The institutional interests of upgrading agents in the
Indonesian cocoa value chain

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Abstract

In the literature on Global Value Chains (GVCs), development strategies have mainly borrowed from the upgrading concept, as largely applied to sectoral development. The study about sectoral upgrading and its applications in the real world has initially been applied through lead firms, but recent developments have tended to interpret upgrading as taking place through the actions of three key sets of agents: i) lead firms; ii) development agencies; and iii) states.

This thesis attempts to advance understanding of upgrading processes in GVCs through an examination of those three upgrading agents in the cocoa industry of Indonesia. Particularly, the thesis addresses the question of how upgrading interventions are approached and applied by the agents, and to delineate the underlying institutional factors that influence each agent.

This thesis finds that the upgrading interventions through policies and programs devised by the development agents are highly influenced by underlying institutional interests. Issues of political economy, ideological views and commercial interests strong shape the activities of upgrading agents, and therefore the development outcomes of these interventions. Furthermore, it is mostly incidental when these interests align with the development interests of smallholder cocoa farmers. The study also found that upgrading interventions tended to perpetuate the dependency of small producers on external supports, especially their relationship with global cocoa buyers as ‘captive’ suppliers.

This thesis concludes with the need to explore deeper the institutional settings within which upgrading agents are embedded, and so which influence the decision making processes in the upgrading interventions along the GVC. Successful upgrading, whether related to the enhanced capacity of smallholders to improve their livelihoods or to the development of downstream industrial capacity, demands attentiveness to the perspective and interests of other potential upgrading agents in the chain. This thesis presents an alternative actor-oriented approach to GVC analysis, which it is argued provides a more realistic assessment of upgrading possibilities within developing countries than previous models.
Declaration

I declare that this thesis is the result of my own independent research and that all authorities and sources that have been used are duly acknowledged.

Parts of Chapter 3 draw on the joint research on the household survey collaboratively conducted by the University of Sydney and BPTP and funded by ACIAR. My main role at this research is to analyse research data gathered from the field survey. The detail is as follows:


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____________________

Rafiuddin Palinrungi

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<th>Description</th>
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<tr>
<td>ACDI VOCA</td>
<td>Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance</td>
</tr>
<tr>
<td>ADM</td>
<td>Archer Daniels Midland Company</td>
</tr>
<tr>
<td>AIKI</td>
<td>Asosiasi Industri Kakao Indonesia (The Indonesian Cocoa Industry Association)</td>
</tr>
<tr>
<td>AMARTA</td>
<td>Agribusiness Market and Support Activity</td>
</tr>
<tr>
<td>APIKCI</td>
<td>Asosiasi Perusahaan Industri Kakao Coklat Indonesia (Indonesian Cocoa-Chocolate Industry Associations)</td>
</tr>
<tr>
<td>APKAI</td>
<td>Asosiasi Petani kakao Indonesia (Indonesian Cocoa Farmers Association)</td>
</tr>
<tr>
<td>ASKINDO</td>
<td>Asosiasi Kakao Indonesia (Indonesian Cocoa Association)</td>
</tr>
<tr>
<td>BeST</td>
<td>Beijing Seoul Tokyo</td>
</tr>
<tr>
<td>BGMB</td>
<td>Brazilian Grape Marketing Board</td>
</tr>
<tr>
<td>BPPT</td>
<td>Badan Pengkajian dan Penerapan Teknologi (Agency for the Assessment and Application of Technology)</td>
</tr>
<tr>
<td>CC</td>
<td>Commodity Chains</td>
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<tr>
<td>CDC</td>
<td>Cocoa Development Center</td>
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<tr>
<td>CPB</td>
<td>Cocoa Pod Borer</td>
</tr>
<tr>
<td>CSIS</td>
<td>Center for Strategic and International Studies</td>
</tr>
<tr>
<td>CSP</td>
<td>Cocoa Sustainability Partnership</td>
</tr>
<tr>
<td>CV</td>
<td>Commanditaire Venootschap or Limited Partnership</td>
</tr>
<tr>
<td>CVC</td>
<td>Cocoa Village Clinics</td>
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<tr>
<td>DCA</td>
<td>Development Credit Authority</td>
</tr>
<tr>
<td>DI-TII</td>
<td>Darul Islam-Tentara Islam Indonesia (Islamic Armed Forces of Indonesia)</td>
</tr>
<tr>
<td>EMBRAPA</td>
<td>Empressa Brasileira de Pesquisa Agropecuaria (The Brazilian Agricultural Research Agency)</td>
</tr>
<tr>
<td>EOI</td>
<td>Export Oriented Industrialization</td>
</tr>
<tr>
<td>EPA</td>
<td>Economic Partnership Agreement</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organisation</td>
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<tr>
<td>FDI</td>
<td>Foreign Direct Investment</td>
</tr>
<tr>
<td>FEATI</td>
<td>Farmer Empowerment through Agricultural Technology and Information</td>
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<tr>
<td>FIAS</td>
<td>The Foreign Investment Advisory Service</td>
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<tr>
<td>FFS</td>
<td>Farmer Field School</td>
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<tr>
<td>FGD</td>
<td>Focus Group Discussion</td>
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<tr>
<td>GAM</td>
<td>Gerakan Aceh Merdeka (Aceh Freedom Movement)</td>
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<tr>
<td>GAP</td>
<td>Good Agricultural Practices</td>
</tr>
<tr>
<td>GCC</td>
<td>Global Commodity Chains</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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GERNAS  Gerakan Nasional (The National Movement)
GERMAS TAKWA  Gerakan Rehabilitasi Massal Kakao Berkualitas (Massive Rehabilitation Movement for Cocoa Quality)
GIAT  Growth through Investment, Agriculture and Trade
GPN  Global Production Network
GTZ  Deutsche Gesellschaft für Technische Zusammenarbeit (The Germany Development Organisation)
GVC  Global Value Chain
LRPI  Lembaga Riset Perkebunan Indonesia (Indonesian Research Institute for Estate Crops)
PsPSP  Panen Sering, Pemangkasan, Sanitasi dan Pemupukan (Frequent Harvest, Pruning, sanitation, and Fertilising)
PT  Perseroan Terbatas (Limited Liability Company)
ICA  International Coffee Agreement
ICCO  The International Cocoa Organisation
ICCRI  Indonesian Coffee and Cocoa Research Institute
ICS  Internal Control System
ICF  The International Finance Corporation
IFIs  International Financial Institutions
ILO  International Labour Organisation
IMF  International Monetary Fund
IPM  Integrated Pest management
ISI  Import Substitute Industrialisation
KRW  Korean Won
MITI  Ministry of International Trade and Industry
MSEs  Micro and Small Enterprises
NAFTA  North Atlantic Free Trade Agreement
NGOs  Non-Government Organisations
NYBOT  New York Board of Trade
OECD  Organisation for Economic Co-operation and Development
PENSA  Program for Eastern Indonesia Small and Medium Enterprises-Assistance
PPSEKP  Pusat Penelitian Sosial Ekonomi dan Kebijakan Perkebunan (Research Center for Social Economic Studies and Estate Crops Policies)
P2WK  Proyek Pengembangan Wilayah Khusus (Special Regional Development Project)
PRIMA  Pest Reduction and Integrated Management
PRPTE  Peremajaan, Rehabilitasi dan Perluasan Tanaman Ekspor (Regeneration, Rehabilitation, and Expansion of Export Commodities)
RA  Rainforest Alliance
SADP  Sustainable Agriculture Development Project
SE  Somatic Embryogenesis
<table>
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<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tr>
<td>SL-PHT</td>
<td>Sekolah Lapang Pengendalian Hama Terpadu (Field School for Integrated Pest Management)</td>
</tr>
<tr>
<td>SMEs</td>
<td>Small and Medium Enterprises</td>
</tr>
<tr>
<td>SNV</td>
<td>SNV Nederlandse Ontwikkelingsorganisatie (Netherland Development Organisation)</td>
</tr>
<tr>
<td>SPL-OECF</td>
<td>Loan Overseas Economic Cooperation Fund</td>
</tr>
<tr>
<td>SRADP</td>
<td>Sulawesi Rainfed Agriculture Development Project</td>
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<tr>
<td>SRTA</td>
<td>Survey Rumah Tangga ACIAR (ACIAR Household Survey)</td>
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<tr>
<td>SUCCESS</td>
<td>Sustainable Cocoa Enterprise Solutions</td>
</tr>
<tr>
<td>TCC</td>
<td>Tropical Commodity Chains</td>
</tr>
<tr>
<td>TOT</td>
<td>Training of Trainer</td>
</tr>
<tr>
<td>UNIDO</td>
<td>United Nations Industrial Development Organisation</td>
</tr>
<tr>
<td>UPP</td>
<td>Unit Pelaksana Project (Project Implementation Unit)</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
<tr>
<td>UTZ</td>
<td>UTZ certified</td>
</tr>
<tr>
<td>VAT</td>
<td>Value Added Tax</td>
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<tr>
<td>VCA</td>
<td>Value Chain Approach</td>
</tr>
<tr>
<td>VCD</td>
<td>Video Compact Disc</td>
</tr>
<tr>
<td>VOC</td>
<td>“Vereenigde Oost-Indische Compagnie” (United East India Company-Dutch)</td>
</tr>
<tr>
<td>VSD</td>
<td>Vascular Steak Dieback</td>
</tr>
<tr>
<td>WCF</td>
<td>World Cocoa Foundation</td>
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<tr>
<td>WTO</td>
<td>World Trade Organisation</td>
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<tr>
<td>YAMINAS</td>
<td>Yayasan Minasae (Minasae Foundation)</td>
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1 INTRODUCTION
CHAPTER 1: INTRODUCTION

1.1 Background

Over the last few decades, economic development in developing countries has been significantly shaped by three pivotal actors: the state, development agencies and commercial firms. The analysis to understand the role of those actors in shaping economic development outcomes has mainly emphasised two contrasting ideological framings, the free market ideology and the importance of state intervention.

Studies and analyses using those analytical framings have been widely applied to understanding economic growth in the East Asian countries. For example, the analysis of state support in driving economic development has been widely articulated through the Developmental State literature (C. A. Johnson, 1982; Wade, 1993), and the role of Import Substitution and late industrialization (Felix, 1989). Other analyses lean more towards the free market, whilst still acknowledge the critical role played by the State in the East Asia Miracle, yet (Burkett & Hart-Landsberg, 1998; Kwang-Suk, 2009; World Bank, 1993).

Recent developments, particularly in the aftermath of the 1997 Asian Financial Crisis, suggest that these two contrasting ways to analyse and develop economic development strategies are insufficient to understand the dynamics of regional and national economic change. Globalization has made economic actors more interconnected with each other, and the way that economic actors coordinate their production systems (through modes of governance) ranges across a broad continuum, from spot markets through to intensive coordination through captive relationships and integrated operations. To understand this range of governance structures, and how such strategies of the firm shape regional economic development outcomes, an alternative approach has been suggested by Gary Gereffi and other researchers, through the Global Commodity Chain - or Global Value Chain - framework (Gereffi, 1999; Gereffi, Humphrey, Kaplinsky, & Sturgeon, 2001; Gereffi, Humphrey, & Sturgeon, 2005; Gereffi, Korzeniewichz, & Korzeniewichz, 1994; Humphrey & Schmitz, 2000, 2002; Kaplinsky, 2000).
1.1.1 Global Value Chains as an analytical tool

As an analytical tool, the global value chain (GVC) concept is one of a number of approaches to understand inter-firm relations that starts with the simple idea that the design, production and marketing of products involves a chain of activities divided between different enterprises often located in different places.

In the development literature, this type of analysis was initially known as the global commodity chain. It focused on the opportunities and constraint of actors in developing countries in improving their position pursuant to a global integration of production and trade in specific commodities (Gibbon, 2001, p. 345). It highlights the shifting bases of power, exercised by lead firms in global industries and the ways in which governance structures of these industries shape the creation of markets as well as national development outcomes (Gereffi, 2001, p. 32). Its core concern is with understanding of the dynamics of how firms within a global value chain are interconnected with each other (Kaplinsky, Morris, & Readmen, 2002, p. 1160).

The analytical framework was primarily introduced by Gereffi through his writing on the organisation of buyer-driven and producer-driven commodity chains (Gereffi, 1994). The framework later became known as the Global Value Chains (GVC) approach. It is defined as:

‘The full range of activities required to bring a product or service from conception through the different phases of production (involving a combination of physical transformation and the input of various producer services), delivery to final consumers and final disposal after use (Kaplinsky, 2000, p. 121)

The dimensions of analysis within the GVC approach can be divided into two main areas. The first two dimensions, the input–output structure, and the territoriality of the chain, are largely descriptive. They describe the discrete value chain activities that spread across organisations and locations within the industry or sector being examined. The other two dimensions, the governance structure and the institutional settings, are causal and more analytical. These two dimensions are the central innovative feature of the GVC approach. They explain the organisational and spatial features of a GVC and highlight the external pressures that limit the decisions made by actors in the chain (Sturgeon, 2008). According to Neilson and
Pritchard (2009) these causal dimensions are linked by the concept of upgrading, which is the process in which economic actors are able to improve their position within the GVC to capture greater ‘rents’. The concept of value chain upgrading is the central thematic concern of this thesis, and will be further developed in Chapter Two.

1.1.2 Global Value Chains as a development strategy

GVCs are now frequently applied as a development strategy, whereby upgrading initiatives are enacted or supported by various actors within and external to the GVC. As it is used in the GVC literature, the concept of upgrading has tended to emphasise the significant role played by lead firms in driving upgrading for local firms and other economic actors in developing countries. It was initially discussed in relation to industrial upgrading, where it referred to the ways where economic actors in the developing countries could enhance their capacity by initially integrating into global value chains (Gereffi, 1999).

Having linkages with global buyers, a firm in a developing country can develop know-how about producing high quality products, operating efficiently, designing products and even develop its own brand (Gereffi, 1999; Humphrey & Schmitz, 2000). In this regard, global buyers – or lead firms in the parlance of GVC theory - have a strong influence in shaping upgrading possibilities for economic actors in particular industrial value chains, such as the apparel industry (Gereffi, 1999), global cocoa-chocolate industry (Fold, 2001), agricultural sector (Gibbon, 2001; Gu, Liu, & Sui, 2008; Humphrey, 2005; Kaplinsky, 2004), and the automotive industry (Gu et al., 2008).

The important role of lead firms or global buyers in driving industrial upgrading, however, needs to be extended to a discussion of the significant role of institutional settings, and actors such as the state and development agencies, in driving industrial upgrading and supporting poverty alleviation in developing countries. It has been demonstrated (Neilson and Pritchard, 2009) that chain governance structures and institutional settings are mutually constituted, and elsewhere that the state has been pivotal in driving upgrading for the local horticulture producers (Selwyn, 2008). Therefore, this thesis will examine the role played not only by lead
firms, but also the Indonesian state and international development agencies in supporting upgrading.

In the context of development agencies, the GVC concept has been mainly employed in the context of improving the livelihoods of the poor producers by linking them to global buyers. In this regard, upgrading is the underlying concept to support pro-poor development strategies as adopted by various Development Agencies such as, UNIDO (2011), USAID (Kula, Downing, & Field, 2006; Panlibuton & Lusby, 2006; Panlibuton & Meyer, 2004), The Netherland Development Organization-SNV (Baan & Janssen, 2006), and German Technical Cooperation Agency GTZ (2008). The application of GVCs as a development strategy in this way, shows that lead firms, state and development agencies alike can amplify upgrading processes through specific interventions that might improve the livelihoods of poor producers in developing countries. This thesis addresses the role and impact that these three sets of institutional actors perform in facilitating upgrading outcomes in the Indonesian cocoa industry.

For the above reasons, this study contributes to a real-world understanding of the processes of upgrading in a specific industry, looking at how the positionality of these three actors drive the institutional settings of the value chain in developing countries, and ultimately how this positionality shapes outcomes for smallholder cocoa producers.

1.2 Why the Indonesian Cocoa Industry?

The Indonesian cocoa industry had expanded rapidly since about 1980, when it contributed little to global supply, to become the third largest cocoa producer in the world in late 1990s, contributing around 13 per cent of global supply in 2000. During this time, it provided a vital source of cash income for many remote rural communities and helped some households escape from poverty. However, this remarkable achievement in the 1990s had been somewhat overshadowed by the latent issues of declining cocoa production that has occurred since, due to pest and disease infestations and aging trees. The cocoa producers are mainly smallholder farmers (estimated at numbering around 500,000 farmers), and most of them are poor, or potentially fall under the ‘nearly poor’ category. As a result, their income is
just slightly at or above the poverty line, and declining levels of production would also impact on the increasing number of poor people in the country.

It is not surprising that various actors are very concerned to improve cocoa production, such as the state, the development agencies and the lead firms in the cocoa industry. The Indonesia state for example, had launched the 300 million dollar National Cocoa Program (GERNAS) in 2008, to revitalize the industry by focusing on the rehabilitation, replanting and expansion activities (Departemen Pertanian, 2008). Meanwhile, Development agencies such as USAID supported the Indonesian government to improve the cocoa sector by granting four consecutive projects between 2000 and 2010, in which the focus were on improving the income of the poor farmers through combating the pests and diseases infestation and facilitating market linkage. Finally, chocolate companies, such as Mars Inc. through its local operation, PT. Mars Indonesia, have supported technical capacity building for smallholder farmers along with its commercial operations/ buying stations throughout the country.

Despite this support from the key actors towards national cocoa production improvement, production data from the International Cocoa Organisation (the ICCO) indicates a significant decrease from the highest level of 560 thousand tonnes in 2005 (ICCO, 2008) to 425 thousand tonnes in 2014 (ICCO, 2014a). This data raises an interesting question; what factors underlie these various interventions such that national production has declined, reflecting an apparent failure to support upgrading at the farm-level? Three case studies of interventions by the three sets of actors will explore the underlying factors of program upgrading delivered by each institution in the following result chapters in this thesis.

Industry upgrading can also occur by firms in a particular region or country assuming new functional roles within the global value chain, such as engaging in the downstream processing of raw materials. In relation to upgrading of cocoa processors, the Indonesian government has used trade policy as a tool to encourage value-adding upgrading activities in Indonesia. In 2007, the national government abolished a value added tax on cocoa; and in 2010, it imposed an export tariff for
unprocessed cocoa beans. This combination of policies was hoped to improve the international competitiveness of the Indonesian processing sector (cocoa grinding).

After three years of implementing these government policies (2009-2011), the result of government policies has been to encourage significant foreign investment in Indonesian cocoa processing activities, but with few local processors benefitting from these policies. This thesis, then, is concerned with processes of upgrading occurring at two key nodes in the value chain: i) at the producer level, where farmers are encouraged to grow cocoa more efficiently through ‘process’ upgrading; and ii) at the industry level, where firms have been encouraged to engage in ‘functional’ upgrading and the downstream processing of raw material into intermediate cocoa products, and in some cases consumer products.

Looking from the GVC perspective, the success of interventions to encourage Indonesian cocoa industry upgrading, are ultimately related to the global market dynamics. The Indonesia cocoa industry is a part of global cocoa industry which has undergone dramatic and dynamic re-structuring. The important features of the restructuring are the increasing concentration of global players, processors and chocolate manufacturers, mostly as a result of corporations’ strategy to stay competitive in the market. As the majority of final products of cocoa beans are marketed and produced by a handful of multinational companies in the consuming countries, therefore, any changes at this global market will eventually affect actors in producing countries. Promoting upgrading as a national strategy, therefore, may occur if it is in line with the multinational companies’ strategy. This notion is widely accepted in the global value chain literature, where the global firms have an important role in facilitating firms or business actors in providing market access, transferring knowledge and latest technology. Adding to this, and as emphasised throughout this thesis, industry interventions are inevitably embedded within the vested interests of the particular actors implementing them. For the government and development agencies, the interest might be to support the poor people out of poverty (although it is rarely this straightforward); for the private companies, as indicated by Fold and Neilson (2016), on top of a possibly genuine interest to support the poor farmers, their primary interest is in ensuring corporate profits and a sustainable supply or raw materials. The question is, therefore, in what
circumstances could these interests converge to facilitate genuine upgrading opportunities for actors in developing countries?

There has been minimal discussion in the literature of the role and influence of the positionality of states, development agencies and lead firm in facilitating upgrading within the global value chain. Addressing this relative research gap would allow us to better understand how to engage in the GVC in a way that facilitates meaningful upgrading to take place.

1.3 Research Questions

With the above conceptual and empirical backdrops, this thesis attempts to advance understanding of the upgrading concept in the GVC through the cases of state, development agencies and a lead firm driven initiative in a specific sector in a developing country. Three main questions guided this aim: (1) What interventions have been undertaken by the state, firms and development agencies to promote upgrading within the Indonesian cocoa industry? (2) How are processes of value chain upgrading facilitated and shaped in practice by the actions of these different sets of development actors? (3) How can an improved understanding of upgrading processes be usefully applied to ensure appropriate development outcomes in developing countries?

1.4 Methodology

This research was conducted through an industry-wide case study of the Indonesian cocoa value chain. The case study method is useful to understand a complex problem and to understand the underlying factors in decision making (Scholz & Tietje, 2002). George and Bennet (2005) identified four advantages of doing the case study method that make it valuable in testing hypothesis as well as in theory development: ‘the method has potential to achieve high conceptual validity; strong procedures useful means to closely examine hypotheses, exploring causal mechanism in the context of individual cases; and, their capacity for addressing causal complexity’ (p.19). The qualitative method applied in this thesis is considered to possess three strong characteristics of describing, understanding and explaining (Hamel, Dufour, & Fortin, 1993, p. 39). As such, those characteristics were strongly
presented in the result chapters. The presentation of the cocoa industry case was
delivered through embedded cases of three development actors in the industry; the
Indonesian state, development agency and lead firm.

The complexity of issues in the cocoa industry required a thorough analysis. The
analysis required supporting data materials from multiple sources of evidence.
According to Yin (2003), the case study method employs various evidence such as,
archival records, documents, interviews, participant observation, direct observation,
and physical artefacts. He further pointed out that ‘the various sources are
complementary and a good case study will therefore use as many sources as
possible’ (p.80).

Two periods of fieldwork were conducted. The initial period of field work was
conducted in Indonesia during the period of July 1st to October 28th, 2010; and, the
second field visit was conducted from December 1st, 2013 to April 4th, 2014. Some
methods were specifically employed for specific chapters, while some others were
generally applied for several resulting chapters. The various data gathering methods
employed during that period are as follows:

a. Collecting information from archival records. Archival records have many forms,
such as ‘service records, organizational records, maps and charts, list of names
and relevant commodities, survey data, and personal records’ (Yin, 2003, p. 83).
Yin (2003) indicated that in certain cases, the data obtained from the archival
records, can be very important, even becoming a main source of analysis, but in
some other cases, it might be only passing relevance. As such, following the
structured presentation of this research (presented in later section of this
chapter), archival data was became the main source of analysis in the chapter
three, as the chapter presented a descriptive analysis of Global Value Chains of
cocoa industry. While in the chapter four and six, the archival records were used
to merely support the discussion in those chapters. For example, presenting the
comparative data between Indonesian beans export and Malaysian grinding
capacities, and presenting the list of institutions and trainers that had been
trained by Mars. Among the data obtained from the archival records during the
research were beans production, total cocoa farms, export and import of cocoa
beans and semi processed cocoa products. That data was collected from the Bureau Statistics of Indonesia, FAOSTAT, ICCO, and CSP records. Lists of industry players and charts about cocoa grinding capacities in Indonesia were obtained from ASKINDO (the Cocoa Association of Indonesia).

b. Reviewing documents both from internal documents and newspapers. According to Yin (2003), there are a variety of documents that could be sources of information. These include letters, memoranda, agendas, announcement and minutes meeting, written reports, proposal, formal studies and newspaper clippings and other articles appearing in the mass media (p.81). Those documents are helpful to validate and amplify evidence from other sources, such as verifying the correct spellings and titles or names of organizations that might have been mentioned in interviews; ‘corroborating information from other sources’; and, doing inferences from documents (Yin, 2003, p. 81). In my research, data obtained from internal documents contributed to the analysis of chapter four, five and six. For example, GERNAS documents and Export Tax Decree from the Government of Indonesia; and, meeting minutes, letters, and file presentations related to the government policies from ASKINDO, contributed to the analysis of chapter four. Project design documents, progress reports, presentations and evaluation reports of IFC and USAID funded projects contributed to chapter five. Meanwhile, internal websites and reports from Mars, and CVC-CDC program design documents were contributed to the discussion in chapter six. In addition to those documents, reviews of various newspaper articles on the cocoa industry development, both in the national and international media outlet were undertaken. The reviews set the background context of the industry, becoming secondary sources; and at the same time also became a primary data source for discussions, mainly in chapter four and six. The review focused on the period of January 2009 up to December 2014. It was an important period in the Indonesian cocoa industry, since it was the period when the Indonesian government started implementing GERNAS and export tax, and where Mars start applying policy on sourcing certified cocoa beans. It is important to highlight that those documents were used in aggregation with other sources of information, such as interviews and observations that also carried out through this research.
c. Conducting interviews with cocoa industry stakeholders. Interviews are generally considered the main element of data gathering for the case study approach (Yin, 2003, p. 85). The interviews for this thesis were undertaken through a combination of the open ended and semi structured interview styles. The open ended question generally started by asking a single question and allow the interviewee to answer freely, with the interviewer only following interesting matters arising during the interview; meanwhile, semi structured interview is an interview where the researcher has prepared a list of questions with specific topics to be covered (Bryman, 2004, p. 321). Through this method, three main issues were addressed in this study. The first was information related to the government policy, and its impacts to the industry players. This discussion is mainly presented in chapter four. The second was issues related to dynamics of Development agencies working to facilitate market and financial access for the smallholder cocoa farmers, which was discussed in chapter five; and, the third were issues in the supply chains, such as smallholder cocoa production, quality of cocoa beans, market, price, cocoa standards and strategies of multinational players sourcing cocoa beans in Indonesia, all of those were discussed in the chapter 6. During the field work, 37 stakeholders were interviewed, including actors in the supply chain, (smallholder farmers, local traders, exporters, and processors), Government institutions (Deputy Ministry of Agriculture, Director General of Processing and Marketing for Agriculture, Director of Estate Crops, Head of Estate Crops at the provincial and district level), The industry associations (ASKINDO, Indonesian Cocoa Farmers Association (Asosiasi Petani Kakao Indonesia -APKAI), Indonesian Cocoa Industry Associations (Asosiasi Industri Kakao Indonesia-AIKI)), and Non Government Organisations (NGOs) working for cocoa development and local banks. At times, those interviewed also facilitated access to internal company reports that were not otherwise publicly available.

d. Conducting a Focus Group Discussion (FGD). This method is a form of group interview which was attended by several participants, with 'the emphasis in the questioning on a particular tightly defined topic; and the accent is upon interaction within the group and the joint construction of meaning' (Bryman, 2004, p. 346). The FGD has several advantages. According to Bryman (2004), for
the researcher, it helps ‘to understand why people feel the way they do; to study the ways in which individual collectively makes sense of a phenomenon and construct meaning around it; to stand a chance of ending up with more realistic accounts of what people think’ (p.348). The FGD was conducted with 11 farmers, mostly the head of farmer groups in Polman district, West Sulawesi. The main topic was the implementation of the GERNAS, in particular questioning how effective the program improves farmers’ cocoa production, which was mainly discussed in the chapter four.

e. Doing participant-observation during the field visits. Participating in training of trainers (TOT) of Rainforest Alliance (RA) certification. Participant observation is active participation where the researcher might play a variety of roles within a case being investigated (Yin, 2003, p. 87). The method helps the researcher to ‘observe what actually happens, rather than what people say happens; it also helps the researcher ‘to discover the unwritten rules or norms of people’s behaviours (Howe & Lewis, 1993, p. 86). This method was undertaken as the opportunities arose during field visits and training activities. At this training, the researcher was involved in the steering committee of the TOT and as a moderator during the two full days of class room training plus one day cocoa farm visit. The researcher also joined four management meetings of Cocoa Sustainability Partnership (CSP), discussing the current industry issues such as export tax, GERNAS, and international certification programs targeting smallholder farmers.

f. Another important data source was obtained from a structured survey of 200 cocoa farmers in Papua and 600 cocoa farmers in Sulawesi, conducted in 2008 and 2009 prior to and at the onset of research for this thesis. I led this field survey team, and much of the data remains largely unpublished. This survey focussed on farmer livelihoods, land ownership, and farm practices, pest and disease infestations, productivity, source of credits, and types of relationship to buyers. The process of the field survey was conducted through (i) training five enumerators, then continued with (ii) questionnaire testing and adjustment, and followed by (iii) field surveys with two hundred farmers and (iv) finally, tabulating result in a standard format. This survey is referred to as the SRTA
(Survey Rumah Tangga ACIAR) survey for the remainder of the thesis, and provided an important source of information and insights into development processes from the perspective of smallholder farmers.

g. Undertaking direct-observation about Mars operation in Sulawesi. This observation was conducted through a less formal data collection process during the second field visit, and included opportunities during the course of undertaking field interviews. During the visit period, 12 stakeholders were interviewed and two field approaches were employed:

i. Participating in the National cocoa conference on certification, in Makassar South Sulawesi, on December 10th, 2013.

ii. Conducting field visit, observation and semi structured interview at the Mars field operation in South Sulawesi, covering Makassar, Luwu District, North Luwu District and East Luwu district during a one-week period between March 5th to 12th, 2014. All those areas are the major cocoa producing districts where Mars run operations right in the centre of cocoa production regions.

