secondly, economies of scale. The idea behind this is that farmers within a group can benefit from cost decreasing due to bigger volume of their product. Running collective marketing, farmers in a group will be able to collect a high volume of a commodity, which is more viable to trade and deliver, as required by a big buyer, with lower costs compared to an individual marketing their commodity. The cost of delivering 1 ton of cacao beans from an individual farmer to market, for example, can be minimised if many farmers under a group are able to organise delivery of the products in large quantity and the cost of delivery can be a lot cheaper (Kuit and Waarts, 2014). A big buyer is willing to trade with a group with high volumes of products. Due to a high volume it collects from many members, a co-operative can further improve its bargaining position over prices from buyers in the value chain. Farmers groups can also bulk buy inputs in which prices are often discounted or reduced. This contributes to greater cost-effectiveness of production (Liu, 2008).

Thirdly, farmers as members of a farmer group can access credit, technical and financial assistance from external support, capacity building, networking with other farmer groups or external assistance. With regard to inclusion of farmers in a certified value chain, membership of a co-operative is deemed to be a key determinant to engage with markets and manage a certification scheme (Beal, 2012).

Apart from those reasons for having a strong farmer group, as a social and economic instrument, farmer organisations can empower their farmer members to improve their lives and reduce socio-economic risk at the grassroots level (Vasquez-Leon, 2010; Torgerson et al., 1997). Farmers through their organisation would be able to pull together a variety of assets to be collectively used for improving their lives and gain socioeconomic benefits. Farmer groups can facilitate the voice of farmers to be heard by stakeholders and act as a medium for sharing ideas and learning (Vasquez-Leon, 2010; Elder et al., 2012).

Given the ideal proposition of having farmers' organisations, the intention to organise farmers into a better organisation and link them to voluntary certification, however, poses profound challenges. Drawing from the literature, four main challenges are identified (See Table 3 List of Challenges Faced by small-scale farmers on building and running organisation): inadequate organisational/institutional building capacity, business capacity, technical know-how and financial barriers (Tiffen, 2002; Taylor, 2003; Harris et al., 2003; Milford, 2004; World Bank, 2003; Doherty and Meehan, 2006; Santacoloma, 2007; Ferrigno and Lizarraga, 2008; Lyon, 2009; Liu, 2009; Coulter et al., 2009; Poole and de Frece, 2010; Vasquez-Leon, 2010; Beal, 2012; Blackmore et al., 2012; Elder et al., 2012; Vorley et al., 2012; Kuit and Waarts, 2014). This table is drawn by process of listing challenges faced by farmers in the literature and then grouping them thematically.

Organisational or Institutional Capacity	Business Capacity	Technical Know How	Financial Barriers
Feasibility of group formation	Carrying out collective marketing	Setting and running ICS/IMS (Internal Control System/Internal Management System)	Setting up co-op and running cost
Co-op/group mechanism	Running business side such as micro-credit program	Inspection of standards compliance	Cost for certification, audits and any cost associated with standards compliance
Daily management and staffing	Capacity for negotiation price, contract, improving trading relationship	Storage, raw data management, forecast production, product quality control	Tool of trade
Participation of members	Running co-operative profitably	Good farming practices in general	Professional staff expenses
Capacity to organise training	Business and financial management	Soil management	Operational costs
Capacity to comply and monitoring standards		Good pre and post-harvesting agricultural practices	Capital fund
Producing documentation and reports		Improving quality	
Linking to farmer group associations		Pest and disease control	
Linking with other stakeholders			

Table 3 List of Challenges Faced by Small-scale Farmers

Firstly, organisational capacity refers to the feasibility of group formation among farmers, setting mechanisms to run the group, managing a co-operative in terms of staffing, maintaining an active level of member participation, building cohesion among members and wider community, having capacity to organise training, complying with

and monitoring standards, documenting activities and engaging with other farmer groups or associations. These are all identified as challenges when it comes to building organisational capacity among farmers and the list provides a set of indicators to measure how a farmer organisation is run and developed. Further, to develop and maintain democratic values, and being transparent, participation is yet a further challenge (Harris et al., 2003; Poole and de Frece, 2010; Blackmore and Keley, 2012).

Secondly, as a farmer group functions as an economic agent, in terms of business capacity, participating in a certification scheme demands capacity to engage with business. In practical terms, the farmers need to be entrepreneurs themselves through co-operatives. This requires significant business skills: carrying out collective marketing, running other side businesses such as micro-credit programmes, capability for negotiating prices and contracts with buyers, engaging with other actors either in the value chain or outside the chain, planning and financial management and in many cases requires capacity to undertake international communication (Santacoloma, 2007; Vasques-Leon, 2010).

Thirdly, in order to run a farmer group, it requires capacity on technical know-how in which several issues present challenges. Setting up and running an Internal Management System (IMS) or Internal Control System (ICS) according to the standards, for example, presents serious challenges. This is mainly because farmers will not be familiar with the new requirements. Obtaining data from farmers, filling in forms, making and storing documentation as part of the IMS or ICS work requires skills that farmers may not have as they are not familiar with these activities in their daily

lives. In this category of technical know-how, good farming practices such as opening new land for cultivation, improving quality of their products, managing soil, understanding permissible inputs, controlling pest and diseases, handling post-harvesting and carrying out inspection requires much training (Basso et al., 2012; Blackmore et al., 2012; Beal, 2012; Kuit and Waarts, 2015).

Finally, running a farmer group requires capital. The lack of financial resources also constitutes a challenge, even more so when the farmer group is intended to be linked with certification (Liu, 2009). Financial resources are needed, for example, to cover certification costs and standard compliance and expenses in running the co-operative as a business entity (Lyon, 2009; Santacoloma, 2007).

Those are challenges faced when it comes to empower farmers to build a farmer organisation so it functions well and successfully engages with a certification scheme. Although literature identifies a myriad challenges confronting small-scale farmers and the failure of many co-operatives, it is equally fair to acknowledge that there are many successful small-scale organisations that have addressed such obstacles. Coupled with the right support, policy and approaches, co-operatives can work for farmers (Poole and de Frece, 2010; Beuchelt and Zeller, 2012; Fischer and Qaim, 2014).

2.5.2 Linking to New Markets

Establishing strong links to new markets is a second important enabling condition for the inclusion of small-scale farmers into certified networks. There is a range of markets: local, traditional export market and ‘modern’ markets (Smith, 2011), but a new market

here refers to certified market which is mostly export-oriented or termed as a formal market. Seville et al. (2011:3) characterise formal markets as those that *"...have requirements including quality, consistency, traceability, food safety and third-party certified standards that necessitate direct communication and coordination along the supply chain"* which is in line with the type of market in this thesis.

As identified in section 2.4, one of the challenges for small-scale farmers to access new markets is to find a certified buyer. The need for building links to certified buyers is derived from the fact that being certified does not guarantee sales (Blackmore et al., 2012). This means that assuming a group of farmers successfully manages to obtain a certification, it is not a guarantee that their certified products would be sold automatically under certified market. Certified farmers have to find their own certified buyers in order to get the benefits from the scheme. Understanding this circumstance, the thesis argues here that building links to a new market is essential for successful participation in certification.

Examining literature, building strong links to new markets can buffer farmers from financial loss. Participation in certification is not free but expensive (Blackmore et al., 2012; Basso et al., 2012; Kuit and Waarts, 2014). It is an investment. Having a good partnership with buyers through co-investment, in which buyers partly finance some associated expenses, can minimise financial risk. Blackmore et al. (2012) advocate to have strategic partnerships with buyers when farmers want to participate in certification. This partnership can be translated into co-investment, for example, in which certified buyers, who have much better financial resources, can pay some expenses in advance or

pre-financing farmers' business activities. In terms of certificate ownership, buyers can pay the cost, such as certification fee and audit fee, in which buyers pay for it in advance as a certificate-holder on behalf of the farmer groups (Kuit and Waarts, 2014).

Building strong links with certified buyers can also benefit farmers in receiving product information or technical advice on quality and quantity of product market required. Certified farmers can also negotiate a good price, business contracts and other business related matters with buyers and building a more sustainable business. Therefore, finding the right buyers with a commitment to work together becomes important. Engaging with the right buyers contributes to achieving benefits from certification and sustainable business and this enables successful participation with certification.

2.5.3 External Support Availability

It has been discussed in the previous sections that there are two variables as enabling conditions for farmer to participate for certification: farmers being organised and strong links to new markets. Given the challenges faced by farmers, the question now is how those challenges are addressed by farmers with their embedded limitations. The common pattern reviewed in the literature is the presence of external agents supporting the farmers to engage with certification. External support is identified as an equally important factor to make certification take off for small-scale farmers. Liu (2009) and Blackmore et al. (2012) even argue that it is only possible for farmers to obtain certification with external assistance. External support can come from external value chain actors, NGOs and government, or from the actors at higher levels in the chain, that is buyers.

Looking in-depth at the role of NGOs in the literature, NGOs can help to build and strengthen farmer groups and facilitate collaboration with actors along the chains, including international partners (Smith, 2011; Doherty and Tranchell, 2005). These roles are both business-oriented and development-motivated. Collaboration is not only with the private sector but also with government bodies such as agricultural advisory services. In the wider context, collaboration with local and national government can encourage policies that support small-scale farmers (Nelson et al., 2012; Smith, 2011; Beuchelt and Zeller, 2012; Borda-Rodriquez et al., 2015).

Government can also play an important role in assisting farmers' participation in certification such as providing policies that encourage farmers to form strong organisations, provide technical support or equipment, tools for trading or production, yield improvement and other support needed (Vasquez-Leon, 2010; Milford, 2004). In practical terms, Liu (2009) proposed that local government can train local inspectors to assist certification audits to lower the cost associated with obtaining and maintaining certification.

Having said that, external support has to have the right approach in terms of duration of support and avoiding dependency (Coulter et al., 2009; Smith, 2011; Nelson et al., 2012). The support that can make a significant change for small-scale farmers requires building strong and profitable organisations, linked with government policies, and this requires substantial time and resources. Support should be a long-term effort but at the same time the long-term support should avoid dependency of farmers on assistance.

Simply giving donated equipment and meeting other group needs can undermine self-help initiatives expected from farmers (Coulter et al., 2009). Therefore, a clear exit strategy to ensure sustainability is required when supporting farmer groups (Nelson et al., 2012). Reflecting on the literature, it shows that despite the extreme need for external support, inappropriate approaches of NGOs or donors could lead to the opposite effect, failure of farmer groups or co-operatives (Coulter et al., 2009; Smith, 2011; Nelson et al., 2012).

2.5.4 Potential Benefits from Participation

Three enabling conditions for small-scale farmers' participation in PV-SCL have been discussed in the previous section. Examining literature more deeply, the researcher found that awareness of benefits gained from participation in PV-SCL is also an equally important factor to encourage participation in certification. The main reason for considering potential benefits as an important enabling condition in this study is the fact that economic motive is a driving factor for participation (Giovanucci and Koekoek, 2003; Fischer and Qaim, 2014). It is about what certification offers to farmers so that farmers would like to, and willingly, participate. Arguably, if farmers can see potential benefits can be received from participation, they would participate, albeit they should consider other enabling conditions as well. In other words, if certification can bring significant change to the livelihoods of participants, it would therefore attract farmers to participate. There are at least three kinds of benefits that are discussed in the literature: economic, environmental and empowerment benefits. Reviewing literature about benefits or impacts of certifications, Fairtrade is the scheme that has been the most discussed and therefore the discussion about the scheme's impact is dominant.

Nevertheless, the points discussed concerning economic, environmental and empowerment benefits are equally applicable to other schemes.

2.5.4.1 Economic Benefits

This section examines evidence from literature concerning economic benefits from participation in certified schemes in terms of price, premiums, stable income, access to credit and access to a new export market. The potential economic benefit is fundamental as it is found that economic motives are the main driving factor for the participation of small-scale farmers, who are mostly poor (Giovanucci and Koekoek, 2003; Jena et al., 2012).

In order for small-scale farmers to earn a fair price, the Fairtrade scheme offers a "guaranteed minimum price" (GMP) in its scheme. The other two certifications, Rainforest Alliance and UTZ Certified, do not offer the GMP. GMP or "minimum price", "fair price", "higher price", used interchangeably in the literature, is a set of prices which is defined as the lowest possible price paid by traders to producers covering the cost of sustainable production.

Evidence from some studies examining the GMP has shown that farmers benefit from a higher price through participating in a Fairtrade network. Drawing on seven case studies, with 5 carried out in Mexico, 1 in Guatemala and 1 in El Salvador, Murray et al. (2003) concluded that farmers earn twice the street price of conventional coffee. Citing Perezgrovas and Cervantes (2009), they provide an example of Majomut co-operative members who earn USD 1,700 for their 1,500 pounds (680,3 kg) organic certified

Fairtrade coffee which is much higher than the local price of only USD 550 for the same amount of coffee. This higher price is considered a dramatic increase for those who joined Fairtrade.

A similar conclusion was drawn by Bacon (2010) studying small-scale coffee in Northern Nicaragua and, exploring figures, he reveals that the price earned by Fairtrade producers is 22.4 per cent higher than farmers selling to the conventional market in which Fairtrade farmers earn USD0.56/lb, while non-Fairtrade farmers earn only USD0.40/lb. A comparative impact study conducted by Ruben, Fort, and Zuniga (2011) in Peru, Costa Rica and Ghana concluded that Fairtrade brings positive average net household income effects to the farmers. Revenues derived from Fairtrade activities contribute 70 to 90 per cent to participants' income component studied.

The economic benefit from the GMP or "higher price" offered by the Fairtrade scheme, however, is contested as other empirical evidence suggests otherwise. The "higher price" earned by coffee small-scale farmers in Nicaragua comes along with higher production costs as well. Due to the high production costs, therefore, higher earning is less significant in contributing to a decent income for the small-scale farmers (Jaffee, 2007; Beuchelt and Zeller, 2011). Further, making an income comparison between participant and non-participant farmers results in differences that are relatively small. Fairtrade farmer's net cash income is somewhat higher than non-participant farmers' (Barham and Weber, 2012). This difference, albeit relatively small, does not come from 'higher price' but in yield differences. Fairtrade farmers' yields are slightly higher than non-participant farmers'.

Theoretically, if farmers earn a high price for their produce, subsequently they will earn above the poverty level income which is not the case as revealed by the studies. Scrutinising Fairtrade's 'higher price' policy further reveals that the 'higher price' set by FLO, particularly for coffee commodity, has not been raised significantly since 1989 despite inflation (Bacon, 2010; Valkila et al., 2010). That means the base price or "guaranteed minimum price' of FLO has stagnated, meanwhile, at the same time, the cost of living has increased. This thus explains the perpetual low income of small-scale farmers and "it does not bring the majority of participants out of poverty" (Jaffee, 2007 p.27).

Along with higher price, literature also highlights the benefits of the premium, a certain amount of money set aside for the producer organisation. Fairtrade obliges the trader or manufacturer to pay this premium, meanwhile UTZ Certified only recommends buyers to pay for the producers. Rainforest Alliance puts it as optional in its scheme.

The premium is intended to be invested in social, environmental and economic development projects. The premium is found not only to be beneficial to the producers and their organisations, but also for their communities, although literature suggests that how these benefits are allocated varies from one co-operative to another. Milford (2004), for example, studying two co-operatives in Chiapas, Mexico, found that one of the co-operatives, ISMAM, successfully allocated Fairtrade premiums to investment in a large and modern roasting machine worth USD 1.5 million. In addition, this co-operative was able to create an arm company, Mam Maple, to market its members'

ready-toasted, ground and packaged coffee. Murray et al. (2003) reveal that the premiums are used by co-operatives not only for supporting the co-operatives' technical knowledge of its members but also financing social projects within communities. UCIRI co-operative in Oaxaca, for example, funded the construction of latrines in the community and purchased fuel-efficient household stoves to reduce smoke-related respiratory problems faced by its members and the local community. Furthermore, this premium was allocated to build an education centre with training for young people from the region to be equipped with skills for community development, composting, intercropping between coffee and legumes, animal husbandry and other income generating activities.

In West Africa, Ronchi (2002) records that Kuapa Kokoo, a cocoa co-operative in Ghana, earned premiums of more than USD 1.5 million from 1994 to 2001 alone. The premiums were used for capitalisation funds, building infrastructure for its arm trading company, KKL, and 53 community projects: building a school, sanitation services, 31 water projects, provision of 7 corn mills for income generation and provision of a mobile ambulance. The rest of the premium was distributed to its members. Indeed, according to FLO (2011), during 2009-2010 alone, 869 to 906 producer organisations with 938,000 members under Fairtrade scheme receive around £43 million as premiums.

Having said that, evidence on premium figures suggests different interpretations, particularly in terms of the use of premiums and its contribution to livelihood improvements. Utting-Chamorro (2005), exploring the price premiums distribution

directly to small coffee farmers in Nicaragua, found that only 30 to 60 per cent of the premiums are received by farmers and the rest is deducted for community fund, export costs, processing costs, capitalisation fund and debt repayments. Similarly, Robins et al. (1999), in their empirical studies of coffee producers of the Quebrada Azul Cooperative in Venezuela, found that farmers earn only 20 per cent directly from the premiums offered by Fairtrade to each member, 36 families. This means that each family earns only 0.55 per cent of the total premium. Meanwhile, the rest of the premiums, 80 per cent, go to common or community sectors: construction fund, cooperative's capital base and roasting unit cost.

Furthermore, several studies identify that the Fairtrade co-operatives continuously spend a huge amount of their income on administration matters, certification and inspection costs, rather than on increasing productivity. The exploration of the premiums' spending on certification, monitoring fee from FLO and re-certification are revealed by studies. Berndt (2007), in his empirical study conducted in Costa Rica and Guatemala, finds that in order to receive FLO certification, cooperatives are charged between USD 2,000 and 4,000. The co-operatives pay an annual inspection fee in order to maintain the certification, which is contributing to the burden of cooperatives and farmers for sufficient earning. Hence, the small amount of the premium itself is not considerably effective to boost producer's income. Similarly, Valkila et. al (2010) support this finding as they found that a large amount of the premiums goes to pay for certification fees and inspection fees. It turns out that the co-operative is not able to maximise the use of the premium it earns. Premiums are used to pay certification and annual re-certification and this is in line with an earlier finding of Rice (2001), who suggests that obtaining certification is very costly.

In addition to those two important aspects of economic benefits examined, higher price and premiums, there are more benefits identified under this economic impact category which are more intangible but substantial. They are stable income, access to credit and access to new export markets. Utting-Chamorro (2005), studying small-producer coffee in Nicaragua, asserts that Fairtrade has contributed to income stability of the producers as one of the considerable impacts of joining Fairtrade, particularly after the fall of the international coffee price which had devastated their lives. This finding is an affirmation of previous findings by Murray et al. (2003) and Milford (2004). The international price which is characterised by unpredictable fluctuation and yet directly affects small-producers has increased the vulnerability of poor farmers. Being part of Fairtrade scheme has increased the security of producers by being able to have stable incomes and they can count on a set price they would receive for their crops and do not necessarily have to wait to know how much money they will earn until the sales of their coffee, which is characteristic of conventional trade. Murray et al. (2003) further argue that Fairtrade price guarantee and access to credit, a part of Fairtrade standards, have given a positive impact on greater economic and social stability for coffee farmers. As access to credit is substantially important in making further plans, small-scale producers have benefited from this Fairtrade scheme.

Examining the results of economic potential benefit from participation in certification, it is only the stable income, access to credit and access to a new export market, that are less disputed. Economic benefits particularly earning higher price and premiums are however contested. Thus, the question remains on how “better price” and premiums offered by certification schemes can improve participation of farmers in certification.

As mentioned earlier, economic motives are the main driving factor for the participation of small-scale farmers, who are mostly poor (Giovanucci and Koekoek, 2003), therefore these two elements, price and premiums, would be key considerations in terms of their linkages to certification participation.

2.5.4.2 Social and Environmental Benefits

Other potential benefits from the inclusion of small-scale farmers are their empowerment and environmental improvements in their farms. Reviewing literature of PV-SCL, particularly Fairtrade impacts on co-operatives, studies suggest that participating in PV-SCL empowers the participants to run their co-operatives. According to Murray et al. (2003), the impact of Fairtrade has improved Latin America's coffee co-operatives in shaping a new culture of co-operatives in decision-making by involving their members through participatory processes. In other words, Fairtrade has encouraged members of co-operatives to foster democratic processes in running their co-operatives. Las Colinas, an El Salvador's co-operative, for instance, worked more closely with its members when they participated in Fairtrade organic market. As this new market requires rigorous technical and administrative demands, the co-operative has involved its members to meet the market demand.

A further example of benefits is highlighted by VanderHoff Boersma (2002) of increasing marketing knowledge. UCIRI co-operative has capacity to build their own marketing channel as Fairtrade constantly provided access to information about the list of importers, buyers and market information. The benefits received by this co-operative created snowball effects in which other co-operatives also attempted to participate in the

PV-SCL. The entry of the other groups into Fairtrade networks was experienced by La Selva, a Mexico co-operative, assisted by UCIRI in 1990. In turn, La Selva facilitated Majomut co-operative to enter the network in 1993-1994. In 2001, Majomut assisted Tzotzilotic to sell its products in the Fairtrade network. This snowball effect was encouraged by the fact that the various co-operatives have to collaborate to meet the amount of coffee demanded by buyers. Hence, the solidarity among producer groups strengthens their capacity and fosters a better inter-group relationship.

A similar study conducted by OPM (2000) on Kuapa Kokoo in Ghana and KNCU in Tanzania identifies that the capacity of the co-operatives goes even further, beyond business aspects as the co-operatives move to promote greater participation and build a strong civil society structure in the region where they exist.

Benefits from participating in PV-SCL on environmental aspects are less contested in the literature. PV-SCL schemes such as Fairtrade, Rainforest Alliance, UTZ Certified, set standards for environmental performance with emphasis on different environmental aspects. However, by and large, the standards encourage ecologically sound production processes. Impact studies on this issue have indicated positive impacts in this regard. Co-operatives under PV-SCL have been found to use agrochemicals wisely. Members of co-operatives participating in certification are more knowledgeable than farmers who are not part of any scheme as found by Arnould et al. (2009). A similar study conducted by Jaffee (2008) highlights that Fairtrade co-operative farmers are willing to adopt organic practices for their coffee cultivation rather than using agrochemicals. Farmers also increasingly improve their environmentally friendly coffee processing practices to

reduce pollution in the river as a result of capacity building provided by the Fairtrade network. Farmers manage to maintain the erosion-control of their coffee plots, conserve soil fertility, increase water filtration, enhance bird and bio-diversity, and, importantly, keep acidic coffee pulp and water out of local streams. As a positive practice, despite Fairtrade farmers being only a small group in the Rincon community, in Mexico, this practice is spreading and copied by the majority conventional farmers, who are 85 to 90 per cent of the local communities (Jaffee, 2007).

Having discussed the potential benefits from participation in PV-SCL, it is fair to acknowledge that studies on schemes such as Rainforest and UTZ Certified are quite few if not scarce. However, a study by Barham and Weber (2012) in Mexico and Peru comparing potential benefits between Fairtrade/organic and the Rainforest Alliance found that it is the improvement of the yield rather than merely price premium which makes an important impact on improving the well-being of coffee growers in the areas studied.

Examining these potential benefits received by farmers participating in PV-SVL is crucially important in understanding the level of participation and thus is considered as one aspect of enabling conditions of the PV-SCL implementation. This study highlights the importance of this aspect in its enabling conditions framework.

2.6 Conclusion

Having examined the literature, it shows there are many challenges faced by small-scale farmers to participating in certification networks. Examining literature, essential

conditions required to enable the participation of small-scale farmers in certified networks have been identified. The enabling conditions drawn from the literature are farmer group formation and operation, engaging or linking with new markets, external support availability and the perception of potential benefits from participation. The form of the Enabling Condition Framework is designed as illustrated in Figure 3. These enabling conditions emerged from the literature review and, therefore, are used to frame the analysis of this study's main research question: why, despite being the world's third largest producer of cocoa, have certification schemes not been widely sought by Indonesian small-scale cocoa farmers? This study, in examining the Indonesian cocoa sector case, is believed to contribute to literature particularly about PV-SCL, cocoa commodity and Indonesian cocoa sector in particular.

Enabling Conditions Analytical Framework

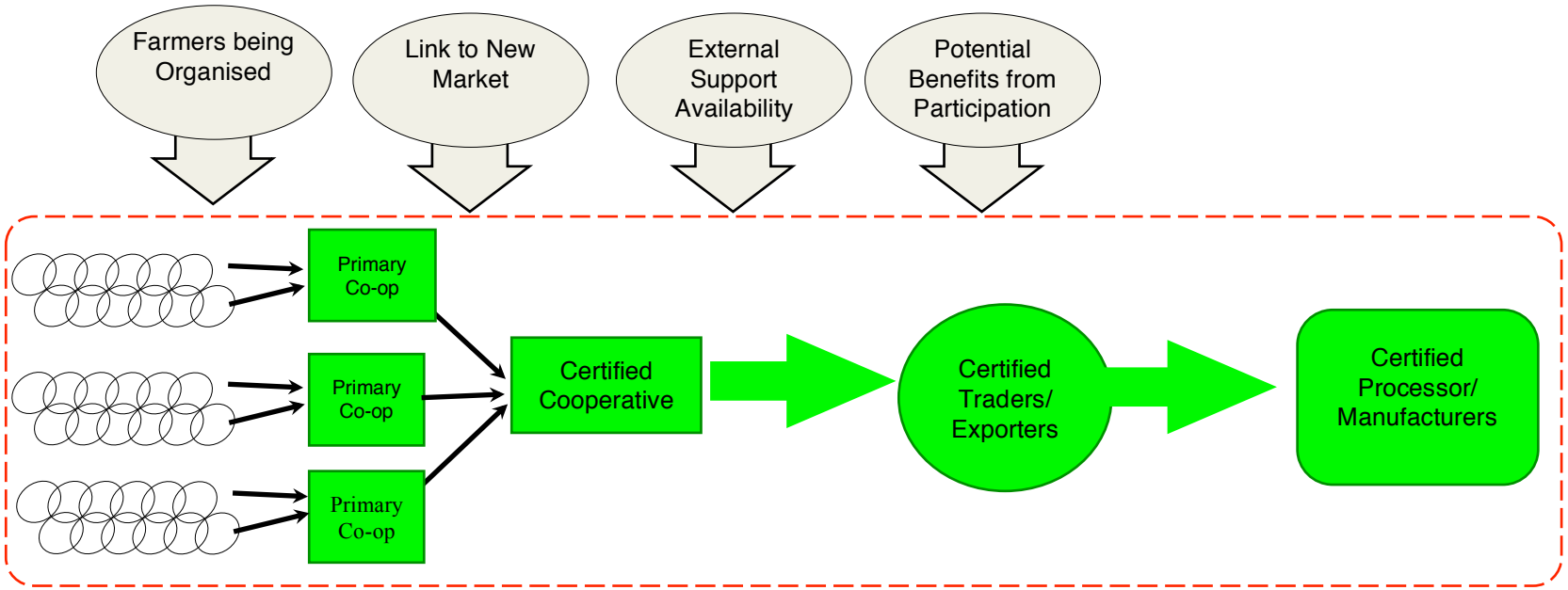


Figure 3 Enabling Conditions Analytical Framework

CHAPTER 3
RESEARCH METHODOLOGY AND FIELDWORK

3.1 Introduction

Chapter 2 reviewed and examined relevant literature on key issues concerning private voluntary certification and small-scale farmers, shaping the formulation of the research questions, informing the approach for this study and providing the basis for the selection of the methodology of this study. The purpose of this chapter is to explain the methodology analytical framework employed and how the fieldwork was undertaken. The methodology explains how this research was undertaken and how the analytical framework is used as a guide to answer the research question and interpret the findings of this study.