It is relevant to note that the researcher has been involved in various cocoa industry initiatives since 2004. In this way, I have at times been an ‘insider’, which has helped me gain specific insights into the perspectives of industry actors and other stakeholders. However, it is also likely to have affected the way I have been perceived by various industry actors. From 2004 until 2008, I was an Agribusiness Development Analyst with the International Finance Corporation (IFC) on its Program for Eastern Indonesia Small and Medium Enterprises Assistance (PENSA) program, and the Executive Secretary of the Cocoa Sustainability Partnership from 2005 until 2008. In 2013, I commenced work as the Program Officers for the livelihood program at the Ford Foundation. These experiences have permitted valuable insights as a ‘participant’ within efforts to facilitate upgrading within the Indonesian cocoa industry.

This study tries to portray and understand the real issues faced by cocoa industry players in Indonesia with regard to the issues at the international, national and local level that influence the upgrading activities to take place. Therefore, multiple
methods are applied. By doing this, it is expected that the comprehensive picture of the cocoa industry can be described and discussed thoroughly. As such, the process of triangulation was conducted using multiple sources. According to Yin (2003) the process of triangulation is ‘much more convincing and accurate if it is based on several different sources of information, following a corroboratory mode’ (p.92).

The analysis of the case study evidence employed a theoretical proposition approach with Explanation-Building techniques. According to Yin (2003), theoretical proposition is about causal relations—answering ‘how’ and ‘why’ questions, reflected in a set of research questions, review of literatures, new insights, which in turn guide the case study analysis; it helps the researcher to present the entire case study and to define alternative explanations to be examined (p.102-106). The explanation building techniques develops a case in the narrative form, where the explanation reflects some theoretically significant prepositions, and is applied not simply as an analysis of each individual case, but also in the cross-case analysis (Yin, 2003, pp. 110-111). The presentation of this case study research was guided by the research questions presented in the previous section, as theoretical prepositions. Those questions help the researcher to qualify data materials to be presented and examined in the results chapters. The analysis of each chapter was built to explain the individual case studies presented in chapters four, five and six. Those three chapters will be tied together in the cross-case analysis in chapter seven, building an explanation of potential theoretical contributions and future policy recommendations.

In summary, the various methods applied in this research were intended to gather data that can describe a comprehensive picture of how the cocoa industry works in Indonesia. The data gathered through these various methods has allowed strong evidence to enrich or even challenge the applicability of upgrading concepts within the GVCs.

1.5 Limitations

Throughout this study there are several limitations to be acknowledged. First, the limitation is in the context of presenting the GVC of the cocoa industry. Even though the global value chain framework should rightly encompass all actors from input
suppliers up to the retailers and consumers, the scope of this study focuses on smallholder farmers, traders and cocoa processors in Indonesia. These actors are the major beneficiary of the upgrading activities in Indonesia.

Second, through this study, there are three case studies presented as the driver of upgrading in the case of cocoa sector in Indonesia. In this regard, the main limitation in this study is the cases may be specific to the three actors that drive upgrading in the cocoa industry in Indonesia, the Indonesian state, the USAID and IFC as the Development Agencies, and PT. Mars Symbioscience as a lead firm. Even though these organisations are major players in the Indonesian cocoa sector, the results derived from this study could be specific to those organizations.

1.6 Structure of the thesis

This current chapter (Chapter one) has set the background to the research, including the theoretical foundations of study, case background, and methodology conducted during the study. Chapter two reviews the literature on processes of economic development and the alternative, the global value chain framework. The concept of upgrading in the GVC is further discussed in relation to its application as a Development Strategy by the State, Development Agencies and Lead Firms with the primary objective to alleviate poverty. Chapter three presents the Global Value Chain for cocoa, describing recent trends and issues from farming systems to the consumers demand in the global cocoa industry. The GVC dimensions of input-output, territoriality, trade policies, market restructuring and governance in the global context are discussed to set up a basis for the upgrading discussion in the Indonesian context. Chapter four presents the role of the state in facilitating upgrading for domestic cocoa players. Through this chapter, the discussion emphasises the underlying factors driving the state to exercise government policies, programs, regulations, and infrastructure supports. Chapter five examines the role of development agencies in driving upgrading for small producers. It discusses the programs and initiatives from development agencies to facilitate upgrading for the very weak actors in the cocoa value chain. Program supports and the underlying factors that motivate the Development Agencies are discussed. Chapter six looks at the role of multinational buyer linkage programs with smallholder farmers. This
Chapter seven brings together the field results presented in Chapters Four, Five and Six into an analysis of how the various interests interplay to facilitate upgrading in Indonesia. This discussion elaborates on the need to develop improved analytical frameworks for understanding upgrading processes that are both actor-oriented and politically-sensitive. Chapter eight concludes the study.
2 ECONOMIC DEVELOPMENT AND GLOBAL VALUE CHAINS: FROM THEORY TO DEVELOPMENT STRATEGY
CHAPTER 2: ECONOMIC DEVELOPMENT AND GLOBAL VALUE CHAINS: FROM THEORY TO DEVELOPMENT STRATEGY

2.1 Introduction

There has been extensive discussion of how governments in the developing countries could appropriately adopt suitable strategies to lift their economies. The debate on suitable strategies to improve the economies intensified in the post-World War II period, when many of the newly independent countries sought development strategies to alleviate poverty.

This chapter will discuss the traditional approaches to economic development strategies that have been undertaken over the last six decades, and the alternative, contemporary development approaches adopted to advance the developing countries. The discussion is organised into three main sections. In the first section of this chapter, I will review the key literature on economic development starting from the 1950s, in an attempt to provide (a) a theoretical background to the development strategies that have been employed in developing countries, and, (b) an understanding of the underlying ideological economic paradigms of the competing approaches. The discussion will focus on the rise and fall of different economic development theories and on the historical moments that have marked the changes in their popular application.

The second section discusses a contemporary approach to development strategy that borrows explicitly from the concept of Global Value Chains (GVCs). This concept, which is both an emerging theory and an analytical tool, was initially presented to facilitate a better understanding of the modern national and global dynamics of economic development. Literature related to the concept is reviewed and discussed to portray the evolution of the framework, from the initial theorisation up to the latest development application of the concept.

Finally, in the last section drawing upon the GVC literature, I discuss the concept of ‘upgrading’ both as an analytical tool and as a specific development strategy. In this section, upgrading is intensively discussed, in particular economic upgrading as a
development strategy, along with the roles of the economic and development agencies driving the upgrading activities. As a development strategy, upgrading emphasises the need for firms in developing countries to initially position themselves within global value chains. Positioning could be undertaken through a linkage with the leading firms within their respective industries. In this context, GVC theory emphasises that leading firms have an especially significant role to play in nurturing the capacity and capability of firms in developing nations. After acquiring the requisite knowledge and skills, firms in developing countries can gradually improve their competitiveness and their business scale, which in turn will create jobs and improve the economy. I will argue that states and development agencies play equally significant roles in facilitating upgrading activities for actors within global value chains, especially for the weakest actors. This argument will be further elaborated upon in chapters four and five and six of the thesis.

2.2 Overview of economic development theories: Theoretical background

Almost all of the theories on economic development since World War II have been influenced by competing ideological positions; that is, they have either embraced liberal ideas of markets or emphasised the role of the state in shaping economic activities. This background literature review will explore influential economic theories of development in an attempt to understand the ideological underpinnings of the particular development policies.

2.2.1 Modernisation theory

Modernisation theory emerged in the 1950s as an influential discourse to prescribe an economic development path for the newly independent countries in a post-colonial world. During this period, the cold war between the US and the Soviet Union escalated: rivalry extended to gaining influence in the developing countries, particularly regarding their economic development strategies. Political competition expanded to include a contest between the liberal free market ideologies rooted in Adam Smith’s notion of the ‘invisible hand’ of the market shaping the wealth of nations, a notion championed by the US; and a socialist ideology whereby the state played a major intervening role in both markets and planning. The latter ostensibly a Marxist ideology, promulgated by the Soviet Union (Webster, 1984).
W.W. Rostow, a US economist, was perhaps the foremost proponent of modernisation theory. In his classic work, titled ‘The stages of economic growth’, he outlines five stages of economic development based on the historical stages of eight industrialized countries: the UK, the USA, Germany, France, Sweden, Japan, Russia and Canada. The stages started with the traditional society, wherein a majority of economic activities were derived from agriculture. The second stage involved the preconditions economic for take-off, characterised by the expansion of trade and the emergence of industrial innovations. The third stage, take-off, saw modern industrial techniques applied to various sectors including agricultural processing, railroads extensions and ship building. The next stage was the drive to maturity; that is, when society effectively applied a range of technologies to the bulk of its resources, putting heavy engineering at the centre of economic growth. Around this time, the number of people working in agriculture decreased significantly while the proportion of semi-skilled and white collar workers increased. The final stage was the age of high mass consumption. At this stage, the economy was orientated mostly towards services and consumer goods, which were being produced on a massive scale (Rostow, 1959).

Rostow’s ‘stages of economic growth’ intended to argue against the Marxist view of modernisation. Despite the similarities that marked the traditional societies in the initial stages and subsequent industrialisation, the Marxist view argued that the stage of high mass consumption would be followed by a worker revolution culminating in a communist society. Communism assumed common ownership of the means of production as opposed to individualist-utilitarianism that is the hallmark of competitive markets and private property (Rostow, 1959, pp. 1-16).

Alexander Gerschenkron, an economic historian who specialized in Russia and Eastern Europe in the 1960s, countered the uniformity stages of Rostow’s theory with the introduction of his ‘backwardness’ theory. The key idea behind his theory was that countries undergoing industrialization would have different experiences depending upon their degrees of backwardness when industrialization commenced. Explaining Gerschenkron’s critique, Gwynne (2009) writes: ‘As other countries modernise and backwardness in a country deepens; the underprivileged society will become increasingly sensitive to the contrast between itself and modernizing elites,
and new ideologies could galvanize a society toward a ‘spurt’ of industrialization and accelerated growth’ (p.165).

Both Rostow’s and Greschenkron’s theories were based upon Durkheim and Weber’s theories, in particular their views on modernity, which contrasts between traditional and modern societies. In his first major work, *The Division of Labour in Society* (1893), Durkheim emphasized the gradual shift from ‘traditional to modern’ societies in response to the needs for scarce resources. Weber elaborated upon the contrast between traditional and modern societies emphasising ‘rationality’ in society. Societies expanded their capitalist manufacturing to establish profitability and capital accumulation through an efficient use of capital, expansion, cost reduction, diligent investment, and meeting consumers demand (Webster, 1984, pp. 45-49).

### 2.2.2 Dependency theory

In the early 1960s, Dependency theory was employed to describe the underdevelopment of many developing countries, many of which had experienced the control of colonial countries. Frank (2008) argues that the assumptions used in the dual society of modernisation theory are false, due mainly to the incorrect assumption within modernisation theory that the past and present of the underdeveloped countries resemble the earlier stages of the developed countries (p.258-259). In fact, it is very important to consider external factors, e.g., economic and other relations throughout the histories of the developed and underdeveloped countries; in other words, aspects of unequal relations between the ‘metropolis’ and its ‘economic colonies’ that occurred throughout history in the ‘expansion of [the] mercantilist and capitalist systems’ (Frank, 2008, pp. 258-259).

Raul Prebisch, an Argentinian economist, who initially postulated this unequal relationship in the international economic system in the 1940s, described it as a process in which one is the industrial centre and the other is the agrarian periphery, with the former dominating the latter (as explained by Love, 1980, pp. 45-46).

Santos (1970), another Latin American economist, explores this view through the definition of dependency:
[It is] ...a situation in which the economy of certain countries is conditioned by the development and expansion of another economy to which the former is subjected. The relation of inter-dependence between two or more economies, and between these and world trade, assumes the form of dependence when some countries (the dominant ones) can expand and can be self-sustaining, while other countries (the dependent ones) can do this only as a reflection of that expansion, which can have either a positive or a negative effect on their immediate development (p.231).

Frank uses the term ‘metropolis-satellite structure’ to delineate the impact of this unequal relationship of ‘industrial centre-agrarian periphery’. The first key implication is that this structure leads to development in the metropolis and underdevelopment in the satellites. For example, although development of the metropolitan cities of Buenos Aires and Sao Paulo began in the nineteenth century, they were and have remained satellite developments of Britain and the United States. Second, it was also argued that the greatest satellite development occurs when peripheral ties to the metropolis are weakest. For example, the most rapid development of Latin America seemed to occur following the cessation of its relationship with its former colonial countries during World War II. Another example of a non-participation satellite, due to its relative lack of natural resource wealth, is Japan, which rapidly developed its economy following the Meiji restoration period.

Finally, Frank argued that the most underdeveloped and feudal regions today are those which had the closest ties to the metropolis in the past. He took, for example, the former super satellite development and present ultra-underdevelopment of the once sugar exporting West Indies, North-eastern Brazil, the ex-mining districts of Minas Gerais in Brazil, highland Peru, Bolivia, the central Mexican states of Guanajuato, Zacatecas, and others whose names were made world-famous centuries ago through silver mining (Frank, 2008, pp. 262-265).

Greek economist, Arghiri Emmanuel postulated ‘unequal exchange’ through trading is also considered a source of inequality and dependency (Emmanuel, 1977). As for Emmanuel (1977) employing the theory of unequal exchange, presented another form of dependent relationship between the rich (metropolis-centre) and poor countries (satellite-periphery). Explaining Arghiri Emmanuel theory, Hartwick (2009) describes how the theory ‘contrasts the perfect mobility of capital with the relative immobility of labour’, and has resulted in vastly different wage rates concerning the two (p.94). It was suggested that peripheral countries export agricultural products,
which embody large quantities of cheap labour, and import industrial products representing small amounts of expensive labour. This unequal exchange conducted through trading activities led to the devaluation of exported products from the periphery. In turn, it has the potential to cause major economic stagnation in the poor periphery countries, as explained in Hartwick (2009, p. 94).

Drawing on the above viewpoints, dependency theory scholars have assumed that market failure is an internal characteristic of an underdeveloped economy, and that the state has an important role to play in correcting it. Raul Prebisch along with Celso Furtado, a Brazilian economist, were visible advocates of such interventionist approaches, which have been translated into a development strategy for industrialization, namely the Import Substitute Industrialization (ISI) strategy (Love, 1980; Szmrecsányi, 2005).

The ISI strategy is now generally acknowledged to have resulted in both positive and negative impacts on national economies. Benefits were generated from: protecting infant industries; helping to diversify the economy; reducing excessive dependence on imported consumer goods; utilising some domestic natural resources; creating opportunities for employment; and, contributing to economic growth. Conversely, the policy has several well-known weaknesses including an inducement for inefficient and uncompetitive industries, particularly those subject to economic scale underutilization and nurtured by protection, balance-of-payment deficits, and the potential to create a monopolistic market structure (Alavi, 1996, pp. 18-35).

According to Webster (1984), both the modernization and dependency theories explain poverty as a product of economic and social structures, and not primarily of cultural values. The main difference was the analysis that saw an explanatory shift from ‘tradition- modernity’ towards a ‘non-capitalist to capitalist society’ relationship, that directed analytical emphasis away from the ‘centres’ rich countries to the ‘peripheral’ poor countries of the world economy.

It is interesting that the discourse surrounding economic development that emerged between the 1950s and the 1970s intensified during the cold war between the United States and the Soviet Union, wherein both sides promoted their respective ideological views of the political and economic system. The influence of
the cold war, either directly or indirectly, extended their ‘battle ground’ to the
developing countries in the form of ideological economic paradigms.

### 2.2.3 Washington consensus

In the 1980s, the Latin American countries faced various economic crises including
huge external debts, crises believed to have been caused by accumulated issues
originating from ISI policies and a hike in international oil prices during the 1970s.
Imported oil required quick cash; but the inward looking orientation of ISI policy
that had been adopted for several decades did not allow them to raise export
earnings. As a result, the Latin American countries experienced an imbalance in
foreign exchange, resulting in increased external obligations (Franko, 2007).

In an effort to relieve the debt burden of the Latin American countries, John
Williamson argued for the need to help the debtor countries to overcome the
countries’ burden using good policies instead of the Brady Plan\(^1\). Williamson coined
the term ‘the Washington Consensus’ for a set of policies that seemed to reflect the
broader views of various Washington-based organisations. The consensus has been
explicitly associated with ten policy instruments: (1) fiscal discipline; (2) controlling
budget deficits; (3) prioritizing public expenditure on basic health care, education
and infrastructure; (4) financial liberalization; (5) ensuring a competitive exchange
rate; (6) trade liberalization; (7) liberalization of inward foreign direct investment;
(8) privatization; (9) deregulation; and, (10) securing the informal sector to gain

Several points indicated that the Washington Consensus underlined the views of
free markets and liberalisation paradigms as an approach to generating efficient
economy and growth. According to Öniş & Şenses (2005), this efficient market view

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\(^1\) This was a U.S. strategy that emphasized debt-forgiveness for highly indebted developing
countries, named after US treasury secretary Nicholas Brady who proposed the debt-reduction
agreement ideas; whereby bonds issued by the International Bank for Reconstruction and Development
(IBRD) to convert bank loans to mostly Latin American countries into a variety of new bonds to help their
defaulted national debts 1980s.
was rooted in the neoliberal orthodoxy's preference for individualism, market liberalism, and a smaller role for governments in the economy.

This view seems to have been widely accepted by the International Financial Institutions (IFIs), the World Bank and the International Monetary Fund (IMF), which began using these policy reforms as a condition of lending to developing countries (Sheng, 2009, p. 110), and as a means to create efficient markets. This approach contrasted with the ISI strategy adopted by many Latin American countries, which embraced heavy reliance on 'government manipulation of market prices, barriers to entry and access to imports and finance' (Felix, 1989, p. 1455), all of which appeared to contribute to the debt crisis of the 1980s.

The reduction of government intervention in the market became a general rule for the IMF when dealing with economic crises. But, during the Asian economic crisis of 1997, that mainly affected Thailand, Malaysia, Indonesia and Korea, IMF programs not only accelerated the crisis but turned it into a recession (Stiglitz, 2003). The IMF program in Korea, for example, pursued financial liberalisation and floating of the exchange rate, a combination of which led to wild fluctuations in the Korean Won (KRW). The currency devalued around 90% in two months; but, it stabilised in six months after an aggressive high interest rate policy, as high as 30% (S.-J. Lee & Han, 2006, p. 307). In Indonesia, the IMF program not only impacted in economic and monetary terms, but also led to massive social riots culminating in political regime change. Based on the experience of responding to the Asian crisis, the highly prescriptive application of market liberalization in developing countries was seriously questioned, and led to the setback of the Washington consensus, even the underlying assumptions about minimum state intervention for an efficient market.

Joseph Stiglitz, exploring the dominant economic theory adhered to in the 1970s, showed that market failures were widespread, especially in developing economies rife with imperfections in information, limited competition and incomplete markets. Under these conditions, it is evident that markets are not always operating efficiently. Therefore, it came as no surprise that the Washington consensus prescriptions failed to work as promised (Serra, Spiegel, & Stiglitz, 2008).
According to Williamson (2008), however, the set of policies had been interpreted differently from their initial intention. There were three main interpretations: the first was that the set of policies has been interpreted as ‘bashing’ the state, a new imperialism, the creation of a laissez-faire global economy and, that the only thing that matters is growth of Gross Domestic Product (GDP), and doubtless much else besides’ (Williamson, 2008, p. 21). Even though Williamson argued that the ten policy reforms did not have any close relationship to the above, economic historians stated that it was implied, as the developed countries ‘kicked away the ladder’ they had used to climb up to where they are now (Chang, 2003, pp. 24-28). As Chang points out that many developed countries only championed free trade after long protection of their economies, when their technological capacity was unchallenged. Britain, in the 19th century, only championed free trade after longstanding tariff barriers associated with the Corn Laws had been implemented between the period 1721 and 1846. In the early 20th century, Germany applied strong tariff protection to its strategic iron and steel industries, while the USA industries were the most protected in the world until 1945. Viewed from this historical perspective, promoting free trade seems to be primarily about the need to open up new markets for products from the developed countries.

The second interpretation is that the policies ‘refer to policies the Bretton Woods institutions applied towards their client countries’. As Williamson (2008) argues, in the beginning there were no differences, but over time some substantive differences emerged, such as in the interpretation of ‘competitive exchange rate’ and ‘liberalisation of capital flows of FDI’ (p.21). Further Williamson explained that the former deviated from either float their exchange rate cleanly or fix it firmly by adopting some institutional device like a currency board, to competitive exchange rate implying intermediate control. This is important, since both fixed and floating rates can easily become overvalued. Meanwhile, the liberalisation of capital moved towards ‘liberalisation of capital accounts’ rather than towards ‘limited liberalization of capital flows to Foreign Direct Investment (FDI)’. In effect, ‘it was the liberalisation of capital that ignited the Asian crisis of 1997’ (Williamson, 2008, p. 21).
The last interpretation of ‘the Washington Consensus’ was that it should be used “as a synonym for neo-liberalism or market fundamentalism”. The application of the Washington consensus, which was originally designed to provide an answer to the Latin American debt crisis of the 1980s, has been interpreted loosely and treated as a single alternative for economic development policies in developing countries. According to Williamson (2008), however, ‘the failure of the consensus started when the policy became a prescription list, advocated to all countries at all times as many critics have interpreted it to be’ (p.24).

2.2.4 Developmental state

The Washington consensus is sometimes associated with a policy of Export Oriented Industrialisation (EOI), a strategy pursued by several East Asian countries (such as Japan, Korea and Taiwan) over many decades at a time when the Latin American countries were adopting the ISI strategy. However, as Wade (1993) points out the East Asian countries’ success was not without government intervention: the state played an active role in nurturing the success of the countries, particularly in selecting industrial policies, providing education, establishing trade protection and social protection, establishing an organization which had the capability to direct state intervention in the process of economic development. A more critical view espoused by Andrew Sheng (2009) is that the World Bank study of the success of the Asian Miracle (World Bank, 1993), which was funded by the Japanese, was essentially an intellectual attack on the World Bank philosophy of liberalism. The study indicated that the ‘Japanese model of development worked because of their strong, and selective government intervention in the markets’ (Sheng, 2009, p. 111).

The ‘Developmental state’ reflects this alternative interpretation of the East Asian development experience (Amsden, 1989; Wade, 1990). Johnson (1999), suggested that high growth in East Asian countries was supported by solid ‘institutional arrangements’ characterised as: (1) putting the economic development of a country as the main priority of state action; (2) guiding markets with instruments produced by an elite economic bureaucracy; (3) establishing an institutionalized relationship between the elite bureaucracy and private business; and, (4) providing a supportive...
political system that will allow the elite bureaucracy to operate effectively. In other words, the underlining factor of the success of the East Asian countries was the strategic role that the state played in the process of economic development (Öniş, 1991, pp. 109-111).

A significant point with regard to the strategic role of that state is that it does not set out to provide an alternative market. Johnson (1999) defines a strategic industrial policy as one that emerges when a ‘state deliberately changes the incentives within markets in order to influence the behaviour of civilian producers, consumers, and investors’ (p.48-50). In support of this definition, Johnson provides an example of American policy intervention in the country’s real estate industry that induced family ownership of houses.

Another important feature of the developmental state is the model of intervention locally rooted in national business contexts (Amsden, 1989). For example, the ‘public-private partnership’ style in the developmental state varies among the East Asian countries. While the Korean style is similar to the Japanese style, which resulted in the Korean chaebol conglomerates, Taiwan has opted not to imitate these styles (Öniş, 1991, p. 118). Drawing upon a comparison of the Japanese, Korean and Taiwanese strategies implementation in developmental states, Öniş implies that there is no standard approach to successful development despite using the same developmental principle. As Johnson (1999) states: ‘None of the East Asian countries is cloning the Japanese development model’ (p.40).

Another aspect to be recognised is the critical existence of twin policy supports and disciplines. Using a subsidy to nurture particular industries and expecting them to survive and be competitive, required discipline of tight business performance evaluation. Otherwise, the subsidy tended to emerge as a source of rent seeking (Öniş, 1991, p. 113). In this context, governance of any related subsidy requires constant evaluation to avoid rent-seeking business behaviour.

Another aspect revealed by Johnson (1999) is the potential for a high level of ‘structural corruption’ that could severely impact upon economic development (p.40). This might happen when the developmental approach undertaken by developing countries was implemented without an explicit pilot agency, such as the
Ministry of International Trade and Industry (MITI) in Japan. Countries including Malaysia, Thailand and Indonesia were among those without this agency, but which assumed a similar approach to economic development. It is interesting, therefore, that these three countries were among the first to be affected by the 1997 crisis.

Adopting a different view of the developmental state approach, Williamson emphasises the role of government in establishing technical education, promoting the diffusion of technological information, funding precompetitive research, providing tax incentives for R&D, encouraging venture capital, and stimulating the growth of industrial clusters (Williamson, 2008, p. 27). These roles are presented as alternatives to industrial policy where government agency favours particular industries and players (Williamson, 2008, p. 27), and ignores the citizens in favour of the elites, a policy experienced by the Koreans (K.-S. Lee, 2009).

In short, the developmental state approach is believed to have been a key factor in East Asian development, where selective state intervention has been the main feature of the approach. The policy strategies developed in the East Asian countries embraced common features of ‘state interventions’ to guide particular industries to compete in international markets (Amsden, 1989; Wade, 1990). Nevertheless, the model of intervention varied, in line with the contexts of national issues in each country. An important lesson from this perspective is the pragmatic approach adopted by the various states to nurture economic development. What is interesting in this approach is, according to Johnson (1999, p. 32), that the economic paradigm underlying the policy ‘goes beyond the contrast between the American and Soviet economies of the cold war’.

2.2.5 Post Washington Consensus

From the mid-1990s to the first decade of the 2000s, various efforts sought alternative development approaches and strategies to respond to the perceived failure of the Washington Consensus. An alternative approach was considered necessary to provide a better approach to developing countries’ development. With this in mind, some new approaches have emerged to provide an alternative, for example the amendment suggestions of the Washington Consensus (Piasecki & Wolnicki, 2004), the Barcelona development agenda (Serra & E.Stiglitz, 2008), and
the BeST (Beijing, Seoul, Tokyo) consensus (K. Lee & Mathews, 2010). Interestingly, the three approaches signify an important role for the state in the tackling of imperfect market failures and strong financial institutions, and promote the need for policy experimentation.

Despite their similarities vis-a-vis the inclusiveness of institutions, the three alternative approaches bring different emphases. The Washington Consensus amendment proposed by Piasecki and Wolnicki (2004) emphasises the need to incorporate comprehensive human behaviour such as ‘developing countries’ religious beliefs, ethical standards, and ethnic traditions’ (p.312). The inclusion of social policy formulations and the removal of business impediments are highly recommended. Emphasis is also on the need for efficient information flows and a mechanism to absorb such information. Lastly, development policy focuses on the well-being of human life and the environment.

In terms of this analytical approach, Piasecki and Wolnicki (2004) maintain that contemporary approaches to development studies more often include ‘interaction between economic, social and environmental problems that may be situated on the local, international or global scales’ (p.312). In such situations, solutions to those problems may come from the ‘public sector, the private sector, or from civil society’ (Piasecki & Wolnicki, 2004, p. 312). Solutions may be rooted in the local needs and suited to the traditional conditions. It became clear that a new economic agenda was required that would initiate sound reforms.

The Barcelona Development Agenda, which was proposed by a group of economists from developing and developed countries who met in Barcelona in September, 2004, identified seven policy lessons which should serve as priorities for reform in both rich and developing nations. The seven policy issues included: (1) the importance of the role of both state and market; (2) prudent financial, monetary, fiscal and debt policies; (3) national freedom in experimenting with policy making; (4) international trade institutions to promote development; (5) international financial arrangements; (6) international flows of capital and labour; and, (7) environment sustainability (Serra & E.Stiglitz, 2008, pp. 58-60). Within the abstract general principles of the Barcelona agenda, it seems that the proposed agenda was
not aimed at tackling domestic development strategies; the agenda suggests international movement to develop better global institutions. In this context, this meant the willingness of the rich countries to restructure the global institutions that were contributing to the imbalance in development.

With reference to the general principal outlined in the Barcelona Development Agenda, Hausmann, Rodrik, and Velasco (2008) proposed a framework emphasising three main considerations: ‘growth strategies; local specificities; and, prioritising solutions to the highest constraints on economic growth’ (p.325-327). Rodrik (2008) further elaborated upon the ‘practical approach to formulating’ growth strategies, an approach that starts with (1) diagnostic analysis of the most significant constraints on economic growth; (2) developing policy design to identify constraints; and, (3) institutionalizing the process of diagnosis and policy response (357-366). Furthermore, Rodrick states that the framework employed economists as evaluators of trade-offs rather than advocates, providing options for economic growth with consequences, without being bound to particular ‘ideological views’ that assume that a similar set of policies could work equally everywhere. In other words, the framework embedded all major existing strategic approaches to growth, and served to clarify the conditions under which they were relevant.

Adopting a different approach from the Barcelona consensus, ‘the BeST consensus’ proposed by K. Lee and Mathews (2010) focused on developing countries’ strategies (91-101). The BeSt Consensus suggested a pragmatic approach to development strategies, drawing on the economic success of the East Asian countries, particularly China, Korea and Japan.

The BeST consensus approach highlighted the importance of sequential development processes, which start by establishing the preconditions for development, in which the state has a strategic role in providing the preconditions, progress to building the capacity of development agents, and developing institutional environments favouring the advancement process. Finally the state exit from the market interventions (K. Lee & Mathews, 2010).

Despite the claim that the BeST consensus has been ‘suitably adopted’ by developing countries, due to the similarity of the efforts employed to alleviate
poverty, the claim may be over simplifying the complexity of the issues and the uniqueness of the individual countries. Some studies (Ellison & Gereffi, 1990; Piasecki & Wolnicki, 2004) indicate that knowledge of cultural values, social conditions, religions, human resources, country endowments, and the ‘historical moments’ that occur during the period of economic development is critical to understanding developing countries problems. All those factors require a vigilant thought when designing solutions for countries problems.

In light with this argument, Stiglitz (2003) argued that globalization and liberalization might open economic growth opportunities in developing countries. But, it could work if undertaken properly and incorporated the characteristics of each individual country. A gradual approach was emphasised when promoting economic development, considering each country is different and it has its own history, culture and traditions. In this context, Stiglitz recognised the imperfect market situations that were mainly ignored by international development institutions such as the World Bank and IMF, when installing the Washington consensus as generic solutions for economic development.

Drawing on the various theoretical backgrounds and approaches alluded to above, clearly those charged with developing policy strategies need an accurate understanding of the real world situation. Implementation requires a framework of analysis that can successfully integrate macroeconomics, the institutional environment at both the local and international levels, the need to improve the capacity of agents of economic growth in developing countries and to acknowledge contemporary global challenges and historical events such as worldwide crises and a global market shift to new emerging economies.

### 2.3 GVC as an analytical framework

The post-Washington consensus debate surrounding development policy seemed to dovetail with an alternative framework for understanding global economic change through global value chain analysis. Gereffi et al. (1994) stated that ‘Global
Commodity Chains (GCC)\(^2\) allows a meso-level of analysis that bridges the macro global scale of world-economic historical structures and an emphasis on the social embeddedness of economic activity within specific geographic locations’ (p.2). In this regard, GVCs integrate different scales of analytical space at the global, national and local level to understand the dynamics of economic development.

The GVC also offers guidance to various decision makers across governments, non-government activists and industry players to design development strategy that could lessen the negative impact of an open economy for communities, workers and industry (Humphrey & Schmitz, 2000). The GVC framework is applicable to various development strategies that could allow various actors in the emerging economy to use the same guidance to advance economic development.

The following discussion will describe the GVC approach in more detail, discussing the roots and the metamorphosis of the theory, and the general dimensions of the analytical framework.

**2.3.1 The roots and metamorphosis of the GVC concept**

In 1994, the Global Commodity Chain (GCC) concept emerged as an alternative way of analyzing economic development strategies, and providing the theoretical foundation for the subsequent evolution of the GVC. The GCC was initially introduced in a book titled “Commodity Chains and Global Capitalism” edited by Gereffi and Korzeniewicz (1994). In particular, the chapter written by Gereffi (1994) titled “The organization of buyer-driven global commodity chains: How US retailers shape overseas production networks” attracted enormous scholarly attention. In this chapter, Gereffi offers the GCC analytical framework which includes three dimensions of analysis: input-output structure, territoriality and governance. Shortly after, the institutional dimension was introduced and subsequently incorporated into the framework. Then, in 1999, the process of industrial upgrading (discussed in greater detail below) was presented as a key analytical concept within GVC analysis (Gereffi, 1999).

\(^2\) GCC is the early name of the GVC concept (section 2.2.1 explains the metamorphosis of the concept)
As various scholars have pointed out, the origins of the GVC concept were rooted in, or at least inspired by Hopkins and Wallerstein’s (1977) World System research (Bair, 2005; Neilson & Pritchard, 2009; Sturgeon, 2008). The term ‘commodity chain’ was initially stated and defined in Hopkins and Wallerstein’s article as follows:

“…what we mean by such chains is the following: take an ultimate consumable item and trace back the set of inputs that culminated this item-prior transformation, the raw materials, the transportation mechanisms, the labour input into each of the material processes, the food inputs into labour. This linked set of processes we call commodity chain” (Hopkins & Wallerstein, 1977, p. 128)

Subsequent to the GCC’s being developed by Gereffi in 1994, the concept has been applied across broad areas of study in the social sciences, marking the acceptance of the term ‘GCC’. For example, it has variously been applied to the study of industrial clusters, and how local firms can be improved by various upgrading paths in the tightly competitive global economy (Humphrey & Schmitz, 2000); to the study of inequality within and between countries (Kaplinsky, 2000); to the study of global industry restructuring and its impact on producers in developing countries (Fold, 2001); and, to the study of the upgrading of agricultural producers (Gibbon, 2001).

Starting around 2000, the GCC metamorphosed into the GVC when various scholars focusing on related network studies met in Bellagio, Italy, to discuss “Global Value Chains Initiatives” as part of a Rockefeller Conference (Neilson, 2014). The shift in terminology was driven by an effort to avoid the narrowly associated term ‘commodity’ with ‘raw products’; and, the intention was to cover the wider studies that had been done on the manufacturing sector (Gereffi et al., 2001).

Even though the terms Commodity Chains (CC), GCC and GVC are similar from the network and chain perspectives, Bair (2005) argues that the terms actually designate clear and distinct conceptual ideas, that could be seen mainly at two key differences. The first key difference has its genesis in the debate surrounding globalisation. For example, when comparing the CC-World System and the GCC, the first sees globalisation as a long historical process starting with the emergence of capitalism in the sixteenth century, while the GCC literature understands it primarily as a contemporary phenomenon, a consequence of the integration of global
production. A second difference is identified in the purpose of the research. The CC-World System perspective emphasises the study of a capitalist world-economy in its totality, including ‘capital accumulation, surplus distribution and tracing the distribution of the surplus between various links’ (Bair, 2005, pp. 154-167). The GCC perspective is more focused on how global particular industries are organised.

The above terms and concepts, signaling relatively recent studies in the literature, indicate that the GVC concept is sometimes interchangeably applied with a similar ‘network’ inspired concept, known as the Global Production Network (GPN). Barrientos, Gereffi, and Rossi (2011) use a GPN metaphor in the introduction to their article and then also use the term GVC to describe the concept of social upgrading. In fact the GPN concept arose as a deliberate strategy to address some of the perceived limitations of the GVC concept and the specific meaning of the chain metaphor (Henderson, Dicken, Hess, Coe, & Yeung, 2002). However, this convergence is not surprising given that much of the GPN analytical framework described by Henderson et al. (2002) showed similarities with GVCs, e.g., recognition of territoriality within production networks (the territoriality), attention to the design, production and marketing (the input-output), the distribution of power discussion (the governance), the significance of labour and the process of value creation (input-output), the institutions, and lastly, technological upgrading and capturing economic prosperity (upgrading mechanism).

2.3.2 The general dimensions of the GVC

The analytical dimensions of the GVC can be classified into five main areas, the input-output, territoriality, governance, institutions and upgrading dimensions, although ‘upgrading’ is sometimes simply considered a process occurring within the chain. Those dimensions allow comprehensive and meaningful understanding of global and local dynamics of economic development. Sturgeon (2008) pointed out that the first two dimensions, the input–output structure and the territoriality of the chain, are largely descriptive. Meanwhile the other two primary dimensions, governance structure and institutional settings, are causal. These dimensions explained the power relationship among economic actors within the value chains and explicate the external and internal environments that restrict policy selections
made by value chain actors. Neilson and Pritchard (2009) argued that these causal dimensions are further linked by the concept of upgrading. The relationship and engagement between the value chains and the institutional settings dictates that specific actors define the potential upgrading within the value chains.

2.3.2.1 Input output

The input-output dimension of GVC can be defined as ‘a set of products and services linked together in a sequence of value adding economic activities’ (Gereffi, 1994, p. 97). This definition, however, is purely a description of products flows, from designing process, transforming raw material to intermediate or finished products, transporting the products to markets, and, finally, consumption of products in final markets.

Gereffi and Fernandez-Stark (2011) classified the description of an input-output structure into two main stages. The first stage is to describe the activities of various actors in the chain, such as research, design, production, distribution and marketing activities; and the second stage is to identify the dynamics and structure of the industry being studied. In particular for the second stage, the description includes identification of the dynamics of sourcing practices: types of companies (multinational or national, state owned companies or private), companies’ scale of operation (global, national, and local); and companies’ size (large, medium or small scale).

In short, the description will map out who the players are in the industry being investigated, how extensive the scale of their operations is, and where they locate their business activities. This ‘industry map or lay-out’, would be the first entry to understand the nature of industry dynamics that later on will be discussed in the following four dimensions.

2.3.2.2 Territoriality

The territoriality is the geographic scope to identify the changing dynamics in the industry being investigated. The dynamics include the shift of production from one area to another, or the shift of markets from a traditional region to an emerging
region. Thus, territoriarity provides a descriptive angle from which to understand the dynamics of real world situations.

The spatiality of production and consumption is very important to grasping the dynamics of an industry. The ‘spatiality helps us to understand how chains operate differently through time and space’ (Leslie & Reimer, 1999, p. 402). Further Leslie and Reiner elaborated that the understanding is essential to any articulation of the poltics of consumption, the formation of industrial policy, to mediating relationships along the chain, recognizing the ways in which consumers transform and use commodities and, finally, to understanding the ways in which goods are linked at the retailing, advertising or consumption sites. At this context, territoriarity provides a descriptive angle from which to understand the dynamics of ground reality.

2.3.2.3 Governance

The governance dimension has been described as ‘authority and power relationships that determine how financial, material, and human resources are allocated and flow within a chain’ (Gereffi, 1994, p. 97). According to Gereffi (2001), governance in the GVC is distinct from both the neo-classical and political economy economic perspectives, as the GVC highlights the power exercised by lead firms, and shapes the economic outcomes of global industries. Neo-classical economics stress the pure market as the key factor in economic progress, whereas political economy tends to emphasise the economic power afforded by state actors in shaping national competitive advantage. Further, Gereffi reiterated that the GVC governance offers an alternative view of examining governance structures in the global economy, emphasizing the organisational structure of transnational companies or lead firms in various industries.

Governance structures were initially differentiated into two types of governance: the ‘producer driven’ and ‘buyer driven’ commodity chains. Producer-driven governance structure is characterised by high capital and technology intensive production activities, wherein transnational companies or manufacturers are the key players in coordinating production networks; for example, producers of aircraft, automobiles, cellular phones and computers. Thus, profit is generated mainly from
innovation of advanced products, the capability to control suppliers and effective marketing activities (Gereffi, 1994).

On the other hand, buyer-driven governance structure is characterised by downstream activities, including large retailers, branded marketers, and branded manufacturers. Sourcing from developing countries commonly becomes a feature of this particular form of governance due to the need for mass labour to produce consumer goods such as garments, footwear, toys, household wares, consumer electronics, and a variety of handicrafts. In this case, profit derives from high-value research, design, sales, marketing and financial services (Gereffi, 1994, 1999). This dichotomous view of organisational governance implies that lead firms exercise considerable power, and that other participants in the chain are dependent on the said firms. However, based on the study of the global cocoa-chocolate industry, Fold (2002) suggests that the power within the chain can also be ‘bi-polar’. Lead roles are played by both the grinders (cocoa processors) and the branders (chocolate manufacturers). The former dominate the supply of cocoa beans, while the latter dominate the final branded products.

In light with this critique, Gereffi et al. (2005) introduced a new typology of global value chain governance, which is constructed around three factors: first, the complexity of transactions; second, the ability to arrange information systematically (codifiability); and lastly, the competence and capability of suppliers. Derived from these three factors, governance is divided into the following five types:

1. **Markets**: products are easy to produce, transactions are simple, and buyers and sellers can easily switch to other parties.

2. **Modular value chain**: products are quite complex but suppliers could produce them with little information and coordination from buyers.

3. **Relational value chains**: products are complex, thus requiring frequent face-to-face interactions and strong coordination between supplier and buyers. For this reasons, the cost of switching to new partners is high.

4. **Captive value chains**: Product specifications are complex but supplier capabilities are low. Therefore, it requires a great deal of intervention and control from the leading firms.
5. *Hierarchy; Products are complex and highly competent suppliers cannot be found; thus lead firms will be forced to develop and manufacture a product in house.*

The above governance typology provides a more detailed explanation to facilitate an understanding of the relationships that may occur between firms in developing countries and lead firms in the global market. Thus, the typology provides an analytical framework designed to capture real relationships among firms in the global value chain.

In this context, the typology will help, for example, policy makers to develop appropriate development strategies for a particular country and industry, which fit the nature of the governance structure within the chain and fit the place where actors or organisations are situated. At this point, an understanding of institutional settings is crucial, to comprehend how markets work in the real world.

**2.3.2.4 The institutional settings**

The institutional settings are the third dimension in the GVC concept that provides geographers with a useful tool to examine how a product/community system intersect with space and place (Neilson & Pritchard, 2009). As recognized by Martin (2000), local economic outcomes are shaped by the interaction of rules (institutional environment) and actors (institutional arrangement) in the economy, which varies across space and place.

North (1990) defined institutions as the ‘rules of the game’ in a society or humanly devised constraints that shape human interaction, which can be either formal (constitutions, laws and contracts) or informal (codes of conduct, norms, and any informal constraint embedded in the society). It is differentiated with the organization. The ‘organisation’ is the player of the game, which provides a structure to human interaction, rather than the rules.

Despite the institutional settings supposedly covering local dynamics that are embedded within certain places and space; the application of the institutional dimension of the GVC, has been mostly related to global rules of trade and national policy. For example, the study on the impact of the North Atlantic Free Trade
Agreement (NAFTA) on the regional differences in the pattern of US apparel imports (Frederick & Gereffi, 2011; Gereffi, 1999), the changing trade regimes of the International Coffee Agreements (ICA) (Ponte, 2002), the World Trade Organisation (WTO) and international competition (Gereffi, 2011), and liberalisation of the domestic automotive market (Gu et al., 2008).

This tendency in fact had been criticised by some scholars. Henderson et al. (2002) argued that the GVC concept lacked consideration of the linkage between firms and the social and institutional contexts at the national and sub-national levels. This criticism was further emphasised by Bair (2005) where it is pointed out that the GVC seems to neglect discussing the broader institutional environments where value chain actors operates.

In this regard, Neilson and Pritchard (2009) attempted to enrich the institutional dimension by paying attention towards: (i) ‘greater analysis of the institutional environment; and (ii) a more nuanced and contextual critique of governance structures which takes explicit account of how these are shaped by (and go towards shaping) the institutional environment’ (p.56). Further, Neilson and Pritchard argued that the interaction of institutional settings and the governance of the GVC embed a causal dimension, which is closely linked to the upgrading concept of the GVC.

### 2.3.2.5. Upgrading concepts

The concept of upgrading in the GVC literature is widely considered to cover two main thematic areas: economic and social upgrading. In the early development of upgrading in the GVC, upgrading activities were mostly oriented toward economic activities or industrial development such as industrial upgrading (Gereffi, 1999), cluster upgrading (Humphrey & Schmitz, 2002), and agricultural sector upgrading (Gibbon, 2001). More recent application of the upgrading concept has been expanded towards social upgrading, such as improving labour conditions of firms in GVCs (Knorringa & Pegler, 2006), and how labour could conduct gradual upgrading to achieve decent work and better paid (Barrientos, Gereffi, et al., 2011; Barrientos, Mayer, Pickles, & Posthuma, 2011).
a) Economic upgrading

The major argument postulated by Gereffi (1999) is that firms in developing countries could engage in industrial upgrading by joining the global value chain and accessing learning opportunities available from global buyers. This argument drew from the lesson learnt from the East Asian industrial upgrading path. Gereffi observed the gradual upgrading process that occurred for many local firms. The shifts started from a simple assembly of imported inputs, which led to gradually learning from global buyers about the technical know-how, and then to the design and full package brand manufacturing.

This upgrading concept drew from the east Asian lessons, and was categorised by Humphrey and Schmitz (2002) as: (a) Process upgrading, which is increasing the efficiency of internal operations by rearranging production processes or introducing new technologies; (b) Product upgrading, developing new products or improving the quality that increases unit values; and (c) Functional (intra-chain) upgrading, acquiring new functions such as moving from production to design and marketing. In recognition of industrial cluster upgrading, Humphrey and Schmitz further complemented the concept with additional Inter-sectoral upgrading, which applies the knowledge acquired from the previous function to a different sector. For example, the knowledge gained in producing desktop computers might be used to expand into new sector such as cellular phones.

In addition to industrial upgrading, in the agricultural sector, Gibbon (2001) suggested three potential mechanisms that firms in developing countries might pursue. First, local companies focus on improving margins in existing commodities. The activity could include increasing volumes and consistency of supply. Second, generating improved types of current commodities; for example, new gene-manipulated crops resistant to pests and diseases and minimum inputs required. Lastly, firms are conditioned to establish local commodity processing at the local level, as a learning process for entry to final processing. Some suggestions include, exercising state institutional support such as bans, restrictions or disincentives (e.g., taxes/tariffs) for exported commodities.
b) Social upgrading

Recent discussions in the literature have evinced increasing interest in the notion of ‘social upgrading’ in GVCs in an attempt to recognise that upgrading of firms does not necessarily translate into improved conditions for workers (Barrientos, Gereffi, et al., 2011; Barrientos, Mayer, et al., 2011; Knorringa & Pegler, 2006).

Knorringa and Pegler (2006) argued that sustainable improvements in labour conditions will not arise as an inevitable consequence of firm upgrading in a GVC; rather, upgrading and industrialisation may be associated with immiserising growth in many developing countries. It is argued that outsourcing practices embedded in the strategic decisions made by many firms operating within contemporary GVCs follow the logic of looking for ever cheaper places to operate. At this logic, global buyers continuously search for low cost production areas, which in many cases are primarily shaped by the presence of low labour costs.

To balance economic upgrading with a sharper focus on what benefits are accruing labour, two alternatives of upgrading trajectories were suggested by two different scholars in the literature. First, Knorringa and Pegler (2006) recommended four potential areas of upgrading. The first is at firm level, where firms offer learning opportunities for labour to acquire a higher level of knowledge. Second, upgrading labour through the value chain, in which responsibility is more mainstreamed as part of ethical sourcing. Third, country level; where political representation should be inclusive. Lastly, at the global level, a stronger unifying role of global union bodies in co-determining global standards.

Another path of social upgrading was proposed by Barrientos, Gereffi, et al. (2011), where it was suggested the shift of upgrading in the context of decent work and improvement in working conditions. The upgrading path could go through three different situations for labour: small scale worker upgrading; labour intensive upgrading; and higher skill upgrading. Barrientos et.al elaborated that the small scale worker upgrading occurs when workers remain within home-based production, but are still able to enjoy improvements in their working conditions. Second, labour intensive upgrading occurs when workers move to better types of labour intensive work where they can obtain better working conditions. Lastly,
higher skill upgrading occurs where workers move towards better types of paid employment associated with progressive social upgrading.

The difference among the above two paths of social upgrading is that the first implies that institutional environments are significant factors driving better working conditions to gain positive impact from economic upgrading. While the second implies that social upgrading would materialize when the profit gained from such economic upgrading translates into better working conditions and increased wages. At this regard, the two suggested trajectories could be considered as complementary to each other. Social upgrading likely occurs when firms succeed to conduct economic upgrading and are supported by institutional environments simultaneously constructed at the local, national and global levels.

2.4 Upgrading in GVCs and its application by upgrading agents

In the literature, study about upgrading and its applications in the real world has tended to be interpreted as taking place through the actions of three key sets of agents: i) lead firms; ii) development agencies; and iii) states. The literature show how upgrading activities were adopted by various development agents and how upgrading mechanisms have changes industry dynamics. Thus, the following sub section will discussed the upgrading applications to understand how the concept is being implemented in the real world, so far.

2.4.1 The lead firm

Lead firms have been the central focus of the upgrading concept in the literature on GVCs. This is hardly surprising, given that the initial argument of the GVC concept was to introduce an organisational structure of global firms as one of the main factors that could shape firm upgrading in developing countries. Studies discussing the lead firms and their roles in the upgrading activities of the GVC have been explicitly presented across various industries. For example, the role of retailers in the UK in structuring the production and processing of fresh vegetables exported from Africa (Dolan & Humphrey, 2000); the role of global buyers in fostering upgrading in cluster levels in Latin American countries (Giuliani, Pietrobelli, & Rabellotti, 2005); and, lastly the role of lead firms strategies in upgrading
smallholder agro food production in Africa (Fold & Larsen, 2011). All of these studies indicate the prominence of lead firms in the shaping of their supplier networks in developing countries.

Along with lead firm capacity to exercise power, scholars identified two side effects for local producers, both positive and negative. The positive impact was clearly identified as the ability of suppliers to improve their products’ quality to meet the market demand and to upgrade their business process in order to stay competitive in the export markets. For example, agricultural exporters in Africa, as evident in the case of the linkage between UK supermarkets and African horticulture producers (Dolan & Humphrey, 2000); the cluster of Small medium Enterprises (SMEs) in Latin Americas (Giuliani et al., 2005); and, the suppliers of IKEA in Asia (Ivarsson & Alvstam, 2010).

On the other side, the negative impact is rising concern on the issue of potential exclusion of the weakest actors in the chain, e.g., smallholder producers; for example, the smallholder producers in Africa, who were excluded from the global value chains due to unmet stringent quality requirements of supermarkets (Dolan & Humphrey, 2000); and, the smallholders agri-food producers in Africa facing difficulties in supplying the European markets due to strict quality standards and food security standards (Fold & Larsen, 2011).

The majority of the upgrading examples, as briefly suggested above, driven by lead firms, are related to the power exercised over their suppliers through standard and institutional mechanisms, but tend to engage directly with primary producers in a limited way. Chapter 6 of this thesis, therefore, will discuss how a lead firm drives upgrading through both engaging directly with primary producers, the smallholder farmers; and by exercising international standards and offering solutions to the potential exclusion from the value chains.