After the methodology is discussed, this chapter presents how the methodological approach was applied in terms of how data was collected. This section begins with the fieldwork approach in terms of the selection of the study area, how entry was negotiated, how the data was collected and the analysis techniques employed. The most important part of this data collection activity is to ensure the validity and reliability of the data. The last section provides an account of how findings were analysed and interpreted.

3.2 Methodology

3.2.1 Introduction

This section discusses the plans or guidance for data collection, analysis and interpretation of the findings. This study applied a case study approach. Following Yin's (2003) advice, this study applies a systematic procedure for carrying out a rigorous case study. The discussion on research design begins with a discussion on the formulation of the research question as providing the basis for selection of appropriate study design along with its methodological approach.

3.2.2 Research Question Formulation

There are some requirements for formulating research questions so that they are clear, focused, researchable, relevant and useful, informed by and connected to existing research or theory, feasible and of interest of the researcher (Pole and Lampard, 2002; Bryman, 2001; Holloway, 1997). As this study was generated by the researcher, systematic review of existing research and theory was conducted before formulating the specific questions. This study does not use a deductive model but inductive, therefore this study built on existing knowledge or ideas, theory or conceptual frameworks, to aid the design (Maxwell, 2005; Huberman and Miles, 2002).

Chapter 1.3 presented the research questions but it is important to note that the final formulation of the research questions took place after reviewing the state of knowledge on voluntary certification as discussed in Chapter 2. It is evident that there is no comprehensive study looking at what enabling conditions are needed for small-scale farmers, particularly for Indonesian cocoa farmers, to be included in certified networks.

The main research question of this study is thus formulated as "Why has certification not taken off in the Indonesian cocoa sector?" In other words, why do Indonesian small-scale cocoa farmers participate less in certification schemes as compared to cocoa farmers in other parts of the world and farmers in other commodity sectors. Meanwhile the sub-questions are divided into four headings:

1. Farmers being Organized:
    - What is the history and feasibility of forming groups or co-operatives in Indonesia, particularly in the cocoa sector?
    - What is government policy towards farmer organisation and co-operatives to enable or to impede the feasibility of forming groups?
    - Apart from the policy factor, what other factors impede or enable cooperation?
2. Link to New Markets
    - What are the links between individual farmers and groups with different chain actors or players in the market?
    - What are the challenges experienced by farmers in reaching new markets?
    - Do traders have a particular role in encouraging farmers to participate in certification?
3. External support availability
    - Are there any NGOs, what kind of NGOs and projects, working within the cocoa sector that support farmers in becoming linked with new markets?
    - How do the NGOs, if available, link farmers to certification?
    - What kind of support has been provided by different levels of government?
    - What agricultural extension support is available and how far does it support efforts that might enable farmers to engage with certification schemes?
4. Potential impact to address cocoa farmer challenges
    - What are the main challenges faced by Indonesian cocoa farmers?
    - How are those challenges being addressed?
    - How are these challenges linked to potential engagement with certification schemes?

- Could the new market under certification benefit farmers?

Although this set of questions has been carefully formulated, the study is designed to be open to relevant information that is gathered in the field as the study progresses. After this formulation, the next stage is to consider how to answer this set of questions and so the next section sets out the methodology used to generate data to answer the questions.

3.2.3 Qualitative Case Study Design

Clarifying concepts and research questions can lead to a better development of research design (de Vaus, 2001). Research design is the logic that links questions of a study to data collection and thus conclusions to be drawn (Yin, 2003). This study follows this view and so the process of selecting a research design is based on the nature of the research question (Bryman, 2001; Yin, 2003; de Vaus, 2001). As discussed earlier, the questions entail the explanatory nature of "why" and "how". The study aims to investigate and understand the issues concerning why participation in certification schemes is limited in the Indonesian cocoa sector. In addition, this study focuses on more contemporary phenomena in their natural settings. Therefore, a qualitative case study approach is considered suitable to address the question of this study.

The decision to undertake a qualitative case study is based on certain particular philosophical assumptions and paradigms in social science inquiry. This relates to ontology, the nature of reality and its characteristics, and epistemology, how it is possible to find out about the world. This study embraces the view that the social world exists independently of individual subjective understanding and is accessible through

representations; that is, respondents' interpretations which are further interpreted by the researcher. In terms of its epistemology, it applies interpretivism with emphasis on understanding people's perspectives in the context of the conditions and circumstances of their lives (Ritchie and Lewis, 2003) and pragmatism as this study tends to be problem-centred. Further, the choice of qualitative data collection in this study also relates to the purpose and goals of the study, characteristics, context of the study area, availability of the resources for conducting the study and the academic background of the researcher (Ritchie and Lewis, 2003; Creswell, 2007).

In order to have a rigorous case study, Yin (2003) advocates that it has to follow systematic procedures of a case study design. This covers the logic of design, data collection techniques and approaches to data analysis. There are four main concerns in delivering on quality in a case study: construct validity, internal and external validity and reliability. Construct validity refers to establishing correct operational measures taken particularly in the data collection process and reporting the findings. The researcher ought to report if any changes were made between the original objectives and actual data collection so that validity is maintained. In order to increase construct validity of a case design, Yin proposes three steps, firstly to use multiple sources of evidence. This refers to data triangulation in which information is based on several different sources to ensure confirmation or corroboration of evidence. Secondly this can be done by building a chain of evidence, managing different sources of evidence and maintaining linkages between particular research questions, specific data, tools deployed and conclusion drawn. As a case study involves a back and forth process,

building a chain of evidence is essential. The third step is by having the draft report reviewed to get more insight.

Internal and external validity are concerned with making correct conclusions regarding whether a particular event leads to another event or whether it is caused by a third factor. Further, internal validity is concerned with making inferences in terms of whether the inferences are based on evidence, correct and rival explanation and possibilities have been considered. Yin (2003) suggests applying pattern matching, a method that enables data to be examined to look for similar patterns of evidence in cases. Meanwhile external validity refers to ensuring that findings are generalizable beyond the cases studied. Generalisability here refers to analytical generalisation, a particular set of results referring not to a wider population, but to a broader theory. This generalised theory can be tested to other cases whether or not findings can be replicated.

Reliability refers to ensuring that procedures undertaken in a case study would result in the same findings and conclusions when it is undertaken by another investigator. The goal of reliability is to minimise errors and biases in a study. Therefore, procedures and operational steps undertaken in a case study ought to be well documented.

In designing a case study, in terms of how many cases, single or multiple cases can be used (Yin, 2003; de Vaus, 2001; Creswell, 2007). In line with this idea, this study purposefully selected three different cocoa value chain cases to generate different

perspectives and enrich findings on the issues in the Indonesian cocoa sector. The three different value chain cases are: conventional, fermented, certified cocoa beans chains.

3.3 Fieldwork and Analysis

3.3.1 Introduction

Having drawn the design of the study in the earlier section, this section discusses methodology, fieldwork and how the data was analysed. This section begins with the fieldwork approach in terms of selection of study areas, negotiating entry, how the data was collected and finally presents analysis techniques. The most important part of this data collection activity is to ensure the validity and reliability of the data.

3.3.2 Research Setting, Population and Sampling

As this study entails elements of comparative and qualitative data, when it comes to research setting and population, it embeds processes of identification and comparison (Ritchie and Lewis, 2003). The identification process is required to identify those who are able to provide the most relevant, comprehensive and rich information. The comparison is aimed at understanding the absence or presence of a particular phenomenon in the accounts of different groups rather than to measure differences. A similar view by de Vaus (2001) asserts that in case design study, selection of cases for the study has to be on theoretical and targeted grounds.

Following this logic, the initial stage of the research set two different categorical groups: conventional (uncertified) and certified chain groups. Further, examining the

conventional chain, it was found that there were different value chains. Therefore, sub-categories were needed to classify the groups based on the value chains to which they were attached. Table 4 shows the broad category and sub-category groups along with their different value chains.

Features	Type of Value Chains	Group
Uncertified	Conventional cocoa value chain	Unorganised
	Fermented cocoa value chain	LEMS Co-operative
Certified	Certified cocoa value chain	Amanah Co-operative

Table 4 Groups Category and Types of Value Chains

The justification for this selection of the different chain groups is the fact that they have different value chains with the absence or presence of a particular phenomenon. Particularly under certified cocoa value chain, there are more variances identified: certified cocoa value chain with or without the support of an external agency such as NGOs or Government. Further, the chain variances can be also found in conventional cocoa value chain with different types of farmer's organisation: one in the form of co-operative carrying out collective marketing or simply a farmer group without collective marketing activity. However, due to time and financial resources limitation, this study cannot cover all these chains.

As this study aims to find out what elements are present or absent in conventional and certified value chains, this study selected two co-operatives: Amanah Co-operative under certified chain and LEMS Co-operative under fermented chain. Data was also collected from farmers who were under conventional cocoa value chain and not under any co-operative or farmer groups. In sum, it is believed that the data from the different chain groups would be sufficient to provide information to answer the research question. Data was also collected from local buyers and exporters, certification issuers representative offices in Indonesia, NGOs, government agencies, cocoa research institutes and cocoa farmer association.

3.3.3 Sampling and Participants of the Study

After identification of the cases needed for the study, the next stage involved selecting participants falling into those categories. This case sampling is termed as theoretical sampling (Charmaz, 2006), focused sampling (Hakim, 2000) or purposive sampling (Ritchie and Lewis, 2003). The selection of the cases was based on the belief that the cases would illuminate examples of different enabling conditions as per the focus of this study.

For purposive sampling, this initially involved identification or mapping the actors in each value chain in the cocoa sector. As identified, there were three main cocoa value chains: conventional, fermented and certified cocoa beans value chains. These chains have different chain actors. Particularly for certified and fermented cocoa value chains, their actors are already naturally set. For the certified chain, the sample was selected among certified cocoa farmers, co-operative board under the chain, certified buyer,

NGOs working with the farmers and certifiers. Similarly for the fermented cocoa value chain, the sample was selected among fermented farmers, fermented buyers and government officials who initiated the chain.

Of particular conventional cocoa value chain, mainly conventional cocoa farmers, different sampling technique was applied. This is partly because the group illustrates the majority of the cocoa farmers in the country. Selecting wide population and minimising bias requires random sampling and snowball technique. Before applying these techniques, the first stage carried out was to determine central and non-central production areas. Central production area refers to the areas where the region or place produces cocoa in large quantities and most farmers who reside in the area have their main income from cocoa. Non-central production refers to areas with less production and farmers' main income is not always from cocoa farming. Determination of central and non-central production sites was derived from both statistics data and key informants: sub-district agricultural office and farmers. Having obtained statistics data, the next stage was to select farmers as participants of the study randomly both in central and non-central production areas.

Further, snowballing technique was applied when there was information that a particular farmer or area had a particular information to be obtained such as large farm land, better production or source of seedlings of their cocoa. This snowballing technique was further applied to track the flow of their cocoa under the chain, from a farmer to a village collector, then to sub-district or district buyer and a final big buyer who then

sells to an exporter. It has to be noted, however, that this snowballing technique is not exclusively applied to conventional chain as this technique was also applied for fermented and certified chains to track the flow of those types of beans.

The participants or source of information of this study consisted of farmers with different value chains, local collectors, intermediaries, big buyers, exporters and manufacturers, certification body issuers or certifiers, NGOs, government officials, cocoa farmer association and research institute. Overall, 92 people were interviewed, though two people dropped out, and two focus group discussions (FGDs) were held. The list of participants can be seen in Appendix 1.

3.3.4 Fieldwork Time Frame and Data Collection Methods

The data collection took place over a period of 6 months between July to December 2012. The aim of the fieldwork was to gather the data needed to answer the research questions. Fieldwork provides opportunities to gain intimate knowledge of people (Oliver, 2007). Fieldwork, where social order lays, is considered as an interactive and negotiated reality (Bechhofer and Patterson, 2001). This view thus requires technical and an appropriate attitude: preparation, negotiation, tact, patience, endurance and flexibility (Scheyvens and Storey, 2003). With regard to this research, the justification for conducting fieldwork is the fact that little data is available to answer the entailed questions. Therefore, it is imperative to collect the data from cocoa value chain actors in Indonesia.

3.3.5 Negotiating Entry into the Field

According to Maxwell (2005), a research relationship is conceptualised in terms of access and rapport. The entry negotiation involves approaching individuals and institutions. Thus effective engagement with research settings can assist a study in a number of ways (Bryman, 2004; Patton, 1990). This requires sensitivity to the hierarchy or organisational structures, provision of clear information about the purpose of the study, being clear on how the findings will be used, having a single contact with the organisation and consideration of how findings can be shared. Ritchie and Lewis (2003) argue that sharing some aspects of cultural background or experience between researchers and participants of the study is helpful in enriching researchers' understanding of participants' accounts, of the language they use, nuances and subtexts.

Following the advice, the researcher, in the middle of searching and reviewing literature, came across an international research organisation, ICRAF/World Agroforestry Centre, working with cocoa farmers in Sulawesi, Indonesia. The researcher assumed that the organisation had established a good relationship with their target groups whom it was intended to be among participants of this study as well. The researcher aimed to connect to this organisation as the researcher considered it was essential to include Sulawesi into the study and be coordinated with ICRAF. Apart from that, the researcher also aimed to get greater insights about the organisation's existing research on cocoa farming and its experience of conducting research on the field. Another motive was to be assisted financially, since this study required quite large financial resources due to transportation and operational costs. Given the motives, the

researcher applied for a research intern position within the organisation. It took six weeks to be granted an offer as a research student intern.

On starting the internship with ICRAF/World Agroforestry Centre Southeast Asian Office in Bogor, West Java, Indonesia, the researcher worked on negotiating entry to the field. The activities included the researcher contacting potential participants, particularly fixed participants, such as certification body issuers and NGOs. Secondly, the researcher delivered a seminar within the organisation about the study to receive feedback. This was a fruitful activity as participants at the meeting contributed inputs to the research in terms of providing background information about the farmers, locations and a baseline study they had just completed. Thirdly, the researcher conducted a preliminary interview with the Fairtrade Liaison Officer in the country to get field insight about implementation of the certification in the country and the cocoa sector as well.

After a month of working in the ICRAF/World Agroforestry Centre in Bogor, the researcher departed to the organisation's Field Office in Kendari, Sulawesi Tenggara Province. In this field office, it took another one week to get more detailed information from field staff about the villages from where data could be collected. The time was also used to study more about particular characteristics of the villagers. The researcher also managed to have a preliminary interview with Cocoa Sub-Station Research staff in the city and hired an assistant to help the researcher with transportation to the sites.

The researcher, with assistance from ICRAF office, spent around two months in the Province of Southeast Sulawesi for data collection. Completing data collection in the region, the researcher continued to collect data in other places: Makassar, Bali, Flores and West Sulawesi due to participants of this study being located in those places. The data collection in the later locations was conducted by the researcher alone. Tables of participants and tools for the data collection can be found in Appendix 1 and 2, meanwhile the sites where the data collected is shown by Map 2. By and large, the fieldwork lasted for 6 months.

3.3.6 In-depth Interviews

This study employed qualitative methods such as in-depth interviews, Focus Group Discussions (FGD), observation and field visits to collect the data. Mason (2002) asserts that these methods, particularly in-depth interviews and FDGs, are considered as generative techniques and involve interactions between interviewer and interviewees. Talk and texts are central to the way of knowing the social world. Further Kvale (1996) and McNamara (1996) consider these techniques as useful methods for knowing participants' experiences and getting insights into the meaning of what interviewees say.

In terms of form, this study employed a semi-structured interview as this particular interview allows focus and two-way communication. A copy of a set of questions of the semi-structured interviews can be found in Appendix 2. The advantages of using this technique are first of all that it allows inclusion of additional questions during the interview for probing details and secondly, the researcher can still control the interview

process (FAO, 1990). Probing is used to get more detail or to cross-check particular information obtained from the interviewees. The researcher also used 'interpreting questions', that is formulated questions asked as interpretations of what the respondents conveyed. These interpreting questions were used to ascertain that the researcher's understanding of an interviewee's information was what the interviewee intended to deliver. For instance, when a participant said "other than income from cocoa, we also earned from "forest". The researcher probed by asking questions "Do you mean by logging in the forest or collecting products from forest or, other activities?"

Following Yin (2003) advocating for a pilot study before conducting an actual case study, preliminary interviews were conducted to gain an initial understanding of certification in Indonesia and challenges in the cocoa sector of the country. Interviews were carried out with a Fairtrade Liaison Officer and two staff of Cacao Sub-Station Research of Sulawesi Tenggara Province. The Fairtrade Liaison Officer was asked about the current progress of Fairtrade in Indonesia, how it was introduced in the country and its implementation in the cocoa sector. Further, the questions also dealt with what were considered to be the main problems of Fairtrade adoption in the cocoa sector in the country and problems faced by farmers.

Meanwhile, questions asked to the Sub-Station Cocoa Research staff were more concerned with technical and social aspects they have been encountering during their engagement with cacao farmers. This included information about pests and diseases of cocoa and government interventions in the sector. The findings from these two

exploratory investigations provided field-experience insights and familiarisation with the subject and were taken into account in planning for further interviews with other participants through in-depth interviews and Focus Group Discussions.

In-depth interviews were carried out according to value chain cases including direct and indirect actors of the each chain. The total number of in-depth interviews carried out, 43, can be seen in the Appendix 1. During the interviews, light conversation outside of the topics was conducted to make the interview process enjoyable and not stressful to the respondents. This small humorous talk during the interview either was prompted by the interviewees or interviewer as ice-breakers to the process. The advantage of using this technique was that interviewees felt more relaxed and more open to convey what they intended to say. In this situation, however, the researcher ensured that control was in place so that interviewing process did not stray too much from the research topic which was an advantage of the use of semi-structured interview technique.

3.3.7 Focus Group Discussion

Two Focus Group Discussions (FGD) were carried out among farmers: certified farmers and conventional farmers. Data was generated through the interaction among the participants. Interaction among the participants was smooth, as they knew each other and the discussion went very well. Participants also took turns to ask questions to each other and the researcher had the advantage of conducting probing, both of the group as a whole and individuals. The researcher ensured that everyone had their say, the issues were covered and discussion did not stray from the topics. The group size of the FGDs was 7 and 12 persons each.

A disadvantage of this technique was domination of one or two persons taking over the flow of discussion. However, as the researcher identified the persons, they were asked in a very polite way to give a chance to others. It was a careful approach so that the dominant persons did not feel abandoned and still felt important within the groups.

3.3.8 Ethical Issues

In terms of ethics, informed consent for participation from participants must be obtained before proceeding with the study. A researcher provides participants with information about the researcher, the purpose of the study, how data will be used, what kind of participation is required from them, how much time will be needed and assurance that participation in the study is voluntary as advised by Holloway (1997).

Anonymity means the identity of those taking part not being known beyond the researcher, meanwhile confidentiality refers to the avoidance of attribution of comments in reports or presentations to identified participants. Both direct and indirect attribution must be avoided. This study also ensured that the principles of protecting participants and researcher from harm were in place and in line with the University Ethics guidelines.

As social science research, particularly when it involves fieldwork, engaging with participants' private lives, ethical consideration becomes an important element of a study. A researcher is responsible to protect participants from harm or risk and

herself/himself during the data collection according to ethical guidelines and rules (Holloway, 1997; Oliver, 1997). In this particular study, an Ethical Guide from the University of Birmingham was used as a guideline to ensure the study was carried out ethically.

Ethics also concern ensuring that the participants of the study take part in the study on a voluntary basis and are fully aware of their right to withdraw at any stage of the process. Participants were assured about providing information requested by the researcher without being accompanied by any threat or inducement. Securing informed consent before beginning the extraction of the data ensures that participants are aware of the benefits of the research and risk they might face during the data collection (Holloway, 1997).

Bearing in mind the guidelines, before any interviews and FGDs were carried out, the researcher explained the nature of the study to participants. This process ensured that the participants gave out information willingly and voluntarily. The approvals were provided in the form of their signatures or verbal approval in case participants were illiterate or having difficulties in writing signature. This process also ensured that the participants had the right not to answer any question asked by the researcher and withdraw from the interview or FGDs without hesitation for whatever reasons they had.

Further, it was also ensured that participants gave permission for the information to be used in the study. Usually, when it came to this consent question, some participants

paused before answering directly. They were between wanting to explicitly agree and thinking, particularly about what materials or information to provide to the researcher. This is understandable as they did not know exactly what the information they would like to share. To address this, the researcher offered the participants to postpone agreement on this matter and explained that we could come to this discussion again after the completion of the interview or FGD. The researcher did not want them to make any decision without clarity. Although it was pending, at the end of the interviews or FGDs, when asked again about this, participants agreed on giving permission that the information shared could be used in this study.

As Creswell (2007) points out, confidentiality and anonymity of the participants must be maintained. In this fieldwork, participants were informed about how the information would be disclosed and stored, with measures taken to ensure there is no unauthorised access. In this study, participants were ensured anonymity so that participants could not be identified in any publication and dissemination of the researcher's work. The researcher used pseudonyms as suggested by Holloway (1997) and ensured that there is no resemblance to the real name and other identities that would be easily identified to the participants. Although this study is considered to be low risk with regard to the potential harm it could cause to participants, anonymity is maintained.

Culturally, however, the researcher encountered that the participants enjoyed giving information and often interspersed the conversation with humorous conversation. In many cases it took more than one hour to complete an interview. In many cases even,

despite that the researcher politely refused to be offered any drink, participants insisted on serving at least a glass of tea or drinking water. In sum, participants, particularly farmers, were generally enthusiastic to contribute to the study.

3.3.9 Risks and Opportunities

The specific risks and opportunities encountered by the researcher during the fieldwork are discussed here. According to Lee-Treweek & Linkogle (2000) risks in research refer to any potential harm, hazard or exposure to danger of both researcher and the researched, the risks present when fieldwork is being carried out. Meanwhile, opportunities refer to the positive factors enabling the data collection process to go smoothly.

Participants of this study were located in different places and half were in remote areas, not easily accessible as the roads were not paved. The researcher was assisted by an assistant with his motorbike to transport the researcher to the participants' sites. The hardest part was reaching places where roads were not asphalted and when it was raining. This caused the roads to be slippery and only in few seconds a careless drive could have led to the researcher and the assistant to a serious accident. Although there was an accident where the bike fell down due to the road being slippery, it was still minor and bearable. On rainy days, rain could fall the whole day, bridges could be swept away and it was impossible to cross rivers. This also occurred once on our trip but as the villagers worked together fixing the bridge, we could pass the river and continue the work. In order to minimise such risks, the researcher and the assistant agreed to ride slowly and put safety first.

3.3.10 Hostility

Most participants, particularly cocoa farmers and government officials, were very cooperative in being interviewed. Local collectors and traders, however, showed a reluctant response to being interviewed as presumably there was an existing assumption from outsiders that they were bad people as intermediaries, they profited at the expense of poor farmers. This was shown and expressed by two local collectors and two traders. Although at the beginning they showed a hostile attitude, after the researcher convinced them that the interview was purely part of a study, they continued. This caused an awkward and uneasy starting up. However, as the researcher tried to be on their side, eventually they engaged in friendly conversation. Further, there was also an assumption that the researcher might come from business competitors and be trying to dig for information about their business. This taught the researcher to reiterate the aim of the study and embrace the points from their perspectives.

3.3.11 Being Indonesian and Empathetic

The advantage of carrying out the fieldwork in Indonesia, for the researcher, is the fact that the researcher is Indonesian too. This provided many advantages to the process of data collection. First of all is the advantage of language. Indonesians are mostly bi-lingual or even speak more than two languages. Their main language is usually the mother or native language where they come from, then Indonesian Language or Bahasa Indonesia as the national language and the other mostly depends on the surrounding neighbour's language where they live. All the participants spoke Bahasa Indonesian although with different dialects. As the researcher is used to being exposed to different

dialects, it was found that understanding the dialect and implicit meanings from the conversation was quite possible. The researcher used probing or rephrasing questions technique in case the point conveyed was not clear to the researcher.

The other advantage was that there was no interruption, in contrast to using a translator, so that the interviews mostly went smoothly and flowed naturally. The only interruption was the explanation or detailing of particular abbreviation or specific terms which were so familiar to the interviewees but not to the researcher. But overall, due to the sharing of a common language, the interviews mostly went smoothly.

The other advantage was that as we shared a common national history, the researcher quickly grasped the points when the participants referred to a particular period of a time. Further, most Indonesians are fond of sharing their stories and even sometimes are considered talkative. But the enjoyable conversations took place when it was interspersed with humorous talk, making the participants relaxed and the conversations flowing.

3.4 Analysis and Interpretation

Having given accounts of how data was collected for the study, the plan or guide for analysis and interpretation of the data is discussed. In order to have a robust analysis and interpretation of case study data, the following steps were undertaken. Raw data in the form of interview and FGD records and notes, was gathered and transcribed, and then sorted in date and type of participants order. Initial themes or concepts were then

identified. This included labelling and tagging, summarising or synthesising the data, identifying elements and dimensions, refining categories and classifying data. For example, the variable of 'farmers being organised' in the Enabling Condition Analytical Framework is broken down into four variables of feasibility to form a group: setting up and running the group/co-operative, linkage to certified market, availability of support and potential benefits from participation. These main themes can be broken down into small sub-themes as shown in Table 3 in Section 2.5.1 Farmer being Organised: List of Challenges Faced by Small-scale Farmers in line with the Enabling Conditions Analytical Framework (Figure 3).

Further, this study establishes typology, detects patterns, (associative analysis and identification of clustering answering what questions), develops explanations (answering how and why questions) and seeks applications to wider theory or policy strategies was carried out.

3.5 Data Preparation and Analytical Technique

Data preparation and analytical technique are two crucial stages in this research. Data from the interviews and FGDs were recorded in audio format files and notes were taken as well during the interviews. Transcribing the data was found to be a slow and tedious task. While listening to the recorded interviews, the researcher wrote up the transcripts and also compared these to the notes and ensured that the messages were what interviewees intended to convey. In this data management stage, raw data was reviewed, labelled, sorted and synthesised. Meanwhile, during the stage of the descriptive account, the researcher made use of the synthesised data to identify key dimensions and develop

classification and typologies. The classifications are those identified as the enabling conditions/variables as charted in Figure 3 (the analytical framework).

The analysis approach used in this study applied pattern matching, explanation building and cross-case analysis as proposed by Yin (2003) for case study design. Pattern matching is a strategy to compare patterns among findings in terms of what salient and absent variables there are within the cases studied. Meanwhile explanation building is a method to analyse the cases by building the case from the data obtained. After examination of patterns among the cases and building the cases, cross-analysis was applied to build up themes that have emerged from the cases. The enabling conditions were used as variables to examine the differences among the cases.

3.6 Summary of Research Logics

This chapter presents justification for the need to undertake fieldwork and described the process of the data collection. It was evident that the process required particular attitudes and skills in order to manage the data collection successfully. Being an Indonesian who shared common language and culture positively contributed to the data collection process. Although the process was exhausting, it also led the researcher to unexpected but interesting findings which contributed to the comparative nature of the study. Overall, the study interviewed 92 persons with 2 dropouts and 2 FGDs.

CHAPTER 4
INDONESIAN COCOA SECTOR

4.1 Introduction

This section discusses the context of the Indonesian cocoa sector, from the introduction of cocoa into the country to the cocoa boom and bust. The chapter also identifies and reviews perceived challenges of small-scale farmers in the country and how policies and private sector interventions have shaped the sector.

4.2. Indonesian Cocoa Brief Overview

Cocoa *(Theobroma cacao L.)* was introduced in Celebes, now called Sulawesi, Indonesia, in 1560 and it was recorded that it was one of the earliest centres of cocoa cultivation in the world. The success of the cocoa cultivation in the region extended to other regions in Java with a high yielding flavour type in the 18th century and it was managed mainly by plantations owned by Dutch companies. In the 1880s cocoa had become an extremely profitable crop in Java. Following this success, in 1888 there were early attempts to develop hybrids in central Java by the private plantations and the efforts bore success in 1892 when the hybrids started to produce pods which further made the cocoa plantation in the region flourish. The further development of the cocoa sector in the region was marked by the first privately funded cocoa research initiative to control cacao pest infestation in Salatiga, Central Java in 1900 (Bloomfield and Lass, 1992).

The cocoa industry in the country, however, gradually declined from 1920s due to the vast and uncontrollable spread of the pest, cocoa pod-borer *(Acrocercops cramerella L.),* affecting the crop severely (Bloomfield and Lass, 1992). The consequence was that cocoa plantations in the East Java region were abandoned in 1936. Other plantations in West Java, however, were either attacked by the pest or not seriously managed. Even after Indonesia's independence from Dutch colonial rule in 1945, the estates which were nationalised remained marginal so that the production was quite small. It was recorded that in 1930, Indonesian cocoa production only reached 1,500 tons and, due to the pest infestation and lack of serious management, the total cocoa production of the country gradually decreased and in 1980 it only produced 1,058 tons (Akiyama and Nishio, 1996).

4.3 Cocoa Boom Driving Factors

There is a small literature about the Indonesian cocoa sector and most literature suggests that the new cornerstone of Indonesian cocoa boom production to date began in the 1980s particularly in the region of Sulawesi (Li, 2002). It underwent several stages with different driving factors although almost all literature does not classify clearly the stages but characteristics and driving factors of each stage are distinctive. In this section, the expansion is classified into three stages: early stage from 1980 to 1989, developing stage from 1990 to 2000 and transition into industrialisation stage from 2000 onwards.

The first stage of Indonesian cocoa expansion occurred from 1980 to 1990 which was characterised by new massive area opening for cultivation and sharp increase in

production. According to the data of Indonesian Ministry of Agriculture (MoA) (Accessed, Dec. 2012), during 1980 to 1990 the expansion of cocoa cultivation areas reached almost 800 per cent from only 40,000 ha to 350,000 ha. This expansion was mainly driven by small-scale farmers. The driving factors behind this expansion, Jamal and Pomp (1993) speculate, were Indonesian migrant workers' initiatives who had good experience working in Malaysian cocoa estates. When they returned home to Sulawesi in the 1980s and 1990s, they practised their skills in their own farms and developed their own cocoa farming. Bloomfield and Lass (1992) and Akiyama and Nishio (2006) argue that the macro-economics of the country at that time significantly contributed to this expansion. Indonesia undertook its first major currency devaluation in 1983, around 28 per cent, and this was followed by a further devaluation of around 31 per cent in 1986. This encouraged the cultivation of export crops, particularly cocoa as the price earned increased. In addition, according to Akiyama and Nishio (2006) from the World Bank, the contributing factors were also the availability of suitable land, low production costs and a competitive market or free market. The market of this commodity, unlike other commodities in other cocoa producing countries, was not regulated by the Indonesian government. In other words, government intervention in this early stage was quite limited.

Some also suggest that the Indonesian cocoa boom was spurred by the increasing world price in the 1970s (Haque, 2004). Haque (2004) further points out that from 1980 to 1989 the world market price was quite stable and even higher than previous decade. The early 1980s was also characterised by the sharp decrease in output from West Africa,

which in terms of supply and demand, when the supply was low, the cocoa price increased.

4.4 Further Expansion

The second stage of Indonesian cocoa expansion took place from 1990 to 2000. According to Nielson (2007), citing Ruf and Yoddang (2001), the Asian financial crisis in 1998 followed by devaluation of Indonesian rupiah currency is one of the important factors. The financial crisis made the rupiah devalue against the US dollar from Rp 2.400 in July 1997 to average and even more of Rp 8.300 in September 1997 onwards. Despite this unfortunate crisis devastating the national economy, the price of agricultural commodities in local currency soared, particularly cocoa, the price of which rose from an average of Rp 8,000/kg to Rp 25,000/kg. Furthermore, Sunderlin et al. (2001) assert that during the crisis, farmers discovered that export crops were more valuable than food crops and since the cocoa price was much higher, farmers were encouraged to expand cocoa growing.

In addition, Sunderlin et al. (2001) found that the windfall gains increased new opening up of land for cocoa cultivation. Indonesian Ministry of Agriculture (MoA) data (MoA, accessed December 2012) confirms this argument as prior to the financial crisis, 5 years before, the average opening up of land for cocoa cultivation was only 9,600 ha per year meanwhile after the financial crisis the new opening up of land increased significantly into 31,800 ha per year. This made another important milestone for cocoa cultivation in Indonesia and made production steadily high. The new vast opening up of land for

cocoa, however, was not mainly due to economic factors. It was considered as a political gesture of the local community for land acquisition of the forest nearby. As the financial crisis was followed by the collapse of the repressive Suharto regime, the new clearing of land was motivated by the desire to lay claim to available land around the forest which was more possible after the collapse of the regime (Nielson, 2007).

Since 2000s Indonesia has maintained its position as the third world cocoa producer after Cote d'Ivoire and Ghana. In 2009, Indonesia produced 809,582 metric tons cocoa beans or about 13 per cent of the world cocoa, around 2 per cent below Ghana, which is a second world producer. Cocoa is cultivated throughout the archipelagos with two large production regions: Sulawesi and Sumatera (See Map 1). This tremendous growth has made cocoa the fourth most important agricultural export of the country after palm oil, rubber, and coconut (Indonesian Statistics Board, 2012). This stage is characterised by the intervention of the Government of Indonesia through introducing a tax on the cocoa sector which is further discussed in Section 4.5. Indonesia aims to be a cocoa process-based industry rather than mainly a raw cocoa bean export-based country and has opened itself for an investment on processing-plants establishment in the country (Syadullah, 2012).

4.5 Hand-offs Policy and Current Government Intervention

In the early stages of new development of the Indonesian cocoa sector, around 1970s to early 1990s, government undertook little and insignificant interventions in the cocoa sector with respect to production and marketing. This circumstance is described as

"hands-off" policy (Akiyama and Nishio, 1996; Bloomfield and Lass 1992). With regards to production, the early expansion was mostly driven by small-holder producers without any assistance from the government. Similarly, with regard to marketing, unlike other countries such as Ghana and Cote d'Ivoire, the Indonesian Government did not have a marketing board for exporting and importing cocoa, there was no price control, export quotas or exclusive trade licensing. Compared with Cote d'Ivoire, Ghana and Cameroon, the Indonesian Government did not earn revenue from cocoa taxes until 1995. This circumstance made Indonesian producers earn more than producers from other producing countries and spurred the development of cocoa sector. Akiyama and Nishio (1996) praise this "hands-off" policy as a success story of unregulated or free market. The hands-off policy has characterised this sector although the Indonesian Government began to undertake intervention in this sector through Value Added Tax (VAT), introduced on 1st April 1995, and various 'retribution' charges levied by local government in some places. Further, cocoa export tax was applied in April 2010 to all raw Indonesian cocoa (BMI, 2011).

Given the intervention through tax policy, the Indonesian Government has attempted to support this sector although it has been accused of being inefficient and ineffective. Citing Indranada (1993), Akiyama and Nishio (1996) provide examples of two government interventions through programs of Rehabilitation and Expansion of Export Crops (PRPTE) in 1980 and Plantation Development in Special Areas (P2WK) in 1990. The first program provided cocoa seeds to small-scale farmers through state and private-own plantations and the second program provided modest grants in the form of reimbursement of land preparation, planting costs and provision of seedlings in 'special

areas', areas that were difficult to reach by government service. These programs were criticised for their effectiveness, as in 1994 the total new area for cocoa cultivation only reached 62,767 ha out of its 205,296 goal.

4.6 Farmers' Typology, Challenges and Opportunity

Indonesian cocoa growers, like most farmers of producing countries, are dominated by small-scale farmers. Akiyama and Nishio (2006) point out that the engine of the cocoa boom in Indonesia is mainly due to the small-scale farmers. This view is supported by Panlibuton and Meyer (2004) in their report, estimating that in 2003, 400,000 small-scale producers accounted for 80 per cent of national production, around 460,000 metric tons (MT) cocoa beans with value approximately of $600-700 million per year. The rest of the production was derived from state and private-owned estates. The small-scale farmers cultivate cocoa on a small plot ranging from 0.5 to 1.5 hectares with bean yields ranging from 400 to 800 kg/hectare. This is still higher than cocoa yields in West Africa and other producing countries which are only harvesting on average 300 kg/ha or less.

The type of beans produced is mostly unfermented or conventional bulk beans although a small quantity of fermented beans is produced as well. Unfermented beans, beans go through fermenting process before sun-drying, are mostly produced by farmers in Sulawesi, the central source of Indonesian production, and are mostly exported. Meanwhile the fermented beans are produced in other regions, in small quantity and usually used for domestic demand. As Indonesia is the world's largest producer of unfermented bulk beans, it occupies a strong position in a global market with few

competitors such as Dominican Republic. The world demand for unfermented beans is relatively stable and price fluctuation is also rather low.

In addition, according to Panlibuton and Meyer (2004), cocoa beans are primarily used for their flavour and fat content. The flavour is used to produce cocoa powder meanwhile the fat content is used for producing cocoa butter. The Indonesian and Malaysian bean typically have little flavour and therefore the beans are used primarily for their fat content. This is particularly suitable to US large chocolate manufacturers such as Hershey's, Masterfoods or Mars. Compared with other cocoa beans from other region particularly West Africa, the beans from that region are both fat and flavour content and therefore the beans from West Africa region earn world premium price.

The main challenge faced by Indonesian cocoa beans is low quality and productivity. In 2004, Indonesian cocoa productivity reached 1.189kg/ha and it declined over time to only 820kg/ha in 2009 as shown by Figure 4 (MoA, accessed 2012). Literature suggests that the low quality has been caused by many factors: cocoa pod borer (CPB), low knowledge of farming practice and external circumstances affecting the quality. Reports identify one of the devastating challenge to farmers in Sulawesi is the infestation from the CPB causing the pods to ripen prematurely with small and flat beans therefore beans produced are low quality and inconsistent. This pest has been a significant factor in declining production in many parts of South East Asian producing countries (Bloomfield and Lass, 1992). The decline of Indonesian cocoa farmers' productivity is illustrated by Figure 4. Efforts to control CPB have met with limited success due to low

knowledge in applying the right insecticide and lack of adoption of new technology (Badcock et al., 2007; Bloomfield and Lass, 1992). According to Djajusman (2007), CPB alone has reduced total production of the country by 30 to 40 per cent.

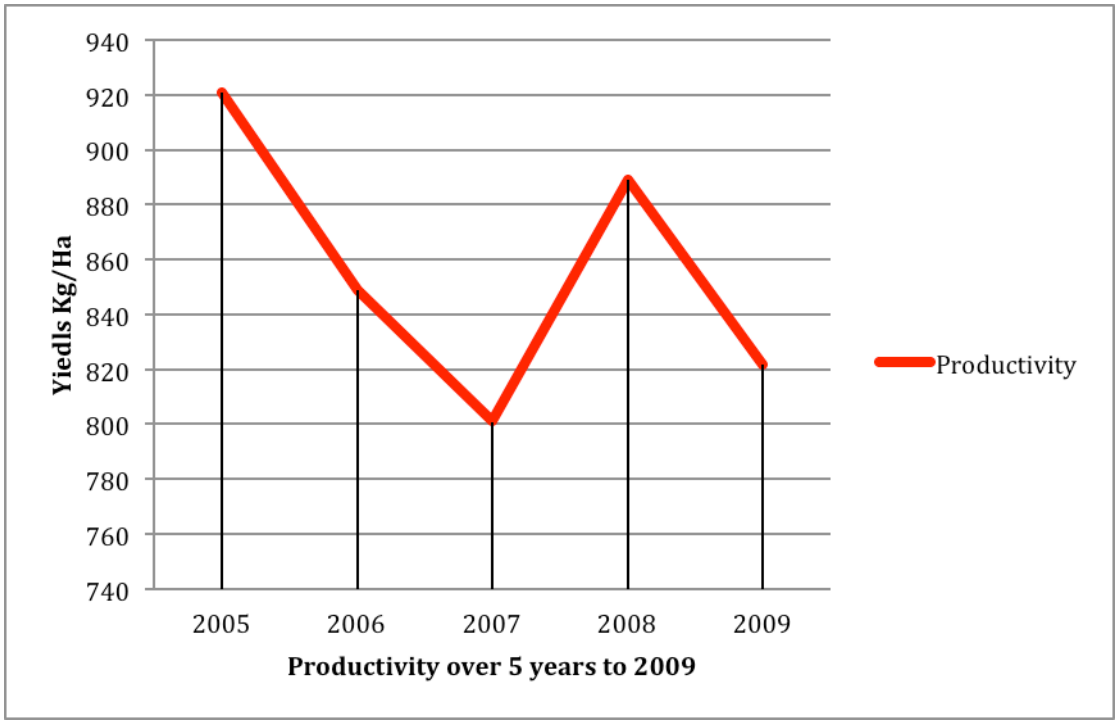


Figure 4 Declining Indonesian Cocoa Productivity

Source: Compiled from Indonesian Agriculture Department at http://aplikasi.pertanian.go.id/bdsp/newkom.asp

Limited post harvesting processing is identified as one of the challenges as well. Unlike cocoa beans from other countries which are conventionally fermented for up to five days to develop desirable flavour, according to Panlibuton and Meyer (2004) and Neilson (2007), Sulawesi beans in particular are not fermented well and have not been able to meet consistently Free Air/Fair Average Quality (FAQ) standards, a standard for unfermented beans. This issue has been exacerbated by the continuation of global buyers sourcing the beans although it is discounted for the poor quality (Neilson, 2007).

A further issue is that it is common to find that the cocoa beans are mixed with waste material to maximise volume or else good beans are mixed with poor beans by intermediaries buying the beans from farmers. The purchasing of the cocoa from farmers is usually conducted on a "cash and carry" basis in which farmers sell their beans to a large number of local collectors soon after harvest, without being adequately dried, for immediate cash (Panlibuton and Meyer, 2004). Some argue that this issue has endured due to the characteristics of the country's production which is very much volume or quantity-based rather than quality. Another reason is that there are few incentives for farmers to improve their bean quality and this has meant that the issue remains unresolved.

In spite of the challenges facing the Indonesian cocoa sector, there have been opportunities that have made the development of the cocoa sector in the country possible. The opportunities include the global demand that has been steadily high and the new opening up of markets and grinding industries in Asia and domestically. In 2000 the U.S. was a main destination of Indonesian cocoa export, exporting 136 MT followed by Malaysia 82 MT, Singapore 38 MT, Brazil 17 MT, China 15MT, Germany 10 MT, and others 28 MT. However, in 2009 as Asian chocolate industries grew, particularly Malaysia and Singapore grinding industries, this has altered the main destination of Indonesia cocoa export from USA as the first top destination to Malaysia (Panlibuton and Meyer, 2004). Furthermore, Indonesia has opened up a new investment for cocoa processing in the country and has plans to emerge from export-oriented to process-oriented in the long term. The cocoa processing plants have been built by Nestle, Archer Daniels Midland and Guan Chong Bhd. By the end of 2010, according to

BMI (2011), the composition of exported cocoa was 50:50 in which 50 per cent of production is allocated for the demand of the domestic processing plants and another 50 per cent is used for export purpose. This bean allocation has been supported by the new cocoa beans export tax policy which came into effect in April 2010 favouring domestic grinding industries. Before the introduction of this tax, 70 per cent of the cocoa production was channelled to export and 30 per cent for local cocoa processing industry.

4.7 Public and Private Interventions

The Indonesian Government's most recent intervention in the cocoa sector was the National Program on Cocoa Improvement of Production and Quality or Gerakan Peningkatan Produksi dan Mutu Kakao Nasional (GERNAS), under coordination of Agriculture Ministry and local governments in provincial and district levels. Research institutes, NGOs, Universities and private groups were also involved in this scheme. This program was carried out for 3 years from 2009 to 2012 with objectives of rehabilitating farms and planting new cocoa trees for around 450.000 ha, empowering 450,000 farmers, controlling pests and diseases and improving quality through national certification of Indonesia (SNI) (Ditjenbun, 2011).

Prior to this Indonesian Government initiative, the Cocoa Sustainability Partnership (CSP), a similar initiative aimed at the sustainability of the cocoa industry, aiming to make it more profitable and competitive. CSP was created in 2005 involving private and

public organisations for co-ordination and information sharing among stakeholders involved in the cocoa sector (Neilson, 2008).

4.8 Conclusion

Having given the background of the Indonesian cocoa sector, it is evident that unlike the West African countries, the Government of Indonesia's (GoI) intervention in the cocoa sector has been characterised by "hands-off" policies and only in 1990s did the GoI start to intervene in the sector for further expansion. A national program through GERNAS program to improve productivity and quality of cocoa ran from 2009 to 2012. Meanwhile, the characteristics of cocoa cultivation are similar to other producing countries which are dominated by small-scale farmers. In the next chapter, findings of the study are discussed in terms of how the policy intervention affects the cocoa sector in the country and which factors impede or hinder participation of small-scale cocoa farmers in the country in certified global value chains.

CHAPTER 5
ENABLING CONDITIONS FOR PV-SCL ADOPTION IN INDONESIAN COCOA SECTOR

5.1 Introduction

This chapter builds descriptive accounts of findings as the basis for analysis to answer the main research question of this study: "Why has certification within the cocoa sector in Indonesia not taken off?" Or, in other words, why do so few Indonesian small-scale cocoa farmers participate in voluntary certification schemes.

This chapter is structured into two main topics: first of all, findings are presented related to the cocoa sector in Indonesian context. This covers mapping of different cocoa value chains existing in the study areas, typology of cocoa farming, the extent of farmers' dependency on cocoa commodity, declining productivity and quality as key challenges, monoculture farming characteristics and vulnerability.

The second main topic of this chapter covers findings framed into enabling condition variables as set by the Enabling Conditions Analytical Framework (Figure 3). It discusses the nature of group formation and co-operative establishment as a main requirement for participating in a certification scheme. Here, emphasis is put on the feasibility of organising farmers through co-operatives and the dynamics of co-operative operation. Challenges confronted by farmers in forming and running groups or co-operatives are discussed. Further, it analyses the experience of external support from NGOs and government, their roles in strengthening farmers' groups and how they linked the groups to particular market chains. Under this variable, government

policies influencing the cocoa sector in the country are reviewed, particularly in terms of how they affect cocoa farmers. In addition, findings on existing markets and the emergence of new markets are set out. Potential benefits from participating in certification schemes are also considered. This includes farmers' perceptions toward price and premiums. Finally, conclusions are drawn from this chapter. These findings set a basis to answer the research question of this study, as discussed in Chapter 6.

5.2 Indonesian Small-scale Cocoa Farmers

5.2.1 Cocoa Value Chain Maps

A first step to understand cocoa sector in Indonesia is by mapping the existing value chain in the country. Investigating the cocoa chain in Indonesia, it was found that there are three different cocoa value chains. These are the conventional cocoa value chain, fermented cocoa value chain and certified cocoa value chain.

The first chain identified by this study is Conventional Cocoa Value Chain which is depicted by Figure 5. This figure is derived from tracking the chain. When farmers in villages mentioned to whom they sell their beans, the researcher followed up by interviewing the village collectors. After the interview with village collectors, they referred to big buyers or middle traders along with contacts. Following this chain, the researcher interviewed big buyers or middle traders who supplied exporters. The researcher interviewed exporters who further provided information about either domestic grinder or foreign grinder. As resources were limited, the researcher only managed to interview a domestic grinder along this chain. From this flow of information, the figure wass drawn. The further chain of the beans flowing from

grinder/processor to beverage or chocolate manufacturer and finally to supermarket and consumer is secondary information obtained from the interviews.

Conventional cocoa beans refer to particular beans which are directly dried under the sun without the process of fermenting. The Conventional Cocoa Value Chain shows that the chain involves many actors, particularly intermediaries, in the chain. In terms of selling their produce, farmers act individually rather than as a group and intermediaries exist at different levels such as village, sub-district, district to exporter. The farmers in this chain are defined as non-participants as they have never engaged with certification schemes. This chain illustrates the situation of most Indonesian cocoa small-scale farmers.

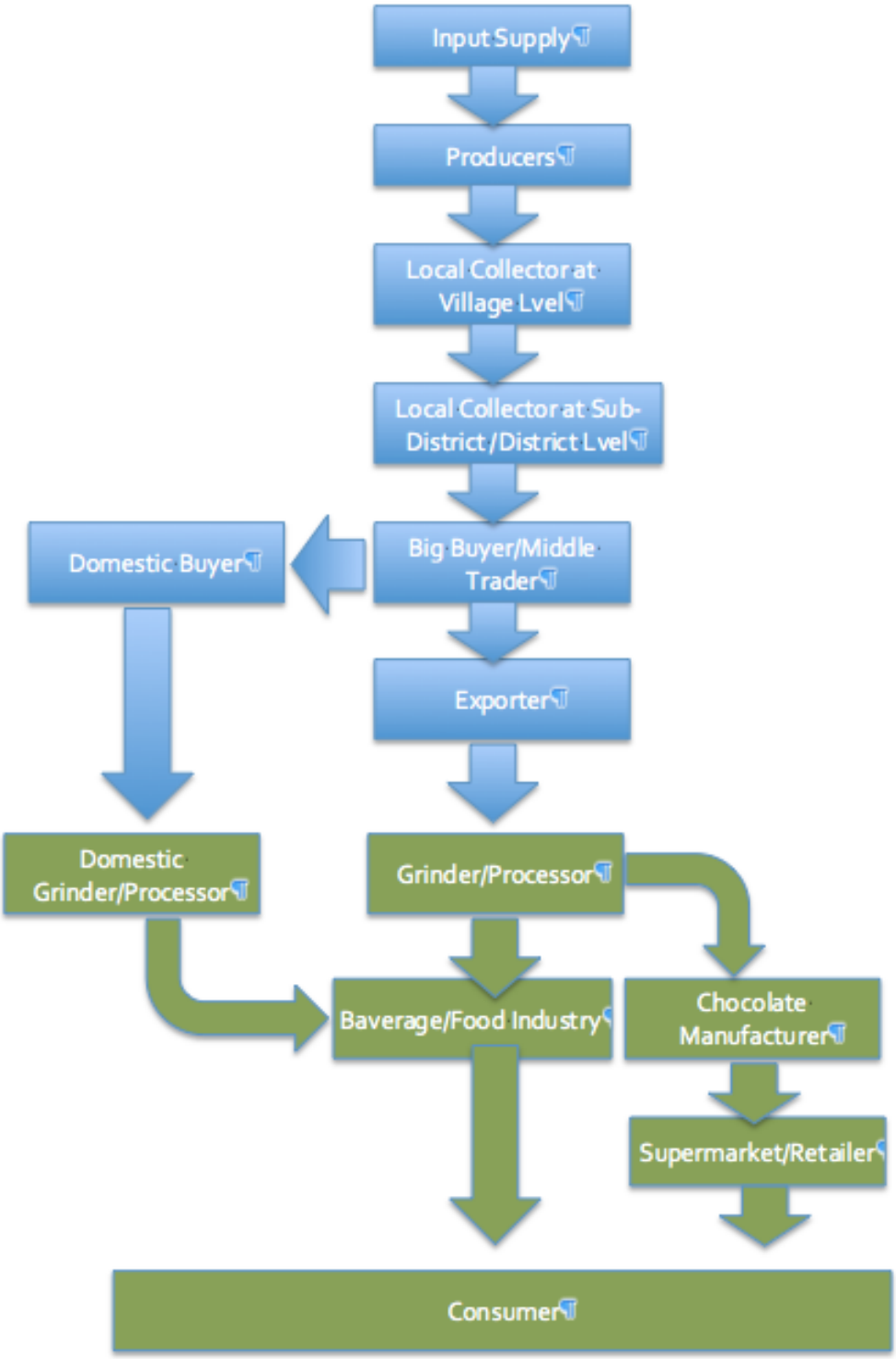


Figure 5 Conventional Cocoa Value Chain

The second chain identified in this study is the Fermented Cocoa Value Chain, as depicted by Figure 6. Similar to Figure 5, this chain is depicted from interviews with

fermented farmers, three co-operative boards and a big buyer who supplied to a domestic grinder.

Fermented bean is referred to beans which have undergone a fermenting process, normally taking 5 to 6 days, before the beans are sun dried. This fermented bean chain was initiated by the Southeast Sulawesi Provincial Government in the province in 2009. As part of the program, LEMS (Lembaga Ekonomi Masyarakat Sejahtera - Welfare Community Economy) co-operatives are set up in villages. These LEMS co-operatives act on behalf of the farmers to engage with a trader. Unlike the previous chain, this chain involves fewer actors, particularly intermediaries, and farmers are directly linked to a main buyer. Further, the difference between the farmer in this chain and the previous chain is that the farmers have to ferment their beans as a requirement to join the chain. Fermented cocoa bean is only traded in this chain.

The external actor involved in the chain is the government agency both from Government of Indonesia (GoI) or national government and the Southeast Sulawesi Provincial government. The farmers under this chain received support from both programs of GoI through GERNAS (National Program on Cocoa Improvement of Production and Quality) and provincial government such as fermenting box, beans drier, computer and training for setting up and running the co-operatives. The farmers in this chain receive more services than the farmers under the conventional cocoa value chain.