2.4.2 The state

On the state side, some scholars have discussed the role of the state in driving the upgrading process in global value chains, frequently building on the earlier work on the developmental states of East Asia. For example, the importance of trade policy
to support the growth of domestically owned coffee chains in India (Neilson & Pritchard, 2009); and the significance of state institutions in supporting the competitiveness of grape producers in Brazil (Selwyn, 2008).

Neilson and Pritchard (2009) discussed functional upgrading in the coffee and tea industries of South India. It reveals that one of the main factors that facilitated the growth of domestically owned café chains in India was politically motivated protectionism, in the form of restriction of FDI in the retail industry that delayed international brands, such as ‘Starbucks’, from operating in India. This restriction effectively allowed domestic coffee plantations to develop and expand their retail café businesses, sell their local brand, such as “Barista” and ‘Coffee Day’, and become market leaders in India.

In the study of export grape production in North East Brazil, Selwyn (2008) put similar emphasis on the importance of local and national institutions’ in facilitating upgrading. It was found that state agencies systematically facilitated upgrading activities for large numbers of grape producers. Several state institutions simultaneously provide support for the grape producers, ranging from production to marketing activities. Regarding production, The Brazilian Agricultural Research Agency (Empressa Brasileira de Pesquisa Agropecuaria or EMBRAPA) provided initial support for grape production through research into better farming methods, as well as offering training programs for Integrated Fruit Production (IFP) to grape producers. On the marketing side, research undertaken by The National Service for Industrial Learning assisted producers to overcome technical gaps, particularly fast-changing market requirements for food safety standards. In addition, to supporting new entrants into the grape sector, the Brazilian Grape Marketing Board (BGMB) encouraged the establishment of producer associations, whereby the new entrants to the grape sector could quickly learn about industry dynamics and acquire the latest production technology.

Both studies suggest the importance of states in creating supporting conditions for domestic firms to engage in upgrading activities. The Indian case shows that state intervention in trade policy supported the ability of domestic firms (a) to engage in functional upgrading; and, (b) to compete with foreign firms. The Brazilian case
demonstrates the significance of state institutions in nurturing the growth of grape producers through integrated support from production to marketing activities. The two cases allowed firms in the developing countries to improve their competitiveness in the global value chain.

2.4.3 Development Agencies

Over the last decade, many international development agencies - both multilateral and bilateral donors - have increasingly adopted a GVC approach within their programming. The GVC approach seems to be considered not only as an efficient tool to address the issues of the persistently unfavourable conditions for the poor, but also it could accommodate the development agencies' missions, both multilateral and bilateral donor agencies.

2.4.3.1 Multilateral donor agencies

Among the prominent multilateral donor agencies, UNIDO, the International Labour Organisation (ILO) and the World Bank are organizations recognised as actively engaging and adopting the GVC approach to implement their development programs. UNIDO is an organization under the United Nations, which has a mission to alleviate poverty in developing countries through promoting and accelerating sustainable industrial development. The agency has two main functions. First, as a global forum, UNIDO generated and disseminated industry-related knowledge; and second as a technical cooperation agency, the agency provided technical support as well as implemented projects (UNIDO, 2012).

Over ten years, UNIDO sought to employ the GVC concept into its development work. For this purpose, the organization released three different documents, a theoretical concept of how the GVC could help to understand the insertion of Small Medium Entreprises (SMEs) in to global markets (Kaplinsky & Readman, 2001), a diagnostic framework for policy interventions (Hartwich & Kormawa, 2009), and a technical handbook, a ‘pro-poor value chain development’, a guidance for practitioners to design a specific agriculture value chain project targeting poor farmers, marginalised groups and gender issues (UNIDO, 2011).
The ILO is another multilateral institution employing the GVC concept to formulate development policy. The organization has a mission to promote social justice and globally recognized human and labour rights. In more technical activities, the organization formulated international policies and programs to promote basic human rights, improve working and living conditions, and enhance employment opportunities; develop international labour standards, conduct technical cooperation with countries that will help implement the policies effectively; and deliver training, education and research activities to accelerate and advance all of these efforts (International Labour Organization (ILO), 2012).

In line with the UNIDO, the ILO adopted the GVC approach to deliver its mission. The ILO recognized that to promote a good working environment, it requires not only upgrading in individual enterprises, but also supportive institutional approach that allows the promotion of decent work. In this regard, the ILO published two documents on GVCs. First, in 2005, a report with a title “Value Chain Analysis for Policy Makers and Practitioners”, was launched to provide insights on how GVC approach is useful for policy makers who promote decent working environment (Schmitz, 2005). Subsequently, in 2009, the organization launched a more comprehensive and detail guidance of GVC approach, with title “Value Chain Development for Decent Work: a guide for development practitioners, government and private sector initiatives,” (Herr & Muzira, 2009). The difference between the first and the second report, is that the first is mostly discussion and case presentations of GVC in the descriptive ways, while the latter provides step by step guidance on how to analyse, develop and set up program interventions to improve working and living conditions of labours. In short, the GVC framework was developed and tailored to the mission of the ILO.

At the same token with the above organizations, the World Bank group released two documents that became reference documents for the organization when applying the GVC concept into program interventions. The first report is a technical report, released by The Foreign Investment Advisory Service (FIAS) of the World Bank group, with a title “Moving toward competitiveness: a value chain approach,” written by Subramanian, Paludetto, and Yee (2007). The report used the value chain concept to identify a specific policy reform, aiming at easing investors to do their
business in developing countries. In this report, the analysis emphasised measuring performance of business entities at a particular industry and comparing it with other countries performance or ‘international best practices’.

The interesting point on the report approach is the emphasis on the ‘international best practices’, where this claim was frequently used to impose policies that promoted free markets and capital flows. This is slightly different from Gereffi and companion scholars who recognize the uniqueness of particular countries, including the institutional settings, either formal or non formal, that are embedded within the countries analysed. In short, even though this report recognizes the work by Gereffi and other scholars on GVCs, the approach adopted in this report was mostly influenced by the business school of supply-chain management. The second report was published by the World Bank with a title “Building competitiveness in African agriculture: a guide to value chain concepts and applications,” authored by Webber and Labaste (2010). This guidance is a somewhat extended version of the first documents released by FIAS. In the FIAS report, the report put weight on the gap performance analysis through benchmarking with international best practices. Whereas, the second document emphasised the methods and tools to design program intervention, implementation and monitoring activities.

The major difference, between the reports released by UNIDO, ILO and the World Bank is the basic concept of value chains. UNIDO and ILO drew the concept from the GVC perspective, which referred to the work of Gereffi and affiliated scholars from the field of economic geography, political economy and international economic sociology, meanwhile the World Bank report, mainly drew from the business and supply chain perspective, very much referred to the work of Porter (1990) from the field of business studies.

Overall, the multilateral donor agencies have been using the notion of ‘value chains’ as a framework of analysis, program design and implementation, as well as monitoring and evaluation purposes. However, the translation of value chain concept is differently tailored to the mission of each organization.
2.4.3.2 Bilateral donor agencies

Besides the multilateral supported organisations, individual (bilateral) development agencies have also adopted the value chains concept for development (Neilson, 2014). These agencies include the Netherlands Development Organizations, SNV (Baan & Janssen, 2006), the United States Agency for International Development (USAID) (Gammage, 2009; Goldmark & Barber, 2005; Kula et al., 2006; Steen, Magnani, & Goldmark, 2005; USAID, 2009), and the German Development Organization, Deutsche Gesellschaft fur Technische Zusammenarbeit (GTZ) (German Technical Cooperation Agency (GTZ), 2008; Stamm, 2004).

The SNV adopt the Value Chain Approach (VCA) in the context of pro-poor development. For SNV, the emphasis of its work was how to leverage linkages, strengthen the supporting services and enhance the supporting regulations or ‘enabling environment’ with the aim to improve inclusion of small scale producers and entrepreneurs into global value chains. In this regard, the organization works in the area of pro-poor sustainable tourism, forest products and smallholder cash crops, mainly in Asia (Baan & Janssen, 2006).

USAID employed the VCA to translate its economic growth with poverty reduction mission into a practical strategy. For USAID, the capability to combine the ‘economic growth’ mission with the ‘poverty alleviation’ purpose was the main advantage of using the VCA, as the two purposes had been previously positioned as being in conflict (Kula et al., 2006). The USAID therefore published VCA guidance for program design and implementation, such as a guide to design and support the competitiveness of small-scale firms in a global value chain (Goldmark & Barber, 2005; Kula et al., 2006); a guide to improve the productivity of MSEs (Micro and Small Enterprises) in the agriculture sector that could positively impact poor communities by integrating them into global value chains in the agriculture industry (Steen et al., 2005); as well as a guide to assess the gender and pro-poor program interventions (Gammage, 2009).

Similarly to USAID, GTZ published a guide to design and implement a VCA for development, called ValueLinks manual (German Technical Cooperation Agency (GTZ), 2008). The manual was designed to provide guidance for the GTZ
implementer, putting a greater analysis towards the upgrading activities as a basis for program intervention and formulation. Prior to this manual, two documents were published, the concept study on how VCA is imperative towards trade policy and promotion of economic development (Stamm, 2004), and a study on how VCA is applied in agribusiness development (Humphrey, 2005). Both studies provide a thorough analysis of global market challenges, their impact towards poor communities, and changing approach of development interventions that emphasise broader economic and social dimensions. Thus, this study seems a ground foundation for the adoption of VCA by the GTZ and the publishing of ValueLinks manual.

Looking at the major interventions of development agency organizations, the application of the VCA for development ranges from improving business climate and trade policy (Stamm, 2004; Subramanian et al., 2007), humanizing working conditions (Herr & Muzira, 2009), promoting gender equitability (Barrientos, Dolan, & Tallontire, 2003; USAID, 2009), facilitating the integration MSEs into global value chains (Kaplinsky & Readman, 2001; Kula et al., 2006), and supporting small-scale producers in the agricultural sector (Humphrey, 2005; Steen et al., 2005). All of these program design and interventions were developed tailored to their development strategies supporting economic growth and poverty alleviation in developing countries.

2.5 Theoretical framework of analysis

This thesis conducts a systematic examination of different upgrading initiatives by key players (the state, international development agencies, and lead firms) in the global value chain. The examination focuses on the points of intervention and the complex interaction between them. The thesis describes how the Indonesian cocoa industry is an integrated part of the global value chain for cocoa, and is embedded in the institutional framework of the involved chain actors. The aim is to explain how different combinations of governance forms and institutional frameworks mutually constitute these upgrading measures.

To guide the writing of this research, a GVC analytical framework that comprises several dimensions was employed, include the input-output and territoriality,
upgrading concept, governance relationship, and institutional settings. The above analytical dimensions guided the data gathering, analysis, as well as the writing of this thesis.

The input-output and territoriality dimension is important to set the scene of the three cases being investigated that are discussed in the following chapters. It provides descriptive analysis and situated the context of the following cases. It set out how the global industry dynamics influence the local industry dynamics. In other words, the dimension guided to describe and situate how the Indonesian cocoa industry becomes a part of the global value chain. As such, the data gathered from archival records both from government, global institutions, and industry associations were very substantial as the source of data analysis.

The analysis of the upgrading concept has shifted from a single major driver to multiple drivers of upgrading. The initial concept of upgrading suggested by Gereffi (1999) and Humphrey and Schmitz (2002) put emphasis on the main role of lead firms in driving upgrading processes within the global value chains. Later research indicated that the state (Neilson & Pritchard, 2009; Selwyn, 2008), and development agencies (Subramanian et al., 2007; United Nations Industrial Development Organization (UNIDO), 2011) acted as different agents driving upgrading. This research brings those three different upgrading actors, as units of analysis, who are doing upgrading interventions in parallel work to support the upgrading process. This research, employing the upgrading concept in the GVC, explains what interventions have been taken by the state, firms and development agencies to promote upgrading in the Indonesia cocoa industry.

Meanwhile, the institutional setting is generally used by geographers to investigate local economic outcomes that are shaped by the interaction of rules (institutional environment) and actors (institutional arrangement) in the economy (Martin, 2000). This dimension guided the researcher when examining how processes of value chain upgrading were facilitated and shaped in practice by the actions of the three different sets of development actors. A further examination between the interaction of institutional settings and the governance of the GVC was conducted. As Neilson and Pritchard (2009) suggested that the causal dimension between the
governance and institutional settings is closely linked to the upgrading concept of the GVC.

Bringing all the above analytical dimensions has helped this study to provide an overarching analysis (see Figure 2-1). They have guided the research question on how an improved understanding of upgrading processes can be usefully applied to ensure appropriate development strategies in developing countries.

Figure 2–1 The research framework diagram

Overall, this research reflects the need to elaborate on the underlying factors that drive the decision making of actors or organizations in driving upgrading process. Through this research I provide insight on how institutional interests of upgrading agents forms institutional settings in the GVC and influence the form of governance which in turn shape upgrading’s possibilities along the GVC. Ultimately, this research discusses ‘the political economy and rational behind the efforts of the three key drivers of upgrading’.
2.6 Conclusion

Many developing countries develop industrial strategies to facilitate export oriented economic development. This orientation is expected to enlarge the marketing of products from developing countries. But, this raises a number of questions. How can firms in developing countries access global markets or developed countries? How will participation in the global value chain impact upon producers in the developing countries? And how can firms improve their competitiveness in the global competition?

In line with this viewpoint, the upgrading concept in the global value chain offers both an analytical framework for understanding economic development and a practical approach to devising development strategies. The former mainly debates how to provide a framework to better describe potential activities that could improve the capability, profitability and competitiveness of firms in developing countries, while the latter puts emphasis on how the upgrading concept in the GVC could be translated into development strategies for developing countries. In this regard, the upgrading concept in the GVC offers two elements of upgrading: the economic and social upgrading. In addition, the framework has also suggested three organisational drivers of upgrading activities (firms, the state and development agencies), although the implicit agency of these institutional actors has not been analysed in sufficient detail.

With reference to the organisational drivers of upgrading, the most widely-discussed in the literature emphasises the roles of lead firms as agents for upgrading, and consequently development. However, in some case studies, such as those presented in the latest section of this chapter, focuses upon the important role of the state in providing supporting environments in which to upgrade, and the equally important development agencies program in the developing countries is also acknowledged.

This thesis attempts to demonstrate how different agencies drive upgrading activities simultaneously, working at the same sector or industry, and how their political agency shapes the likelihood of economic and social upgrading actually proceeding at various levels. In doing so, a case study of the cocoa industry in
Indonesia will be presented as the object of discussion. The main question is how the state, development agencies and lead firms, delivered value chain interventions to facilitate industrial upgrading and alleviate poverty. Chapters four, five and six will discuss these interventions enacted by, and from the perspective of the state, development agencies and the lead firm. To understand the context for those interventions, however, I will first undertake an analysis of the global value chain for Indonesian cocoa in Chapter Three.
3 THE GLOBAL VALUE CHAINS FOR COCOA
CHAPTER 3: THE GLOBAL VALUE CHAINS FOR COCOA

3.1 Introduction

This chapter presents the dynamics of the global value chains for cocoa both at the global scale as well as at the national level within Indonesia. The primary aim is to understand the global dynamics of the cocoa industry; and how they might be relevant to upgrading activities in the Indonesian cocoa industry.

Cocoa is a commodity traded globally. It has a trading value per annual crop of US$5.1 billion (World Cocoa Foundation (WCF), 2011), and is of significant value to the livelihoods of many poor farmers in some developing countries. The crop is in the main produced by approximately five to six million smallholder farmers across Africa, Asia and Latin America. Combined with the dependents of cocoa farmers, the crop provides a livelihood for between forty and fifty million people (WCF, 2011).

The major consumers of the product live in the developed countries, mostly in the European countries and in North America. The beans are traded by intermediaries from the various producing countries in accordance with various rules, regulations and trade policies. They are overwhelmingly ground by multinational companies, either in countries of origin or in consuming countries, depending on the incentives provided by host governments. The dominant use of ground cocoa products is for chocolate manufacturing, which is mostly located in the consuming countries. Given the interdependence of the various players along the chain, any changes, particularly in the global market, inevitably impact upon the smallholder farmers in the developing countries.

This chapter will discuss the global cocoa industry to set up the scene for the following chapters’ discussion on cocoa industry upgrading in Indonesia. This chapter will identify the dynamics of production, market institutions, transnational cocoa players and the cocoa consumption at the global level. For the national context, this chapter will discuss the Indonesian practice of farming system, trading practices, and grinding activities that are specific to the Indonesian context.
3.2 The global dynamics of cocoa industry

3.2.1 Global production dynamics

Cocoa supply and demand over the last forty years shows that the continued increase in both supply and demand has resulted in both cycles of surplus and deficit, as shown in Figure 3-1. The constant demand for cocoa from the traditional markets in the European and North American regions and the increasing demand from the new emerging markets, such as China and Brazil, can still be balanced by the continuous expansion of the major producing countries, especially Indonesia, the Ivory Coast and Ghana (see Figure 3-2).

Figure 3–1 Global cocoa supply and demand (1960-2013)

Nevertheless, we can identify three main issues shaping dynamics in the global cocoa industry: (1) the increasing fear of future lack of supplies from lead firms in the global market, (2) the shifting importance of different producing countries and (3) the increasing concentration of producing countries in the African region.

3.2.1.1 Increasing concern on future supplies

In recent years, it has become common place for global chocolate manufacturers to express their concerns over supply, suggesting that the future threat of supply is prominent. Chocolate makers such as Mars Inc and Grinders such as Barry
Callebaut, have suggested that due to increased demand in 2013, global consumption exceeded by 70,000 tonnes what the world produced. They estimated that if the trend in demand continued while the problem in supply persisted, then the deficit could reach 1 million metric tons by 2010 and 2 million metric tons by 2030 (Ferdman, 2014). This suggestion is perhaps unnecessarily alarmist. Figure 3-1 suggested that supply kept up with demand historically, thus, we could expect it to continue (detail discussion in Chapter 6).

Concerns over future cocoa shortages have been based on serious supply issues in some major producing countries over the last ten years, mainly related to declining yields due to pests and diseases, social and political unrest and poor returns relative to competing commodities.

In Indonesia, for example, declining yields have become the major issue. Cocoa productivity was estimated to have declined from around 1100 kg /ha /year to 430 kg/ha/year between 1996 and 2013 (FAOSTAT, 2015). This was caused by intense pests and diseases infestations, such as the Cocoa Pod Borer (CPB) and Vascular Streak Dieback (VSD); and aging cocoa trees.

In the Ivory Coast and Ghana, besides the increasing prevalence of pests and diseases, competition for land for cocoa farms has led to ethnic clashes between migrant and indigenous communities (Woods, 2003). The social unrest that occurred in the early 2000s for example, resulted in these two most important cocoa producing countries recording a decline in production during the 2005/2006 season i.e., 15.5% in Ivory Coast and 13% in Ghana.

In Malaysia, formerly an important producing country, the issue was from competing commodities in terms of land, labour and other inputs. The country had been a major cocoa supplier in the 1980s, but production gradually declined due to increasing conversion from cocoa to palm oil.

Given the above issues, it is not surprising if the global lead firms start flagging potential shortages in future supplies. Even though demand and supply are, so far relatively balanced, future supply shortages pose a real threat from the perspective of the cocoa and chocolate industries.
3.2.1.2 Shifting producing countries

Another interesting dynamic in relation to global supply is the long-term shift away from Latin American regions to the West African countries. In a relatively short term focus, the rise of several major countries could be related to price triggering. As of the mid 1970s, the world cocoa price was approximately US$ 3000 per tonne, triggering an expansion of production across Ivory Coast, Malaysia and Indonesia. Meanwhile, in the Mid 1980s, new cocoa hybrids succeeded in reviving the Ghana production following earlier decline. Up to now, the expansion of cocoa farms has continued in the Ivory Coast, Ghana and Indonesia, while Malaysia stopped the expansion in the mid-1990s and gradually, but continuously decreased the production (Figure 3–2).

Figure 3–2 Production trends in major producing countries (1975-2013)

Based on pattern of global cocoa production viewed over the centuries, some scholars discuss this rise and fall of producing countries based on historical patterns through the perspective of ‘forest-rents’ and the labour dynamics and the consequence of state action or inaction in the particular countries.
The ‘Forest rent’ argument was introduced by Ruf (1995), as he indicated that the growth of national cocoa production in the cocoa producing countries could be explained through the life cycle of cocoa from planting to maturity and aging trees using the advantage of rich soil ingredients from the forest land. During the initial expansion of cocoa production, farmers enjoyed high productivity and profitability due to the humus-rich soil from the forest, and the ingredients were enough to support cocoa production. The farmers did not generally require high inputs, such as fertilisers, to support the crop during the early stages of production. Continuous expansion as new land became available kept up the national production growth. Once the land was depleted by diminished forest rent advantage, the cocoa production turn into a declining stage. Clarence-Smith and Ruf (1996) describe how the shift of cocoa production from the American region to the African region occurred through this forest rent argument.

Generally, the cocoa producing countries rise and fall from one area to another following this cycle. In the sixteenth century, the first region to became an important producing country was Central America, followed by Caribbean countries such as Trinidad; and, in the eighteenth century, Venezuela became the world’s leading cocoa producing country before it suffered decline at the beginning of the nineteenth century. Subsequently, Ecuador emerged as the top producer from the end of the nineteenth century into the 1920s, before Brazil and the African countries took top position when production in Ecuador collapsed (Ruf & Schroth, 2004, p. 109).

Leiter and Harding (2004), however, have suggested that explanations of production declines need to look beyond this conventional explanation of forest rent theory. Based on a study of declines in Trinidad, the largest cocoa producer in the 17th century, Brazil in the early 19th century, and in Ghana from the 1970s to the 1990s, they argue, using a ‘commodity system analysis’, for the centrality of labour and the role of the State in cocoa production decline. Despite the commonality of requiring substantial labour for cocoa production, Leiter and Harding place emphasis on labour organisation. In Trinidad and Brazil, cocoa production was the domain of large plantations owners, not smallholder farmers. Slave labour in Trinidad and exploited labour in Brazil never motivated best practice. Lack of attention to the
fields encourages disease through poor pruning, weeding and irrigation practices. In the case of Ghana, a state controlled purchasing system suppressed cocoa production as the price paid to growers was very low, and this discouraged farm maintenance and further planting. The main distinction was the role of the State in production decline. In Trinidad, Spain’s monopolistic trade policy led to grower uncertainty regarding the business climate, which in turn proved a disincentive to produce good quality beans and gradually discouraged production. In Brazil, agricultural elites exploited the short-term boom in commodities; as a result, the export oriented state no longer placed emphasis on good quality cocoa production. In Ghana, the State’s subversion of incentives for smallholder farmers’ was the major issue. Price policies were designed only to extract surplus from the sector for the benefit of the bureaucrats and the non-agricultural sectors. The Ghana Cocoa Board, which was responsible for cocoa marketing and support services to cocoa farmers, ostensibly employed 100,000 people among whom one fourth were non-existent or ‘ghost’ workers (Commander et al., 1989). Furthermore, trading company resistance in providing a premium price proved a disincentive to producing quality cocoa beans.

As presented in Figure 3-2, Malaysia demonstrated the ‘boom and bust cycle’ both through the perspective of forest rent and through labour dynamics. The rapid increase in the early years was due to the advantage of fertile soil and low input and labour costs, which started in the mid-1970s up to the late 1980s. Then after almost 20 years, cocoa production started to fall and continually declined to the level where there are currently no indications that it could be revived. The major cause of the decline was the high infestation of CPB and the high input cost to control it. Even though Ismail and Lee (2004) have suggested a strategy to revive the Malaysian cocoa industry, by presenting their case study on the capability of a family of smallholders to manage up to eight hectare of cocoa farm, this seems unlikely. The proposed farm management emphasises appropriate utilization of planting technology and farmer own-time allocation to care the farm without hiring external labour. The corporate plantations that dominated the Malaysian cocoa production, have moreover been converted from cocoa into other profitable crops with relatively lower labour requirements, such as palm oil and rubber.
Slightly different from the ‘forest rent’ argument, the revival of production in Ghana indicates a new pattern that could contribute to the revival of national production in other producing countries. Ghana had initially experienced decline following the forest rent scenarios, but gradually revived its national cocoa production (Figure 3-2). According to Ruf (2007), this revival materialized due to the adoption of new fertiliser and the capability of smallholders to change and adapt the productivity issues and rebuilding the ‘post forest-rent’. Vigneri (2007) further argued that the driver of remarkable growth was a combination of higher fertiliser usage, systematic mass spraying program, and subsidised inputs from the government. In this context, the state played an important role in reviving cocoa production in Ghana, in particular in rebuilding the ‘post forest-rent’.

Figure 3–3 World cocoa production based on ICCO estimates 2013-14

![Pie chart showing cocoa production by country](source: ICCO, 2014)

The continuous expansions of production in the Ivory Coast, and the revival of Ghana national production, ensure that the two countries are global major contributors of cocoa production (Figure 3-3). On the other hand, the impressive growth of Indonesian cocoa production since 1980s, is only replacing the loss from Malaysian production. As result, the cocoa production in the Asian region has remained steady in recent decades at around 11 per cent of the global supply.
In short, production fluctuations across regions are not a new story. However, the challenge that lies ahead is; how can global production continue to satisfy world market demands. Limited land availability, scarce forest land for extracting forest rent for expansion, the availability of labour to maintain production at low cost, and, ultimately, the capability of growers to gain a reasonable profit from cocoa farming are issues central to cocoa supply. Neilson (2007) argued that maintaining the attractiveness of cocoa farming as a profitable business is the essence of cocoa supply. Lessons learned from the collapse of cocoa production in several producing countries suggests that labour shortages, a low international price, the end of forest rent, and the role of the State in cocoa marketing have all resulted in a struggle for profit.

3.2.2 Cocoa market institutions

Among the producing countries, two basic types of marketing systems are applied. The first is free market competition, which allows any buyers, including multinational firms, to buy beans at the producers’ level and sell them directly to chocolate manufacturers. The second is the Marketing Board system. The state controls the marketing chain, and the domestic price is determined by the board, thus providing a stable price in the domestic market despite the volatility of the international cocoa price.

A study by Akiyama undertaken in 1997 indicates that the free market system, such as is applied in Indonesia, provides higher farm gate prices compared to the Marketing Board system then applied in the West African countries. It creates very tight competition among buyers, thus enabling farmers to attract higher price offers from buyers. On the other hand, the Marketing Board system allows the Board to exercise stringent quality controls; therefore, the beans produced in this region are recognised as high quality beans that are sold at a premium on the international market.

Over the last two decades, a trend towards liberalisation is evident in the West African region, much of which was driven by the Structural Adjustment Programs (SAPs) of multilateral finance organisations operating under a Washington Consensus development model. This trend started in the mid-1980s. In 1986,
Nigeria started its liberalisation process with rapid disengagement from the commodity boards that controlled the buying and selling of agricultural commodities, including cocoa. Cameroon followed the move, starting in the 1989/90 season and becoming fully dismantled by the 1994/95 season. Then the Ivory Coast followed in the 1994/95 season, with full liberalisation reached in 1999. In the 1992/93 season, Ghana selectively disengaged from the marketing board function, particularly from domestic purchasing activities, allowing licensed private players to purchase. However, domestic price, quality control and export activities continued to be maintained by the board in Ghana. Since 2001, 30 per cent of the volume of eligible companies was allowed to be exported directly (Musselli, 2008).

Interestingly, according to Fold (2001), the intended positive impact of liberalization was to reduce the gap between the international price and domestic prices, by eliminating the high cost of state marketing operations. The adjustment program was expected to increase the producers’ prices. However, Fold further found that the shift towards a free market negatively affected the quality of the beans. One immediate example of quality deterioration was the increasing mouldiness at the port, a consequence of insufficient drying due to the eagerness of buyers to buy beans as quickly as possible in order to secure volume.

The aggressiveness of buyers seems to have become a feature of liberalised cocoa markets. In the Indonesian context, due to the intense competition amongst local collectors to buy beans, the local collectors quite often buys beans without proper drying. The farmers’ need for quick cash also perpetuates the situation; hence, almost all cocoa beans sold by smallholder farmers in Indonesia are not properly fermented, or not fermented at all, which would otherwise require around five additional days on-farm to be effective.

On the quality deterioration argument, Fold (2001) further argued that the decline was not only caused by the structural liberalisation process in West Africa, but also by industrial consumers failing to provide incentives for good quality beans. New processing technologies and cost savings in the logistical system enabled the grinders to compensate for the low-quality beans that were accepted by both local traders and exporters. Cocoa was often transported through bulk transportation
and placed in flat storage in European Warehouses. New technologies enabled some plants to grind their beans before roasting them, reducing the risk of burning any small beans or under-roasting relatively large beans. Under this situation, the consumers were able to adapt to the low quality of beans. Ultimately, quality deterioration resulted in a depreciation of the premium price.

This situation led to a cycle of low quality production. The low price transmitted to African farmers translated into few incentives for the necessary farm maintenance (Fold, 2001). Farmers were not receiving a significant share of the export value, and so there were few resources available to be invested in farming activities such as buying fertilisers and pesticides to control pests and diseases.

To summarise, the tendency towards market liberalisation, offered an opportunity for various market players to source beans directly from cocoa farmers. However, dismantling state control, particularly quality control, has led to quality deterioration, as evidenced in the West African countries, contrary to the objective of liberalisation, which was to improve the price received by cocoa farmers. Selective disengagement, aimed at ensuring both the profitability of the farmers and the quality control of beans, may have proven a better option to pursue in terms of ensuring long-term sustainable global supply.

3.2.2.1 The International Cocoa Agreement (ICA)

Efforts to stabilise the market had occurred not only in the domestic market, but also in the international arena. At one stage, the majority of producing and consuming countries agreed upon these efforts. In 1970, the ICA was signed, with the objective of maintaining the cocoa price within a specific range. To execute this agreement, the ICCO was established to coordinate global cocoa production and defend price bands through a buffer stock mechanism, which included buying and selling operations and production control.

However, three decades after the agreement, the mechanism was not functioning sufficiently and effectively to stabilise prices. During the 1970s, there were no stocks that could be dropped into the market. In the early 1980s, the ICCO purchased all excess supplies and sold them when the prices were considered to be
too high. But, in the late 1980s, when the cocoa price declined, the buffer stocks met their recommended limit of 250,000 tons (representing roughly six weeks demand for grinding). Consequently, price stabilisation was abandoned. Starting in the early 1990s, prices were constantly at a low level and the organisations’ stocks had accumulated to an unsustainable level (Gilbert, 1996 in Fold, 2001). The 1993 cocoa agreement dropped the provision for buffer stocks or price range completely (Haque, 2004, p. 7). Stocks were released in planned (monthly) sales and all were sold by March 1998 (Dand, 1999 in Fold, 2001).

Two major causes underpinned the ICAs’ ineffective maintenance of the price band; first, lack of adequate financing resulted in ineffective running in the first decade of the agreement; and second, the largest cocoa producers and consuming countries, i.e., the Ivory Coast and the US did not join the agreement (Haque, 2004, p. 15). In addition, Indonesia, the emerging cocoa producer in the 1980s, was not then a member of the organisation. During the decade 1980 to 1990, cocoa production in the country increased dramatically from approximately 13,000 tonnes to 250,000 tonnes per annum (Ditjenbun, 2011). The international price dropped to its lowest level in the early 1990s.

The ICA of 2001 finally decided against a price stabilisation mechanism. From then on the ICCO increasingly became a “development organisation” rather than a “market intervention organisation” (UNCTAD, 2010). The role of the organisation’s programs shifted from price guard to development agency.

3.2.2.2 The terminal market and price fluctuations

As a consequence of marketing system liberalisation, the cocoa price at the farm gate level was mostly determined by a highly fluctuating international price. These fluctuations mostly reflected changes in international supply and demand, domestic currency, and local market structures and conditions including taxation, competition, distance from port and quality (ICCO, 2010, p. 14).

The importance of the international price of cocoa lay in the fact that it was based on a terminal market. Cocoa was traded on a futures market in the London Financial Future Exchange (LIFFE) and the New York Board of Trade (NYBOT). The daily
transactions at the LIFFE and NYBOT were comparable to 0.2 million tonnes, while the number of outstanding future contracts was equivalent to 2.5 million tonnes of cocoa (ICCO, 2006, p. 4)

The volatilities of price at these two terminal markets became a source of profit taking and counterbalance for financial investors. Speculators who did not produce or even use the commodity took risks to make a profit from price changes, while hedgers, the other type of market players on the terminal market, invested their money in the cocoa commodity as part of an investment portfolio, their aim being to avoid a loss on the financial market. Foreign exchange traders shifted from the US Dollar to the Pound Sterling and vice versa, in large part expecting returns to holding assets. As a result, the behaviour of a large group of investors in the financial market intensified price changes both at the LIFFE and NYBOT cocoa markets (ICCO, 2006). In this situation, volatility of price became the main way of gaining profit.

Given the fact that the international price constantly fluctuates, it is inevitable that cocoa producers face sudden price drops, which impact upon their farming profitability. Brown and Gibson (2006) suggest that better knowledge of market prices, future's contracts, and other market-based tools would hedge against potential price drops. This could work for producers who manage large-scale cocoa plantations. But in the case of smallholder farmers, it is unlikely that this would work, due to the lack of knowledge, small scale of business, and a lack of market infrastructures. Thousands of farmers lack the vital support they would need. Therefore, the constant volatility of the international price is an on-going problem for smallholders in producing countries.

### 3.2.3 Cocoa Processing and Chocolate Manufacturing dynamics

#### 3.2.3.1 Global Cocoa Grindings

Traditionally, cocoa grinding activities had been located in the major chocolate consuming countries, and the current top grinding country continues to be the Netherlands (see Figure 3-4). The domination of the Netherlands as the major grinder was related to the market as well as to the history of cocoa grinding
activities. This history dates back to the 18th century, when cocoa extraction tools, which converted cocoa beans into cocoa butter and cocoa powder, were invented and popularised by C.J. Van Houten in the Netherlands. The proximity of the cocoa market along with technological capability, established the Netherlands as the major grinding in the European region as well as in the World.

Figure 3–4 Top grinding countries 2013/14

![Pie chart showing top grinding countries 2013/14]

Source: ICCO, 2014

Over the last two decades, the percentage of total grinding occurring in origin countries has increased (see figure 3-5). This trend is caused by the firm-specific strategies of multinational grinders combined with trade policy imposed by major cocoa producing countries in an attempt to add value to raw cocoa beans before export.
Figure 3–5 Comparison trend between the percentage of origin and non-origin grindings

![Chart showing the comparison trend between origin and non-origin grindings from 1996/97 to 2013/14.](chart)

The share of global grind occurring in origin countries has increased while non-origin grinding has stagnated, and the share has actually decreased (see Table 3-1).

Table 3-1 Comparative grinding percentage between the year 1996/97 and 2013/14 among the top origin and non-origin grinding countries.

<table>
<thead>
<tr>
<th>Countries</th>
<th>1996/97</th>
<th>2013/14</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Volume</td>
<td>%</td>
</tr>
<tr>
<td>Origin Countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ivory Coast</td>
<td>150</td>
<td>6.0</td>
</tr>
<tr>
<td>Ghana</td>
<td>68</td>
<td>2.7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>70</td>
<td>2.8</td>
</tr>
<tr>
<td>Malaysia</td>
<td>95</td>
<td>3.8</td>
</tr>
<tr>
<td>Brazil</td>
<td>180</td>
<td>7.2</td>
</tr>
<tr>
<td>Non Origin Countries</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td>240</td>
<td>9.6</td>
</tr>
<tr>
<td>Netherland</td>
<td>402</td>
<td>16.1</td>
</tr>
<tr>
<td>United States</td>
<td>394</td>
<td>15.8</td>
</tr>
</tbody>
</table>

Source: ICCO, 2014

3.2.3.1.1 The strategic decision of transnational primary grinders

The establishing of grinding facilities in producing countries seems highly dependent upon the strategic decisions of the transnational primary processors (Fold, 2001, p. 418). The available data published in 2015 indicated that only a few multinational companies dominated the global grind, primarily Olam, Cargill, Petra, Barry Callebaut and Ecom, approximately ground 60-80% of all global output (Cocoa...
This concentration has in fact become even greater due to more recent acquisitions.

This high concentration occurred as result of continuous acquisition activities over the last three decades, during which the largest traders and processors have increasingly integrated their operations to save costs and to expand their business scale. Take for example Archer Daniels Midland (ADM) and Cargill. Both of these companies are involved in the trading business (not only of cocoa but of a wide spectrum of grains and other commodities) as well as in processing. ADM started its processing business when it took over W.R Grace & Company’s cocoa business (Grace Cocoa) in 1997. With 10% of the total semi-finished global output, it became the largest cocoa processor worldwide. The company has since significantly expanded its cocoa processing and trading activities, including in origin countries. Its then competitor, Cargill, has been a major producer of semi-finished cocoa products and a significant manufacturer of couverture\footnote{Couverture chocolate is a distinction given to chocolate that contains a very high percentage (at least 30\%) of cocoa butter (source: http://candy.about.com/od/candyglossary/g/def_couverture.htm)} since the 1980s. In 1987, the acquisition by Cargill of the Generela Cocoa Company Holland B.V and its controlled companies, including Gerkens Cacao Industre B.V and Fennema B.V. saw the company became the leading cocoa processor and supplier to the European market. The further acquisition of the Nestlé cocoa processing facilities in York (United Kingdom) and Hamburg (German) in 2004 strengthened its position as a leading international cocoa processor and supplier (UNCTAD, 2008, p. 22). In Indonesia, both companies exist in Makassar and are among the top five cocoa beans exporters. The latest acquisition of ADM cocoa by Olam, a leading agri-business operating across the value chains in 65 countries, establishes Olam as one of the top three cocoa processors in the world, integrating its cocoa trading with the grinding business in the cocoa industry (Olam, 2014).

These strategic acquisitions allowed enhanced capitalisation and increased scale. The largest processors exercise their scale and scope of business to reduce their operational costs in various ways. First, on the technological side, grinders of food \footnote{30\% of cocoa butter (source: http://candy.about.com/od/candyglossary/g/def_couverture.htm)}
ingredients (largest processors with a wide spectrum of processing operations) are able to utilise advanced technologies associated with their food ingredient business. Furthermore, separation of batch production and customised cocoa products again requires economies of scale and continued supply in large tonnage. Thus, huge capital is requiring supporting the operation. Finally, cost saving is achieved through logistical capacity. Instead of using containers, the largest grinders transport beans in bulk shipments of between 3,000 and 10,000 tonnes, a change that has reinforced the competitive power of the large grinding factories located near water fronts (Fold, 2002, p. 237).

These strategic decisions delivered positive impacts for the big corporations already operating globally. On the other side, it also becomes a potential barrier to entry for new comers (UNCTAD, 2008), or even could diminish the competitiveness of local grinding companies who are not affiliated with global buyers.

Looking at the context of Indonesia, domestic grinders could potentially be wiped out from international competition, due to several advantages enjoyed by transnational companies. Another example is the source of cheap finance. The main source of funding for local companies comes from domestic banks, who in 2015 were being charged a very high interest rate of around 11.25% per annum for corporate credit (Bank Ekonomi, 2015). The majority of multinational trading and grinding companies, on the other hand, obtain funding from institutional investors. Therefore, their cost of capital is very low (with interest accruing at a rate equal to an adjusted LIBOR rate plus a spread based on the company’s rating) (UNCTAD, 2008, p. 20). In line with the above advantages, some of the largest trading companies have become leading processors, albeit at the same time driving a decline in the number of players in the segment.

In brief, their capability to operate efficiently and to maximise their scale and scope of business has brought huge competitive advantage to the largest cocoa processors. This trend was also observed by Cappelle (2008) who stated that the growing number of supply agreements negotiated between the large cocoa grinders and the branded chocolate companies seems to confirm the trend towards more concentrated players in the field. In this regard, Fold (2001) had already argued that
a national strategy to upgrade the cocoa industry was highly dependent upon strategic decisions made by transnational players from the consuming countries.

3.2.3.1.2 Industrial support through trade policy

The increasing establishment of cocoa grinding facilities in producing countries was only partly explained by corporate restructuring and decisions internal to the transnational grinding companies. Importing countries’ trade policies played an important role in keeping the grinding activities in consuming countries in previous years, while trade policies of exporting countries have attracted transnational companies to invest in origin countries.

In some countries, government policies have favoured the export of value added semi-finished products rather than raw cocoa beans (ICCO, 2010, p. 22). This has been commonly achieved through an export tax on raw beans. The Ivory Coast tax on the export of cocoa powder (105 FCFA/kg) is less than that on the export of cocoa beans (220 FCFA/kg). The Cocoa Board of Ghana offered the domestic grinding companies 20% stimuli in the purchase of smaller cocoa beans, thus providing business advantage for domestic processing activities (Cappelle, 2008, p. 11). In Indonesia, the Ministrial Decree of Finance imposed a progressive export tariff based on the international cocoa market, when cocoa price above US$2000, tax was applied to export cocoa beans.

Other stimuli that prompted investment in West African countries included the discriminatory import tariff imposed by the European Union (EU) on processed cocoa products (see Table 3.2). Major cocoa producers in the West African countries benefited from the Economic Partnership Agreement (EPA) between the least developed countries and the EU. The agreement essentially sanctioned a free trade agreement excluding arms (European Comission Trade, 2011). The signatory countries now enjoy market access to European markets without observing the import tariff applied to other countries.
Table 3-2 Import tariff imposed by the European Union on cocoa and cocoa preparations

<table>
<thead>
<tr>
<th>Product</th>
<th>EPA Countries (Cameroon, Ghana and Ivory Coast)</th>
<th>SPGL Countries (Brazil, Indonesia, Malaysia, Nigeria)</th>
<th>Third Countries (Ecuador)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cocoa beans</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Cocoa butter</td>
<td>0%</td>
<td>4.2%</td>
<td>7.7%</td>
</tr>
<tr>
<td>Cocoa paste</td>
<td>0%</td>
<td>6.2%</td>
<td>9.6%</td>
</tr>
<tr>
<td>Cocoa powder</td>
<td>0%</td>
<td>2.8%</td>
<td>8.0%</td>
</tr>
</tbody>
</table>


As a result of its failure to sign an EPA, Nigerian cocoa processing faces unequal competition with its neighbouring countries; the import tariffs for the processed products lower the price received from buyers in the EU. In case of the butter products, for example, Nigerian processors’ receive only $5,840 per tonne while competitors who have signed EPAs receive $6,100 (Boyle, 2008).

Evidence from the West African countries suggests that trade policy is promoting both incentive and disincentive for origin grindings. The duty free enjoyed by the EPA countries provides significant comparative advantage to non EPAs. Trade policy, whether it be export taxes in producing countries or import tariff imposed by importers such as the EU provides favourable choices for transnational companies to install processing facilities in the major producing countries in West Africa.

3.2.3.2 Global Chocolate manufacturing

As a response to increasing international competition, the outsourcing of parts of production has become a trend in chocolate manufacturing. Nestlé, Mars, Hershey, Cadbury, Kraft Jacobs Suchard, Ferrero and Cemoi used to be more highly integrated in upstream activities such as cocoa grinding. Currently, the majority have sold off their grinding operations to focus on their core activities. While most of the couverture is still produced internally for their own use, there is a trend to contract it to other suppliers as well. Even the production of finished products is outsourced to specialised suppliers (UNCTAD, 2008, p. 25). This trend represents a
shift from manufacturing raw materials to areas that define their selling points, such as branding, marketing and product innovation.

In the interest of securing competition in both traditional and emerging markets, all of the major international manufacturers’ continuously develop global chocolate brands. Mars, for example, has actively developed a tailored product based on specific local preferences with a global brand, such as CocoaViva brand for health conscious customers in the US market (Mars, 2014a). Hershey has focused more upon the traditional American market, producing chocolate with a specific American flavour. Cadbury (now owned by Mondelez) has strengthened its presence in the USA, Australia and New Zealand, while at the same time expanding its market to the new emerging economies such as Brazil, Russia, India, China and South Africa (Tropical Commodity Coalition (TCC), 2009, p. 12).

The tendency to open production facilities in several emerging markets suggests that international companies favour establishing manufacturing facilities in close proximity to end consumers. This could prove a good lesson for several producing countries, wherein the national strategy of the domestic industry is to move towards the manufacturing process. As regards Indonesia, in the event that the Indonesian people’s incomes increase, they may start eating more chocolate, and by extension, attract various multinational companies to install manufacturing facilities.

Another factor that drives outsourcing is the capability to process low quality beans. Inferior quality requires flexible plants: grinding plants owned by chocolate manufacturers (particularly in Europe) are relatively fixed plants. On the other hand, dominant international grinders have advanced flexible equipment that allows them to process low quality beans (Fold, 2005, p. 232). From a business point of view, outsourcing seems a better choice. The capacity of businesses may increase without the need to invest in a new factory to meet the increasing demand of semi-processed cocoa products.

Notwithstanding these broad trends, a limited number of chocolate manufacturers are still sourcing raw materials from producing countries and continue to produce cocoa liquor for use in specific branded products. It may be that in order to protect
recipes, cocoa processing may be kept in-house in some circumstances (Fold, 2001, p. 409). For example, Cadbury considers the flavour of cocoa from Ghana very important to their distinctive taste of Cadbury’s chocolate, at least for the chocolate sold on the major commonwealth countries, which is very familiar to their traditional consumers in the United Kingdom and in former overseas territories such as South Africa, Australia and New Zealand. For this reason, specific cocoa was still being purchased and transported in a specially designed bag to factories in the UK in 2000 (Fold, 2001, p. 409). Another example is the Mars operation in Makassar, South Sulawesi, Indonesia, where Mars purchased a certain amount of special Sulawesi cocoa with specific post-harvest treatment at the farmers’ level. Wet beans were purchased from farmers, then washed in the villages before being ground in the Makassar factory or in other facilities. Thus, specific beans are processed in particular ways to produce ingredients for functional foods and health products.

Besides outsourcing their low margin grinding operations, big manufacturers are increasingly taking over other chocolate producers. The take-over is a responsive move to the changing consumer markets, which are characterised by ‘the aging of traditional chocolate consumers, increasing health consciousness, and a trend towards functional foods’ (Fold & Neilson, 2016, p. 202). During the period 1970 to 1990, more than 200 takeovers occurred globally (Fold, 2001, p. 408), which saw a few players only grow in size and significance. The takeover of Cadbury by Kraft (now known as Mondelez) in 2010 meant that only five companies produced almost 50% of the entire confectionary market (TCC, 2010). The top two producers are Kraft (14.9%) and Mars (14.5%), followed by Nestlé (7.9%), Hershey (4.6%) and Ferrero (4.5%) (TCC, 2010, p. 5). This trend has seen a decline in the number of players who dominate the global market.

The trend of chocolate manufacturers towards outsourcing part of their production provides an opportunity for suppliers to take over certain functions, particularly the processing operation.
3.2.4 Cocoa consumption and ethical consumer demand

3.2.4.1 Global cocoa and chocolate consumption

Attempts to trace the end consumers of cocoa products have proven somewhat complex due to the variety of final products into which cocoa is an ingredient. The final product of cocoa is mainly consumed in the form of chocolate confectionary, chocolate-coated products (biscuits, ice creams), or other food products containing cocoa powder, including beverages, cakes and snacks. A certain amount of cocoa butter is also used in cosmetic products (ICCO, 2010, p. 23).

Some countries, which import cocoa beans for grinding domestically also import final chocolate products. Therefore, in order to measure actual cocoa consumption by country, the surest way is to calculate total grindings plus net imports of cocoa, chocolate and chocolate products, in bean equivalent terms. It is difficult to calculate total consumption, particularly of, for example, butter, when it is an ingredient of both imported foods and cosmetics, it does not fall into the chocolate product's category. The total consumption of cocoa, therefore, may not be in line with the total chocolate confectionary consumption (ICCO, 2010).

Based on data from the (ICCO, 2012), an interesting fact from the global cocoa consumption indicated that traditional cocoa consumer regions have been declining in terms of their global share. Even though the European region retains the highest share of the global consumption, within ten years the share has declined from 51% in the 2002/03 season, to 48% in the 2010/11 season. The American region also declined its share of global consumption from 34% to 33% in the same period. On the other side, the non-traditional region, slowly increased their share of global cocoa consumption. The Asian region for example, increased its share from 13% to 15%, and Africa from to two per cent to three per cent (ICCO, 2012). The increasing share of non-traditional cocoa consumption regions has been mainly due to the increasing demand of food products and beverage products containing cocoa powder, in addition to the increasing chocolate demand from emerging economies in the regions (ICCO, 2012).
In the chocolate market in the Asian region, China is the most dynamic and potentially lucrative market. The chocolate market in the country is experiencing high growth due to the increasing middle class of more than 300 million people. The current annual chocolate consumption is only around 100 grams per person compared to the Western Europeans average of 8 kilograms (Nieburg, 2013).

In short, the emerging economies in the Asian and African regions have initiated new share compositions of global cocoa consumption. This trend could create opportunities for chocolate companies but also signals more fierce competition among the global players in the global value chains for cocoa.

3.2.4.2 Ethical demands of consumers

Increasing consumer demand for ethical products, particularly related to the wellbeing of producers, labour and environments has underpinned the requirement to source cocoa in a sustainable manner. Among issues related to cocoa production in rural areas, are the exploitation of child labour, the difficulty of gaining a decent income from cocoa farming, encroachment on forests and the wide usage of chemical inputs have generated environmental risk.

In this regard, intense debate has erupted over who should be responsible for the ethical sourcing that occurs between chocolate manufacturers and transnational grinders. Chocolate companies maintain that grinders, who buy cocoa directly from producers, should start paying attention to the above issues, as they are directly in touch with the producers. Some manufacturers have imposed conditions banning the use of child labour in their supply contracts. The grinder on the other hand, keep stressing the strong power of the chocolate companies in the industry, urging the cocoa processors to keep their costs as low as possible (Cappelle, 2008, p. 18).

However, compliance with cocoa certification, one of the instruments that support sustainable cocoa production, has become a new trend. In 2009, Mars announced that by 2020 it will have 100% certified cocoa, an estimated around 350,000 tonnes. Recent report shows that Kraft has certified around 50,000 tonnes (11.4%), Nestle around 30,000 tonnes (8.3%), and Mars 100,000 tonnes (28.6%) in 2012 (Cocoa Barometer, 2015). Fairtrade, Organic Certification, Rainforest Alliance, and UTZ are
among the most popular certification schemes involved in this trend. These various certification approaches, besides addressing consumers’ concerns regarding poor people and the environment, will in addition secure business interests by improving quality, production and corporate brand reputations.

The challenge ahead for certification is how to impose it to actors in the value chains without burdening the cost to smallholder farmers. The requirements to comply with the social, environmental and economic bring various indicators of measures that exacerbate complexity. The preparation, setting up internal control system and audits are costly, especially for the smallholder farmers. In addition, each system has its own certification cost, it represents a further burden for smallholder farmers. Therefore, the challenge ahead is how to simplify the indicators (TCC, 2010, p. 20) and reduce the burden of certification costs, particularly for the smallholder farmers.

3.3 The Value Chain for Indonesian cocoa

Farming, trading and grinding cocoa beans are the major value chain activities in Indonesia. In this context, the following discussion will describe more detail about how the value chains activities are run by cocoa actors in Indonesia.

3.3.1 The farming System

Originally, the cocoa tree was an understory forest tree; but, currently it is cultivated in various farming systems, ranging from primary to secondary forest under the shade of other trees through to a monoculture system with full sun cocoa production. In some areas in Indonesia, it’s very rare to find a complete monoculture system with full sun cocoa production. In Sulawesi for example, the SRTA survey found cocoa trees to be intercropped with at least one or two other types of trees, either fruit trees or shade trees with less density. While in Papua, more trees were intercropped with cocoa trees, and in many cases indigenous Papuan farmers did subsistence horticulture farming in the same cocoa plots.

Each farming system has its own advantages and disadvantages. Shaded cocoa, which is often associated with preserving biodiversity, low agricultural input, and fewer weeds, is productive for many decades. While full sun cocoa production is
able to provide better yields and increase economic benefit for farmers in the short term, it is associated with high fertilizing and chemical inputs. Thus, in the long term, it stresses the trees, making them more susceptible to pests and diseases (Franzen & Borgerhoff Mulder, 2007; Obiri, Bright, McDonald, Anglaaere, & Cobbina, 2007; Ruf & Schroth, 2004; Shapiro & Rosenquist, 2004).

The optimum rotation age of the cocoa tree (ie. requires replanting) varies in accordance with the system applied. A financial analysis of shaded cocoa in Ghana suggests that for the traditional variety of cocoa, produced using traditional farming practices (agroforestry system), the economic rotation age is 44 years. while the economic rotation age for unshaded hybrid cocoa is only 18 years, and 29 years for hybrid cocoa grown under shade (Obiri et al., 2007, p. 148).

In long periods of low prices, cocoa growers find it difficult to maintain production. While smallholders are usually able to maintain their cocoa farms, maintenance and harvesting activities tend to be afforded low priority. Many large estate plantations have responded to low prices by converting their farms into alternative profitable commodities (Fold, 2001, p. 412), such as is the case of cocoa plantations that had been converted into oil palm in Malaysia. On the other side, smallholder farmers are able to maintain production, as they do not need to recruit external labour. Family labour can cope with small-sized farms such as those in West Africa (3-5 hectares) (TCC, 2011), and Indonesia (0.5-5 hectares)\(^4\). In comparison, large plantations, such as those mainly found in Brazil, range between 10 and 100 hectares (Haque, 2004, p. 3).