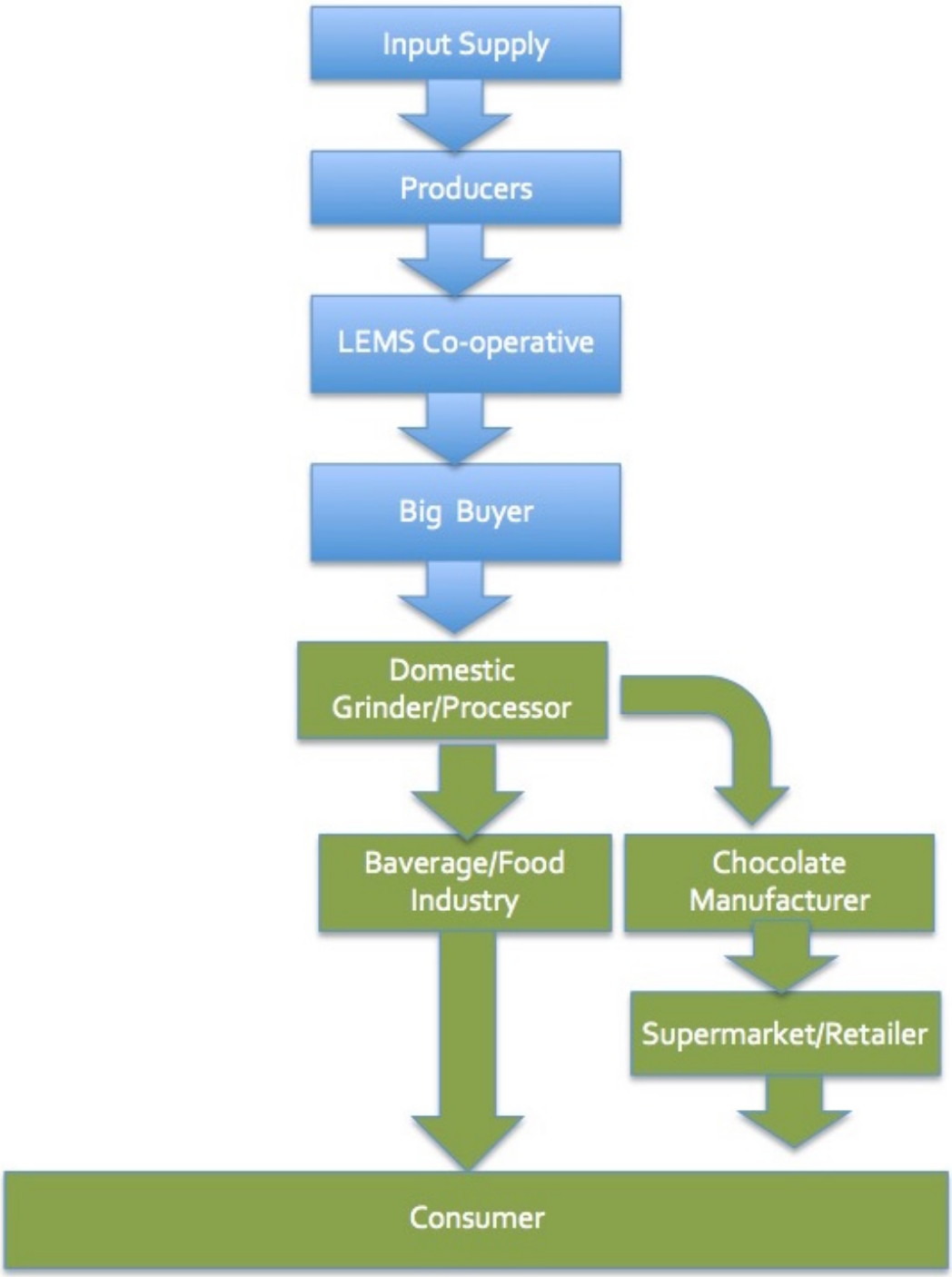


Figure 6 Fermented Cocoa Value Chain

The third chain studied is the Certified Cocoa Value Chain as depicted by Figure 7. Like other two figures, this chain is depicted based on interviews with certified farmers, a member of the co-operative board and an NGO working with the certified farmers.

This reveals that the length of the chain is the shortest in which farmers under co-operatives are directly linked with an exporter. Similar to the Fermented Cocoa Beans chain, the farmers act as a group and there is no single intermediary in the chain. They are defined as a participant of the certification. The farmers consist of many smaller groups but are unified into a single co-operative. The co-operative under this chain, Amanah Co-operative, has a single certified buyer, Armajaro. The certification of this chain is UTZ Certified.

Compared with the two previous chains, the certified farmers receive more services from government, traders and NGOs which will be discussed further in Section 5.5 External Support Availability. The three cocoa value chains are summarised in Table 5.

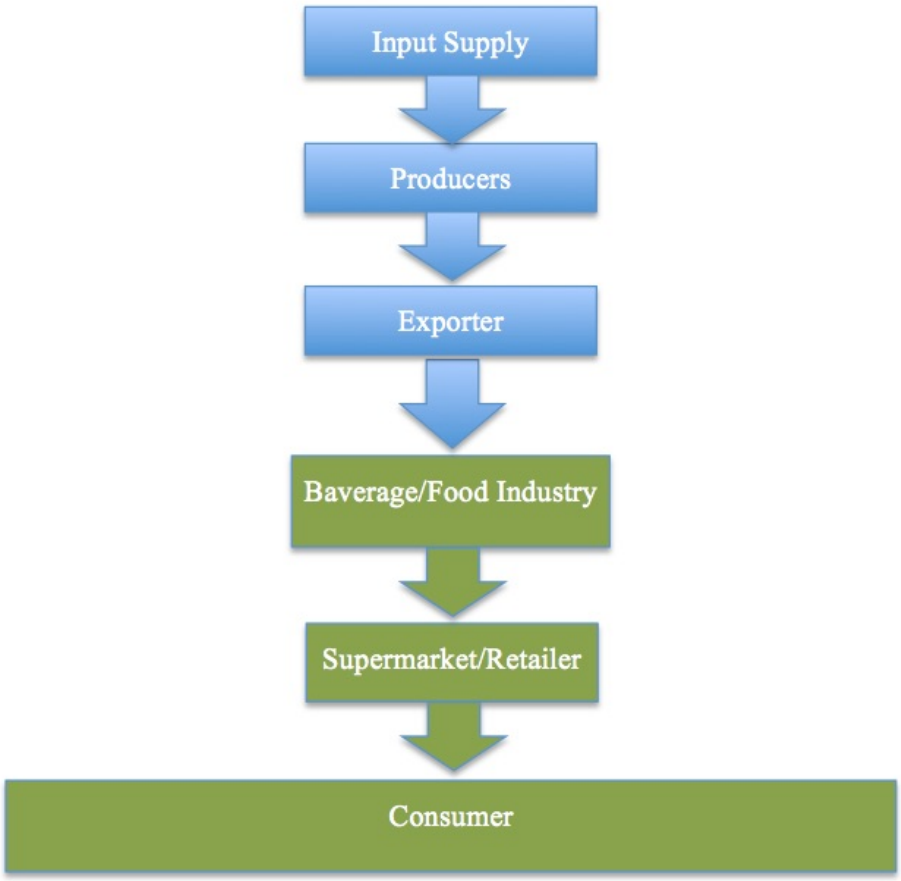


Figure 7 Certified Cocoa Value Chain

Features	Conventional Cocoa Value Chain	Fermented Cocoa Value Chain	Certified Cocoa Value Chain
Description	Most Indonesian farmers fall into this category	Around 100 to 400 members in each villages in the Southeast Sulawesi Province	Around 1,600 certified farmers participate in this chain
Organisation	Unorganised	LEMS Co-operative	Amanah Co-operative
Chain	Long	Short	Shortest
Chain actors	Unorganised farmers, village level collector, sub-district/district collector, big buyer, exporter	Organised farmers, LEMS Co-op as a collector, buyer and processor	Certified farmers and exporter
Actors support	National Government through GERNAS Program.	National Government through GERNAS Program, Provincial Government Programs, Private sector (Indonesian Bank)	National Government through GERNAS Program, NGOs (Veco Indonesia and ACDI/VOCA)
Organisational Capacity	Not available	Capacity to run co-operatives, organisational mechanism set up, all staff are voluntary base	Capacity to run co-operative, organisation mechanism set up, staffing on voluntary base with a paid staff
Business capacity	Acting individually to engage with buyer	Acting as a group to engage with buyer, carrying out collective marketing, income from collective marketing, providing inputs and micro-credit, understanding market and products required	Acting as a group to engage with buyer, carrying out collective marketing, income mainly from premiums, providing inputs and micro-credit service still on plan, understanding market and product required
Technical knowledge	Low	High	High
Financial barriers	Depends on intermediaries	Pooling members' fund through membership fee, support from government	Assisted by NGO and in partnership with buyer in form of pre-financing for certification expenses

Table 5 Different Features of Each Cocoa Value Chain

5.2.2 Cocoa Farmer Typology

All cocoa farming studied is carried out by small-scale farmers. Small-scale farmers are here referred to as a combination of Dixon et al's. (2004) and Vorley et al.'s (2012) definition as farmers with limited resources and relatively small-size of land cultivation, varying from minimally 2 ha to 5 ha and Murphy's (2012), which refers to the nature of production, including lack of access to inputs, land, technologies, seeds, capital, market, credit and information.

Most farmers studied here expressed that their size of farms for cocoa ranges from 0,5 to 5 ha. Expansion of cultivated areas is usually conducted near the forest zone. In the Southeast Sulawesi Province, cocoa cultivation and its expansion has been driven by non-native tribes such as Bugis people, Balinese and Javanese who migrated to the areas. The Bugis group migration to that area was an initiative of themselves to open up new farming land, particularly cocoa cash crop. They bought land near the forest area from native settlers in the 1980s. This was exemplified by a group, Bugis, who migrated to the areas:

> *I was from other region, South Sulawesi. We began to open the areas in 1986 in Lembah Subur (neighbour village) and we started here in 1992. We have been here for 20 years. This used to be a wild jungle and I with my son opened this land. This used to be wetland and I bought this land from Tolaki. It used to be a lot wild boar here and hundreds of them, monkey as well. We did not sleep night and day to protect our seedlings or otherwise would be eaten by the wild boar and monkey. Overtime we managed to handle them and this village has developed since (Cocoa farmer 01, 12/07/2012).*

The benefits of buying land near the forest are mainly because of its vast availability, inexpensive and fertile. In many cases, the cost of buying new land comes from

income they receive from selling their beans. In the last few years, the expansion to open new land, however, has halted as a result of declining income from cocoa farming.

Most of the Bugis group has its own particular characteristics as the farmers live in farming sites. They built their own houses in the sites and this has created new settlements which become villages after certain official processes. This circumstance, living within the farming land, is one of the driving factors for the creation of new villages.

A native tribe, Tolaki, also cultivate cocoa farming and in terms of cultivation size area, they have larger land holdings. In terms of number of cocoa farmers, migrants outnumbered the locals. Meanwhile, the other group such as Balinese or Javanese from other islands, who are under migration program, land is provided by the host Provincial Government, in this case the Southeast Provincial Government. The migration program is an over-populated Provincial program to facilitate its residents to migrate to less populated Provincial areas. Provincial government of East Java and Bali, for example, have been migrating their residents to less populated regions such as in the Southeast Sulawesi Province under a Provincial Agreement. The host Province decides where to locate the migrants in its less populated areas and hence provides 2 ha to be cultivated to each household. Compared with the Bugis group, Balinese and Javanese are usually knowledgeable on paddy cultivation as they were mostly paddy farmers in their origins. Having said that, despite their own different

skills in different crops, cocoa farming is common among different ethnic groups in the provincial region.

Farming knowledge is diverse from one farmer to another but farmers who lived in the central production area such as Lembah Subur and Iwoiminggura have more advanced knowledge. Central production area here refers to sub-districts in which cocoa is dominantly cultivated and hence the area has become a large producer in the provincial region. The fairly advanced knowledge is indicated by relatively advanced treatment of their cocoa farming than those who are not in the central production area. This is revealed by the interview:

> *In order to tackle the diseases such as zeuzera (penggerek batang) and phytophthora palmivora butl (penyakit kanker batang), we applied side grafting. We also once organised all villagers to spray the whole cocoa landscape here every Wednesday from 4 a.m. every week. Unfortunately that did not work very much and we were quite frustrated actually particularly since the poison of the insecticides and other inputs was quite dangerous actually. Nevertheless, after the side grafting, praise the Lord, it worked albeit the fruits were not that reaching maximal expectation as it was kind of learning how to grow but at least we didn't see zeuzera attacks. For phytophthora palmivora butl (penyakit kanker batang), what we often did was we open the skin of the trees, we removed black spots in there. Often we used also fungicides but because it was very strong, the fungi couldn't be solved. We also simply just cut the branch. We were aware that healing process took time after treatment (Cocoa farmer 01, 12/07/2012)*

The advanced knowledge and treatment of their cocoa crops, particularly by the Bugis group, is partly because they received many technical projects either from government or from private agencies which are shown by many demo-plots in the areas. Another explanation is knowledge sharing among them is quite intense, which is indicated by common practices from one farmer to another. The ethnic bond among them is quite strong and is used as a medium of knowledge sharing. In addition, Bugis

ethnic group has long cultivated cocoa in their place of origin and when they migrated to the new place, they carried with them their knowledge. In many interviews, they implied that they come from the South meaning that despite coming from different sub-district or villages, being Southern in this new place is considered as part of a big family.

In general, although pests and diseases are contagious, continuous common actions to control pests and diseases happen infrequently among farmers. A group of leading farmers once mobilised all farmers to tackle the pests and diseases but after months they stopped as it was not successful, the pests and diseases remained prevalent. In spite of the unsuccessful attempt, it shows that farmers are willing to cooperate when it comes to common interests. This study also revealed that there is a rising awareness among farmers that cocoa farming cannot be as it used to be but intense care should be in place in order to harvest better yields as one of the interviewee said:

> *It used to be quite easy growing cocoa. We simply cleared the land and plant them. We wait for three to four years and we started to harvest the fruits. But these days, it is getting hard and hard to maintain the health of the trees and yields. It is very expensive and yields have been declining (Cocoa farmer 02, 12/07/2012).*

This intense care, however, comes with high cost and is time-consuming. Intense care required here includes, for instance, regular fertiliser applications, controlling pests and diseases, regular cutting of protective trees and other healthy farming practices.

The other characteristic of the cocoa farmers in the study is the level of formal education they have: they have mostly graduated Junior High School and only a few

have graduated from Senior High School. The farmers have ability to read and write. The younger generation have mostly obtained a better formal education than the older generation. It was the older generation who mostly opened new cocoa farming land meanwhile the younger generation are mostly care cocoa farming.

5.2.3 Economic Dependency on Cocoa

In Sulawesi, cocoa farming has been rapidly developing in the last 25 years and the production accounts for around 80 per cent of the whole country production (See Map 1). It has been a main source of livelihood for the farmers and the main economic sector in this region. In the past 5 to 7 years, however, the perception of cocoa as a promising source of livelihood has changed. Interviews with farmers revealed this change in perception and field visits to farming areas also demonstrate that some farmers have abandoned their farms.

> *This is my farm. Its bit quite abandoned now. I don't come here often as used to. The other farmers also very much like that. Many years ago, when it was good days, we came here everyday. We even slept here. It's like guarding money on the trees but as you know it is not like that anymore (Cocoa farmer 03, 13/07/2012).*

Although it is hard to reveal a precise figure of percentage of farmers abandoning their farms and shift to other sources of livelihood, the phenomenon is in place. This finding is in line with the decline in productivity during these 5 years (See Figure 4).

Cocoa farming in this region, like in many countries, is characterised as boom and bust (Ruf and Yoddang, 2001). The boom in this region, which is indicated by rapid expansion of cultivation areas and increasing production, occurred after 1998. In

1998, Indonesia experienced severe currency devaluation, in which the value of the country's currency, Rupiah, against US dollar dropped. As cocoa earned foreign currency, this created a sudden hike in the price of cocoa earned by farmers in Rupiah. This high earning made farmers enjoy significant economic welfare from cocoa. The interviews with most farmers described this time as a golden era of cocoa. A high level of economic capacity was indicated by ability of farmers to build better houses, purchasing more land for cocoa cultivation, purchasing vehicles, sending their children to school and being able to afford pilgrimage (naik haji) to Mecca as an interviewee said:

> *It was a golden age. People buying whatever they like, building houses, motorbikes, cars, making their houses fancy. They also sent their children to school in Makassar or Java. Almost all people here go to Mecca for pilgrimage. Even children, they took for pilgrimage. As quota here already full, they enlist themselves in other provinces to be able on list and go for pilgrimage. But even now it is not as good as old days, we keep maintaining it who knows someday it will come back the good days (Cocoa farmer 04, 13/07/2014).*

In this society, pilgrimage had at least three dimensions: religious, socio-cultural and a mark of economic success or welfare. The level of pilgrimage in these communities was very high. In some villages where this data was obtained, the head of the villages acknowledged that almost villagers could afford to do the pilgrimage. The peak of this golden era of cacao was known as "Jaman Habibie" among farmers. B. J. Habibie was a short-term president replacing President of Suharto. It was at the time when the Asian financial crisis around 1998 hit the region.

Over these 5 to 7 years, however, cocoa production has gradually declined along with the decreasing quality and price. The decline in productivity is mainly due to the pest

and disease attacks and ageing of the trees. From the interviews and FGDs, cocoa farmers revealed that pests and diseases started to hit their crops in 2005. The common pests found include helopeltis (Penggerek Buah Kakao) and zeuzera (penggerek batang). Meanwhile the diseases attacking the cocoa farmers are mostly phytophthora palmivora butl., (penyakit busuk buah), phytophthora palmivora butl. (penyakit kanker batang), VSD (Vascular Streak Dieback-Oncobasidium theobromae), and Cherelle Wilt (penyakit akar, kelayuan pentil). Further, tree ageing is also one of the factors that leads to lower production of fruits. In line with this finding, the pests and diseases attacks alone have caused a decrease of 30 to 40 per cent of total production in the country (Djajusman, 2007).

This study found various efforts to overcome and control the pests and diseases by cocoa farmers. The common practice found is the use of chemical inputs or pesticides. These efforts, however, cannot tackle the persistence of the pest and disease attacks. Nevertheless, this study also found that there was lack of knowledge of the right inputs to apply and how to practise comprehensive treatment and manage healthy farming among farmers. The lack of knowledge is indicated by frequent questions arising during interviews to the researcher about what inputs should be applied. A farmer said:

> *It has been frustrating to use many chemical inputs but still the disease still there. Is there any good input do you know? (asking interviewer and interviewer replied could not answer right now). Either we spray in small quantity or big quantity, it didn't work. Shall you know good inputs, please let us know. We feel decreasing yields over the years (Cocoa farmer 10, 1/8/2012).*

Field visits to cocoa farms also demonstrated that healthy farming is not practised, for example, to bury attacked pods under ground, carry out regular cutting, maintain sanitation and harvest regularly. The pest and disease attacks along with ageing trees and unhealthy farming management by and large are the main causes of the decline of productivity and quality of cocoa.

Responding to the decline of production and quality, the Government of Indonesia along with Provincial Governments across the country, launched a program called GERNAS (Gerakan Nasional Peningkatan Produksi dan Mutu Kakao - National Movement to Improve Cacao Productivity and Quality) (Ditjenbun, 2011). In its implementation, this study revealed that impacts of GERNAS varied from one place to another, from no significance to significant improvement. In some areas, the implementation of GERNAS has not contributed to anything meanwhile in other places, farmers who conducted grafting as a part of the program found it has started to work. A farmer who feels that GERNAS program worked said:

> *Thanks God, the grafting program from GERNAS for my cocoa worked very well. It starts to learn to yield and there are a lot fruits. You can see later. I applied the grafting into my big garden as well but step by step (the interviewee showed the interviewer after the interview his cocoa grafted in which it bear fruits a lot) (Cocoa farmer 8, 28/7/2012).*

Different and slightly conflicting account expressed by another farmer:

> *Well, actually let me tell you the truth. I am a farmer group leader and I have been also being active in village. The GERNAS Program most of the time is fake. They (government officials) said this works but in fact, it didn't. I was always disliked when I said this out loudly in many meetings. But I can not hide the fact. It didn't work. Well, maybe it worked here and there but it was not because of the GERNAS program. The contractors (GERNAS Program contractors) applied the program in one or two farms but they report as if all*

> *the entire village have been supported. A lot corruption there. But this is our life, we have to work on it (Cocoa farmer 12, 1/08/2012).*

In line with this dissatisfaction, a trader expressed similar tone,

> *I have to admit that the government program is helpful but it does not solve the problem. If GERNAS only helps to provide inputs, seeds, scion for grafting, it's good but the most important is continuous mentoring, empowering farmers to the level the farmers able to be successful. And by the way, the current program a lot corruption issues there (Buyer 11, 25/07/2012).*

It is evident that impact of the program varies from one farmer to another. The ultimate goal of the program is to boost productivity from 500 − 600 kg/ha to 1,500 kg/ha. The implementation of GERNAS had just finished at the time this data was collected. In terms of increasing productivity, this study found varied yield from 500 kg/ha to 700 kg/ha and there is no any single farmer who reports to have yield 1,500 kg/ha.

In sum, economic dependency on cocoa is relatively high as it is still the main source of livelihood of most farmers despite the gradual decline in yields and persistence of pests and diseases. The implementation of GERNAS program, to some extent, has helped farmers to address some challenges they faced, that is tree ageing by conducting grafting. However, most of the farmers where this data was collected found that the program is insignificant in addressing the challenges they faced. This is demonstrated by expressing demands for shifting into new cash crops such as palm oil which is being introduced in the region by private firms at the time this study was carried out.

5.2.4 Monoculture Farming and Vulnerability

This study discovered that cocoa farmers generally depend on cocoa farming for their main income albeit they have experienced a decline in production due to pests and diseases over the last 5 years. This is also coupled with the falling of price over time during the last 3 or 4 years. As most cocoa farming in the region is monoculture, other crops are not introduced and thus this circumstance has made the cocoa farmers in the region vulnerable. This study also found that the main consideration among cocoa farmers to plan for new cash crops is the potential income gain. The choice of Piper nigrum L. (black pepper), by farmers interviewed, for example, is mainly because it always has a high economic value. However, the cash crop has been attacked with disease for the last two or three years and the lack of knowledge to address it means that it is not an option. Another cash crop that could be cultivated within the cocoa trees was patchouli (nilam). At the time of this study, most of the patchouli trees had been abandoned as the price dropped from IDR5,000 to 2,000/kg (GBP0.35 to 0.14). This price barely covered the cost of transportation to a buyer. A farmer said:

> *As you see, I plant patchouli here when last year the price was very good. This is also an additional income as cocoa yields has been decreasing and price also was not quite good. I plant it among the cocoa trees. I was happy when the patchouli grew very well but by the time I want to harvest the price dropped to 2.000/kg. It is very sad and I just abandoned there. I have been thinking to grow palm oil but I have no idea how to do so but at the other place they have started to grow (Cocoa farmer 07, 28/7/2012).*

Recently, palm oil plantation attracted cocoa farmers to make a shift but by the time of the research, it was still at the introduction stage.

Cocoa farming in the province is characterised by monoculture in which farming areas are dominantly planted by cocoa and only very few other crops integrated. In

the areas where other crops are cultivated, simple agroforestry, farmers planted coconut, bananas and piper nigrum (black pepper). These crops despite are not significant in terms of number and their contribution to income gains, this agroforestry system assisted farmer to earn alternative income. This is illustrated by an interview with a cocoa farmer:

> *Income from cacao is used for buying rice and other daily needs. We don't plant rice here. Other source of income is black pepper. However, recently a disease attacked the crop. Almost by harvesting time, all of a sudden, it withered to yellowish. Once it dies, it couldn't be helped. And all die. It started from its root and then to top and that it is. I used to plant 300 trees. It was around 1/4 ha. Surprisingly, the pepper now is IDR50.000/kg which is fantastic. But what can I do? Due to the disease, it's all gone (Cocoa Farmer 0302/07/2012).*

This circumstance, monoculture, has increased vulnerability of livelihoods particularly when cocoa bean prices are declining.

5.3 Farmers being Organised

One of important variables of enabling conditions to participate into PV-SCL as charted in Figure 3 is the establishment of farmer groups or co-operatives. As identified in the literature (Lyon, 2011; Blackmore et al., 2012), there are at least two purposes why farmer organisations or co-operatives are needed. First of all, with regard to certification, farmer group establishment is required to comply with standard. Thus, a group or co-operative can ensure implementation, monitoring of standards, audits can be carried out efficiently and benefits from certification can be shared transparently within a group. Secondly, in term of economies of scale, farmers can reduce costs by collecting high volume commodity to be viably traded and purchase inputs in bulk which can be a lot cheaper. As a group, farmers can access

credit, technical and financial assistance, receive capacity building, build networks with other groups or external assistance. A farmer group is aimed to be a socio-economic agent (Vasquez-Leon, 2010; Torgenson et al., 1997; Poole and de Frece, 2010).

Under this 'Farmer being Organised' enabling condition variable, there are a number of themes which fall into this category, such as organisational capacity, business capacity, technical knowledge and financial barrier. These themes are explored among the three different cocoa value chains. Table 5 summarised findings according to the themes of each cocoa value chain as discussed in the next section.

5.3.1 Farmers' Organisation under the Conventional Cocoa Value Chain.

This study examines feasibility of forming groups among famers under the conventional cocoa value chain which represents most Indonesian cocoa farmers. It is found that organising farmers under this chain is quite feasible as demonstrated by the fact that in one village, there were various farmer groups established, either sponsored by government or private sectors such as Kelompok GERNAS, KOPTAN, GAPOKTAN, Agfor Farmer Group and so on. As an interviewee said:

> *We have many groups here actually. Some created by government agency, AgFor project et cetera. But when GERNAS was about to be implemented, we set up a new group too as it was required to do so. In this village there were like 2 to 4 GERNAS groups. In a group usually the members were around 10 to 15 farmers (Farmer 03, 2/8/2012)*

These groups, under various projects, usually had simple structures such as chairperson, secretary, treasurer and members. Chairperson was often in charge with the whole group formation and running the group. The group runs an activity

according to project need such as gathering members to carry out training or attending meetings. However, as these groups were mostly project-based, they dissolved or were not active at all after project completion.

The characteristic of this chain is that there was no group or co-operative functioning as an economic agent for the cocoa farmers. Farmers act individually rather than as a group to engage with buyers. Forming a group in villages is found not to be that difficult. The pattern of forming groups is quite common even in informal forms. Gathering is part of life. This was expressed by interviewees and exemplified by one of this farmer below:

> *We do have groups here like GERNAS. But very often, we have a group for particular project but it dismissed due to no longer activity of the project, we also have other groups but less formal such as Mejelis Taklim (group based on religious activities) or arisan (a group of societal members which was formed informally, met often monthly, pool certain amount of money which usually fixed amount, and lend to a member. This cycle stopped when each of member get his/her chance to receive the pool) (Farmer 04, 2/8/2012).*

As there is no group functioning as an economic agent, in form of co-operative for example, as identified in the literature (Blackmore et al., 2012; Vasquez-Leon, 2010; Torgenson, Reynolds and Gray, 1997) to market their cocoa, manage information, have capacity to comply standards, produce documents, report and so on, the information is not available. In other words, this chain is characterised by the lack of farmer group or co-operative that engages with the market.

5.3.2 Farmers' Organisation under the Fermented Cocoa Value Chain

In this section, this study reveals its findings on the dynamics and process of group formation at the level of farmers under the fermented cocoa value chain to assess group formation feasibility and its capacity. The type of farmer group this study examines is in the form of co-operative. This type of group can function with regards to PV-SCL and as a socio-economic agent (Blackmore et al., 2012; Vasquez-Leon, 2010; Torgenson, Reynolds and Gray, 1997).

The co-operative under this fermented cocoa value chain is LEMS (Lembaga Ekonomi Masyarakat Sejahtera - Welfare Community Economy Agency) Co-operative. It was initiated by the Southeast Sulawesi Provincial Government. The concept of this co-operative establishment, according to the official who initiated this program:

> *…is to pool the village potentials through a co-operative to foster development progress in the level of village. It lies on the assumption that if villagers are gathered and organised, they can awaken their potentials for better development (Government official 03, 30/07/2012).*

LEMS Co-operative is expected to be an economic force from farmers to take advantage of economies of scales. This initiative to establish LEMS Co-operative is a part of efforts creating a chain for cocoa fermented beans commodity. Unlike conventional beans, fermented beans are considered to be high quality beans.

These co-operatives were set up in 45 villages under the provincial territory. Although it is expected to be established in every village in the province, only some villages have managed to establish the co-operatives. Others villages were at the introduction

stage. With regard to this study, 4 out of 35 LEMS co-operatives dealing with cocoa trading were investigated. They are LEMS co-operative of Lembah Subur, Wande, Iwoimenggura and Andomesinggo. The selection of these four LEMS Co-operatives was mainly because their focus commodity was cocoa and they had been carrying out collective marketing. The selection of the four was also based on resource availability of the researcher to only reach the four LEMS Co-operatives.

With regard to group formation, all the LEMS co-operatives were developed from many existing farmer groups or Kelompok Tani (Farmer Groups at the level of the village) or Farmer Group Association of sub-district level (Gabungan Kelompok Tani). The establishment of Farmer Groups and Association of Farmer Groups is an earlier program of the Indonesian Ministry of Agriculture. In other words, the Southeast Sulawesi Provincial Government used the existing groups to encourage the villagers or farmers to set up co-operatives in their villages. It was explained by the Government official:

> *LEMS Co-operatives have been established in 45 villages in 7 districts. Around 35 LEMS Co-operative mainly focus on cocoa commodity as mostly the dominant products in the villages. We expect that each LEMS Co-operative build network with their pair co-operatives. This year we have target to establish 50 co-operatives (Government official 03, 30/07/2012).*

Exploring mechanisms on how to run and manage the LEMS co-operatives, it was found that the mechanism was set through Article of Incorporation/Association (AD/ART). The article covers mechanisms on how to elect the board of the co-operatives, staff job descriptions, how to carry out meetings, membership, profits sharing mechanism and so on. These AD/ART are guidelines to manage the co-operative. This is explained by one of the co-operative board member,

> *The LEMS Co-operative here was formed from existing groups, farmer groups. The Provincial Government assisted us to form the groups along with paper works such as Article of Incorporation/Association (AD/ART). In this AD/ART as you can see (the interviewee handed the documents to interviewer), everything already regulated there, how to be members, electing boards, financial report and so on (Farmer 28, 13/07/2012).*

The article of incorporation also functions as one of requirements to obtain legal status as a co-operative. In the Indonesian context, a group of farmers or producers can function as a business entity when it obtains legal status as a co-operative.

In terms of day-to-day administrative work, all the co-operatives' work was carried out by a chairman, financial staff and other staff who were on voluntary basis as they were not paid. In the most active co-operative, such as LEMS Co-operative Iwoimenggura, for example, administrative work was carried out by many members voluntarily. None of the staff were paid and the most active was the chairperson of the co-operative. Each co-operative managed to produce simple reports, charts, data on members and other administrative tasks. Although electricity was an issue in the villages, they managed to do administrative work manually or sometimes with charged laptops. The most advanced co-operative had its own office which was built near the co-operative's warehouse, meanwhile other co-operatives operated through the house of the chairpersons.

Participation of members was quite high. This is indicated by members' participation in activities of the co-operatives: trading fermented beans, buying inputs from co-operative and micro credits. As one of the board chairperson of the co-operative said:

> *The LEMS Co-operative here established in 2009. Members were 109 persons. We have 3 mainly activities here: trading fermented cacao from the members, providing inputs and micro-credit. Thanks God, as you can see, we booked profit around 45 millions rupiah (GBP 3,810) last year (He showed the interviewer the article of incorporation/association, financial report and documents of the co-operative) (Farmer 27, 25/07/2012).*

Participant members of LEMS co-operatives were recruited from the village where they were established. Although they did not limit the number of its membership, the numbers of the members varied widely from one village to another, from 100 to 400 members. This suggested that a large number of farmers in a village, around 40 to 70 per cent, were participating in the co-operatives. In terms of member involvement in decision making, regular meetings with members were held in the co-operative office or chairperson's house. Through this program, the farmers were linked with other co-operatives' members in the other villages or district and stakeholders. The co-operative leaders affirmed their new relationship with other co-operatives' board as they regularly communicate through mobile phones by sharing cocoa price information.

Examining business capacity, it is found that they all have capacity to run collective marketing. Collective marketing was carried out with a buyer, PT. Core Exhibit Indonesia (CEI), which further supplied to a processor, PT. Bumi Tangerang, a domestic grinder producing chocolate powder or paste for domestic needs or export. All the co-operatives collected fermented beans from their members and delivered to PT. CEI warehouse which was located in the capital of the Province. As a main income source came from the collective marketing, however, the collective marketing

did not provide significant income to the co-operatives. This is because of the low profit margin and expensive transport cost, as one of the board said:

> *We had a contract of 15 tons this year to supply the buyer. Actually we can provide more than that. However, the problem is that the margins between conventional and fermented beans only IDR 1.000 (GBP 0,07). It used to be IDR 3.000 to 5.000 (GBP 0,21 to 0,35). If the margin ranges between those, we can provide them, but as you know, the margins are very low. Adding with transportation cost, it doesn't profit much (Farmer 27, 25/07/2012).*

Meanwhile for the side business, the co-operatives run micro-credit. The co-operatives lend money to their members with modest interest rates of around 2 per cent. Micro-credit runs very well in one co-operative but did not work well for others as demonstrated by the fact that the fund was not revolving as members could not pay back the loan. The reason behind this is that the members' income was seasonal, mostly in May and June. The members pay back mostly by harvesting time, once a year, so the fund did not revolve as expected as a member of the board said:

> *Most of our members get loans from here (The interviewee showed the interviewer a book listing all loan list). However, we run out of cash. The problem is most of the members don't pay the loans back because they don't earn the money yet. The money for their beans is still with the buyer. The buyer hasn't paid us yet. It's already July now and things stuck. Last year, when sale was good, most members paid back the loans but we are still waiting now. The need for paying this and there quite a lot now and price of things are also getting higher (Farmer 28, 28/07/2012).*

In the successful LEMS Co-operative, which was indicated by the flow of the fund, it was found that this side business activity had been running for quite some time even before the co-operative was established. This activity then was inserted into the co-operative as one of its business activities. In other words, the successful co-operative was able to run the micro credit very well because of the fact that it had long experience in running that type of business. The board member explained:

> *If you see this report (the interviewee showed the interviewer a financial report of 2011), we booked profit IDR 45 millions (GBP 3,180) last year. This comes from 3 unit of our business: cacao sales, micro-credit and input sales. However, most of this profits comes from micro-credit which runs very well here actually (Farmer 27, 25/07/2012).*

With regard to other side business offered by these co-operatives, they also provide agricultural inputs to their members which also had various degrees of success from one to another. Like the micro-credit program, one co-operative runs very well but others did not because of the inability of the members to pay back in time. The co-operative members said:

> *We bought fertiliser to our members. You know some time fertiliser rare in market or some tricky seller holding back to wait for increasing price to profit a lot. Our members cannot do anything, that is why we agree to buy fertiliser in bulk and then sell to members or otherwise if there is no fertiliser application this year, you cannot expect good yield next year (Farmer 27, 25/07/2012).*

In terms of technical know-how, capacity of the co-operatives' members to shift post-harvesting processing from simply drying the beans after harvesting to fermented beans is possible as the members are willing to learn the new knowledge. Further, in terms of production, the co-operative boards were knowledgeable about good farming practices and post harvesting management including pest and diseases control.

With regard to financial barriers, as one of the main challenges in setting up and running a co-operative, LEMS co-operatives were assisted by the Southeast Sulawesi Government and central Indonesian Bank. Indonesian Bank, through their CSR program, built warehouses for the co-operatives as a collection point before delivering to buyer's warehouse. The Provincial government supported these co-operatives by

providing assistance such as tools for trading, including scales, acidity tester and fermenting boxes. Other than governmental support, however, no support was received from NGOs by the time of this interview was carried out.

One interesting finding, of how the co-operatives source their capital fund, was by collecting membership fees from their members. In order to be a member, cocoa farmers had to pay a membership fee of IDR 1,000,000 (GBP 70) as a common capital fund which was a relatively huge amount of money among farmers. Many of them, however, were not able to pay it at once, at the time of registration. The members were allowed to pay it in instalments as long as they made a first payment as a sign of commitment to join the co-operatives. Further instalments were paid at harvest time which occurred once a year or whenever they had money. The membership fee could also be paid by beans rather than cash. This capital fund was used for micro-credit and capital for providing agricultural inputs to members.

LEMS co-operatives' strategy to collect capital fund from members to some extent addresses the lack of capital as identified in literature (Santacoloma, 2007; Liu, 2009; Blackmore et al., 2012). In addition, pooling financial resources from members generates at least two implications. First of all, it builds ownership from members to the co-operatives and secondly it demonstrates that funding can be obtained from the members themselves instead of depending on credit from commercial bank. The use of this capital from members, however, varies from one to another co-operative. It did not work well in LEMS Co-operative Iwoimenggura but runs well in LEMS Co-operative Andomesinggo. The plausible explanation of this is that the revolving fund

has been running for LEMS Andomesinggo for some time. It had the experience of how to manage micro-credit program. Meanwhile in case of LEMS Co-operative Iwoimenggura, it was their first time to run the revolving fund.

Presenting the case of LEMS co-operatives, it is discovered that building co-operatives among small-scale cocoa farmers is feasible in this chain. Organisational capacity on how to set up and run the co-operative as set through Article of Incorporation/Association (AD/ART) such as conducting regular meetings, carrying out daily management, staffing, managing bookkeeping, producing reports, collecting data of its members is considered sufficient to run the co-operatives. Business capacity varies from one LEMS Co-operative to another, however, but they all have capacity to run collective marketing. The main indicator can be used to measure the rate of business success is whether the co-operative is profitable. As shown in this study, only one out of four of the co-operatives booked quite significant profits. Further, to address capital limitation, the way all co-operatives source their capital funds suggests that despite the financial limitation of farmers, pooling financial resources from a large number of farmers can be significant as basic capital fund to run the co-operative business. The co-operatives also show that technical know-how capacity on how to ferment beans was also considered sufficient. It successfully shifts cocoa farmers' old practice from producing ordinary or conventional beans to fermented beans which are much better in terms of quality.

5.3.3 Farmers' Organisation under the Certified Cocoa Value Chain

The co-operative examined is Amanah Co-operative. Unlike the LEMS Co-operatives as discussed in earlier section which was very much supported by government,

Amanah Co-operative had been receiving support from NGOs. Farmer members of Amanah Co-operative were certified farmers under UTZ certification. This co-operative has a unique setting up process and history. Amanah Co-operative is a business wing of Wasiat, an NGO.

Wasiat is a local NGO set up by ex-staff member of ACDI/VOCA (Agricultural Cooperative Development International-Volunteers in Overseas Cooperative Assistance). The ACDI/VOCA project commenced in 2000 and completed in 2006, supporting local farmers through farmer field school approach. As the project ended, some staff initiated the formation of a local NGO, Wasiat, the abbreviation for Wahana Sukses Pertanian Terpandang (Centre of Agricultural Excellence), as one of the founders and also a cocoa farmer said,

> *I and some of my friends were recruited to be staff of ACDI/VOCA. We were all locals. Each of us also have cocoa farms either inherited from parents or planting by ourselves. As the project ended, some of us applied another job and some being civil servants. But some of us, me for example, formed a local NGO called Wasiat. We were lucky because ACDI/VOCA left some of their equipment to us and we used that to run the NGO. As we received intensive technical training from the project, after the project, some agencies or private companies often used our service and paid. No very much but it can sustained our activity (Farmer 45, 07/09/2012).*

Although Wasiat did not receive any sustained funding, the NGO kept running and training cocoa farmers as a continuation of the previous project. Later, this local NGO decided to set up a business unit wing, Amanah Co-operative, to tap business opportunities as an independent financial source to maintain its core role as an NGO. Its initial step was approaching 11 farmer groups to join forces to establish the Amanah Co-operative.

Amanah Co-operative's experience in group formation presented few difficulties given the existing trust in place between the NGO staff and the farmers who were once their target groups under ACDI/VOCA project. In other words, a good relationship had been existing among them. The participation of farmers to join the groups was driven by a motive to receive an improvement of the yield and better price for their cocoa beans. Amanah Co-operative had a large number of around 1,600 farmers in 124 small farmer groups in 6 sub-districts of Polewali Mandar, West Sulawesi. The co-operative itself is a tertiary co-operative, meaning that it was an umbrella of 4 secondary farmer groups and 124 primary small farmer groups, as explained:

> *We've got 1.600 members in 6 sub-districts which is quite large in terms of numbers and areas coverage. We did have SoP (Standard of Procedures) to run the groups. I have to admit that there were very well running groups but some still need to catch up. We keep working on having the same level of speed among groups. Actually, it's bit an achievement to gather thousand farmers and counting. But we are aware of managing members are still done manually and sometimes it takes time for gather all administrative and reports from villages but ensuring that basic administration in place, yes we are confident we are doing so (Farmer 45, 07/09/2012).*

The widespread area covered and large number of members are the significant differences between Amanah and LEMS Co-operative. LEMS Co-operative members tended to live in the same village as the location of the co-operative, meanwhile Amanah Co-operative members lived in many and distant villages.

Amanah Co-operative engagement with certification was initiated when an NGO, BWI, introduced certification to the co-operative. As a member of the board explained:

> *In 2009, Amanah Co-operative was introduced about cacao certification by BWI and we found it an interesting concept, in 2010 we started to do data collection and other preparation. Thanks God, in April 2011 we were audited and stated we complied certification standards. However, due to financial consideration, certification holder is still on buyer but we have been working as internal control to the implementation of certification standards (Farmer 45, 07/09/2012).*

Mechanism on how to run and manage co-operatives is set by Article of Incorporation and Standard of Procedures (SoP) of the organisation. Amanah managed to obtain its co-operative status and is entitled to be legally acknowledged as a business entity in Indonesian law system.

The co-operative is managed by 7 staff. Investigating staffing of the co-operative, it was revealed that none of them were paid except one who was part of the VECO implementing project staff. VECO run a project in which one staff was recruited from the co-operative's staff so that the person got paid while working both for the co-operative and VECO's project.

Given the approach by VECO Indonesia working with this co-operative staff, this also shows that costs associated with staffing, salaries and other expenses and organising members can be partly solved. As others were still on voluntary basis, the remaining challenge is how to make this co-operative profitable so it would be able to pay its

staff expenses to run the co-operative full time. The Co-operative was dynamic as a member of the board said,

> *It's not all smooth. I have to admit that organisation dynamics is quite challenging and time-consuming sometimes. Gap among team do exists. Some are speedy with business matters, but some needs to be constantly slow on their uptake and need continuous consolidation among team members (Farmer 45, 07/09/2012).*

Participation of members was demonstrated by their involvement in the co-operative collective marketing and regular meetings of members. The large amount of beans collected from members also can be seen as a token of participation.

In terms of business capacity, the co-operative managed to carry out collective marketing which was quite successful at the level of farmers. In 2011, Amanah Co-operative supplied 1,300 metric tons certified beans to a buyer which passed level of feasible to trade. It also has capacity to do negotiation with traders as one of the staff said:

> *We carry out intensive meetings with farmers. It was very intensive to meet them. We had to be one voice when it came to table negotiating with trader. We also gather information including price from other places so that we can have a better negotiation. But again, building good relation with trader also a key part to do this partnership (Farmer 46, 08/09/2012).*

At the time this data was collected, Amanah co-operative did not run a side business like LEMS Co-operative. The co-operative, however, was on the stage of developing a side-business to provide rice to members. The formation of a Credit Union was also being planned. In terms of co-operative income, it was only the premiums as source of income received from Nestle. One of its board members said:

> *Our core business is surely certified cacao trading. However, we were aware that almost all our members were cocoa farmers and don't have rice fields. Therefore, we plan to provide our members rice or otherwise they can go to intermediaries again which will give bad impact to co-operative. We also plan to provide them agricultural inputs (Farmer 45, 07/09/2012).*

Given the efforts involved in managing the large quantity of beans collected, this group was considered quite successful in this collective marketing. Unifying a large number of farmers as its members was also quite successful. At the time this data was obtained, Amanah Co-operative capital was mainly from cocoa premium and support from VECO. Compared with LEMS Co-operative, Amanah Co-operative did not yet maximise its member's potential as source of its own capital by collecting a membership fee.

In terms of technical know-how relating to standards, passing the audit for its compliance demonstrated that the co-operative has capacity to do so. As the co-operative staff said *"We received a lot training from buyer and the buyer paid the expenses actually" (Farmer 45, 07/09/2012).* In addition, capacity also obtained from previous ACDI/VOCA project for good agricultural practices and improving quality of beans.

With regard to participating in certification, a challenge is to ensure farmers keep everything recorded as an NGO staff said,

> *Keeping receipts or sales notes is not easy among farmers. This is important as this is the basis for premium distribution but you know we have to keep reminding our members about this. So it goes with notes for fertiliser purchasing and usage. We keep finding what the best way to maintain that and sometimes we used simple ways the way they are familiar with like sticking the notes on their wall or any way to make marks to count doses of fertiliser or*

> *any inputs they applied in their farms. It's a mind-set changing and that is a lot harder than how to better harvest their cocoa fruits. That, once trained, they know how to carry on but administrative or any paper work is the most challenging. It's hard but I think we do it step by step cannot be overnight (NGO 03, 07/09/2012.*

As certification requires rigid documentation, it was found that it was one of the challenges when it comes to working with small-scale farmers who were not familiar with paper work.

Apart from that, financial barrier was addressed by the assistance of VECO and buyer's pre-financing as explained by a member of the board,

> *In terms of preparation we had calculation over the expenses and reached IDR 200,000,000 (GBP 14,137). It's quite a lot money actually. We also invited auditors to audit our farms and all documents required. But as we have partnership with buyer, at the time being, the buyer who paid and would deducted on premiums we would receive later (Farmer 45, 07/09/2012).*

This case demonstrates that it is feasible to establish a co-operative among Indonesian cocoa farmers. This co-operative managed to build its co-operative capacity to participate in a certification scheme, UTZ Certified. However, the process of setting up was quite time-consuming, it took four years, and empowering the co-operative proved challenging.

To address financial barriers, the co-operatives received external support, mainly from NGOs and buyer's pre-financing. As this co-operative was at the stage of initial running, the strategy of partnership with a buyer is considered as a working approach before becoming a certification holder.

5.4 Link to New Market

This second variable under the Enabling Condition Analytical Framework is 'Link to New Market'. This section reveals findings on linking to new markets, focusing on examining existing markets, access to new markets, certified buyers, information about products required, degree of understanding about the market, access to credit or pre-financing, ability to negotiate price and contract, and permits and legal procedures for trading. Different characteristics of the markets and their implications are discussed here.

5.4.1 Market under the conventional cocoa value chain

This section examines the market system under conventional cocoa value chain. The existing conventional cocoa market system was quite complicated in terms of its chain, which is quite long. As depicted by Figure 5, the market under conventional cocoa value chain, in which farmers act individually rather than as a group, involved many players in the chain starting from local collectors, sub-district collectors, big traders and finally an exporter. In other words, there were a lot intermediaries involved to move the product from farm gate to an exporter.

Despite that long chain, it was found however that access to intermediaries faced no challenge. Intermediaries existed in all villages growing cocoa in the areas which were relatively accessible. Even in remote areas, where part of this data was obtained, buyers or intermediaries were always in place. They bought whatever quality bean there were, as expressed by one of the farmers:

> *There are a lot buyers here, either from here or from anywhere else. No problem at all. Not only the dried beans, even the fresh ones just picking up from trees, they buy them. It all depends on the farmers, if they want to sell it full dried, it's okay, if they want to sell it half dry, like only 2 or 3 full sun dry, it's okay too. The prices however varies depending on how dry the beans are (Cocoa farmer 09, 02/07/2012.*

Revealing the chain and network in this market, local buyers or intermediaries or as in South America known as *coyotes*, do exist in the village level. As identified in the literature (Taylor, 2003; Bacon, 2005; Jaffee, 2007; Lyon, 2009; Vaquez-Leon, 2010; Milford, 2014), the role of intermediaries is associated with a low price received by farmers and it exacerbates the poor condition of farmers. Investigating the role of the intermediaries here, the finding of this study, however, revealed mixed results. To some extent, it is in line with the perception as the literature suggests so. For instance, if the price of one kg beans was IDR15,000 (GBP 1,06) intermediaries would pay only IDR10,000 (GBP 0,70) to farmers. Intermediaries also bought whatever the quality of the beans there were, which discourages farmers to produce high quality beans.

Investigating deeper, however, it was found that the relationship between farmers and intermediaries was perceived as "symbiotic" by farmers despite the lower price they received. A farmer could borrow money from intermediaries, get farm inputs or any daily needs on loan. This was not merely a social relation, however, but considered as a part of business. Farmers would pay back at harvesting time with their beans. There was a consensus or oral agreement that farmers who borrowed from the intermediaries would sell their beans to the local collector with interest. For instance, if the price of the week of one kg beans was IDR15,000, the local buyer would pay

only IDR10,000. The IDR5,000 difference was considered as interest on the loans, as revealed by one of the local intermediaries:

> *I bought whatever farmers sell me, full dry, half dry, wet et cetera or otherwise I will not be able to collect as many as I can. Usually, November and December most farmers came to me to have some loans. They usually desperate for some cash. Surely I lend them. I also provide them rice, inputs or whatever they need. But fairly, they would pay it back in harvest season in April, May or June with their beans. So yes, if the price of 1 kg IDR 15,000 (GBP 1,06), I pay IDR 10,000 (GBP 0,70) (Intermediary 01, 02/07/2012.*

In line with the account of this intermediary, the other intermediary also expressed,

> *This business is bit tricky. You can win much or you lost much too. We paid them yes only IDR 10,000 (GBP 0,70) instead of IDR 15,000 (GBP 1,06) because actually when they asked for loan, the money we give them should work. They don't pay interest. Can you imagine if it takes months and months and the money doesn't work? Well, this is business somehow. Yes, we do help each other but still this is business (Intermediary 02, 02/07/2012).*

Despite farmers being aware that they paid a lot for the interest, this circumstance was perpetuated due to unavailability of credit or loans from formal institution. In other words, farmers had no option but to go with intermediaries for cash or daily needs or inputs.

Investigating further characteristics of the market in this chain, it was found that all levels of quality of beans were traded in this market. The Government of Indonesia (GoI) in order to standardise bean quality sets 5 classification of bean quality as follows:

Quality AA: 85 beans/100 gram

Quality A: 86-100 beans/100 gram

Quality B: 101 − 110 beans/100 gram

Quality C: 111-120 beans/100 gram

Quality S: More than 120 beans/100 gram

This quality classification is using method of counting beans, by how many beans are needed to reach 100 grams. For example, if it takes 85 beans, to weigh 100 gram, the beans are classified as AA. But if takes 86 to 100 beans to weight 100 grams it falls to category Quality A and so on. This method is also called 'Bean Count'.

With regard to the Government of Indonesia regulation on bean quality standards, it also sets standards for various testing such as water content, insect contamination, waste mixed with the beans, form of beans: smoky or abnormal, broken or any infected beans in the bulk. These standards aim to ensure that Indonesian export quality is improved. This standardisation was issued in 2008 and implemented in mid 2010. In its implementation, however, at the level of farmers, particularly in this chain, what was mostly tested for was only water content by determining how many days the beans were dried as discussed earlier. The local collector did not carry any Bean Count measurement albeit it is light weight and affordable to carry out as a basis to set the price paid to farmers. At the level of farmers, quality was determined by how many days beans were dried under sun rather than using a reliable tool to measure the quality of beans exactly. Most farmers under this chain experienced selling beans that had been dried for between 1 to 4 days.

When asked what factor led them to sell after 1 day rather than 4 days drying, farmers based their decisions on the need for cash, as a cocoa farmer explained,

> *If my wife really needs money to buy rice and I don't have any cash, I just sell the beans despite it's been there 1 or 2 full dry sun. Or otherwise, I will go to intermediary here which is much better to sell what I've just got. I also just sell it despite the beans don't reach 4 or 5 full dry sun. It depends on price offered by collector. Ideally, 5 full dry sun will be good as the price can be IDR 15,000 (GBP 1,06) per kilo this time. But like yesterday, I just sold my beans 2 days dry for IDR 12,000 (GBP 0,85) per kilo. My wife want to buy rice (Cocoa farmer 15, 04/07/2012).*

Information about product quality was rare among cocoa farmers under this chain. Price negotiation was carried out on the basis of how many days the beans dried rather than using bean count method. Therefore, in many cases, the price received by farmers was lower than their peer farmers under different value chains.

Compared to the other two chains, fermented and certified chains, however, price of their beans was the lowest around IDR 15,000 to 17,500 (GBP 1,06 to 1,24) per kg, meanwhile fermented beans was IDR 20,500 (GBP 1,45) per kg and certified beans ranged from IDR 22,850 to 24,000 (GBP 1,62 to 1,70) per kg. Moreover, as the quality standards were based on full-sun dry rather than bean count, the price went lower. When farmers got loan from an intermediary, the price was even lower, the low of the lowest as revealed in this study which rewarded only IDR 10,000 (GBP 0,71) per kg. It is evident that farmers under this chain did not receive better price of their products. The dissatisfaction is expressed by a farmer under the conventional chain,

> *The rise in the costs of daily needs does not match the rise in price of our products. For instance, last year the cocoa beans reached IDR 22,000 (GBP 1,56) per kg. But this year the highest is only IDR 17,500 (GBP 1,24)*

> *meanwhile at the same time the price of daily needs are rocketing. I give you an example. Last year, one kg sugar was only IDR 12,000 (GBP 0,84). This year is IDR 15,000 (GBP 1,06). Now, what happened is the food prices have risen but our cocoa price does not rise, it even goes lower (Farmer 02/07/2012).*

As farmers under this chain did not act as a group, compared with their peers under fermented and certified chains, they have less knowledge about market, organisation, business and good farming practices.