Over the last decades, smallholder cocoa farms have grown rapidly across Indonesia. Based on the data released by the Directorate General of Estate Crops (2011), in 1980, smallholders farmers contributed only around 10 percent of total cocoa output; but, within three decades, the share increased to 92 percent of total Indonesia cocoa production. In terms of total area, the smallholders planted cocoa

\(^4\) The survey was the Survey Rumah Tangga ACIAR (SRTA)- An ACIAR household survey Collaboratively conducted by the University of Sydney and BPTP and funded by ACIAR, my main role at this research is to analyse research data gathered from the field survey.
over an area of 13 thousand hectares in 1980: this figure grew to 1.4 million hectares over the next three decades (Barani, 2010). Latest data released by the Indonesian Investment Coordinating Board in 2015 shows that the total cocoa production areas in Indonesia has achieved 1.6 million across 29 provinces, and Sulawesi Island itself contributes approximately 60 per cent of the total Indonesian production. West Papua as the potential expansion areas only represents 1.4 per cent of the national production areas (Figure 3-6).

Figure 3–6 Major cocoa producing areas in Indonesia

Despite the fact that Indonesian smallholders’ cocoa production grew remarkably over the last thirty years, cocoa farm productivity is in decline (Figure 3-7). The Food and Agriculture Organisation (FAO), based on data supplied by the Government of Indonesia, suggests a yield drop of around 50% between 2006 and 2013 (See figure 3-7).
I will now take a closer look at the island of Sulawesi, the major producing island, and in Papua, which has enormous potential for future cocoa expansion. The SRTA survey in 2009 showed the productivity of cocoa farms in the main producing districts in Sulawesi and West Papua tended to be below the reported national average. For example, productivity in the major producing districts, e.g., Polman in West Sulawesi, North Luwu in South Sulawesi and North Kolaka in South East Sulawesi, was 290 kg, 351 kg and 640 kg respectively (Jeff Neilson, Palinrunghi, Muhammad, & Fauziah, 2011). In Manokwari, West Papua, considered a potentially new area for cocoa expansion, the SRTA survey found that the average productivity was slightly below the national average, at 761 kg per ha per year. Based on the observation from the field, the productivity decline was caused by two main factors, the aging trees and high infestation of pets and diseases.

3.3.1.2 Aging trees

The decline in cocoa farm productivity is hardly surprising given that the majority of cocoa trees are aging. They were mostly planted in the 1980s; so, when this research was conducted, the average age of a cocoa tree was between 20-30 years. Thus, they are entering a period of decline stage in the cocoa life cycle.

The productive stage, as explained by Ruf and Yoddang (2001), is followed by the gradual decline of ‘forest rent’. As the majority of cocoa farms were initially forest areas, they contain rich soils, and low pest and disease infestation. As the cocoa tree grows, the soil ingredients gradually decrease and require more fertilizer to
cover the need for production. At the same time, the numbers of pests and diseases grow, infesting the cocoa farms.

This research found that the majority of the cocoa trees planted in the main cocoa-producing district in Sulawesi have entered the declining stage. For example, regarding the aging trees, approximately 30 per cent in Polman, West Sulawesi, 41 per cent in North Luwu districts, South Sulawesi, and 69 per cent in North Kolaka South East Sulawesi, are above 15 years old; in other words, they require high maintenance as they are in the declining productivity stage.

3.3.1.2 Pests and diseases

Pest and disease infestations are among the major causes of productivity and quality decline. The SRTA survey shows that there are four pests and diseases that generally infect cocoa farms in the major cocoa-producing districts in Sulawesi: CPB, VSD, Stem cancer and black pods. All of these pests and disease cause major problems for cocoa production.

CPB infestation has been a major concern for cocoa stakeholders in Indonesia. In the mid-1990s, Akiyama dan Nishio (1997) saw CPB as a major threat to the future Indonesian cocoa industry. In the early 1990s, CPB was identified in central Sulawesi, Maluku and Kalimantan; by 2000, the pest has spread throughout all of the cocoa-producing areas in Indonesia. The SRTA survey found that in three major sites i.e., Polman in West Sulawesi, North Luwu in South Sulawesi, and North Kolaka in South East Sulawesi, almost 50 per cent of farmers in each district saw that CPB as the major threat to their farming activities.

Yield losses caused by CPB infestations in 2005, as reported by researchers from the Indonesian Coffee and Cocoa Research Indonesia (Wairatta, 2007), are shown in Table 3-3, which suggests they were significant.
Table 3-3 Pest and diseases yield losses due to CPB

<table>
<thead>
<tr>
<th>Locations</th>
<th>Infestation (%)</th>
<th>Yield loss (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berambai, East Kalimantan</td>
<td>95.2</td>
<td>61.3</td>
</tr>
<tr>
<td>NTT</td>
<td>87.74</td>
<td>50.9</td>
</tr>
<tr>
<td>West Sumatera</td>
<td>94.1</td>
<td>58</td>
</tr>
<tr>
<td>Ladongi, South East Sulawesi</td>
<td>95.03</td>
<td>69.56</td>
</tr>
<tr>
<td>Kolaka, South East Sulawesi</td>
<td>95.87</td>
<td>56.24</td>
</tr>
<tr>
<td>Jembrana, Bali</td>
<td>77.29</td>
<td>48.43</td>
</tr>
<tr>
<td>Asahan, North Sumatera</td>
<td>67.35</td>
<td>29.4</td>
</tr>
</tbody>
</table>

Source: Wairatta, 2007

CPB decreases the yield of cocoa by taking the nutrition of the beans as their feed. The cocoa beans’ nutrition is in the pulp and placenta that surrounds the beans inside the cocoa pods. When the growth of beans is not fully developed, they become small and flat and ripen prematurely (Abdoellah, Sulistyowati, & Wiriyadiputra, 2006). Consequently, only small part of the beans can be sold; the rests remain flat and are difficult to separate, and fall into the waste category. It came as a surprise when the World Bank (2005) estimated that due to CPB infestation, production losses in 2005 totalled approximately 240,000 tons of dry bean valued at $250 million USD.

In sum, cocoa farming systems in Indonesia range from low density to high density intercropping, with a general tendency towards higher-input, more cocoa intense systems. In comparison with the larger plantations, smallholders are more resilient, particularly in maintaining cocoa farms during lower prices. This is primarily due to the advantages of family labour. However, the aging trees, rampant pest and disease infestations have impacted productivity, which has become a real threat for smallholder cocoa production in Indonesia.

### 3.3.2 The trading practices

An important aspect of trading practices is to standardise cocoa beans under the Indonesian national cocoa standard (SNI). Moisture, bean counts and waste level are the three major quality indicators used, where traders “add value” into the beans through ensuring that quality standards are met.
Cocoa actors involved at this stage of the value chain range from village collectors, as lower hierarchy players in the supply chain, up to large traders and exporters. In Indonesia, some village collectors act individually and some others are part of multinational traders’ network. The collectors usually buy cocoa beans from farmers, by visiting the farmers (home or drying site) and buying cocoa beans directly in the village (usually in small amounts). Once up to about a tonne of beans are accumulated, this allows hiring a mini truck, and the local collectors sell it to larger traders in the district level. The last journey for the beans involves being transported to an exporters' warehouse or processor, usually located in a provincial city, such as Makassar.

In relation to the moisture level, in many cases, cocoa beans supplied by farmers are not fully dried at the required at 7% moisture level. Therefore, local collectors and traders at the district level perform further drying to achieve the standard level. Even if it is not very often, exporters also conduct drying, particularly in the rainy season and harvest season. This is the first stage when traders start discounting the cocoa price they pay, such that it becomes an area of ‘profit taking’ due to the unmet moisture level requirements.

The second activity is sorting and grading, which is commonly performed by traders and exporters. During this activity, a combined grader machine and wind blower is utilized to separate beans from waste, and to divide between small and large beans. These are then put into a standardized bag (62.5 kg jute sacks) and categorized as ready to export beans. Those sorted beans are mixed to meet the maximum bean count of 110 beans per 100 grams, and waste is standardized to meet the 2.5% waste level. This is another important stage for the traders to maximize profit margin. Almost all traders are doing the mixing strategy; small and large beans coming from different suppliers are combined to achieve the minimum bean count standard. Meanwhile, the waste level is maintained at the rigid point of 2.5% to maximize profits.

It is important to note that the cocoa-trading activity in Indonesia is an open market. Consequently, the farm gate price is based on the New York Board of Terminal (NYBOT) market and international buyers maintain a presence ‘up-country’
within the cocoa producing districts themselves. The existence of the international buyers ‘up-country’ is either by establishing buying stations or by upgrading their local supplier as an extended branch. The differential price or the amount of deduction from NYBOT is a daily reference between one trader to another. A rough calculation from anASKINDO member indicates that the local collectors gain higher margins (7-13%), followed by district traders, including international buyers at district level (8-8.5%) and lastly, the buyers in Makassar, which includes big traders and exporters (2-6%). This is commensurate with the increasing importance of large volume turnover as the cocoa moves downstream.

Overall, the main activities and treatment along this part of the trading chain (local collectors, district traders, and exporters) is to ensure the quality of cocoa beans meet quality standards in the international market. Therefore, quality control is performed mainly through grading and drying activities not only to safeguard that the beans are qualified and acceptable in the processing factory, but also to ensure that profit margin is carefully maximized through meeting the minimum requirement of export standard.

3.3.3 The grinding activities

Cocoa bean processing is a value added activity involving bean cleaning, roasting, winnowing, grinding the cocoa nibs, cocoa pressing, milling cocoa cake and alkalising. Butter, as a final product and the main valuable content extracted from the beans, is used as the main ingredient in chocolate making, confectionary, and the baking industry. Besides butter, this process also yields cocoa cake, a residue containing fat ranging from 10% to 22% (Beckett, 2000). The cake is sold on the generic cocoa market for further milling to produce cocoa powder (Musselli, 2008, p. 7), which is commonly used for drinking chocolate and as a cake ingredient.

In this processing stage, profit maximisation occurs three ways; first, processing efficiency. The price of both raw materials (the beans) and outputs (cocoa butter) is essentially determined by the world market, i.e., by the NYBOT. A grinder can choose where to sell their product but market determines the price. Second, product-loss minimization. This is particularly important at the winnowing stage, when nibs are potentially lost when they stick to the shell and are thrown away.
during the process. For example, this occurs when a factory estimates the value content of beans at 84% before processing, but the result is only 80%. In such cases, there is a 4% loss of nibs, a valuable part of the beans (Yusianto, T.Wahyudi, & Sulistyowati, 2008, p. 254). Third, producing marketable cocoa powder. Cocoa powder is a less generic commodity. Thus, it needs good international marketing capabilities to achieve a good market and price. It is important to note that end users value colour and flavour; so, at this point, the fermented beans (raw material) and alkalisation have their role to play. Generally, it is estimated that the margin acquired from this business ranges from 8-17%, depending on the factors as identified above. In fact, the most challenging aspect for the Indonesian grinders is the sale of cocoa powder. Since the majority of Indonesian beans are not fermented, than the cocoa flavour expected to come out from the cocoa powder is not as strong as fermented cocoa.

Yields derived from the grinding vary depending upon the quality of raw material. In the case of Indonesian cocoa beans, an industry source calculated that one tonne of beans processed in a factory produced 33% of cocoa butter and 44% of cocoa powder. Other materials, which are generally considered as waste, consist of 12% shell, 6% water, and 5% of other non-bean material. When beans are severely infected by pests and diseases, the yield is lower. The end outcome is that the profitability of a factory is affected.

In sum, cocoa processing is a very competitive, value adding business. Staying competitive in the business internally requires highly competent human resources, for buying high quality inputs, running the factory as efficiently as possible, developing marketable products, and, seeking and maintaining relationships with buyers in the international market. In this regard, having strong linkages with international buyers or operating a grinding factory in Indonesia as part of a parent company operating globally, would be an advantage, as international companies may have superior marketing capabilities.
3.4 Conclusion

In this chapter, I have attempted to explicate the general issues on the Global Value Chain for cocoa both at the global level and at the national level. The main objective of this chapter has been to discuss the general issues that drive the global dynamics of cocoa industry and to present the local context of major Indonesian cocoa industry activities, mainly the farming, trading and grinding operations and the issues that surround those operations.

Section 3.2 discussed and laid out the scene of the global dynamics of the cocoa industry ranging from production, market institutions, the restructuring of global grinders, and the trend of global cocoa consumption. In the global production, this chapter discussed more detail on how production has shifted from one region to another, and how particular countries have risen and fallen such that eventually the concentration of cocoa production is now in the African region. In the market institutions, this chapter discussed how the global market was initially set up to be regulated, but has become increasingly loose and liberalised. The impact of liberalisation that resulted negative impact on the quality of cocoa beans in the West African countries was also discussed. This sub section further discussed the increasing trend of origin grindings, which was mainly driven by the strategic decision of transnational companies as well as the trade policy imposed by nation states. Finally, the sub-section discussed global cocoa consumption, which is still dominated by the traditional Northern markets. New increasing global consumption trends from emerging countries such as China was also discussed to flag the potential future demand of cocoa in the global market.

Section 3.3 discussed the Indonesian context of value adding activities, which was mainly dominated by farming, trading and grinding activities. In the farming activities, the sub section discussed the smallholder farming activities in Indonesia, situating the discussion in the context of the growth of smallholder farming over the last three decades and the productivity decline over the last ten years. Issues of aging trees and high infestation of pest and disease were identified as major causes of the decline. The following sub-section discussed the trading practices in Indonesia; and how traders derived profit margins from their mixing strategy and
discounted price for wet beans. The last sub-section discussed how domestic cocoa grinders operated to stay competitive amidst very tight competition. Areas of efficiency and potential loss from the operation were identified and discussed to provide a general picture of the value adding activities.

In summary, this chapter laid out the scene for the global value chain for cocoa at the global and national levels. The global dynamics in the production, markets, and institutional settings are flagged to provide a nuanced understanding of how it might or could impact the efforts of upgrading in the Indonesian context, at the same time discussing some important features of the Indonesian farming, trading and grinding issues.

Finally, this chapter is a precursor to a more detailed discussion of the Global Value Chain dimensions of the cocoa industry in Indonesia. Interaction between governance of the chain, institutional settings and upgrading activities will be discussed in the following three chapters. These dimensions are presented under specific topics emphasising the national debate surrounding the state (Chapter 4), the Development agencies (Chapter 5), and lead firms’ role (Chapter 6) in driving upgrading in the Indonesian cocoa industry.
4 STATE DRIVEN UPGRADING
CHAPTER 4: STATE DRIVEN UPGRADING

4.1 Introduction

In the GVC literature, it is widely suggested that if the business actors in the developing countries are to engage in upgrading, the actors need to position themselves advantageously within the global value chain (Gereffi, 1999; Gibbon, 2001; Kaplinsky & Readman, 2001). Within this context, incorporating an understanding of the global value chain is very important not only for business actors, but for policy makers within the government as well. The question remains therefore: has the government incorporated an understanding of the global value chain in its programs and policies approach?

From the year 2000 onwards, sustaining the growth of cocoa production and value adding activities have been major issues for the Government of Indonesia, industry associations, and often Development Agencies. In the late 1990s, smallholder cocoa farms experienced a period of declining productivity, particularly for cocoa farms that were planted in the early 1980s. Other actors in the value chain, for example cocoa processors, have demanded government intervention to regulate the trading of cocoa beans that would support domestic value-adding activities. The central question for the government is: how can cocoa industry development in Indonesia continue to develop and produce maximum benefit for all actors within the chain?

In this chapter, the central focus is on the ways in which the government has shaped programs and policies in order to support upgrading amongst both smallholders and processors. I argue that not only has the state played an important role in promoting upgrading, but that it continues to perform a contributing role in shaping cocoa upgrading in Indonesia.

Contemporary cocoa industry policies and programs in Indonesia have been moving away from a market competitive and hands-off policy towards hands-on policy that increases the government’s role in upgrading activities of Indonesia’s cocoa processors. This is particularly the case with regards to marketing and trading of
cocoa in Indonesia. The chapter examines the following set of closely related questions. What factors have driven the increasing state involvement in supporting production upgrading? What factors influence the shift of policy in the areas of marketing and trading? How are programs and policies being shaped and developed by the government? What has been the impact of the increasing number of state programs and policies on the various actors within the value chain? The overall aim of the chapter is to understand the role performed by the state, and its effectiveness in achieving its purported objectives. In order to achieve this aim, it is first necessary to understand some of the key features of the contemporary Indonesian state. In the following section, I will concisely delineate how the Indonesian state has been transformed from an authoritarian regime into a more constrained actor operating within a relatively democratic political system. This is followed by close examination of institutional settings and the socio-political aspects of the upgrading process.

4.2 The Indonesian state

Indonesian economic development has been marked by an historical transition from an authoritarian regime to a democratic and decentralized country. Throughout this political transition, a predatory oligarchy, marked by rent-seeking behaviour and extractive institutions, has continued to operate in Indonesia, effectively co-opting the new political system.

4.2.1 Democratization and decentralization

The economic crisis of 1997 was the historical marker for Indonesian democratic development. Less than one year after the crisis commenced, Soeharto, who had been the country’s authoritarian president for the preceding three decades, stepped down from the presidency.

That moment witnessed the beginnings of a political shift from authoritarian to a mostly democratized political system within the next seven years. During this transition process, Indonesians had to contend with changes in the highly political presidential dynamics. But, they were fully committed to democratization of their
country. President Habibie, in his role of transitional president, reified the
democratic process by conducting a democratic general election in only one year
after his appointment in 1999. Another milestone was the direct presidential
election delivered by President Megawati in 2004: she was subsequently defeated
by Soesilo Bambang Yudhoyono, who continued the democratic process by
successfully safeguarding a series of elections for regional heads of local
governments including governors, majors, and regents (Ananta & Riyanto, 2006).

The changes in the political system to a more democratic electoral system was
accompanied by the transfer of authority from the central government to local
governments that had been mandated by the parliament in 1999. The laws
mandated the decentralisation of government authority and fiscal policies. This
gave local governments much more power, i.e., stronger and wider authority in
almost all fields with the exception of foreign policy, security and defence, justice,
fiscal and monetary policies, and religion. At the same time, regional parliaments’
power became stronger as well. They now had the authority to replace regents
(Ananta & Riyanto, 2006).

4.2.2 The re-emergence of predatory capitalism

Democratization and decentralization in Indonesia, however, has emerged without
significantly altering some of the underlying rent seeking institutions. The
democratic system in Indonesia does not completely eliminate ‘the patron-client
relationship’, which remains strong (Soesastro & Basri, 2005, p. 10). According to
Robinson and Hadiz (2005), the existing democratic system employed by the
Indonesian state tolerates business players and politicians forming alliances which,
backed by parliamentary forces, compete to attain control of state institutions. And,
in many cases, these alliances work to consolidate authoritarian politics and
predatory economic relationships.

Democratization and decentralization, together with the strong relationships
between business players and parties, or patron client-relationships, have facilitated
the ‘reorganization of the old predatory power relations within a new system of
parties, parliaments and elections that has been the central dynamic of politics in
the post-Suharto era’ (Robinson & Hadiz, 2005, p. 231). Thus, it is not surprising that within the current system, various interest groups have emerged to organize lobbying and trade protection (Soesastro & Basri, 2005). These groups are associated with bestowing privileges for particular groups of people (Ananta & Riyanto, 2006).

A pivotal point here is the increasing importance of the socio-political understanding of the economic development process in Indonesia (Ananta & Riyanto, 2006). The mutual relationships between bureaucrats, politicians and business players or oligarchies that defined predatory capitalism and characterized the legacy of the authoritarian regime, have continued to re-emerge within the current political context in Indonesia (Robison & Hadiz, 2005). This reality signifies the importance of examining the institutional and socio-political aspects of the economic development context.

The upgrading activities pertinent to Indonesia’s cocoa industry, which are discussed in the following sections, put strong emphasis on how these institutional settings shaped state-driven upgrading. I will further discuss this issue in section 4.4.

4.3 State upgrading activities

Over the last three decades, the Indonesian state has performed an important role in accelerating cocoa production and triggering upgrading activities in the industry. Not only has the Indonesian state played a dominant role in providing technical support to smallholder farmers, but it has increasingly adopted a ‘hands-on’ policy in trading activities through exercising policy and regulations. This hands-on policy is one of the historical shifts that has accelerated the functional upgrading of the cocoa industry in Indonesia. The following discussion will describe in more detail the trajectory of the state’s role in upgrading the country’s cocoa industry.

4.3.1 Direct Technical interventions

State interventions attempting to support national production upgrading at the farm-level could be categorised into two phases: (1) the earlier stage characterised
by support for smallholders’ expansion activities, which occurred mainly before the economic crisis of 1997; And (2), more recent interventions characterised by support for intensification with a specific focus on the GERNAS program. It should be emphasised that I am interested in interventions by the government to support cocoa upgrading, irrespective of whether these programs were actually successful in achieving their purported intention, which remains contestable.

4.3.1.1 The earlier stage: Upgrading through area expansions

Some form of state involvement in supporting the cocoa industry in Indonesia has been evident since the early development of the cocoa industry, in particular in accelerating smallholder cocoa expansion. During the 1980s, various government programs were introduced to accelerate smallholder cocoa expansion (for details, see table 4.1). The various government programs were briefly described in a book written by the former Directorate general of Estate Crops, Yusuf Mangga Barani (Barani, 2010), which outlines a vision of how Indonesia could become the largest cocoa producer in the world. For example, the PRPTE (Peremajaan, Rehabilitasi dan Perluasan Tanaman Eksport) project focused on the regeneration and expansion of export commodities. Other examples include the SADP project (Sustainable Agriculture Development Project); and the SRADP (Sulawesi Rainfed Agriculture Development Project) project. Most of these projects were implemented in the field by a local project implementation unit or Unit Pelaksana Proyek (UPP). The UPP method mainly involved farmers as implementers of the project. Farmers received technology packages which included planting material, fertilizers, pesticides, and labourers to help develop their farms. All of those projects, however, only covered 13,200 hectares spread across seventeen provinces (Barani, 2010, pp. 20-21). In line with the PRPTE project, cocoa seed was supplied to farmers by large estate crops including government and privates estates (Akiyama & Nishio, 1997). However, the scale of the project is insignificant compare to the expansion of areas that exponentially increased up to 300,000 hectares in mid 1990s (Direktorat Jenderal Perkebunan (Ditjenbun), 2011).
Similar to the UPP approach, the Government of Indonesia also developed estate crops commodity expansion through the *Proyek Pengembangan Wilayah Khusus* (P2WK), which was jointly funded by the state and the Sector Programme Loan Overseas Economic Cooperation Fund (SPL-OECF), lent by Japan. The main difference between the projects was the duration of support from the projects to the smallholder farmers. Unlike the UPP approach, which claimed to cover all costs associated with the planting of cocoa until production, the P2WK and SPL-OECF projects only covered the first planting year (Barani, 2010, pp. 20-24).

After the financial crisis hit Indonesia in 1998, the central government’s limited budget was insufficient to fund estate crops expansion. However, the Minister of Agriculture continued to support cocoa expansion by channelling its budget through the provincial and district governments and by providing superior planting material. The area of activities was narrowed to the core cocoa producing districts, the border areas, and conflict affected areas (Barani, 2010, pp. 20-24).
Table 4-1 Government programs supporting cocoa smallholder production in Indonesia

<table>
<thead>
<tr>
<th>No</th>
<th>Year</th>
<th>Project</th>
<th>Area (ha)</th>
<th>Provinces</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1980-1981</td>
<td>PRPTE</td>
<td>8,999</td>
<td>Aceh, North Sumatera, Riau, Jambi, South Sumatera, Bengkulu, Lampung, West Kalimantan, Central Kalimantan, East Kalimantan, South Sulawesi, South East Sulawesi, Nusa Tenggara Timur, and Papua</td>
</tr>
<tr>
<td>2</td>
<td>1981-1982</td>
<td>SADP</td>
<td>3,000</td>
<td>Papua</td>
</tr>
<tr>
<td>3</td>
<td>1981-1982</td>
<td>SRADP</td>
<td>1,203</td>
<td>Gorontalo, Central Sulawesi, South Sulawesi and South East Sulawesi</td>
</tr>
<tr>
<td>4</td>
<td>1990-1994</td>
<td>SPL OECF</td>
<td>1,545</td>
<td>Aceh, West Java, South Sulawesi</td>
</tr>
<tr>
<td>5</td>
<td>1990-1994</td>
<td>P2WK</td>
<td>3,415</td>
<td>Aceh, Sumbar, Bengkulu, D.I Yogyakarta</td>
</tr>
<tr>
<td>6</td>
<td>2007-2010</td>
<td>Selective intervention programs (Non Revitalisasi)</td>
<td>10,142</td>
<td>Aceh, North Sumatera, West Sumatera, Bengkulu, Lampung, Banten, West Java, Central Java, Yogyakarta, East Java, West Kalimantan, East Kalimantan, East Nusa Tenggara, North Sulawesi, Central Sulawesi, West Sulawesi, South East Sulawesi, South Sulawesi, Papua, West Papua</td>
</tr>
</tbody>
</table>

Source: Barani, 2010

The above projects illuminate the role of the state in attempting to support production upgrading activities in Indonesia, especially in the period before Indonesia was impacted by the economic crisis of 1997. What is important to note here is that prior to 1997, the state provided intermittent support for cocoa producers. State support was selective in terms of its coverage and was only provided for a relatively short time.
4.3.1.2 Contemporary interventions: Upgrading through intensification and rehabilitation

GERNAS was initially designed as a three year program spanning the period 2009-2011, and aimed to upgrade the national cocoa production across Indonesia (it was subsequently extended until 2013). The state adopted a similar model to the development programs of 1980s, including technical support, and subsidized agro-input materials and labour compensation. Its implementation was ostensibly driven by significant industry losses attributable to the decline in national productivity from approximately 1.5 tonnes per hectare per year in the 1990s to an estimated approximately 0.7 tonnes per hectare per year in the 2000s (Departemen Pertanian, 2008).

GERNAS was designed as a response to the perceived weaknesses of several previous smaller programs that had been delivered by the state in the period between 2000 and 2007. These programs included Sekolah Lapang Pengendalian Hama Terpadu (SL-PHT)-Farmer training for integrated pest and diseases management, and the Cocoa Revitalisation program (a credit program). The SL-PHT was well known as a regular and annual training program intended to improve the capacity of smallholder farmers to manage the spread of pests and diseases. However, the program was very limited in its coverage; it only focused on a few farmer groups in each district.