Given the characteristics of this market, it is evident that existing market under the conventional cocoa value chain is not helping farmers to earn better price for their cocoa. This study found that linkage to a new market is necessary to change the conditions which are not lifting farmers out of perpetuated condition.

5.4.2 New Market under the Fermented Cocoa Value Chain

Investigating market under the fermented cocoa value chain revealed that this new market channel is quite promising as it gives added value to the farmers. Unlike the conventional cocoa value chain with many intermediaries involved, a farmer under this fermented value chain market was linked with a buyer directly.

This linkage encouraged farmers to have better understanding of this type of market. Farmers, through co-operatives, received information about product quality required and training on how to produce fermented beans rather than simply ordinary beans. In terms of measuring quality of the fermented beans produced, farmers through co-operatives were familiar and knowledgeable on quality standards using bean count.

Moreover, they also applied the moisture tester for measuring moisture of the beans as a part of quality test, as a farmer said:

> *All LEMS Co-operative beans are sold to PT. Core. Like our LEMS Co-operative current delivery, it was 3 tons. Thanks God, I passed 100 per cent all quality testing. Bean count 100beans/100gram which is Quality A. Water content is 7 which is very good, no contaminated by insects or trash. It's pride really. I don't buy ordinary beans but only fermented beans from members (Cocoa farmers/Co-op board 39, 25/07/2012).*

The cocoa farmers interviewed revealed that in 2011 the fermentation program was successful as a large number of farmers joined the program by fermenting their beans and sold them through the co-operatives. They managed to produce the fermented beans in large quantities. This was confirmed in an interview with the main buyer, as said:

> *90 per cent of our beans sourced from LEMS Co-operative farmers in all districts in Southeast Sulawesi Province. The rest 10 per cent sourced from other farmers. Each LEMS Co-operative sell their beans to us varied from 10 to 150 tons each season (Buyer 11, 25/07/2012).*

As farmers here acted as a group and in form of co-operative which is legally permitted, their beans were traded through Co-operative collective marketing. Co-operatives traded to a buyer, PT. Core Exhibit Indonesia (CEI) which further supplied to a company, PT. Bumi Tangerang, a grinder producing chocolate powder or paste for domestic needs or export. The collected fermented beans were delivered to PT. CEI warehouse which was located in the capital of the Province.

Co-operatives had capacity to negotiate price and contract with buyers. This is indicated by opting to sell their beans to another buyer. Most of the LEMS co-operatives sell their fermented beans to PT CEI, however when they did not reach

agreement on price, LEMS co-operative was free to sell to another buyer such as in one or two cases of LEMS Iwoiminggura selling its beans to ADM as they found that ADM offered a higher price.

Engagement with buyers was facilitated by the Southeast Sulawesi Government by signing a memorandum of commitment between a buyer, PT CEI, and LEMS co-operatives. This memorandum, however, was not legally binding co-operatives to only sell their products to that buyer. LEMS co-operatives were given freedom to sell their fermented beans to any buyers offering better prices. This new market gave two benefits to farmers participating in the chain. The price earned was relatively higher and quality could be maintained and improved.

Investigating further about this potential market to bring more value added to farmers, however, it was found that the price difference between conventional or ordinary beans and fermented beans has been a main driving factor for members to participate in this chain. Farmers felt they benefited from the price difference between 1 kg ordinary and fermented beans ranged from IDR 3,000 to 5,000 (GBP 0,21 to 0,35). However, when price difference between ordinary or conventional and fermented beans dropped to only IDR 500 to 1,500 (GBP 0,03 to 0,10), farmers hesitated to participate in this chain, as illustrated by the decreased amount of fermented bean sold in this chain. As a trader said,

> *Now, ordinary or conventional cocoa and fermented beans prices were only little difference. We don't mind to pay higher for fermented but competitor also play tricky business by catching up with our price. Our farmers are so price concern, difference of only IDR 200 (GBP 0,002) could be a problem (Buyer 11, 25/07/2012).*

It is evident that new markets, fermented bean chain, provide advantages: economic benefit and increasing knowledge. This study also found that the farmers are price sensitive and economic factors or higher prices are found to be a main consideration to join this chain in which will be discussed in Section 5.6 on Potential Benefit from Participation.

5.4.3 New Market under the Certified Cocoa Value Chain

Investigating the market under this certified cocoa value chain, this chain offers more advantages than the two previous chains. Firstly, farmers act as a group, have direct access to an exporter and do not need intermediaries. Secondly, farmers have better knowledge and understanding of this type of market as they received information and training on the market and quality of product required.

Linking farmers with the certified buyers under this new chain had encouraged farmers to build their knowledge about permits and legal procedures to trade. As a form of co-operative, Amanah Co-operative has capacity to prepare all legal documents for trading and certifications compliance, as a board member said:

> *Honestly, we learned a lot through this. We keep learning. Particularly when it comes to business, that's totally different field to deal with, with papers, regulations and so on. Similarly to the documentations needed for the certification, it is a big thing but Thanks God so far we do the best we can and got certified (Farmer 45, 07/09/2012).*

With regard to its engagement with a trader, the co-operative board trained to have capacity to negotiate with buyers. A contract as a form of agreement had been signed

for both parties: the co-operative and buyer. The contract was perceived as fair by the co-operative. It was agreed that the co-operative would supply Armajaro according to the agreed amount. This figure was derived from a yearly assessment predicting how many tons farmer groups could produce in the year ahead. In the clausal contract, the co-operative managed to not restrict farmers to sell all their beans to Armajaro. The certified farmers were free to sell to other buyers whenever the other buyer offered better prices, as the NGO expressed:

> *We do understand the limitation of co-operative to deal with trader, information, network and business management. We do interventions there, including negotiation with buyer. We worked together with co-operative as a team so that we can find win-win solution both for farmers and buyers. As I mentioned earlier, in the clausal of giving choice to farmers to sell other than Armajaro, communication, co-investment so that both benefits from this partnership (NGO worker 07, 07/09/2012).*

One aspect of building partnership with a buyer is communication. Therefore, a communication mechanism was set up. It allowed constant communication between the representative of the co-operative, VECO Indonesia, the NGO who assisted the co-operative, and the buyer, Armajaro. A complaint mechanism was also set up and discussed through regular meetings. With regard to certification and premiums, it was agreed that Armajaro financed certification costs and all associated costs. These costs are later reimbursed from the premiums as the premiums from Nestle were split into two: part went to the buyer and the other portion went to the co-operative.

Further, delivering beans from gate to buyer had been always a challenge to arrange the logistics. Collecting members' beans and storing in a warehouse was labour and time-consuming and costly. Addressing this challenge, Amanah set a new strategy to deal with the transportation issue. Amanah Co-operative did not have to collect its

members' beans, store in a warehouse and delivered it to buyer like the LEMS Co-operative did. Amanah Co-operative required members to deliver themselves to the buyer. Members were organised in smaller groups, arranged the bean collection and delivered them to Armajaro's buyer station near their villages, as the NGO staff said:

> *We convinced Armajaro that establishing buying station in our district will give benefit for both: we and Armajaro. Thanks God, the manager agreed and set up there (NGO Worker 07, 07/09/2012).*

The advantage of arranging in smaller bulk was that it fits most transportation means, small to medium-size of lorries, available in the region. The groups could arrange 3 to 5 tons in one delivery which was the common way of delivering items by those lorries. In this way, the co-operative avoided financial risks that could occur in the process. Further, the co-operative managed to persuade Armajaro to set up its own buying station near the co-operative members. As delivery distance was cut by the establishment of a buying station near the farmers, the groups reduced the risk of financial loss. With regard to its relation with the buyer, Amanah Co-operative's ability to make a deal with Armajaro to build a buying station within reach of the co-operative members was an achievement.

As literature (Santacoloma, 2007; Liu, 2009; Lyon, 2009; Basso et al., 2012) identified that participating in certification is costly and farmers had financial limitation to address this challenge, Amanah Co-operative addressed this by receiving assistance of NGO and buyer's pre-financing mechanism.

5.5 External Support Availability

Literature (Liu, 2009; Blackmore et al., 2012; Doherty and Tranchel, 2005; Smith, 2011; Nelson et al., 2012; Borda-Rodriquez et al., 2015) has identified that external support should be in place in order to assist farmers to participate in certification. This 'External Support Availability' variable of Enabling Conditions Analytical Framework is discussed with regard to how external agents assisted farmers to participate in new markets.

5.5.1 Support Availability for the Conventional Cocoa Value Chain Farmer

Support available to farmers under this conventional chain was only through the GERNAS program. This program provided some inputs and technical training for rejuvenating old trees through grafting technique. This support however is not sufficient to address the challenges faced by Indonesian farmers, as identified in the literature (Panlibuton and Meyer; 2004; Badcock et al., 2007; Nielson, 2007; Damardjati, 2006), that is the decline of production and quality. This is also iterated by interviews with government officials, NGOs, certification body issuers, buyers as illustrated by an NGO staff:

> *In general, there are two challenges faced by Indonesian cocoa farmers: declining production and low quality. This is because of the two factors: technical and non-technical factors. Technical factors refer to controlling and addressing pest and diseases. Non-technical aspects refer to the condition in which farmers are not well organised (NGO Staff 05, 07/09/2012).*

Responding to this challenge, the Government of Indonesia, along with the Provincial Governments across the country, launched a program called GERNAS (Gerakan Nasional Peningkatan Produksi dan Mutu Kakao - *National Movement to Improve*

Cacao Productivity and Quality) (Ditjenbun, 2011). In its implementation, this study revealed that impacts of GERNAS varied from one place to another, from no significance to significant improvement as discussed in Section 5.2.3 Economic Dependency on Cocoa. In some areas, the implementation of GERNAS has not contributed to anything meanwhile in other places, farmers who conducted grafting as part of the program found it has started to work, bearing some fruits from the grafting. Further, the program did not intend to link farmers to a new market but was mainly for technical assistance.

Presenting this support from the Government of Indonesia, it has to be noted however that the program did not exclusively target farmers under the conventional cocoa value chain but also includes farmers under fermented and certified chains. As evident from this study, it demonstrates that farmers under the conventional value chain, despite representing the majority of farmers in the country, only received that support, GERNAS program. Particular support for building their organisation and other support was less than that received by the farmers under different chains, fermented and certified, which will be discussed in the next section.

5.5.2 Support Availability for the Fermented Cocoa Value Chain Farmer

This study revealed that farmers were able to participate in the new market, fermented cocoa value chain, due to the support of the Southeast Sulawesi Provincial Government (SSPG). This program was one of the provincial government action plans as designated in the RPJMD (Mid-Term Regional Development Plan). The SSPG initiated this project as it was aware that cacao sector was one of the important

products of the region, all managed by small-scale farmers. It understands that the farmers face challenges to improve their livelihoods. As expressed by the officer,

> *The key challenges faced by our cocoa farmers are lack of human resources and weak farmer organisation. Thus this condition is not able to address issues they have been facing such as expensive production inputs, bad farming practices, less control over pest and diseases and a limited access to market (Government Official 03, 30/07/2012).*

Responding to the concern, the SSPG supported farmer group formation by assisting farmers to set up 45 independent co-operatives in each village. This includes providing assistance to set Article of Incorporation/Association (AD/ART) as legal document to obtain status of co-operative so that the farmer or producer group can function as a business enterprise.

Further, the SSPG supported farmers to be facilitated with a buyer, a grinder and the Indonesian Bank's CSR program. The collaboration was set up in a memorandum of commitment between the parties. The buyer supported the farmers by providing training and trading equipment: scaling, moisture tester, bean counting measurement. The Bank of Indonesia CSR program assisted the construction of warehouse in the village to store beans collected from farmers before delivering to the buyer, providing fermenting boxes and book keeping training.

In terms of addressing capital barriers, financial assistance was provided by the SSPG for the co-operative start up. Thus, in order to improve farmers' income which is not fairly rewarded under the conventional cocoa value chain, the SSPG bridged farmers to a big buyer. This was confirmed by the buyer who said,

> *Our company is in partnership with Ministry of Agriculture, Agricultural Agency of the SSPG and LEMS Co-operative. The main aim is to improve our cocoa quality as required by international standards. We still face challenges though such as our farmers are lack of knowledge, low income and less knowledge on cultivation (Buyer 04, 25/7/2012).*

Based on the examination of the four LEMS co-operatives from which this data was obtained, this study found that conceptually this program was able to address the problems faced by cocoa farmers in the province. It encouraged farmers to produce high quality beans and be rewarded fairly. In doing so, it created access to farmers who produced high quality beans by facilitating the farmers to connect with a buyer, a grinder and a financial institution. As considered beneficially, farmers through LEMS Co-operatives participated and showed their enthusiasm to carry out fermentation in 2011. Not only members of the co-operatives but non-members also participated in the program. Although the fermentation project later experienced a decline in 2012 due to less price differentiation from conventional beans, this project illustrates the feasibility of organising collective marketing by the cocoa farmers in the region.

Having said that, it is fair to acknowledge as well that, as a typical government project, the project needs to provide more programs for farmers' capacity building. Along with providing tools and equipment to function as a co-operative, farmers require continuous capacity building until a point where they are able to independently run the co-operative profitably and maintain a good relationship with buyers or markets. To this end, however, the SSPG has its own limitations due to availability of its' agricultural extension agents.

5.5.3 Support Availability for the Certified Cocoa Value Chain Farmer

External support availability has been considered an equally important factor to make certification take off for small-scale farmers (Liu, 2009; Blackmore et al., 2012) as they can strengthen farmer groups and facilitate collaboration with actors along the chain, including international partners (Doherty and Tranchel, 2005; Smith, 2011; Nelson et al., 2012; Beuchelt and Zeller, 2012; Borda-Rodriquez et al., 2015).

The external support available under the certified cocoa value chain of this study is Vredeseilanden Country Office (VECO) Indonesia. VECO Indonesia was a Belgium-based NGO working on the issue of sustainable agriculture chain development, advocacy and consumer awareness. It has been working in Indonesia for 30 years.

Investigating what and how the NGO approached the cocoa farmers, there were a number of challenges faced: behaviour and mind-set changing and treating farming as a business. As VECO Indonesia staff said,

> *The first and foremost challenge to work with farmers is about changing the mind-set and behaviour of our cocoa farmers. Indonesian cocoa farmers had been used to working in very simple way: harvesting the cocoa fruits, dry and sell without necessity of taking such notes or making records of their activities. But as they engage with certification, farmers have to make notes for documentation on how many kilograms they sell their beans, at what price, what kind of fertilisers and chemical inputs they used, when they applied and so on. This is a big challenge. Making this a habit takes time (NGO Worker 05, 23/08/2012).*

This was addressed by creating a new strategy in which records from the farmers are used as a basis to pay their premiums. Although this is quite tricky, as farmers were already entitled to the premiums when his/her cocoa was sold for the premium, this approach worked. Farmers made notes and records over their activities.

A similar tone of the challenge is expressed by an NGO staff working to link farmers in certification:

> *The problem is farmers do not have very good formal education. They are not familiar with computers, making documentation of their activities very challenging, even more in terms of communicating in Bahasa Indonesia, let alone English with international certification issuers and international buyers, which is quite impossible in the meantime. Someone has to bridge them in finding international buyer. Well, it is the fact that engaging with certification is a lot hard work. Let me give you a very simple example. When we asked them about previous training on how to make simple records, they replied, what we know is parang (machete) and hoe not pen and paper. We think it is easy but not for them. And to make this as a habit? Very challenging. It takes time and continuous mentoring (NGO Worker 06, 29/08/2012).*

The second challenge is convincing farmers that cocoa farming is a business. As a business, farming is supposed to be profitable and, in achieving this, it requires financial resources, business skills and other knowledge on how to improve productivity, as explained by the NGO staff,

> *Treating farming as a business is different from treating it as a usual matter. This involves clear records on how much expense is spent on agricultural inputs, labour, other expenses and yield harvested. This also involves consideration of how to manage healthy farms over time. When it comes to certification, it even involves more effort to ensure each farm under the scheme is in compliance with standards. Introducing standards to each group requires a lot of training. Setting up an ICS team is not that challenging but ensuring that ICS team controls and monitors standard compliance is very challenging (NGO Worker 05, 23/08/2012) .*

At the level of co-operative board and staff, it was found that capacity of business management is far from easy. The other main challenge faced by the NGO is how to empower its partner Amanah Co-operative in business management as it requires particular skills and capacity to run a co-operative to be profitable and managed well. This task needs financial resources, training and skilful staff.

It is evident that empowering or mentoring farmers to participate in certification is behaviour and mind-set changing. It requires time and process for organising farmers, preparing to build a trading relationship with a trader, introducing standards and ensuring compliance. Investigating how long the NGO worked with the co-operative, it was revealed that it took 4 years, as explained:

> *Setting up ICS (Internal Control System) a mechanism alone by farmer groups, took one year for its administration and ensuring that it was implemented. It took another three years until it made first trading with an exporter. Prior to this though, we had already worked with the farmers 2 years for technical capacity building (NGO Worker 05, 23/08/2012).*

This capacity building program requires huge financial resources. VECO Indonesia received its financial source from its main VECO's headquarters and other donors for this project. Having discussed the experience of VECO Indonesia working to support the cocoa farmers co-operative, it is found that the empowering process requires time and requires a lot of resources to be in place.

With regard to human resources, obtaining skilful staff is challenging. Given that small-scale farmers mostly lack of formal education, it is quite challenging to run a modern business model of a co-operative. Thus, recruiting staff from a professional background requires financial reward, meanwhile the co-operative Amanah co-operative is still at the stage of managing to make the collective marketing profitable. To address this, VECO Indonesia built a partnership through the local NGO, Wasiat. Partnership with Wasiat as a local NGO demonstrates an effective approach to ensure

knowledge transfer is in place and thus could be sustained when VECO Indonesia ceased its project.

It is evident from this study that Amanah Co-operative was able to participate in certification and linked with international buyer with assistance of an NGO, VECO Indonesia.

5.6 Potential Benefits from Certification

5.6.1 Benefits from GERNAS Program

As identified in earlier sections: 5.3.1 Farmers' Organisation under the Conventional Cocoa Value Chain and 5.4.1 Market under the Conventional Cocoa Value Chain, cocoa farmers under this chain experienced challenges to improve their cocoa, quantity and quality, as source of main income which eventually affect their livelihoods. This is exacerbated by the characteristics of the market of the chain in which poor conditions perpetuate. In particular 5.5.1 Support Availability for Conventional Cocoa Value Chain Farmer revealed that only GERNAS Program intervened in this chain. Investigating the GERNAS program, its impact widely varied from one farmer to another, from no significance to some degree of improvement. Since this program mainly intended to improve production of cocoa, rather than enabling farmers to enter a new market chain, it did not give impacts on access to new markets, marketing knowledge, business capacity of the farmer groups or organisational management. Therefore, the discussion on potential benefit from a new market or certification is not available.

5.6.2 Potential Benefits under Fermented Cocoa Value Chain

Under this fermented cocoa value chain, the question is do farmers gain benefits? In terms of benefitting from higher price, the answer cannot be straightforward. As demonstrated by Section 5.4.2 New Market under the Fermented Cocoa Value Chain, in 2011 when the price difference between conventional and fermented beans ranged between IDR 3,000 to IDR 5,000 per kg (GBP 0,21 to 0,35), farmers considered this beneficial. However, in 2012 when the price difference dropped to only IDR 500 to IDR 1,500 (GBP 0,03 to 0,10), farmers regarded that it did not give them benefit at all. This discouraged farmers to ferment all their beans. The hesitation to ferment their beans was explained by one of farmers who fermented all his beans in 2011 but hesitated to do the same in 2012,

> *Fermenting beans took 4 to 5 days, there is work to do mixing it twice or three times until the beans were really fermented. I put it in one box to another or in a sack. You keep doing it. If I suppose to spend time in farm, but it became less because I have to care about the mixing. Let alone the smell sometimes, I don't bother that but the amount of effort to ferment it. We should be rewarded for that. If there is no price difference, why bother to do so? (Farmer 37, 13/07/2012).*

This study found that it is the potential to gain benefits from a new market that is a driving factor to participate in the chain. Confirming this finding, the researcher investigated the amount of fermented beans in 2011 and 2012 with the buyer, as said:

> *Our expectation is to collect 10,000 tons this year like last year. However, to this point, it is only 200 tons we can get from farmers. I am very sceptical that we can reach even 1,000 tons this year given that the harvest time has just passed. As I mentioned earlier, the main challenge was the price differentiation in the level of farmers which was almost insignificant (25/07/2012).*

The sharp decline in the amount of fermented beans collected by the buyer, by and large, depicts the decline in participation to the new market due to dissatisfaction over

the price offered to the farmers. Furthermore, as there was no premium available in this chain, the only financial benefit can be received by farmers was potential higher price. However, when price of their fermented beans were just about the same with conventional ones, farmers were reluctant to participate as demonstrated by the amount of fermented beans collected from 10,000 tons as expected to be only 200 tons. It is evident from the finding that higher price was a main consideration when farmers considered whether to participate in a chain. This program to improve the farmers' beans tends to fail as fermenting beans was considered to be not profitable compared with conventional beans. Presenting the evidence above, potential benefit gain is an equally important enabling factor whether farmers would like to participate in a new chain.

Apart from 'higher price' benefit, it is evident that the co-operatives have better knowledge of market. Unlike cocoa under the conventional cocoa value chain, the farmers under this fermented chain have much better knowledge about what a market needs and how to measure quality with tools rather than using full-sun dry methods which could be subject to lowering the price they are supposed to receive. Through their co-operatives, farmers were also introduced to different buyers and able to negotiate contracts which eventually increased their knowledge on marketing.

As much supported by the Southeast Sulawesi Provincial Government, buyer and Indonesian Bank CSR program, the farmers under this chain received various training from co-operative management to improving quality of their beans.

5.6.3 Potential Benefits under the Certified Cocoa Value Chain

As literature (Giovanucci and Koekoek, 2003; Jena et al., 2012; Renard, 1999; Tallontire, 2007; Bacon, 2005; Jaffee, 2007) identified various potential benefits from participating in certification, economic, social and environmental, this study reveals its findings on the case studied here. With regard to economic benefits, compared with those two earlier chains, farmers under this certification chain received higher price. As a board member of the co-operative said,

> *Compared with others, actually we are under certification bit lucky to receive the highest price. It is now IDR 22,850 (GBP 1,61). But a month ago it reached IDR 24,000 (GBP 1,70). We sold our certified beans using bean count. We all passed it well (Farmer 45, 07/09/2012).*

The highest price for the certified beans confirmed by other certified buyer saying that *"The highest certified beans is IDR 24,000 (GBP 1,70) per kg (Buyer 13, 08/08/2012).* Having said that, a particular phenomenon appeared. In the place where the certification exists, there was price competition in which the price for certified and conventional beans were neck and neck. Even the local buyer, in order to secure their supply, often set an IDR1,000 (GBP0,07) higher than the certified price in that particular place. This competition to secure a supply of beans created higher price for beans, either conventional or certified, compared to places where certification did not exist. The higher price due to the competition in the district was not exclusively enjoyed by only certified farmers, however. Conventional farmers also positively enjoyed the price competition as their beans were rewarded better. Despite that condition, certified farmers interviewed kept selling their beans to the certified buyer, in this case Armajaro, as a farmer said,

> *Even when the ordinary beans price is higher IDR1,000 (GBP0,07) than our beans, but we opt to sell to Armajaro as we have commitment to work together. But if the difference is more than IDR 1,000 (GBP0,07), God forbids,*

we will sell to the higher offered. Well, it's fair to admit that also sometimes Armajaro's price is also higher, IDR 500 to 1,000 (GBP 0,04 to 0,07) or more (Farmer 51, 10/09/2012).

Due to price competition, it resulted in no significant difference between certified and conventional beans. A certified farmer asked,

"If there is no price difference, what's the point of being certified? A lot of work to be eligible to be certified" (Farmer 52, 10/09/2012).

It is evident that farmers under this chain, like other farmers in other chains, were price sensitive. Price difference even to only IDR 500 to 1,000 (GBP 0,04 to 0,07) becomes one of the considerations on where to sell their beans. Even if when regionally, per Sulawesi Island, the certified farmers earned higher price for their beans, when they compared it with their peer farmers in the same village or district, they still questioned why the reward they received was just about the same with their peer farmers under the conventional cocoa chain who did not do the extra work.

Apart from 'higher price' as benefit received under this chain, the only irrefutable financial benefit gained from participating in the certification is premiums. Premiums were rewarded IDR 1,200 (GBP 0,08) for every 1 kg certified beans. As the buyer was a certification-holder, a part of this premium, IDR 500 (GBP 0,03) went to the buyer and the rest, IDR 700 (GBP 0,05), went to Amanah Co-operative. The member of the board explained that,

Last year we supplied 1,300 tons certified beans. We received our premium part, IDR 700 (GBP 0,05) per kg amounting to total IDR 910,000,000 (GBP 64,325). From the IDR 700 (GBP 0,05) per kg premium, we split into two: IDR 500 (GBP 0,035) went directly to farmers and IDR 200 (GBP 0,01) went to the co-operative as source of its income. So in total, IDR 650,000,000

(GBP, 45,946) goes directly to farmers and the rest, IDR 260,000,000 (GBP 18,378) goes to our co-operative (Farmer 45, 07/09/2012).

With regard to the premiums, UTZ sets in its standards:

The payment of premium is mandatory, but the amount depends on the negotiation between the buyer and the producer group (UTZ Guidance Document, accessed December 2016).

Although the direct premium received by individual farmers was quite small, around IDR 600,00 (GBP 42) if a farmer sell 1,2 tons certified beans in a year, the certified farmers were encouraged to participate as this still gave them added value. Thus, a perception was built that the more they have yields, the more premiums they would earn. Apart from the economic benefit, there was an expectation that participating in the certification would give them more benefits in the future, as a farmer said:

It's good. Not so much but that money is something to us. If we keep harvesting better, we will receive the premium better as well. Thus, we might get other benefits in the future (Farmer 52, 10/09/2012).

It is evident that participating in this certification, acting as a group, farmers have access to new market, a certified exporter, bypassing intermediary. The participation in certification has also increased farmers' knowledge about the market, products required and marketing. With the experience of carrying out collective marketing, Amanah Co-operative has increased its capacity for organisational management, audits and compliance with standard by earning status of certified.

5.7 Conclusion

This chapter presents the findings on four enabling condition variables for certification uptake in Indonesia as the basis for answering the main research question of this thesis: Why has certification within cocoa sector in Indonesia not taken off? By presenting three different cocoa value chains, conventional, fermented and certified, this study examines what present and absent variables there are in each chain.

It is evident that participating in certification requires a strong group or organisation to function as a socioeconomic agent. The case of cocoa farmers of Amanah Co-operative, and LEMS Co-operative as well, illustrate that when farmers act as a group they are able to engage with a certified buyer and benefit from economies of scales. Compared with LEMS Co-operative whose members ranged from 100 to 400 persons, Amanah Co-operative had around 1,600 members which enable the Co-operative to produce viable volumes to trade with an exporter. Participation in a new market, and certification scheme particularly, provided more opportunities to Amanah Co-operative to build its capacity as a developmental organisation and business enterprise.

From the three different cocoa value chains studied, it is seen that new markets under chains of fermented and certified enabled cocoa farmers to cut intermediaries and produce high quality beans, and were rewarded better than under conventional cocoa value chain. The farmers under the two chains, fermented and certified, have better understanding of the market, product quality and capability to negotiate price and contract.

Evidence from this study shows that availability of external support is pivotal to encourage cocoa farmers, who are limited on resources and capacity, to engage with new markets. LEMS Co-operative was supported by the Southeast Sulawesi Provincial Government and Amanah Co-operative received various support from NGOs to enable those co-operatives to access new markets. In the case of Amanah Co-operative, it took four years to prepare the co-operative to participate in the certification.

Participating in new markets, with extra work to enter the markets, is expected to gain benefit. Both members of those co-operatives enjoyed 'higher price' on their products than their peer farmers under conventional chain. However, whenever 'higher price' is not significant, farmers' participation decreases as illustrated by LEMS Co-operative. All farmers in the chains are price sensitive and financial gain is the most significant driving factor whether to participate in a new market. Of the economic benefit, premiums become irrefutable benefits to be gained by certified farmers which can be an additional source of income for farmers and their co-operative. Participating in new markets gives opportunities to farmers to increase their knowledge of markets, organisational capacity and farm production.

CHAPTER 6
WHY HAS CERTIFICATION WITHIN COCOA SECTOR IN INDONESIA NOT TAKEN OFF?

6.1 Introduction

Having presented the findings of this study in the previous chapter, Chapter 6 answers the main research question, 'why has certification not taken off within cocoa sector in Indonesia', by bringing together the evidence to identify the main reasons for the lack of certification in cocoa sector in Indonesia framed within the Enabling Conditions Analytical Framework.

6.2 Farmers being Organised

The main purpose of this question is to understand the feasibility of forming groups, identify what the enabling or impeding factors are and further look at the experience of some co-operatives in terms of how they were set up and run. This question is broken down into three sub-questions that are:

1. What is the history and feasibility of forming groups or co-operatives in Indonesia particularly in the cocoa sector?
2. What is government policy towards farmer organisation and co-operatives to enable or to impede the feasibility of forming groups?
3. Apart from the policy factor, what other factors impede or enable cooperation?

It is evident that forming a group among small-scale farmers, including cocoa farmers, in this study is feasible. This is demonstrated by the existence of various farmer groups at village level as discussed in Section 5.3 Farmers being Organised. The formation of groups, however, is mainly for implementation of projects, either projects from

government or from NGOs. When it comes to the functioning of farmer groups, in the form of a co-operative as an economic unit, however, farmer co-operatives face enormous challenges in terms of organising large numbers of members to have the product commercially viable. Evidence from Amanah Co-operative demonstrates that it has to organise thousands of members in order to collect significant bulk to trade. Amanah Co-operative in order to collect 1,300 metric tons had to organise around 1,600 farmers from 124 smaller farmer groups. This means that each individual farmer on average had to collect or sell around 812 kg. The number is important to benefit from economies of scale. A trader is willing to trade with the co-operative when it is commercially feasible.

Evidence from this study further found that forming and running farmer co-operatives is even more challenging. The study found that the co-operative business model has fundamental differences in principles, compared to individually-owned businesses. This has implications in terms of profit ownership gained from the business. The profit from an individually-owned business model is completely different from the co-operatives. Profits from an individually-owned business as source of income of the individuals can be used freely by the individuals but profits from a co-operative have to be allocated for the interest of the co-operative. The board of a co-operative would only be paid officially when the co-operative is really profitable as stated in most co-operatives' Article of Incorporation. This is demonstrated by the evidence that both co-operatives studied mostly run on voluntary basis as they cannot book significant profits to pay all staff working for the co-operatives.

In the start-up period, the question would be how key members of staff could be expected to spend their full time in the whole process of setting up and running a co-operative without earning a decent income. Further, expecting a co-operative in the start-up period to pay the key staff is hard to be realised as most farmers have limitation on getting investment and generate capital fund. Unless, the co-operative has sufficient capital fund as an investment to hire professional staff, that would be possible. A co-operative among small-scale farmers differs from a private enterprise or an individually-owned business which has more sufficient investment to pay staff and any start-up period cost. As most farmers' co-operatives lacks funds, particularly in the start-up period, the only way to pay for staff is either by receiving external support or making the co-operative profitable.

Making a co-operative profitable, as demonstrated by the evidence in this study, takes time and it is a trial and error process. The case of Amanah Co-operative took around 4 consecutive years to be able to start a trading partnership with Armajaro and then earn income from premiums. Given this finding, the consequence of this difference alone between co-operatives and individually-own business models means that different approaches of managing a co-operative as a business unit are needed.

Looking at the process of setting up and running a co-operative, if the key staff do not earn income from the co-operative, the subsequent question is for how long the key staff of a co-operative would keep voluntarily managing the co-operative while at the same time they have to earn money, as many of the staff have families to support. This study found that, therefore, the support of NGOs is important. Key staff of a co-operative can

earn income from NGO projects, being hired as field staff, for example, as illustrated by the case of Amanah co-operative.

Evidence from LEMS Co-operatives exemplified a consequence in the absence of external support supporting key individuals' income. A chairperson of one of the LEMS co-operative, at the time data was collected, became a private contractor for a project to earn an income as the co-operative could not pay him despite spending his time for almost a year to lead the co-operative. Due to this absence of earning income from the co-operative, therefore, his time spent in running the LEMS co-operative was not maximal. The other board members of the LEMS co-operative became intermediaries to earn an income by trading beans of their members on behalf of co-operative. They bought beans from the co-operative members, sold them to a big buyer with higher price as individuals and earned the profits as their incomes.

The inability of co-operatives to support their key staff is one of the most challenging factors in setting up and running a co-operative, particularly at the early stages. This condition has encouraged key staff to become intermediaries themselves but using the co-operative name. They profit on behalf of the co-operative. This is revealed by a staff of a certification body issuer,

> *Theoretically, the co-operative should be a means to empower farmers as it deals with farmer organisation, resources allocation, transparency, accountability and so on. However, in reality, this is really challenging. Our people (Indonesian farmers), when it comes to money matter, the "I" is stronger than "we". And as the certification was initiated by trader, all depends on the trader and the local buyers. They often exploit the co-operatives names to gain benefits. As the market required the certification, they just make up the "co-operatives" on behalf of the farmers (Certification body issuer 01, 15/06/2012).*

Despite this more general comment on co-operatives and its relation to certification, the question of how co-operative key staff earned income while building a co-operative is important. This is partly because the case of this study, Amanah Co-operative, revealed a strategy of "co-hiring" in which the NGO paid the key staff partially while being hired both by the NGO and the co-operative. The next question is how do other co-operatives without NGO assistance and the "co-hiring" strategy work? Probing this question, an interview with a certified buyer staff under another certification scheme, not the case of this study, affirmed this finding, said:

> *Actually the purchase from the co-operative in real terms does not meet the standards as our farmers are not yet capable of running a co-operative. The co-operative is only a name of the other form of local intermediaries business form. The local intermediaries, due to the need from certification to form a group or co-operative, they just take the names and data of farmers they used to buy their beans and put it in a co-operative form (Buyer 15, 08/09/2012).*

This finding gives two implications. First of all, external support in supporting co-operative operation particularly in the start-up period is essential as this period requires investment for staffing and other operational expenses. Secondly, in order to ensure a co-operative functions as an agent for empowerment and a business enterprise or a 'real co-operative', external support is needed to guide the co-operative and ensure participation of its members in controlling the running of the co-operative as demonstrated by the Amanah Co-operative.

Although theoretically farmer groups or co-operatives under a certification network could function as a means for farmer empowerment and thus bring real benefits to farmers, the evidence revealed that it required huge efforts to achieve this. These

findings affirm that unless a co-operative is supported by an NGO or Government, the co-operative would become another type of intermediaries business unit.

With regard to financial barrier, as identified in the literature (Santacoloma, 2007; Blackmore et al., 2012), a finding from LEMS co-operative, which is absent in Amanah Co-operative, revealed that addressing capital barrier is feasible by pooling fund resources from members. The experience of LEMS co-operative to set IDR1,000,000 (BGP 70,68) membership fee to join the co-operative demonstrates that maximising potential financial resources from members is possible. LEMS co-operative members were able to do this by putting aside a particular amount of their beans, around 2 bags, as a payment for the fee membership.

With regard to the policies toward co-operatives, the Government of Indonesia encourages the farmers to be organised by assisting them with various support such as providing tools of trade, and financial support as well as in the case of LEMS co-operative. However, when it comes to empowerment in terms of building a strong and profitable co-operative, it takes more effort than simply providing free equipment or any in-kind support.

In sum, organising farmers into groups is feasible but when it comes to function the groups as co-operatives is found challenging. LEMS and Amanah Co-operative experience illustrate various challenges as identified in the literature in terms of building organisational capacity, business capacity, technical know how and financial barriers. To some extent, the two co-operatives managed to address those challenges

and thus function as co-operatives: as an empowerment agent and in more particular as a business enterprise.

6.3 Strong Links to New Markets

This section draws on the findings on value chains in relation to the roles of buyers in encouraging farmer participation in the certified global value chain. The question is detailed by:

1. What are the links between individual farmers and groups with different chain actors or players in the market?
2. What are the challenges experienced by farmers in reaching new markets?
3. Do the traders have a particular role in encouraging farmers to participate in certification?

As evidence from this study, there are various cocoa value chains in Indonesia: conventional, fermented and certified cocoa value chains. It was found that conventional cocoa value chain has a lengthier chain than the other two chains. The implication of the long chain is that farmers earn a lower price for their cocoa compared with those two chains. In this conventional cocoa chain, intermediaries play a significant role in determining the price earned by the farmers. In other words, intermediaries contribute to the deduction of the price received by cocoa farmers. The majority of cocoa farmers in the places where this data obtain fall in this chain.

Meanwhile, the other two cocoa value chains, fermented and certified chains, have the shortest chain as farmers act as groups and directly trade their beans with main buyers or exporters. In other words, there are no intermediaries in the chains. Those farmers

participating in these chains are better off than the conventional cocoa farmers in terms of price they earn.

With regard to reaching new markets, fermented or certified, the main barrier is to set up and run a strong and profitable farmer group or co-operative. Acting as a group through collective marketing gives greater benefits than compared to individual farmers. Evidence from Amanah Co-operatives to reach a new market, the certified market, revealed that its ability for collective marketing is able to build a partnership with an exporter as the trader's role is important to reach the market as well. It is even a decisive factor to link farmers to a certified market. Buyers, at the early stage, can share responsibility in terms of financing certification and all associated costs as small-scale farmers face limited financial resources. Further, sharing responsibility is also a process of building links and trust between farmers and buyers.

The role of buyers in supporting farmers, however, has its limitations as well. It cannot replace the role of an NGO. First and foremost, the nature of handling a business was admittedly not quite the same when strengthening a co-operative. Working with farmers cannot be always merely a profit calculation activity. This is evidenced from one certification network, not the case of Amanah Co-operative. The absence of an NGO role is illustrated by a trader experience trying to organise a thousand farmers. The company hired 19 staff as an ICS team to organise 1,100 farmers. The interview with a manager of the company revealed that the firm was confronted with enormous difficulties in trying to organise the farmers, such as: organisational preparation, getting

the right system in place, introducing standards and compliance. As a consequence, they found it impossible to reach a target of collecting 500 tons of beans from the farmers. Eventually, the company turned to intermediaries, who registered themselves as farmer groups, to meet the expected amount of beans supply. Even so, it failed to reach its target to source certified beans by the time this data was collected.

Given the limitation of a buyer role to organise farmers and put the system in place, therefore, the role of NGOs or Government, as discussed in the next section, becomes pivotal. Further, NGO is able to ensure a co-operative as a real co-operative owned by members rather than another form of intermediaries business. This gives a strong implication that the presence of NGO is crucial in organising farmers and assits them build their co-operative.

Findings from this study show that it is evident that in order to have a strong link to a new market, farmers have to work with buyers. The buyer could provide information about what product is required by the market, training and, in case of Amanah Co-operative, pre-finance the certification costs. Through this partnership building, farmers are able to negotiate with the buyer and get assistance for their produce market. It is also evident that cutting middleman or intermediarries bring benefits to farmers as their produce are relatively better rewarded than their peer farmers under the conventional cocoa value chain.

6.4 External Support Availability

External support plays a pivotal role in encouraging farmers to participate in certified value chains. The question concerned with this topic is broken down into:

1. Are there any NGOs, what kinds of NGOs and projects, working within the cocoa sector, which support farmers to be linked with new markets?
2. How do the NGOs, if available, link farmers to certification?
3. What kind of support has been provided by different levels of government?
4. What agricultural extension support is available and how far does it support efforts that might enable farmers to engage with certification schemes?

Examining the Indonesian cocoa sector and implementation of certification in Indonesia, it was evident that developmental NGOs working on linking farmers to a certified market were limited if not scarce. The importance of developmental NGOs existence is important for several reasons. Developmental NGOs have the capacity and attitude to be able to work with peasant farmers and can ensure a fair relationship between farmers and traders is in place. Further, NGOs have a wide network with other stakeholders and could become a catalyst to reach farmers. As illustrated by Amanah Co-operative case in this study, NGOs could fill the gap in terms of financial barriers in setting up and strengthening farmer organisation, entering certification schemes and building capacity of farmers to be equipped both as a developmental agent and a business enterprise. As mentioned earlier that buyers have limitations in assisting farmers for building strong groups or co-operatives, the role of NGOs or Government, therefore, is pivotal. In terms of setting up and running farmer organisations, for example, the NGO role is fundamental. Evidence from Amanah Co-operative case and to some extent LEMS Co-operatives provide examples of crucial importance of external support.

The approach to do so however should involve local partners as exemplified by VECO Indonesia in building a partnership with the local NGO, Wasiat. In this partnership, on one hand, VECO Indonesia was assisted by the labour of the hired Wasiat's staff and on the other hand this gave opportunity for knowledge and skills transfer from VECO Indonesia to Wasiat staff. Hired Wasiat key staff had opportunity to build their co-operative as well as be part of the project. The key staff do not need to be intermediaries to profit from the co-operative members as a source of their individual incomes but rather spent their full time in building the co-operative, aiming to make the co-operative earn income.

Reflecting on the approach to engage with certification, further, it is found that the approach of opting to be under a buyer's scheme rather than being a certification holder could be a safer choice and farmers are not so much exposed to potential financial loss. At least, this is potentially working particularly in the first year of being certified. This is partly because of the fact that being certified does not guarantee sales. The other reason is that being certified is very costly and without booking sales under certification, better price and premiums could not be earned and thus the investment during the process could be risky. Under this approach, the co-operative did not have to pay all the costs associated with certification as they were partially paid by the buyer, albeit premiums received later was split into two: half for trader and the other half went to co-operative. At this early stage in engaging with certification, the approach was found to be working for this case.

The argument for asserting that farmers should be a part of buyer certification on early stage, rather than directly being a certification owner, is exemplified by one case of a certified farmer co-operative of another commodity, cashew nut. The NGO working with cashew nut farmers has managed to obtain a certification. However, as being certified does not guarantee sales, finding and making a deal with a certified buyer under the same scheme is another altogether challenge. As the NGO staff said:

> *Our farmer co-operative has managed to be obtain a certification in 2006. To this day, we managed one sale from a certified buyer. We sent the products to Bali. However, it did not run well partly because managing transportation from the remote village, you'll see later as we are going to visit them, is one problem. But we managed to do so. But the problem did not stop there, when the cashew-nut arrived in Bali, the product mostly rejected as the buyer said the quality specification didn't meet. It was very frustrating and a lot money gone (NGO worker, (NGO Worker 06, 25/08/2012).*

It is evident that NGOs' approach whether a farmer co-operative should opt to be directly a certification owner or being under a buyer's certification, in the first year at least, can contribute to risk reduction investment strategy. Being a part or under a buyer certification scheme can minimise the risk and at the same time ensure sales with the buyer.

The importance of being certified and booking a sale from a certified buyer is affirmed by a certifier staff:

> *When farmers asked me how to apply for this certification, my reply to them is by asking a question, have you got any certified buyer? If their answer not yet, I suggest them to find it first. I know this way is not always being liked by my colleague. But judging from my experience, for many years now, it is so risky to encourage farmers to apply for a certification and do not find any buyer yet. What happened in the past is after a year not sales under certification, they complained spending much money and thus decertified. There are many cases like that (Certification body issuer 01, 15/06/2012).*

Having emphasised the pivotal role of NGOs and government in linking farmers to the certification network, it is also important to note that the existence of international NGOs has a potential drawback as most NGO projects are time-bound, too short to achieve their goals. Further, NGO assistance can also create excessive dependency of farmers on them. This echoes what Nelson et al. (2012) advocate, that NGOs should provide long-term projects but avoid creating dependency at the same time.

As most NGO programs are time bound, this gives two implications when it comes to encouraging farmer participation in certified networks. First of all, if an NGO could secure only a one-year project, the support could be halted half-way along the intensive process. The experience of the NGOs in this study suggests that working with farmers to reach a certain level of sustained co-operative took at the very least 4 consecutive years as illustrated by case of Amanah Co-operative. Another NGO that also worked to support farmers to obtain another certification even took longer, more than 6 years. It started to create unhealthy support as expressed by the manger of the NGO,

> *We have been working here more than 6 years. It's funny sometimes that the farmers still think that our work with them is an NGO program, it's our interest rather than for themselves. They think it's always a trial and error. Unfortunately, here there are a lot programs which are basically trial and error projects to be fair and we received the same perception (NGO Worker 06, 25/08/2012).*

The case of VECO Indonesia and Wasiat partnership illustrated an interesting approach. When NGOs have non-local staff, when project ceased, they would either leave their

field posts or find another job. This would be different if a partnership with a local NGO was in place. The knowledge transfer could be carried out and stay as local NGO staff would remain in the area even when the partnership ended. Working with local NGOs would also enhance the capacity of the locals and could be used as a medium for scaling up.

With regard to NGOs role in linking farmers to certification, evidence from this study revealed this is crucial. VECO Indonesia has a strategy to encourage farmers to be part of the buyer's scheme as farmers do not bear the costs of certification as the certificate is held by the buyer.

VECO Indonesia is aware that obtaining a certification is not a guarantee to have sales. This is in line with Blackmore et al.'s (2012) assertion that being certified does not guarantee sales. Therefore, in spite of not being a certification holder at an early stage, Amanah Co-operative minimised financial risks and moreover managed to book sales under the buyer's certification network. From this evidence, a working approach to engage with certification is fundamental particularly at the early stage of setting up and strengthening farmers' co-operatives. Therefore, NGOs and Government role can be pivotal in encouraging participation into a network applying working approaches.

6.5 Potential impact to address cocoa farmer challenges

The question of potential benefits from participation is also a key issue in examining small-scale farmers' participation. This question is broken down into:

1. What are the main challenges faced by Indonesian cocoa farmers?
2. How are those challenges being addressed?
3. How are these challenges linked to potential engagement with certification schemes?
4. Could the new market under certification benefit farmers?

Evidence from this study revealed that Indonesian cocoa farmers face enormous challenges in terms of quality, productivity and other non-technical factors. The intervention of the Government of Indonesia through GERNAS and the Southeast Sulawesi Provincial Government to some extent touch the fundamental issues, albeit they cannot address them comprehensively. Although there is no data on GERNAS implementation, the findings of this study revealed that farmers' perceptions of GERNAS impacts are mixed: from being satisfied to not being satisfied. The GERNAS intervention is perceived as a token of the Government of Indonesia concern for cocoa farmers. In addition, creating policies by introducing National Standards for Cocoa is also found to be a step to encourage farmers to produce good quality beans. In its implementation, however, it is still a main issue as local collectors or intermediaries at the village level still use the drying-day standard, i.e. how many days beans are dried.

Evidence on participation of farmers in certification, to some extent, gives an opportunity to address some issues faced by Indonesian cocoa farmers. As revealed by the case of Amanah Co-operative, farmers can be organised. They are able to carry out collective marketing and no longer use intermediaries. The price of their products is competitive and higher than the place where certification does not exist. Having said that, the question remains on the level of satisfaction of the benefits received from participating in certification. A question raised among certified farmers in one of the FGDs, was

> *"If the price we earned as certified farmers was not different from price earned by our peer non-certified farmers, what is the point of joining the certification? (Certified farmer, 08/11/2012)"*

This question is quite bold but has a point. The price of certified beans and conventional beans are not very much different. It is found that certifications have their own limitation when it comes to price as price is based on the market. As for cocoa, the price was determined by NYSE or London and so the price fluctuates. Having said that, it is fair to acknowledge that the price competition took place where certification exists. In other words, certified farmers earned better than the conventional farmers in other places. But when prices are compared between certified bean and non-certified bean at the local village, where certified farmers and non-certified farmers reside, the differences are not significant.

The only strong and irrefutable benefit from certification is the premiums. The finding of this study, although premium is still debatable in terms of how it effectively contributes to improving individual farmers' livelihoods, at the very least it gives an additional income to farmers and somehow encouraged them to produce more yield as the more yields, the more premiums they would receive. In case of Amanah Co-operative, the premium became its main source of income which is quite significant compared with other average co-operative in Indonesia.

6.6 Conclusion

This chapter attempted to answer the main research question, bringing together the evidence presented in Chapter 5 to identify the main challenges to the take-up of certification. It was found that participation in certified value chains was hampered by

the fact that Indonesian small-scale cocoa farmers lack resources to organise themselves into strong farmer groups or co-operatives. Running co-operative and in more particular when the co-operative intends to engage with certification, it requires strong organisational capacity, business skills, technical know how and financial resource. Given the limited resources of small-scale farmers, these challenges have hampered the farmers to run a co-operative and thus participate in certification. This coincided with a lack of external support from NGOs and government in the country to link farmers to the certified market chains. The case of LEMS Co-operative and Amanah Co-operative illustrate the possibility of running co-operatives with support from the NGO and the Southeast Sulawesi Province Government and thus managed to engage with new markets.

Further, given the particular conditions attached to the cocoa commodity sector in the country particularly under the conventional cocoa value chain, farmers's produce was poorly rewarded. The price of their beans has been low as as there were many intermediaries along the chain. Participating in certification, as the case of certified farmers of Amanah co-operative members, has not given tangible benefits in terms of higher price benefit over their certified produce. Certification existance in the area however has created price competition between conventional and certified beans price which all enjoyed both by conventional and certified farmers. The only tangible and measured financial benefit received by participating from certification is premiums which exclusively rewarded to certified farmers, albeit the amount is relatively small. Certifications were not quite able to attract farmers to participate in the scheme. Higher price and better premiums offered by certification schemes have potential to attract

farmers to participate in certification. However, whenever it is not the case, participating in certification will be less attractive.

CHAPTER 7
CONCLUSION: SUMMARY AND RESEARCH FINDINGS

7.1 Introduction

This thesis examined enabling conditions for, and barriers to, the proliferation or adoption of PV-SCL in the Indonesian cocoa sector. Applying a case study approach, and framed within an Enabling Conditions Analytical Framework, this study sought to answer an important topic which has hitherto not been adequately investigated: why have certifications not taken off in the Indonesian cocoa small-scale farmers sector? To answer this research question, this study reviewed relevant literature on PV-SCL. An analytical framework emerged from literature which informed the formulation of the research question and sub-questions. Three value chains along with the actors in the chains were selected as cases for this study: Conventional Cocoa Value Chain (Unorganised farmers), Fermented cocoa value chain (LEMS Co-operative) and Certified Cocoa Value Chain (Amanah Co-operative). This study includes traders as important chain actors and thus were participants in this study. External actors such as certification body issuers, NGOs, government, research institution, associations were also selected as participants for this study.

This chapter presents the concluding chapter. As findings were discussed in Chapter 5 and Chapter 6 answered the research questions, this Chapter 7 concludes the study. It reflects on the literature discussed in Chapter 2, particularly concerning the enabling conditions. This chapter also reflects on how far the researcher is able to answer the research questions in terms of the methodology deployed in this study, contribution to the body of PV-SCL literature and identification of areas for further research. The

chapter is structured as follows: restatement of the research problem, summary of the findings, contribution to body of knowledge and theory, methodological implications, limitations of the study and areas for further research.

7.2 Restatement of the Research Question

The growing PV-SCL proliferation in the global agricultural sector has been rising which is indicated by the growing participation of the private sector and small-scale farmers in PV-SCL. The rise is also indicated by the growing market for the certified products (Potts et al., 2010). The rise of the PV-SCL, however, has been uneven, concentrated among a small number of countries and for particular products. In terms of geographical reach, South America and Africa are dominant regions where PV-SCL is growing. Asia, and particularly Indonesian cocoa sector, demonstrates the uneven reach of the PV-SCL (Hutchen, 2011). Compared with the other two major cocoa producing countries, Cote d'Ivoire and Ghana, adoption of PV-SCL by the Indonesian small-scale farmers is the lowest despite Indonesia being the third major cocoa producer globally and the largest in Asia. Further, there is no single co-operative of cocoa farmers in the country able to be a certification holder by the time of this study embarked. This circumstance is even more intriguing given certification in the country is not new as the coffee and forestry sectors have already seen the proliferation of certifications.

Many studies have examined the rise of PV-SCL, its growing market, impacts and its influence on shaping global commodity and agro-food industry. However, when it comes to producers' participation, less is known about why and how producers participate in the PV-SCL and what factors enable participation in the certifications

given the limitation of resources of small-scale farmers. Further, studies concerning Indonesian small-scale farmer participation, particularly cocoa farmers, in PV-SCL are very few if not rare. Given this perceived limitation of literature on PV-SCL adoption, this study proposes a research question with the expectation that it can contribute towards filling the gap in the literature of PV-SCL. The main research question is: Why has certification not taken off in Indonesian cocoa small-scale sector? This question is broken down into four main sub-questions: What factors enable co-operation set up, what are the chains of the market, what is the level of support availability and, finally, what are the main challenges of the cocoa farmers?

A. Farmers being organized:
1. What is the history and feasibility of forming group or co-operative in Indonesia particularly in cocoa sector?
2. What is government policy towards farmer organisation and co-operatives to enable or to impede the feasibility of forming groups?
3. Apart from the policy factor, what other factors impede or enable cooperation?