In the meantime, the revitalisation program was designed to support smallholder farmers in need of working capital for the rehabilitation of aging cocoa trees. This program, which was a government-subsidized credit program, provided working capital for smallholder farmers channelled through State-owned banks. Under the program, the interest on the initial five year loan was paid by the government and farmers were expected to pay the interest when the cocoa trees started full production. However, before farmers could access this credit, they (a) had to provide a land title certificate, and (b) had to have a business partner, who would guarantee to buy the cocoa and ensure credit repayment.
In reality, only a few farmers possessed land title. Furthermore, farmers faced difficulties meeting other requirements for loan application, such as having a guarantor. This made it difficult for farmers to access the credit. Guarantors were also hesitant to support farmers as the guarantor did not have full control of the farmers’ marketing activities. In short, the buyers or guarantors did not have the control capacity to ensure that the farmers would sell their beans to the guarantor, given the fierce competition between traders on the ground that triggered the side selling of activities. As such, the state-owned bank only financed a meagre 1.094 hectares cocoa farms throughout Indonesia (Surabaya Pagi, 2011).

The GERNAS program was promoted as providing direct and comprehensive solutions to the problems encountered by earlier programs. The state decided that in order to accelerate a revitalisation of cocoa production, it would cover almost all of the costs associated with production improvement. The GERNAS program provided integrated support, e.g., programs for the regeneration and replanting of old trees, farming intensification, farmer empowerment, providing technical facilitators, controlling pest and disease infestations, and providing infrastructure for quality improvement. Almost entirely, the program was subsidized by the government with a total budget of 300 million USD. The expected total area coverage was 450,000 ha (Departemen Pertanian, 2008), which included nine provinces in Eastern Indonesia (See Table 4-2), making it easily the most ambitious government support program ever for Indonesian cocoa production.

### Table 4-2 Coverage areas of the GERNAS program

<table>
<thead>
<tr>
<th>Province</th>
<th>Areas (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Sulawesi</td>
<td>125,600</td>
</tr>
<tr>
<td>South Sulawesi</td>
<td>141,000</td>
</tr>
<tr>
<td>South East Sulawesi</td>
<td>99,900</td>
</tr>
<tr>
<td>Central Sulawesi</td>
<td>40,500</td>
</tr>
<tr>
<td>East Nusa Tenggara</td>
<td>10,000</td>
</tr>
<tr>
<td>Bali</td>
<td>8,000</td>
</tr>
<tr>
<td>Maluku</td>
<td>10,000</td>
</tr>
<tr>
<td>West Papua</td>
<td>5,000</td>
</tr>
<tr>
<td>Papua</td>
<td>10,000</td>
</tr>
</tbody>
</table>

Source: Departemen Pertanian (2008)
The GERNAS Program was delivered by the central government and implemented by the Estate Crops Department at the district level. The state subsidised all planting material, inputs, and compensated labour for replanting and rehabilitation. In addition, the government recruited 365 technicians to assist farmers during the project, established one new field laboratory and strengthened 6 existing field laboratories, and distributed tools to improve post-harvest handling activities (see details, Table 4-3).

Table 4-3 The main activities of the GERNAS program

<table>
<thead>
<tr>
<th>No</th>
<th>Main Activities</th>
<th>Amount</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regeneration</td>
<td>70,000</td>
<td>ha</td>
</tr>
<tr>
<td></td>
<td>- Providing high quality seeds</td>
<td>70,000</td>
<td>ha</td>
</tr>
<tr>
<td></td>
<td>- Providing fertilizers</td>
<td>7,000</td>
<td>tonnes</td>
</tr>
<tr>
<td></td>
<td>- Pesticides</td>
<td>7,000</td>
<td>tonnes</td>
</tr>
<tr>
<td></td>
<td>- Supporting working capital per ha</td>
<td>1,000,000</td>
<td>Rupiah</td>
</tr>
<tr>
<td></td>
<td>- Providing chainsaws</td>
<td>700</td>
<td>units</td>
</tr>
<tr>
<td></td>
<td>- Hand sprayers</td>
<td>14,000</td>
<td>units</td>
</tr>
<tr>
<td>2</td>
<td>Rehabilitation</td>
<td>235,000</td>
<td>ha</td>
</tr>
<tr>
<td></td>
<td>- Side grafting</td>
<td>235,000</td>
<td>trees</td>
</tr>
<tr>
<td></td>
<td>- Providing fertilizers</td>
<td>47,000</td>
<td>tonnes</td>
</tr>
<tr>
<td></td>
<td>- Pesticides</td>
<td>705,000</td>
<td>litres</td>
</tr>
<tr>
<td></td>
<td>- Chainsaws</td>
<td>2,350</td>
<td>units</td>
</tr>
<tr>
<td></td>
<td>- Hand sprayers</td>
<td>47,000</td>
<td>units</td>
</tr>
<tr>
<td>3</td>
<td>Intensification</td>
<td>145,000</td>
<td>ha</td>
</tr>
<tr>
<td></td>
<td>- Providing fertilizers</td>
<td>29,000</td>
<td>tonnes</td>
</tr>
<tr>
<td></td>
<td>- Pesticides</td>
<td>435,000</td>
<td>litres</td>
</tr>
<tr>
<td></td>
<td>- Farming scissors</td>
<td>145,000</td>
<td>units</td>
</tr>
<tr>
<td></td>
<td>- Hand sprayers</td>
<td>29,000</td>
<td>units</td>
</tr>
<tr>
<td></td>
<td>- Supporting working capital per ha</td>
<td>1,000,000</td>
<td>Rupiah</td>
</tr>
<tr>
<td>4</td>
<td>Farmer Empowerment</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Training (cultivation and post-harvest handling)</td>
<td>450,000</td>
<td>Farmers</td>
</tr>
<tr>
<td>5</td>
<td>Quality improvements</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Socialisation and publications</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Providing fermentation boxes</td>
<td>450,000</td>
<td>Units</td>
</tr>
</tbody>
</table>

Source: Ministry of Agriculture, 2010

The scale of GERNAS suggests the state’s effort to increase national cocoa production. Five years after the project, however, national cocoa production had actually continuously declined. According to the ICCO, national cocoa production

Two major issues were suspected of being the cause of the result: (1) likely corruption during implementation; and, (2) technical issues. After the project ended in 2013, many corruption allegations related to the project were found. These occurred within Indonesia’s major cocoa producing districts, such as Mamuju in West Sulawesi, Luwu in South Sulawesi, Bone in South Sulawesi and Toli-Toli in Central Sulawesi. These allegations not only involved local staff at district level, but also central government staff, as part of the money for the program was suspected of being funneled from local government offices to central government offices in Jakarta (Infokorupsi, 2011; Lengkong, 2014; Luwurayanet, 2011; Politik Indonesia, 2010).

Regarding the technical issues, the main issue was low performance of seedlings that were used for replanting; especially those produced using Somatic Embryogenesis (SE) technology. A survey conducted by Hasanuddin University (Gusli, 2013) indicated that the SE cocoa seeds had a fundamental problem associated with poor root structure and development. This led to falling and dead trees. The survey also found that all of the observed areas where these seedlings were planted in Sulawesi and Nusa Tenggara showed the same results. Consequently, less than 50% of the cocoa trees grown from SE seedlings were considered healthy. In addition, the survey also identified disease that developed following use of the SE method. This includes Vascular-Streak Dieback (VSD) disease that infected the cocoa trees that produced green coloured pods (Gusli, 2013).

Irrespective to the fact that GERNAS did not reach its intended production target, the state has clearly shown its apparent intention to upgrade national cocoa production through farm-level interventions. As demonstrated by the example of GERNAS, the state was able to garner massive support in terms of resources to roll-out a program that supported smallholder production. However, the example of GERNAS also demonstrates that lack of accountability, strong vested interests, and rent-seeking behaviour shrouded the overall effectiveness of the project. I will
return to these issues in the third section of this chapter, where it examines the institutional settings that shaped the upgrading activities in the cocoa sector in Indonesia.

4.3.2 Enacting trade policy support

The government used trade policies to support the domestic cocoa processors’ upgrading activities. In particular, the government revoked the Value Added Tax (VAT) and the imposed a sliding tariff on raw bean exports to encourage value-adding processes to take place within Indonesia.

4.3.2.1 VAT

The VAT was introduced in Indonesia in 1995 on selected agricultural commodities, e.g., cocoa, coffee, rubber and tea. Under this system, cocoa processors were required to pay a 10% tax on their output. Later, the state would pay back the 10% of VAT paid on their inputs. The problem for the processors was that it was approximately one year before they received their credit of 10%; and then, they often only received approximately 80% of the correct amount (Marks, Paryadi, Anas, Wicaksono, & Bird, 2007). So, it was hardly surprising that the majority of cocoa beans were exported.

Marks et al.,(2007) identify three additional distortions generated by the VAT that made it difficult for Indonesian cocoa processors to compete with exporters of cocoa beans. First, Government Regulation 46 (2003) stipulated that farmer and farmer groups were exempted from the VAT system. This meant that exporters could purchase cocoa beans directly from farmer and farmer groups without paying any VAT at all. The case was similar for the estate plantations that produced fermented beans. They opted not to sell to domestic processors in order to avoid the complexity of VAT pay back. The second problem was that local processors claimed to be more vulnerable to demands from tax officials than some of the foreign companies. Finally, Indonesian companies had higher cost of capital compared to the foreign companies; thus, delaying the tax rebate (restitution) and placed the Indonesia companies at a competitive disadvantage.
The long standing regulation that disadvantaged local grinders was abolished in 2007 under the Government regulation No.7/2007 (Awaluddin, 2007). The new regulation revoked VAT being applied to several commodities across estate crops, horticulture, fisheries, and non-timber products. This was largely driven by AIKI’s lobbying of the government to remove barriers for domestic value-adding processes. It is important to note that the VAT abolition had been suggested by several other industry players across several commodities. However, within the cocoa industry in Indonesia, AIKI had been the most proactive association persuading the government to revoke the policy.

4.3.2.2 Export tariff

The export tariff was introduced by the Indonesian state with the main objective to accelerate value adding activities in the country (Barani, 2010). Indonesia had been the raw materials source for cocoa processors in neighbouring countries. Ministerial Decree No. 67/PMK.011/2010 was issued to promote domestic processing of agricultural commodities including cocoa. In the case of cocoa, the decree adopted a progressive tariff based on the international cocoa market. When the international cocoa price fell below US$2000, no tax was applied to export cocoa beans. If the market price of the cocoa was between US$2000 and US$2750, the tariff was set at 5%; for market price of cocoa between US2750 and US$3500, the tariff was set at 10%; and, when the market price exceeded US$3500, the tariff was set at 15% (Menteri Keuangan, 2010).

Such a progressive export tariff was aimed to encourage value adding within Indonesia and to promote local processors through the use of policy rents. In fact, this strategy is not a novel strategy; it has been applied by several producing countries, including Ghana (Media Perkebunan, 2010), and had already been applied in the Indonesian palm oil industry (Menteri Keuangan, 2010).

The case for having value added activities located in Indonesia has been at the forefront of this argument. The Directorate General of Estate Crops explained that neighbouring countries such as Malaysia (with its processing capacity of 300 thousand tonnes) and Singapore (with its capacity of 100 thousand tonnes) were
benefitting from value addition using raw materials from Indonesia. Indeed, neither Malaysia or Singapore were significant cocoa producers (Arifenie, 2009).

The number of cocoa processing factories in Indonesia had already increased during the period 1995-2004. The AIKI recorded that the installed annual capacity of cocoa processing factories grew from 70,000 tonnes in 1995 to 345,000 tonnes in 2004. But, the increased capacity of the processing facilities did not reflect the actual volume of beans processed. Based on the data released by the ICCO (2011), the highest volume of processed beans in Indonesia before the imposition of a trade policy was 160,000 tonnes in 2006, approximately 40% of the total installed capacity.

It is interesting to note that the installed capacity to process cocoa in Indonesia is similar to that of Malaysia, but Malaysian factories were operating near full capacity levels while Indonesian factors are operating below the capacity. According to AIKI, among the major factors contributing to this poor result were restrictive government regulations. These regulations included the VAT, and the absence of an industry incentive for domestic processors (an export tariff, for example).

State interventions are shaped by the various factors that underpin decisions made by state bureaucrats. In the following sub sections, I will further discuss the institutionally embedded factors that influence the upgrading process.

4.4 Institutional Interests within the Indonesian state upgrading interventions

The Indonesian state’s subsequent support for upgrading activities was the result of lobbying by the very strong vested interests of various stakeholders in the cocoa industry. These interests have continuously influenced decision-makers in the Indonesian state, and therefore require further examination. These interests intersect with other interests within the state including national stability, political interests, access to project funding, and rent-seeking by bureaucratic capitalists, to further influence the ways in which state programs and policies are delivered.
4.4.1 National Stability and political interest

4.4.1.1 National stability interest

Cocoa industry development in Indonesia through the expansion of cocoa smallholders on the Island of Sulawesi in the 1980s was initially supported by the government to maintain the security and stability of the Island. Many ethnic Bugis ex-rebels of the Islamic Armed Forces of Indonesia (*Darul Islam-Tentara Islam Indonesia* (DI-TII)), were domiciled in the northern parts of South Sulawesi and South-East Sulawesi, which became the major cocoa producing areas in Indonesia.

The state used the cocoa program as a means to provide source of incomes for the ex-rebels. According to Ruf, Ehret, and Yoddang (1996), historically, the DI-TII rebels planned to use cocoa as a source of financial support for their guerrilla war, using the forest as their base camp. Cocoa pods were brought from Sabah and planted in North Mamuju in 1959. However, just as the trees started to produce, the revolt declined. During the period 1965-1975, the ex-rebel opted not to grow cocoa so as to avoid any sign of uprising vis-à-vis the National government. But, as soon as the government encouraged planting cocoa as a source of income, in 1975, the farmers commenced planting cocoa in Mamuju, West Sulawesi and Kolaka, and South-East Sulawesi, using seeds from former DI-TII plots. YAMINAS (*Yayasan Minasae-Minasae* Foundation, established 1969 in Nolling Village, Luwu district) was an ex-rebels foundation, which was granted 1000 ha of land in 1969 by the government in an attempt to both appease the fighters and to localize them. It was also intended as a way for the government to facilitate surveillance of the group (Neilson, Gusli, Palinrunghi, & Tenrisau, 2005, pp. 11-12). YAMINAS secured a commercial plantation lease of the area and managed the entire area through a cooperative of its membership (Neilson et al., 2005).

Regarding the period of initial smallholder expansion during the 1980s, the state program in Sulawesi was delivered through projects such as PRPTE and SADP (see Table 4.1). In case of the PRPTE projects, the main program involved regeneration, rehabilitation and expansion. The project was delivered mainly to continue the existing cocoa cultivation that had been initiated by smallholder farmers. As Ruf et
al. (1996) suggest, the majority of the smallholders who cultivated cocoa prior to the 1980s period was believed to have supported the rebellion of DI-TII. Thus, state support for cocoa expansion seemed motivated by political reasons.

Thirty years later, in Aceh Province, support for cocoa expansion occurred for similar reasons and was adopted by Development Agencies such as the World Bank and USAID in collaboration with the Indonesian government (World Bank, 2012). Even though the goal of the program was to develop the cocoa industry, government policy to expand cocoa in the Province aimed at providing jobs for the ex-fighters of the Gerakan Aceh Merdeka (GAM)-Aceh Freedom Movement.

In short, viewed from a political perspective, there were clear indications that the Indonesian government used cocoa as a means to support the livelihood for the ex-rebels in post-conflict areas, by providing a source of income. This approach not only contributed in maintaining the security of the impacted provinces, but also hastened expansion of cocoa cultivation. Government support in the early 1980s seemed to provide a green light for the ex-rebels. They were now allowed to engage in cocoa cultivation, crops previously planted to support the of DI-TII revolt in Sulawesi. A similar move was also adopted in Aceh Province. After the peace agreement was sign with the GAM, the government promoted cocoa expansion mainly to provide income and jobs to ex-fighters. Thus, regardless the size of coverage areas, which was considered limited compared to the total smallholder expansion through informal social networks; cocoa upgrading activities driven by the state reflected its interest in political and security factors.

4.4.1.2 Political interests

The political interest of the state in supporting upgrading of smallholder production capacity could be explored at three different scales: national, provincial and district levels. Following the introduction of a decentralization regime that entailed direct elections, all of the above three spaces became areas for political interest, e.g., electoral votes and privileged policies strongly influenced state support for the economic development process, including upgrading within the cocoa industry.
a) National

The majority of the people engaged in cocoa cultivation are operating smallholder farm in eastern Indonesia, mainly on Sulawesi Island. This positions cocoa as a key political issue, especially for politicians from the producing regions to show their concern and support for their electorate base. Politicians from the district level to the central level have been keen to focus on the export tax that threatened to reduce the main incomes of the smallholder farmers, and problems pertaining to declining productivity and the quality of the beans from the Island of Sulawesi.

The Vice President of Indonesia for the period 2004-2009 (Yusuf Kalla), for example, came from South Sulawesi; but, his broader electorate support was across Eastern Indonesia. He raised the issue of declining cocoa production and quality of cocoa beans from these regions as the main political concern. In an effort to support smallholder cocoa farmers to increase their cocoa production and to improve the quality of their cocoa, on 6 August, 2008 the Vice President launched the GERNAS for cocoa industry upgrading (Barani, 2010). The launch was conducted in the centre of the cocoa producing areas, in Mamuju, West Sulawesi province. The purported aim of GERNAS was (a) to upgrade the production of cocoa farming activities; and (b) to upgrade the quality of the cocoa beans.

In this context, the Vice President devised the GERNAS program not only for technical reasons, that is, to provide solutions for smallholder farmers, but also to garner political support from his electoral base.

In 2007, the Deputy Director of Estate Crops, discussed a national plan for cocoa during a consultative meeting with the World Bank FEATI (Farmer Empowerment through Agricultural Technology and Information) team (in which, I was a part of the team) where the Deputy Director indicated that the upcoming cocoa project had been designed only for cocoa expansion in new areas such as West Sumatera and Aceh (Western-region of Indonesia). It did not include South and South-east Sulawesi as part of the project. However, in the GERNAS program, Sulawesi was positioned as the main target area of the project, covering 90 per cent of the total project areas of 450,000 thousand hectares. According to the Head of the Estate
Crops Department in South Sulawesi (personal communication, 6 August, 2010), the GERNAS program was personally endorsed by the Vice President, supporting the Ministry of Agriculture to provide a national program that improved the livelihoods of the rural poor in the eastern region of Indonesia. The region was not only the area in which the greater part of cocoa was grown: it was also the area in which the Vice President had many political constituents. As will become clear later in this thesis, being seen to support farmers and offering ‘projects’ to lower levels of the bureaucracy was more important for securing political support, than achieving successful delivery of programs. Ensuring the support of provincial and district level bureaucrats is critical within the context of Indonesia’s patronage-based political system.

b) Provincial level

At the provincial level, the Governors of West, South and Central Sulawesi also cited issues regarding cocoa as their political concern. The governor of West Sulawesi, for example, put cocoa development at the centre of the area’s provincial development programs, to deliver his promise he made during his political campaign. Cocoa was positioned as the economic engine of provincial development; thus, every department under the administration of the West Sulawesi Governor supported the development of the province’s cocoa industry. The proposal to build infrastructure, such as bridges and roads, were all focused in the cocoa producing areas. A similar approach was also adopted for training and human resources capacity building. Furthermore, provincial staff were required to have a basic understanding of cocoa cultivation. To this end, the basic technical training of cocoa farming was made available to smallholder farmers, not only from cocoa extension services, but from administration staff at the village and sub-districts levels. To oversee all of the programs under the West Sulawesi Administration, the governor recruited a team of experts from the University of Hasanuddin in Makassar.

The Governors of South and Central Sulawesi particularly showed their concern regarding the export tax applied by the central government. The Governor of South Sulawesi, for example, voiced his opposition to the central government vis-à-vis its
export tax policy when the president conducted a coordination meeting of governors in Tampaksiring palace, Bali, on April 2010. The governor explained to the voters using *Ujung Pandang Express* (2010), a local South Sulawesi media, about his opposition by saying: ‘saya teriak kencang masalah edaran Menteri Keuangan terkait pungutan pada coklat. Saya sempat bersitegang terkait masalah itu’, (I was shouting loudly in relation to the letter of the Finance Minister about the imposition of tariff on cocoa. It was quite tense in relation to that matter). Furthermore, the governor expressed that while he opposed the central government on the issue of export tax, it was the domain of the central government (*Ujung Pandang Express*, 2010). The Governor’s opposition to the policy was calculated to show that he was concerned with decreasing income of cocoa farmers. However, the governor did not initiate follow up activities, such as writing a formal letter to the central government; or demanding follow up meetings with the central government.

In contrast, the governor of Central Sulawesi responded to the Finance Minister’s letter by sending a letter to the President opposing the export tariff policy, and particularly stressing that it would reduce cocoa farmers’ incomes. The letter supported a strike conducted by cocoa farmers and traders in the governor’s office on 6 April 2010 (*Inilahcom*, 2010). However, opposition to the export tariff was not widespread and was never really able to mobilise mass farmer support in the province.

c) **District Level**

At the district level, particularly in the major cocoa producing areas, cocoa development that supported smallholder farmers had been the major agenda for the heads of districts and legislators. The Head of North Luwu district (one of the largest cocoa producing areas in Sulawesi, constituting approximately 56,000 hectares in 2008), for example, had promised to initiate development activities targeting cocoa smallholder farmers as his main agenda. After he was elected for the second time for the period 2005-2010, his vision for the district was to achieve the best cocoa producers at the national level by 2010 and become the pilot project for cocoa development in the Eastern Part of Indonesia. In a bid to achieve his
vision, he launched a program called GERMAS TAKWA (Gerakan Rehabilitasi Massal Kakao Berkualitas-Massive rehabilitation movement for cocoa quality), a program that emphasised rehabilitation activities as its main project. This program required 1000 agricultural graduates to assist farmers in the rehabilitation process (Shaleh, 2008).

The local legislators of North Luwu tried to showcase their roles to their electorate constituents by defending the interests of the cocoa smallholders. They seized their chance when the export tax on cocoa was imposed by the central government. Some of the local legislators conducted press releases and conferences indicating their concern about the policy. The following statement appeared in Seputar Indonesia, a national newspaper:

“Petani sudah susah atas kenaikan harga pupuk, justru pemerintah menambah penderitaan petani dengan kebijakannya yang menerapkan bea ekspor kakao. Jadi, kami mengharapkan Permenkeu dicabut, apalagi sebelumnya tidak ada sosialisasi”.

(Farmers are already facing difficulties due to the increase of fertiliser price, and then the (central) government wants to compound their suffering by imposing a tax on exports. Thus, we expect the Ministerial Decree of Finance Minister to be withdrawn, as the decree also was imposed without any previous socialisation) (SINDO, 2010).

The major concern of the legislator was that the central government policy would result in a low incomes and low profitability for the smallholder farmers. Prior to the introduction of its export policy, the government had reduced the fertiliser subsidy. As a result, the price increased by approximately 30 per cent. It was argued by some that the additional progressive export tax would reduce the farm gate price by approximately 5 per cent.

In short, political interests have been shaping the dynamics of institutional settings, either at the national, provincial and or district levels. Farmer support activities in the cocoa industry, which have targeted the smallholder farmers, have become political issues, tools to attract massive votes for politicians on Sulawesi Island, reflecting the large numbers of smallholders engaged in the sector.
4.4.2 Economic nationalism rhetoric

The strong desire to upgrade the cocoa industry in Indonesia was also driven by views pertaining to nationalism and by geopolitical considerations. Economic nationalism, in particular, stressed the need to add value to domestic natural resources including the agricultural sector, before exporting them. The geopolitical consideration underpinning the argument vis-à-vis the need to add value to Indonesian natural resources was further triggered by the discriminative policy of importing countries that was considered to undermine the growth of domestic cocoa industry development.

An interesting quote by the former Director General of Estate Crops, Ahmad Mangga Barani suggested the need to upgrade Indonesia’s cocoa industry from raw material producers to semi-processed cocoa product producers, justifying the export tariff. His statement (originally in Bahasa and translated by the author) appears below:

-by having an export tariff policy, surely, it will attract new investments and therefore, cocoa beans that have been produced can be absorbed by domestic processors. As a result, possibly almost all Indonesian cocoa beans can be processed domestically and can be exported in the forms of processed cocoa products, which have added value. If this happened, then the government’s expectation to create additional value from the primary commodity will be achieved. Thus, we are not fettered in the same way as the VOC colonial period, when Indonesia only produced raw material (Barani, 2010, p. 116).

Justification for the export tariff was associated with the past colonial era, when the VOC (the United Dutch East Indies Company) dominated Indonesia’s trading activities and exported raw materials to Europe to be processed with higher value added. This implied that exporting raw materials from Indonesia for processing in the developed countries was a neo-colonial trap in the modern era. Within this context, ‘economic nationalism’ was the reason given to justify the policy.

This economic nationalist mindset was shared by the majority of government officials at various levels, particularly when discussing value added activities. A more argumentative way of supporting the agro industrialization of the cocoa sector was
voiced by the Vice Minister of Agriculture, Dr. Bayu Krisnamurthi. According to Dr. Krisnamurthi, supporting the domestic industry through a market distortion such as an export tariff was a common practice, and had wide community support (personal communication, 19 August 2010). This practice was intended to advantage the industry's domestic buyers with a lower price compared to the international market.

But, for the Vice Minister, this reason was insufficient to justify the policy being implemented in the cocoa sector. According to him, two main events that occurred in 2008-2009 made the export tariff more relevant. First, Singapore and Malaysia imposed a discriminative import tariff on processed Indonesian cocoa products to protect their domestic processing companies. The import tariff on cocoa beans was zero percent; but, they applied a tariff on cocoa products to boost the competitive advantage of their processors. As a result, these countries gained higher benefit from the Indonesian cocoa beans through value added application. Concerning this development, according to the Vice Minister, the Government had profound reasons for supporting the domestic agro-industrialisation through the application of an export tariff on Indonesian cocoa beans.
The second reason was the perceived need to boost the domestic processors in anticipation of an increase in national cocoa production, which was apparently believed would occur as a consequence of the GERNAS program. According to the Vice Minister, with reference to the government’s 2010 production figures, Indonesia’s cocoa production was approximately 600 thousand tonnes and was expected to double within 4-5 years. It was feared that such production increases would reduce Indonesia’s bargaining position. Therefore, Indonesia needed to diversify its product output and this could only be done by developing its agro-industry. The Vice Minister further stated that in this context, Indonesia realized that it was difficult to acquire markets for end products; intermediate products were more realistic, e.g., cocoa butter, cocoa powder and cocoa cake. Based on this realization, the government decided to focus on developing the industry and providing support for the cocoa processors.

But, this economic nationalism view was rejected by members of ASKINDO, whose members are mainly exporters, who argued that such economic nationalism was
entirely inappropriate given that applying the tariff would only benefit a small number of industrialists. Furthermore, ASKINDO members emphasised that while individual companies benefited from the export tax, to date none had a mechanism in place to provide field support for cocoa farmers. In fact, the private players who were currently active in supporting the smallholder farmers were mainly ASKINDO members.