B. Strong links to markets
1. What are the links between individual farmers and groups with different chain actors or players in the market?
2. What are the challenges experienced by farmers in reaching new markets?
3. Do the traders have a particular role to encourage farmers to participate in certification?

C. External support availability
1. Are there any NGOs, what kinds of NGOs and projects, working within the cocoa sector and support farmers to be linked with new markets?
2. How do the NGOs, if available, link farmers to certification?
3. What kind of support has been provided by different levels of government?
4. What agricultural extension support is available and how far does it support efforts that might enable farmers to engage with certification schemes?

D. Potential impact to address cocoa farmer challenges
1. What are the main challenges faced by Indonesian cocoa farmers?
2. How are those challenges being addressed?
3. How are these challenges linked to potential engagement with certification schemes?
4. Could the new market under certification benefit farmers?

7.3 Summary of the Findings

The enabling conditions analytical framework emerged from a critical review of literature on the experience of agro-certification. The framework identifies four interdependent variables that enable small-scale farmers to participate in certification schemes. Reflecting on this framework, a summary of the findings are presented. This section also reflects on the theoretical accounts of PV-SCL literature.

The first of the interdependent variables of the enabling conditions framework is the feasibility of forming groups among farmers. Literature emphasises the importance of building farmers' capacity to set up and run a farmer organisation (Vasques-Leon, 2010; Lyon, 2011; Milford, 2004). In consonance with this, evidence from this study revealed that it is feasible to form farmer groups. This is indicated by the existence of various groups at village level. These groups were set up either by government initiation or NGOs for implementing particular projects. However, this particular group formation is not sufficient to function as an economic agent partly because the groups are mostly project-based. This means that after a project ends, the groups are generally inactive and dissolve themselves. The other reason behind this is that the groups cannot function as business units. Legally it is required to have legal form, in a co-operative form, to carry out, for example, collective marketing. Therefore, forming groups in the literature should be translated into forming co-operatives in the Indonesian context.

Forming and running a farmer co-operative, as this study found, however, is a challenge particularly when it comes to operating a co-operative as an economic enterprise. The cases of two co-operatives studied, LEMS, Amanah Co-operatives

illustrate challenges confronted by the small-scale farmers in running co-operatives. The most significant challenge is to make the co-operative profitable as a business agent. The importance of making the co-operatives profitable is critical. This has a number of dimensions: the ability to cover day-to-day operational costs, expand services to members and pay expenses for participation into certification as participation is costly. Therefore, dependency on other actors of a chain, buyers or traders, is pivotal.

The second variable of the analytical framework is a strong link to market. Literature (Taylor, 2003; Liu, 2009; Smith, 2011; Nelson et al., 2012; Blackmore et al., 2012; emphasises the importance of buyers' role in facilitating farmers' products to enter into certified markets. This study revealed that traders' roles in enabling farmers to participate depends on the type of certification adopted. Literature on Fairtrade discusses the need to obtain a certification by farmers' organisations as a requirement to participate into the network. All actors in Fairtrade network including buyers, grinders and manufacturers, are also required to obtain separate certifications. At farmer level this means that both co-operative and trader have to obtain separate certifications.

Meanwhile, different approaches by Rainforest Alliance and UTZ Certified allow farmers to not necessarily obtain a certification but be part of a buyers' certification scheme as illustrated by the case of Amanah Co-operative. This circumstance also explains why only traders obtaining either Rainforest Alliance and UTZ certifications

operate in the Indonesian cocoa sector. The traders introduce and encourage farmers to participate in certification. Given this circumstance, traders' role is very crucial.

The implication of a co-operative and trader being under the same certification scheme is that a co-operative does not have to find a buyer or market their product as the existing buyer is already in place. This is supposed to mean that it enables more farmers to participate easier. As evident of this study, Amanah Co-operative has secured its own buyer by building a partnership with the buyer.

The third variable of the framework is the external support availability. The two actors of a chain, farmer organisation and traders, as mentioned earlier, despite having interdependent needs, are different in terms of orientation or motives and limitations. Buyers or traders as business institutions place priority on a profit margin but they face limitations in how to empower farmer organisations. Co-operatives are business agents. Therefore, they aim to be profitable so that they have their own financial resources to provide more services to members. Given the challenges and lack of resources in place confronted by farmer organisations and the limitation of buyers to empower the farmer groups, external support then becomes pivotal. NGOs, government and other private agencies fundamentally can fill this gap: building strong and profitable co-operatives and bridging the co-operatives to market or buyers.

The case of Amanah Co-operative supported by VECO Indonesia illustrates the fundamental role of an external support. VECO Indonesia functions not only to support the co-operative to be a strong and profitable co-operative but also assists to

negotiate about price, contracts and so on with buyers, Armajaro. The case of LEMS co-operative, which is supported by the Southeast Sulawesi Provincial government, also highlights the importance of external support. The government bridges LEMS co-operative with a buyer, PT. CEI. Despite this trader-co-operative partnership not being under any certification, farmers who fermented their beans have access to the market.

Despite the pivotal role of external support, evidence from this study also demonstrates that different approaches of external support can lead to different consequences and implications. The VECO Indonesia approach of encouraging Amanah-Co-operative to be a part of buyer certification scheme, Armajaro, is found to be working and financially less risky. The farmers are not exposed to financial loss as farmers do not bear the costs of certification as the certificate is held by the buyer.

Apart from NGOs, external support from government, in this case the Southeast Sulawesi Government supporting LEMS co-operatives, demonstrates the possibility of linking fermented cocoa beans farmers to a new market without exposing the farmers to financial risk. This new chain, however, does not provide much financial gain to the co-operative as the fermented beans buyer does not provide premiums. The ability of the Southeast Sulawesi Provincial government to encourage small-scale farmers to participate in fermented beans chain, implies that it also has the same potential to encourage small-scale farmers into a new chain: a certified chain.

The three chain cases of this study illustrate the important role in supporting farmers to participate into a new chain of market. The external support, however, is bound with a time frame. Even the government support has also limitations. Therefore, this study argues that ensuring a co-operative has sustained income from its business activities is very fundamental. This is based on evidence of this study revealing a common pattern drawing from expectation or motives of farmers to participate into a scheme. The common pattern is a need to gain real benefits from participating in a new scheme. The participating famers in the new schemes or chains expect to earn real benefits to have a better reward as they put extra effort to participate or otherwise it is pointless to participate. In this light, the next variable, potential benefits, is equally important to encourage farmers to participate in the certification network.

The fourth variable of the framework is potential benefits from participation. Literature on potential benefits of participating from certification identifies various aspects of benefits such as farmer empowerment, environmental preservation, improving health and economic benefits. The evidence from this study revealed that cocoa farmers expect to gain more economic benefits.

The potential economic benefits identified in this study can be earned from price differences between certified beans and conventional beans and premiums. In addition, improving yield of their cocoa can contribute to higher income earned by farmers. As discussed in Chapter 2 in terms of how certification relates to price setting, all the three certifications, Fairtrade, Rainforest Alliance and UTZ Certified, have limitations on price setting. They base their price on the market. Fairtrade,

however, sets a minimum price policy or known as Guaranteed Minimum Price (GMP). For conventional cocoa beans, it sets USD 1750/MT (FLO Standard for Cocoa Small Producer Organisation, accessed in January 2016) or USD 1.75/kg or around IDR 16,000/kg. Compared with the actual price received by farmers, it ranged from IDR 17,500 to 24,000 (Section 5.4.1). From this study, the actual price earned by farmers has been higher than the GMP. It has to be noted that however that under Fairtrade GMP, if the market price is below USD 1.75kg or IDR 16,000/kg, the buyer has to pay the GMP but whenever the market price is higher than GMP, the market price is paid plus a social premium.

The other two certifications, Rainforest Alliance and UTZ Certified, do not have any mechanism to set prices but allow markets to determine the price to be earned by farmers. Comparing price between conventional and certified bean, where certification exists, it is evident that the price is neck and neck. Therefore, in terms of getting a higher price of the farmers' cocoa as a result of participating in certification scheme, this not the case in this study. Having said that, the unexpected outcome of the existence of certification in a region, however, has created a price competition among buyers: conventional and certified buyers. This price competition resulting in a higher price has been enjoyed by the farmers regardless of their status: conventional or certified.

The only possibility to earn real economic benefit is from premiums. Fairtrade and UTZ Certified oblige manufacturers to pay premiums to farmers, meanwhile under Rainforest Alliance scheme paying premium is optional. As the evidence from this

study shows, Amanah Co-operative demonstrates that it received premium which was quite a large of source of income, albeit it had to split with Armajaro as the owner of the certification. This is the most tangible economic benefit from participation resulting from certification. As revealed in section 5.4.3 New Market Under Certified Cocoa Value Chain, however, only half of the total amount of IDR1,560,000,000 (GBP110,269) premiums goes to the co-operative. Furthermore, this premium is even split into two: to co-operative and individual farmers. In the end, the co-operative net income is IDR 260,000,000 (GBP 18,000) which is a modest income of a co-operative in a year. Meanwhile an individual farmer with 600kg/year productivity earns the amount premium of IDR 350,000 (GBP24,7) per year. This evidence, albeit it is modest, can be considered as a real and tangible benefit from participation. This benefit, however, does not count the effort, in terms of labour and other spending to comply with standards. As this co-operative is in its early stage of development, this satisfies the board.

The other potential benefit from participation identified by this study is yield increase. The Rainforest Alliance and UTZ Certified have guidelines on how to carry out good agricultural practices as part of the standards. But how participating in certification can improve their yields is not clear cut. Among certified farmers, the degree of increase in yield varies from modest to satisfying, from 700 kg/year to 1,000 kg/year. How certification standards directly contribute to yield improvement was not studied in depth but this study found that the certified farmers are more satisfied than those who are not certified in terms of yield.

The factors contributing to the small level of participation of Indonesian cocoa farmers in certification have been identified by this study. All variables are equally important to encourage farmers to participate or not to participate. Examining the variables, this study argues that giving consideration to these variables when introducing certifications among small-scale farmers may enable the farmers to get the most benefit from participation. Therefore, this study has at least two implications: reappraisal of approaches by stakeholders and certification body itself, and putting farmers' interests as a main priority.

The implication is that a trader or buyer, NGO and government approach to organise farmers into groups has to consider that a farmers' group or co-operative can only function better as a social and economic agent when both organisational and business capacity are in place. Organisational capacity should not be limited to how to set up, run an organisation and comply with standards as a part of the farmers day-to-day practices. More than that, in terms of functioning as an economic unit, the main concern and effort should be focused on how to turn the co-operative into a profitable business unit so that the co-operative can be independent to cover its expenses, pay all costs associated with obtaining a certification, expand its services to members and sustain itself.

A further implication is to determine an effective approach in enabling a farmer organisation to engage with certification particularly during the early stages of strengthening farmer organisation. As evidence from this study demonstrates, being part of the buyer's certification scheme can be a choice at the initial stage of engaging

with certification. Exposing farmers to financial risk by obtaining a certification is deemed a risky approach as the farmers can suffer from financial loss, thus potential of decertification would be high. Based on the example of the co-operatives studied in the context of Indonesia, it is argued that it is very challenging for newly formed groups or co-operatives to gain certification. There are advantages to this process in having a partnership with a certified buyer.

The implication of the existence of external support, particularly NGOs role, is pivotal in assisting farmers to build a strong and profitable co-operative and bridge the gap between farmers and buyers or traders. As revealed by this study, NGOs working in this field are quite few and mostly are international NGOs. Encouraging cooporation between international NGOs and local NGOs can be a working approach to make the initiative more sustainable as international NGOs are often limited by time-bound projects.

As certification schemes have limitations in terms of benefits offered to farmers, they might need to prioritise tangible benefits such as financial reward to encourage farmers to participate in certification. The real benefits not only can bring significant impact to the participating farmers but also encourage non-participant farmers to participate in the scheme. In other words, scaling up farmer participation will be much possible. As certification has limitation to reward higher price to certified farmer produce, certified big player of chocolate industry can be encouraged to pay better premiums to farmers. The committment of major players of chocolate industry to

source certified cocoa would be much possible to achieve with the support of small-scale farmers who produced more than 90 per cent of the produce.

The intervention of certification has potentially altered value chain nodes and linkages of the commodity in Indonesia. The certification creates a new chain in which cocoa farmers are directly linked with international traders or exporter. This means that middlemen at various stages of a chain are cut out of the chain. In this study, middlemen are considered in mixed terms: as actors who are exacerbating the condition of small-scale farmers, but also as a source of help when farmers need credit, loans or agricultural inputs. An implication of the certification adoption, based on the evidence, expels the middlemen from the chain but does not replace the middlemen function of providing credit, loans and agricultural inputs. Other actors in the chain, such as traders even, cannot substitute this function as traders have limitations on their activity. NGOs and governments also cannot function as provider of credit, loans or agricultural inputs. Meanwhile, commercial banks are hard to access by small-scale farmers. The only chain actor to replace the function of the middlemen is the co-operative. Therefore, strengthening capacity and making co-operatives profitable is the solution so that the alteration of structure of cocoa commodity in the country does not expose small-scale farmers to more vulnerable conditions. Ensuring that participating farmers and their co-operatives get the most benefits from participation and minimise vulnerability exposure would uplift their welfare. Certification cannot be a means for buyers or traders to merely secure supply from small-scale farmers.

Certification transmits information from market to farmers, encouraging access to credit and, to some extent, protects farmers from price fluctuation. Certification can be also a means to pool available resources to assist farmers directly instead of relying mainly on government assistance. In this light, certification can also not only function as to fill the policy void or policy gap (Haufler, 2001) but as a catalyst bridging government, private actors, civil society and farmers, bringing them onto the same page to address the sustainable production of cocoa, ameliorate social, environmental problems and essentially improve farmers' wellbeing (Ponte, 2008).

7.4 Further Research Areas

Having presented the findings and analysis of this study, areas of potential further research are identified. First of all, cross-country and cross-commodity case studies could be undertaken and, secondly, research could be carried out into scaling up. Cross-country case studies are important to test the enabling conditions as investigated in this study. The question is whether country context matters, what it is about country context that matters and how they matter. Further, whether the enabling conditions apply to other commodities such as coffee and other certified commodities could be investigated. The question is whether cocoa and other sectors have significant differences and how those differences can hamper or speed up proliferation of certification, as appropriate to local conditions and preferences

As argued in this study, certification has its limitation in bringing impacts to small-scale farmer wellbeing. This limitation is concerned with scaling up more farmers to participate. In other words, potential benefits received by farmers contribute directly to scaling up effort. Therefore, an effort to prioritise the benefits received by farmers

is an important key when an agency or organisation introduces certification among farmers. If a group of farmers benefit from participating in certification, this will speed up other non-participant farmers to participate. In the Indonesian context, it was discussed how motives and knowledge are transferred; the observations affirms that a set of successful stories of a group of farmers can be easily transmitted to other farmers. Traditional network can be enhanced by the certification network. Having said that, this study found that better price is still the main motive to move small-scale farmers. This is quite a dilemma as certification has its limitation in deciding or dictating price. The price earned by farmers is based on the market mechanism.

Given the limitation of certification particularly in determining a higher price of certified beans of the farmers, another way out is only possible by collabaration among private sectors, government, NGOs and other cocoa stakeholders so that certification directly contributes to farmers' wellbeing improvement which is not necessarily translated into higher price. The increasing yield, for instance, can be seen as a positive contribution. Secondly, significant premiums can also contribute when they are managed for a common purpose by co-operatives.

The findings of this study contribute to the body of knowledge on PV-SCL literature. It explains the reasons behind the limited participation of small-scale farmers in the certified networks and thus scaling-up bears paramount challenges. The rise of PV-SCL cannot be necessarily translated into the rise of small-scale producers' participation into the PV-SCL and increasing their welfare. Producers' participation is hampered by embedded or existing incapability of the small-scale farmers as

discussed in this study. The rise of PV-SCL in consumer countries can only be balanced by the increase in participation of producers in producing countries when adequate conditions are in place as exemplified by the cocoa sector. Further, the number of participating farmers cannot be a main indicator to measure the success of the rise of PV-SCL. It should be seen as one of the many success indicators. The main indicator should be positive and real improvement on their household well-being as certification is a means to an end.

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APPENDIX

Appendix 1: Participants of the Study

Activity	Participants	Category	Coding	No. Attendant	Location	Sub-District and District, Province	Province
Interview	Nurwanto	Certification Body Issuer		1	Bandung	West Java	West Java
Interview and Field Visit	Asbuma, SP and Khairiyah	Cocoa Research		2	Konda		Southeast Sulawesi
Interview and Field Visit	Erlan, Zainal, Burhanuddin, Usman	Cocoa Farmer		4	Asinua Jaya	Asinua, Konawe	Southeast Sulawesi
Interview	Yakub, Erlan, Zainal, Burhanuddin, Usman	Cocoa Farmer		5	Asinua Jaya	Asinua, Konawe	Southeast Sulawesi
Interview and field visit	Purminto and Nasriani	Cocoa Farmer		2	Asinua Jaya	Asinua, Konawe	Southeast Sulawesi
Interview and field visit	Nasran	Local Collector			Asinua Jaya	Asinua, Konawe	Southeast Sulawesi
Interview and field visit	Ahmad and Wartin	Local Collector			Asinua Jaya	Asinua, Konawe	Southeast Sulawesi

Interview and field visit	Jawas	Cocoa Farmer	1	Ambodia	Asinua, Konawe	Southeast Sulawesi
Interview	Labonda	Cocoa Farmer	1	Ambodia	Asinua, Konawe	Southeast Sulawesi
Interview	Ibu Gona	Cocoa Farmer	1	Ambodia	Asinua, Konawe	Southeast Sulawesi
Interview	Arman	Cocoa Farmer	1	Ambodia	Asinua, Konawe	Southeast Sulawesi
Interview	Rusli, Halus dan Aswami	Cocoa Farmer	3	UPT Lasao	Asinua, Konawe	Southeast Sulawesi
Interview	Marjuni Ma'mir	Government Official		Unaha	Konawe	Southeast Sulawesi
Interview and field visit	Makmur, Muhammad Ali, Ali Murdin, Wacong	Cocoa Farmer	4	Barowila	Tongauna'a, Konawe	Southeast Sulawesi
Interview	Dedi Mansur	Government Official		Unaha	Konawe	Southeast Sulawesi
FGD	Saharuddin, Izhan, Sardi, Ibrahim, Samsu Alam, Fadrah, Sariah	Cocoa Farmer	7	Wonuahoa	Lambuya, Konawe	Southeast Sulawesi
Interview	Mustakin	Cocoa Farmer	1	Lawonua	Besulutu, Konawe	Southeast Sulawesi

Interview and field visit	Gusti Made Kusuma	Cocoa Farmer	1	Welala	Ladongi, Kolaka	Southeast Sulawesi
Interview	H. Darwis	Local Buyer		Ladongi	Ladongi, Kolaka	Southeast Sulawesi
Interview	Gusti Nyoman Ari	Local Collector		Ladongi	Ladongi, Kolaka	Southeast Sulawesi
Interview and field visit	Mahyuddin, Rusli, Senawar, Sarifuddin	Cocoa Farmer	4	Wande	Ladongi, Kolaka	Southeast Sulawesi
Interview	Ramli, Amd. Asnawir	Local Collector	2	Lembah Subur		Southeast Sulawesi
Interview	Hj Hasna, H. M. Jufri	Local Collector		Aere	Lambandia, Kolaka	Southeast Sulawesi
Interview	Asdar Pahalangi	Local Collector		Aere	Lambandia, Kolaka	Southeast Sulawesi
Interview and field visit	Bading, Rianto	Cocoa Farmer	2	Iwoimenggura	Lambandia, Kolaka	Southeast Sulawesi
Interview	Eric Nugraha	Certification Body Issuer		Kendari	ICRAF Kendari Office	Southeast Sulawesi
Interview and field visit	Sumandar	Cocoa Farmer	1	Andromesinggo	Besulut, Konawe	Southeast Sulawesi
Interview	Ir. Ahmad AS	Fermented Bean Buyer	1	Kendari	Southeast	Southeast Sulawesi

					Sulawesi	
Interview	Bambang	Government Official	1	Kendari	Southeast Sulawesi	Southeast Sulawesi
Interview	Agung Alit dan Adi	FAIR TRADE Organization	2			Bali
Interview	Kadek Lisa Ismiandewi	FAIR TRADE Association	1			Bali
Interview	Imam Suharto	NGO	1			Bali
Interview	Benedictus, Dewa Ayu Gede Rai Setiawati	Certification Body Issuer	2			Bali
Interview	Mercedes Chaves	Certification Body Issuer	1			Bali
Interview	Ettih	NGO	1			Nusa Tenggara Timur
Interview	Maria Patrisia Wata Beribe	NGO	1			Nusa Tenggara Timur
Interview	Umar Utina dan	Cocoa Association	2			Nusa Tenggara Timur
Interview	Gabriel Belawa Maran	CO-OPERATIVE BOARD	1			Nusa Tenggara Timur
Interview	Plasidus Nebon Aren, Silvester	Non-cocoa Farmer	4			Nusa Tenggara

	Bisu Koten, Alfonsus Nabas Koten			Timur
Interview	Stephanus	CO-OPERATIVE BOARD	1	Nusa Tenggara Timur
Interview	Usman	Buyer	1	Makassar, South Sulawesi
Interview	Erni	ASSOCIATION	2	Makassar, South Sulawesi
Interview	Khairuddin	CERTIFICATION BODY ISSUERS	1	Makassar, South Sulawesi
Interview	Suharman	NGO	2	Makassar, South Sulawesi
Interview	Peni dan Rauf	CO-OPERATIVE BOARD AND NGO	2	Makassar, South Sulawesi
Interview	Muhammad Kamil.	Buyer	1	Makassar, South Sulawesi
FGD and Field Visit		Certified Cocoa Farmer	12	West Sulawesi

Summary of the Participants of the Study

CERTIFICATION ACTOR CHAIN	Number of Participant
Certified cocoa farmers	13
Certified non-cocoa farmers	6
Under certification cocoa co-operative	1
Under certification/certified non-cocoa farmers	1
Certified buyers	2
Certification body issuers	6
NON CERTIFICATION ACTOR CHAIN	
Cocoa farmers without a scheme	35
Cocoa farmers with a scheme	7
Non-cocoa farmers	5
Co-operative with a scheme	4
Co-operative with a certification	
Buyer with a scheme	1
SUPPORTS	

NGO	5
Government Officials	3
Association	2
Cocoa Research	2

Interview Questions Code 1A:

Cocoa Farmers

Appendix 2: Interview Questions

University of Birmingham

International Development Department

Semi-structured Interview

Fair Trade and other certification schemes on Indonesian cocoa sector: Examining the Enabling Factors

Informed consent

Participating in this research is voluntary

Participants have the right to opt out at any point in time during the research process

All personal information will be strictly confidential following the data protection Act (1998)

Data provided in this questionnaire will be collated with other participant's data and the results will be used to investigate different gender's attitudes and beliefs that determines good life

This research does not intend to inflate harm to any participant

This research is conducted as a fulfilment of the requirement of the interviewer's M.Phil. Thesis in IDD, University of Birmingham

I, the researcher, assure that the data collected will be strictly confidential following the data protection Act (1998)

Signature: .....

Date: .....

I, the participant, agree to take part in this research process and will remain anonymous.

Signature: .....

Date: .....

Interview Questions Code 1A: Cocoa Farmers

Topics questions:

Cocoa Farming

Main/part-time job and main source of income

- *Is cocoa farming your main job?*
- *Other than cocoa farming, what else do you do for living?*
- *How many hectares of cocoa farm do you have?*
- *Is it your own or a rent from others? If rent from others, what is the concession/agreement between you and the farm owner?*
- *Do you know roughly the yield per year of your farm?*
- *What do you think your main challenges?*

Cocoa Prices

- How much are your cocoa beans paid per kg?
- Do you produce different qualities? (Grade 1, 2, or 3) Is there any difference in price? If yes, what are they?
- Where do you sell your cocoa beans? Local traders or someone from cities or companies?
- In terms of price setting, are you satisfied with the price offered by the buyers? If yes, why and if no, why?
- Do you have any special relationship with the buyers? Do you receive any loans, credit or any things from the buyers?

Quality

- Have you ever been informed what quality of the beans required from you?
- If yes, are you able to manage to meet the quality? If yes, how? If no, why?
- If you are able to meet the quality, is there any incentive in price?
- Farming technique/knowledge
- Where do you know about farming technique? Peer farmers, friends, relatives, or?
- Do you receive any training from formal institutions (NGOs, Universities, Extension agents, etc.)?
- If you do, how do you receive it? Do you attend a special training or they talk to you through informal way?
- What do you think your main problems are?

Enabling Factor 1: Co-operative/Farming Group

Membership of a farmer group

- Are you a member of any farmer group? If yes, what are they? If no, go to question 5b
- Do you feel any benefit of being member of the group? What are they?
- Do you feel any disadvantages of being member of the group? What are they?
- Over all, do you think being a member of group is a good thing?
- Are you willing to be a member of any farmer groups? Why?

- What do you think the benefits and disadvantages about being a membership of a farmer group? (Repetitive)
- If you are asked to form a group as a requirement for marketing your cocoa beans, do you want to do it? Why?

Membership of non-farmer group

- Other than being or not being a member of a farmer group, are you a member of any community/societal/religious/ethnic-based group? What are they?
- What are the benefits and disadvantages of being membership of that group?
- What is your role in that group?

Enabling Factor 2: Linking with Buyers/Markets

- Do you always have market to sell your beans? Or in other words, do you always have buyers of your beans? Who/what are they?
- Do you have them whenever you want them to buy your beans? Or is there any particular time to sell your beans, for instance, every certain of the day of the week/bi-weekly/monthly of market day?
- Do you sell your beans alone or together with other farmers?

Enabling Factor 3: External Support

- Do you receive any support from NGOs, Government/Extension agent, and Universities/Research institutions or from any others?
- What are they (the supports)?
- How often do you receive the support?

General questions

- Do you read/write?
- Do you have any formal education?
- Do you think your cocoa farming is able to support your family? Sending your children to school, pay healthcare?
- Do you think it is good thing to pass your cocoa farming to your children? Or, do you think it is a good thing if your children become cocoa farmers as well? Why?
- What else do you know about your beans and your cocoa farming?

Certifications

- Do you know about certification? If yes, continue with following sub-questions, if no, go to number 19
- What are they?
- What do you know about it (them)?
- Do you think it is feasible to adopt it? Why? What are the feasibility to do so or challenges?

Explain briefly about certification. Certification is a way that your farming practices and subsequently your cocoa beans are guaranteed produced in a certain way required by the certification standards. Thus, you can sell it through particular channel of the

certification and might earn higher prices and receive some supports. However, certification is also not free but farmers have to pay certain amount of money to cover the certification costs and regular inspections fee.

- What do you think about it? Are you interested in joining any certification scheme? Why?
- What the challenges might prevent you from joining it?

THANK YOU FOR YOUR PARTICIPATION

If you wish to know the results or contact the researcher for further inquiries please do so at dxw026@bham.ac.uk or through number: +62 813 1608 2253