Furthermore, from a geopolitical perspective, ASKINDO members emphasised that the government should focus their efforts on improving infrastructure, such as electricity generation, roads and ports that rivalled or at least were similar to those of the neighbouring countries.

However, the Vice Minister argued that putting internationally competitive infrastructure into place as a condition to attract investors would take quite a long time. According to him, while improving Indonesia’s infrastructure, the Indonesian government also needed to provide an incentive for the investors to provide comparative advantage for investors. Looking at the policy side, the neighbouring countries also had more favourable policies for corporate tax for investors as well as lower rates of interest (see Table 4-4). Taken together, they seemed to compensate the investors. The Indonesian governments took a short cut, simply providing an export tariff for cocoa beans. The above protectionist policies implied that the government was preserving the inefficient factors of the industry (Soesastro & Basri, 2005).

In short, economic nationalism and economic geopolitical considerations became an important factor for the Indonesian state to driving cocoa industry development in Indonesia. Exporting natural resources without additional domestic value adding policies was considered a neo-colonial practice in the modern era. In addition, the rapid growth of the neighbouring countries’ cocoa industries, which depended upon Indonesian cocoa production strengthened the argument surrounding the need to support the domestic cocoa processing companies. These two views were widely accepted by Indonesia’s state bureaucrats and indeed by the broader community.
4.4.3 ‘Project’ mentality

The ‘project’ mentality of Indonesia’s state bureaucrats resulted in many programs and projects being driven by ‘supply’ activities rather than by ‘demand’ driven activities. Supply driven projects eventuate when governments decide what project is to be established, and where the project will be located. This has become a common feature of the upgrading activities driven by the state.

In an effort to support the cocoa industry in South Sulawesi, and to improve the value adding activities, in order that the producers of raw material could become producers of chocolate products, the Industry Minister collaborated with the Government of South Sulawesi to establish a ‘cocoa industrial cluster’, the idea being to provide comprehensive solutions to the multi-faceted issues in the industry (BPTP, 2009). What is important to note about this project was the actual role of the Industry Minister, which was mainly related to manufacturing activities. Therefore, the cocoa industrial cluster, that was initiated and supported by the Industry Minister, would constitute a public investment in a single state-owned chocolate manufacturing factory.

In 2009, the central government and the South Sulawesi province agreed to co-fund the establishment of the facility. The Industry Minister covered the buying of the manufacturing equipment that cost Rp. 14 billion (approximately US$ 1.16 million) while the provincial government covered the cost of land and building properties Rp. three billion (US$250 thousand) (Antara News, 2012a). In the same year, the facility was built in a new industrial zone, the Gowa Industrial Estate, in Gowa district, approximately 40 kilometres from the much larger and better integrated Makassar Industrial Estate.

However, a number of years after establishment, the facility has yet to commence operation. One of the reasons given by the head of the Cocoa Industry Association in South Sulawesi was that were was a mistake in the planning stage. According to him, the facility was built in the wrong location. It was the first manufacturing facility established in the new Industrial Estate in Gowa district, and it was intended to attract other investors to locate their business facilities in the industrial zone.
(Antara News, 2012c). But, after three years, no investors had located their businesses in the zone due to lack of infrastructural support, e.g., lack of water and electricity which was supposed to have been provided by the Government of Gowa district. The existing electricity was supplied using individual diesel generators (Prasetyo, 2012).

The other reason was the unavailability of operational costs to cover the day-to-day activities including buying raw material. As stated by the current Head of the Industrial and Trade Department of South Sulawesi, the facility required operational costs per day between Rp.500 million (USD 52,631) and Rp.700 million (USD 73,684) only to manufacture two tonnes of cocoa liquor as inputs. These operational costs were to have been covered by the provincial government, the operator of the facility. However, due to the high operational costs, the provincial government decided to abandon operation of the facility (Ilham, 2012).

Despite this lack of infrastructural support, the Department of Industry and Trade of Gowa district proposed that a new processing facility should be established in order to produce intermediate cocoa products. The processing facility’s products were intended to supply the still disused chocolate manufacturing facility. Furthermore, he argued, one of the main reasons why the existing manufacturing facility remained inoperative was the lack of raw materials such as cocoa powder (BBIHP, 2012).

Allegations of corruption and purchasing collusion have been associated with the establishment of cocoa manufacturing facilities in Gowa, with demands that it be investigated by the Anti-Corruption Commission (Antara News, 2012b). Irrespective of the veracity of corruption allegations, it seems that the case of the cocoa industry cluster in South Sulawesi can still be explained by an understanding of a supply-driven ‘project’ mentality. The ultimate inability of the state to run the chocolate manufacturing facility, which was due to various reasons such as lack of management and operational capacity, minimum infrastructure facilities and unclear linkage between suppliers and market targets, was compounded by a new proposal to establish a new facility through further government supply.
However, this was clearly neglecting the fact that proper business principles and feasibility projects were never followed. The provincial government could not provide operational funding from the provincial budget to support the facility given the high cost manufacturing process.

The conclusion that can be drawn from this example is that the government is eager to supply infrastructure through ‘projects’ with sometimes considerable budgets as they can be potentially lucrative for the bureaucrats involved. Undeveloped systems of accountability mean that eventual outcomes are often unimportant. This project mentality was an important factor in the cocoa industrial upgrading activities, and indeed can also explain the relatively poor outcomes of farm-level support programs, such as GERNAS. This form of mentality is commonly exercised by government staff to extract rents from cocoa projects, e.g., building facilities. It keeps cocoa projects rolling by only measuring the direct inputs used in the projects; but, it lacks consideration of the long-term impact and sustainability of the project.

4.4.4 Industry lobbyists

Lobbying government to ease and support cocoa industry upgrading with favourable regulations for cocoa processors is a common feature in Indonesia’s temporary cocoa industrial upgrading activities. These lobbying activities not only aim to enact a regulation that lowers the competitiveness of cocoa processors in Indonesia, but also to install new regulations that provide new advantages for domestic processors.

In 2002, the owners of cocoa processing companies in Indonesia started voicing their concerns over the above disadvantageous policies through ASKINDO. Two main policies were proposed to the Minister of Industry and Trade, designed to improve the competitiveness of the domestic processors: (a) the abolition of VAT on cocoa commodities; and, (b) the addition of a new policy that would drive upgrading activities, i.e., an export tax on raw materials. However, among the members of ASKINDO, the majority of exporters failed to agree on the second policy. This was hardly surprising since the majority of ASKINDO members were bean exporters.
[The operation of the association was paid based on a levy of Rp 50 per kilogram, thus making bean exporter the associations’ major contributors].

PT. Bumi Tangerang (a cocoa grinding company) pointed out that at the time it was very difficult for ASKINDO members to unite to present their proposed policy to the government (personal communication, August 11, 2010). This vexed situation drove PT. Bumi Tangerang, a key proponent of the export tax, to cease his membership of the association in 2003, and to establish the AIKI, a new association that would represent processor interests.

The following year, just prior to the Indonesian presidential election, Piter Jasmin, a representative of AIKI and owner of PT (Perseroan Terbatas-Limited Company) Bumi Tangerang, had a chance to meet one of the presidential candidates, Susilo Bambang Yudoyono (President of the Republic of Indonesia for the period 2004-2014), with whom he discussed the various problems that hindered the upgrading activities of the country’s cocoa processors (personal communication, Sindra Wijaya, 11August, 2010). Subsequent to this meeting, five issues were considered very important to improving cocoa processing in Indonesia. The proposed policies included: (1) abolition of the VAT; (2) the need to increase the import tariff on processed cocoa products; (3) the importance of lobbying importing countries to abolish their import tariffs on Indonesian cocoa products; (4) the need to implement obligatory farm-level fermentation of beans; and, (5) the need to apply an export tariff on cocoa beans (personal communication, Sindra Wijaya, 11August, 2010).

In contrast, their competitors in the neighbouring countries enjoyed advantages derived from their state policies (see Table 4-4).
Table 4-4 Policies comparison in the cocoa industry between Indonesia, Malaysia and Singapore before 2005

<table>
<thead>
<tr>
<th>No</th>
<th>Policies</th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Singapore</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Value added tax</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2</td>
<td>Import tariff on cocoa beans</td>
<td>5%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>3</td>
<td>Import tariff on processed cocoa beans</td>
<td>5%</td>
<td>25-30%</td>
<td>5%</td>
</tr>
<tr>
<td>4</td>
<td>Interest rate</td>
<td>14%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>5</td>
<td>Corporate Tax</td>
<td>25%</td>
<td>Tax holiday 10 years</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: ASKINDO, 2010

Among the proposed policies, the export tariff was the most debated policy among cocoa stakeholders in Indonesia. It came as no surprise that this policy seemed to benefit the cocoa processors at the expense of the smallholder farmers. The export tariff, it was believed, would improve the competitiveness of the domestic cocoa processors relative to their competitors in the other countries, in particular in the neighbouring countries which were highly dependent on Indonesian cocoa supplies, e.g., Malaysian and Singaporean-based companies. However, on the contra side, it was believed that the policy would reduce the farm gate price of the smallholder farmers. This contra view was widely supported by the farmers associations and ASKINDO members.

4.4.4.1 Support for an Export tax

The Chairman of AIKI observed that the major cause of the under-performance of the cocoa processors in Indonesia was the non-competitive disadvantage of policies, either of the importing countries or the Indonesian government (personal communication, August 11, 2010). Apropos AIKI, there were several policies that put Indonesian processors in a disadvantaged position as a result of importing
countries’ discriminatory tariffs on Indonesian exports, such as the preferential treatment of African processed products into the European market (Misnawi & Wahyudi, 2007, p. 58). At the regional level, it was argued that China applied a 15 per cent import tariff on Indonesian semi-processed cocoa (cocoa butter, powder and cake) but zero per cent on Singaporean and Malaysian products (Barani, 2010, p. 86). In addition, their competitors in the neighbouring countries enjoyed advantages derived from their state policies (see Table 4-5).

Piter Jasman, chairman of the AIKI, and the owner of P.T Bumi Tangerang, when interviewed by the Perkebunan Magazine⁵, stated that the example of Ghana in cocoa producers could be a lesson for the Indonesian government:

"Ghana experience are expected to be happen in Indonesia. Ghana obliged their farmers to ferment their beans and then applies export tax for their beans. European who are highly dependent with Ghana beans thus come to Ghana to develop cocoa industries...” (Media Perkebunan, 2010, p. 44)

Piter Jasman further suggested that taking this as an example, the Indonesian government could expect a similar situation with cocoa processors in Malaysia, Singapore and China. All of those Asian countries were highly dependent upon Indonesian beans supply. Clearly, a similar logic was used to maximize ‘trade policy rents’, and, by extension, to invite investors from the above countries to invest in Indonesia.

Jasman stressed that the major challenge facing the cocoa industry (processing) development was the discriminative import tariff placed on Indonesia’s cocoa processed products by European Union.

The main constraint of national cocoa industry (processing) development is the discriminative import tariff of processed cocoa products in some importing countries, such as European Union, while the cocoa beans free from import tariff (Media Perkebunan, 2010, p. 44).

According to Jasman, the implementation of an export tariff on cocoa beans in Indonesia balances the discriminative treatment of Indonesia’s processed cocoa

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⁵ A magazine circulated in the state crops department under the Minister of Agriculture.
exports. The AIKI views highlighted the significance of the government’s driving of the cocoa industry in Indonesia as appearing in the official magazine of the Minister of Agriculture.

4.4.4.2 Concerns over an export tax

APKAI sent a strong statement to the government and other cocoa stakeholders on 10 April 2010 stating that the Finance Minister’s Ministerial Decree would make the poor smallholder farmers poorer, on the assumption that the export tariff at the exporter level would be transferred to the cocoa smallholder farmers. As KOMPAS, the country’s largest national newspaper framed in its editorial (own translation):

The total need of the domestic cocoa processors is only 250,000 tons while the total national cocoa beans production is approximately 500,000 tonnes. We, therefore, question: does the government aim to protect the interests of the poor smallholder farmers or the interests of the capitalist? ("Tajuk Rencana: Jangan pinggirkan petani ", 2010, p. 2)

Expressing its opposition to the export tariff policy, prior to the imposition of the policy, ASKINDO sent a letter to the President of the Republic of Indonesia emphasising that the export tariff would only hurt the smallholder farmers. According to ASKINDO, the real problem actually lay with the processors themselves. The majority of cocoa processors, who were running at idle capacity, were not able to compete to buy raw materials due to various reasons; for example, the global market for cocoa products was solely dominated by six global buyers. The domestic processors, who competed with these players, had high costs of capital (high interest rates of domestic banks) and limited working capital that cocoa processors needed to buy stock in the harvest season.

In fact, two government documents upon which the export tariff policy was supposedly based suggested that the export tariff would have a negative impact on the smallholder farmers. The first research into the impact of the export tax or tariff was undertaken in 2007 by the Ministry of Trade in collaboration with USAID through a GIAT (Growth Through Investment, Agriculture and Trade) project and the CSIS (Center for Strategic and International Studies). The result clearly suggested that the export tariff would lower smallholder farmers’ incomes. Various agencies
calculated that a 10 per cent export tax would reduce the aggregate incomes of farmers by as much as Rp 305 billion (Rp. 1 million per year per farming family) and increase the number of cocoa farming households experiencing poverty by at least 26 per cent (Marks et al., 2007, p. 21). Furthermore, the percentage decrease in the farm gate price would be higher, more in the order of 11 per cent, since the farmgate price was less than the export price (Marks et al., 2007, p. 21).

The second document, a policy brief provided by LRPI (Lembaga Riset Perkebunan Indonesia) and PPSEKP (Pusat Penelitian Sosial Ekonomi dan Kebijakan Perkebunan), both of which were research institutes under the Minister of Agriculture, also concluded that the export tariff would hurt farmers. In the long run, it would demotivate them from undertaking cocoa farming and would see them changing from cocoa production to other commodities. However, the document provided two options for the government: (1) to maintain the status quo, meaning that import tariff protection for cocoa products and the abolition of the VAT would be sufficient to support the domestic cocoa processors; and, (2) to impose an export tariff at a moderate level of 3 per cent, over a short period of time in order to provide incentives and opportunities for several companies to achieve their maximum production. Regarding the option, the government should return the 3 per cent tax to the farmers, and, at the same time, encourage inefficient companies to learn from other more successful companies (Drajat, Hadi, & Kustiari, 2009, p. 8).

However, the latest report released by the Indonesian government prepared by the Directorate for International Marketing and the Directorate General for the Processing and Marketing of Agricultural Products in collaboration with the LRPI, seems to have justified the export tariff. The document, recommended that the tariff might be imposed after considering the existing ‘abnormal conditions’ for cocoa processors. Indonesia’s domestic cocoa processors were considered to be in a ‘collapsed’ situation; therefore, ‘steps to rescue’ the cocoa processors were imperative. Interestingly, the first part of this document was essentially a brief policy provided by the LRPI, while the second part, the discussion surrounding the cocoa processors seemed to be a report provided by the Directorate General for Processing and Marketing of Agricultural Products. Justification for the export tariff
seemed to have been negotiated by framing the first part of the document which presented similar strong arguments for both sides, i.e., the pros and cons. As a result, the decision fell into the policy domain. It is difficult to assume a position wherein every side benefits, or at least is ‘first best’ choice, where one side benefits and the other is not disadvantaged. At the end, the document recommended the ‘second best’ option wherein one side would benefit and the other would be disadvantaged but compensated. It was recommended that compensation of 30 per cent should go back to the farmers, and that the rest should be channelled into wider cocoa industry development, e.g., research (10%), infrastructure development (7.5%), promotion to international markets (7.5%) and general development (45%). However, the recommendation stressed that the export tariff was only for a temporary period (Departemen Pertanian, 2009, p. 32).

4.4.4.3 The lobbying outcomes

An important fact to note regarding the state effort to upgrade the cocoa industry in Indonesia, regardless of the pros and cons of several policies, was the consistent lobbying exercised by the domestic processors. AIKI had consistently sought concessions from the government to provide support for the regulations and business environment that favoured the growth of cocoa processing companies in Indonesia.

The first meeting between AIKI and then presidential candidate Susilo Bambang Yudoyono in 2004 saw the former influence the latter. Five months after the election, the President of the Republic of Indonesia sent a letter to the Ministry of Finance (dated March 17th, 2005 No. B.168/M.Sesneg/03/2005) pointing out the need to support and upgrade the country’s cocoa industry. The president specifically outlined the five issues that had been proposed by AIKI. This letter became a point of reference for related ministers, e.g., the Finance, Agriculture, Industry and Trade Ministers to take the necessary action to support the domestic cocoa processors.

Following this letter, the government conducted extensive discussions involving cocoa industry players, including ASKINDO, AIKI, APKAI, and APIKCI (Asosiasi
Perusahaan Industri Kakao Coklat Indonesia-Indonesian cocoa-chocolate industry associations). In 2007, the government finally abolished the VAT, succeeded in decreasing the import tariff on cocoa products from China to zero per cent, and adjusted the import tariff on cocoa products to 5 per cent.

The second meeting between AIKI and President Yudhoyono occurred just before the president stood for re-election for the second period in 2009. At this meeting IKI raised the topic of the remaining proposed regulations that had not as yet been delivered by the government, i.e., the export tax. Six months after the election, which saw Susilo Bambang Yudhoyono elected for a second term, the export tariff on cocoa beans was imposed by the Ministerial Decree of Finance Minister (dated 01 April 2010 No.67/2010).

In short, upgrading activities in Indonesia’s cocoa industry were highly influenced by consistent lobbying activities conducted by industry players seeking rent-seeking opportunities from that state. These activities succeeded in influencing the government to institute regulations that favoured cocoa processing companies, although we can only speculate as to what benefits, if any, flowed to those policy-makers within the government.

4.5 Impacts of state programs on different actors

This final sub section of this chapter, explores the impact of increasing numbers of state programs and policies on various actors in the chains, with a focus on the farmers and Indonesia’s cocoa industry.

4.5.1 Farmers

The government approach to addressing technical issues directly seemed to provide a cure for the national production problems. But, in fact, the solutions only cured some of the problems at best. In order to achieve long term and sustainable cocoa production, the farmers required continuous support and technical assistance. Unfortunately, the GERNAS program was funded based upon the project term, which was three years duration. The question, therefore, was: could the
government maintain continuous technical assistance when the project fund had finished? One of the findings vis-a-vis Manokwari, West Papua showed that program intensification and technical assistance were translated as inputs to smallholder farmers. Field technicians, who were recruited as temporary staff to provide technical assistance, only worked for the duration of the project. As a result, the program intensification that was intended to improve the cocoa farms was only effective during the first year the project was implemented. In addition, the sustainability of smallholder production lay in the farmers’ capability to earn profit from their cocoa farms (Neilson, 2007).

Another issue that was equally important to highlight is the project mentality that leads to the ‘supply driven’ approach of GERNAS program. Some observation in the field shows that SE planting material and post-harvest handling equipment did not meet the need of farmers. SE planting material was poorly adapted in new locations, while the drying machines and the fermentation boxes were generally too big for smallholder farmers. As a result, the benefit of GERNAS for farmers, as observed from the field, is considered minimum. In many instance, farmers themselves who strove to improve their farming conditions, proactively sought local planting material to replace the SE planting material from the GERNAS project.

Therefore, while the GERNAS program’s provision of solutions to technical issues was important, the absence of continuous supports and the strong project mentality likely reduced the GERNAS benefit to smallholder farmers.

4.5.2 Cocoa industry

4.5.2.1 Impact at the national level

Government commitment to support trade policies that favoured cocoa processing companies in Indonesia successfully attracted Foreign Direct Investment (FDI) in the cocoa industry and also triggered expansion of the processing facilities of some domestic processors. FDI came in two ways: first, through establishing completely new cocoa processing facilities which accounted for approximately 240,000 tonnes installed capacity (PT Asia Cocoa Indonesia, JB Cocoa and Cargill); and, second,
through acquisition of domestic processors and expanding the installed processing capacity at the same time. For example, Barry Callebaut’s acquisition of General Food Industries, which was previously owned by Petra Food Indonesia. The second form of FDI expansion required the establishing of joint venture companies between foreign companies and local traders, e.g., PT. Barry Callebaut Comextra Indonesia (BCCI). Some domestic processors pursued expansion facilities such as Bumi Tangerang Mesindotama. In 2013, subsequent to the introduction of the export tariff, the total new installed capacity of cocoa processing facilities reached 304,000 tonnes (see Table 4-5).

What is interesting in the data (Table 4-5) is that all of the domestic companies that upgraded their production facilities have emerged as the biggest players in the Indonesian cocoa industry; and have established marketing networks at the global level or with strong global buyers. Today, three companies are owned or partially owned by foreign companies, e.g., PT. Mars Indonesia a subsidiary company of Mars Inc. The other two, PT. Barry Callebaut-Comextra Indonesia and PT. Papandayan cocoa industries are affiliated with international Barry Callebaut International. The only domestically-owned company that upgraded its facilities is PT. Bumi Tangerang Mesindotama, which is an important supplier to Nestlé.
Table 4-5 Comparison of total grinding facilities before and after the introduction of export

<table>
<thead>
<tr>
<th>NO</th>
<th>Companies</th>
<th>Installed Capacity (tonnes/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2006-2007</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Operated</td>
</tr>
<tr>
<td>1</td>
<td>PT. General Food Industries (Becoming PT. Papandayan Cocoa Industries-Barry Callebaut)</td>
<td>70,000</td>
</tr>
<tr>
<td>2</td>
<td>PT. Bumi Tangerang Mesindotama</td>
<td>40,000</td>
</tr>
<tr>
<td>3</td>
<td>PT. Effem Indonesia New name: PT. Mars Indonesia (the same owner, Mars company)</td>
<td>17,000</td>
</tr>
<tr>
<td>4</td>
<td>PT. Kakao Mas Gemilang</td>
<td>6,000</td>
</tr>
<tr>
<td>5</td>
<td>PT. Mas Ganda</td>
<td>6,000</td>
</tr>
<tr>
<td>6</td>
<td>PT. Cocoa Ventures Indonesia</td>
<td>12,000</td>
</tr>
<tr>
<td>7</td>
<td>PT. TejaSekawan</td>
<td>12,000</td>
</tr>
<tr>
<td>8</td>
<td>PT. DavomasAbadi ,Tbk</td>
<td>20,000</td>
</tr>
<tr>
<td>9</td>
<td>PT. Budidayakakao Lestari</td>
<td>8,000</td>
</tr>
<tr>
<td>10</td>
<td>PT. Unicom makassar</td>
<td>15,000</td>
</tr>
<tr>
<td>11</td>
<td>PT. Poleco</td>
<td>4,000</td>
</tr>
<tr>
<td>12</td>
<td>PT. MajuBersama</td>
<td>25,000</td>
</tr>
<tr>
<td></td>
<td><strong>NEW INVESTMENTS</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>PT. Asia Cocoa Indonesia</td>
<td>120,000</td>
</tr>
<tr>
<td>14</td>
<td>JB Cocoa</td>
<td>30,000</td>
</tr>
<tr>
<td>15</td>
<td>Barry Callebaut-Comextra Indonesia</td>
<td>30,000</td>
</tr>
<tr>
<td>16</td>
<td>Cargill</td>
<td>60,000</td>
</tr>
<tr>
<td></td>
<td><strong>Total Grinding Capacity</strong></td>
<td>235,000</td>
</tr>
</tbody>
</table>

Source: ASKINDO, 2013

4.5.2.2 Impact at the regional level

At the regional and global levels, the upgrading process that occurred in Indonesia has changed the landscape of cocoa grinding countries. At the regional level, i.e., Asia and Oceania, the share of Indonesian grinding has doubled within four years (see Table 4-6), becoming the largest cocoa grinding country in the region. Globally, Indonesia’s contribution increased from 3.4 per cent to 7.4 per cent.
The increasing presence of global processors and their networks in Indonesia has negatively impacted on small processors. The new processors have engaged in fierce competition to source their cocoa beans in Indonesia. While the current installed capacity is in excess of six hundred thousand tonnes per year (see Table 4-5), total national production in 2013/14 was far below the installed capacity at 425 thousand tonnes per year. At the same time, this total production is also shared by global exporters who are affiliated with sizable global chocolate manufacturers operating overseas. The latest forecast data in 2013/14 showed that the potential for total processed cocoa beans for that year was only 310 thousand tonnes, approximately around fifty per cent of Indonesia’s entire installed processing capacity.

In short, the Indonesian government’s support for cocoa processing upgrading activities in Indonesia could be considered significant, as Indonesia’s trade policy has attracted FDI. However, apropos of the existing domestic processors, only those big companies that have established strong networks with global buyers are capable of maximizing this opportunity. Smaller processing companies are struggling to maintain their operations. Given that the products are considered commodities, the profit margin would be very thin: profitability relies upon the operation’s degree of efficiency. The larger the installed capacity, the most likely the companies will achieve a more efficient operation. In addition, linking to global buyers is extremely important given that processors need first to secure contracts to be able to plan
their production in advance. This reinforces the central role played by lead firms in facilitating the upgrading process within the value chain, and indeed, the abject failure of the Gowa chocolate factory serves as a warning of the perils of attempting supply-side upgrading without considering value chain dynamics.

4.6 Conclusion

This chapter has discussed the state’s role in driving cocoa industry upgrading through programs and trade policies. A detailed discussion has been presented vis-a-vis (a) what factors have driven increasing state involvement in supporting production upgrading; (b) what factors have influenced the shift of policy in the areas of marketing and trading; (c) how programs and policies are being shaped and developed by the government; and (d) what has been the impact of the increasing number of state programs and policies on the various actors within the chain.

Section 4.2 provides an explanation of socio-political economic development in Indonesia and how it has been influenced by state democratisation and the government’s decentralization process. In this section, I have described the democratization process, and how decentralization in Indonesia is paradoxically reviving the authoritarian state legacy of predatory capitalism. The increasing authority of local governments in the sphere of fiscal development, together with the increasing power of local parliaments, has revitalized rent seeking activities and collusion between bureaucrats and politicians. This sub-section has shown the importance of understanding economic development in Indonesia, not in isolation from the socio-political institutions embedded within the state. This analytical perspective was employed to provide an understanding of the state-driven upgrading activities that have been discussed in the sub sections 4.2.1 and 4.2.2.

In section 4.3, I discussed the factors that have motivated the state to upgrade national production, both the earlier stages of cocoa industry development as well as the latest programs. As in the earlier stages, in the 1980s, government support was driven by the effort to expand cocoa production. The commodity is a cash crop, a perfect source of income for the rural poor. The majority of the programs were either loan-aid projects supported by international development agencies or from
the developed countries. Two decades later, state intervention to upgrade smallholder farmers has mainly been driven by its intention to maintain and improve production through intensification. Cocoa trees have not only been aging; most of them have been infested by pests and ravaged by disease. Some of the trees need to be replanted using completely new seeds: others require rehabilitation and proper maintenance.

Section 4.4 has explored and discussed the embedded socio-political factors that drive state upgrading interventions both in cocoa production and cocoa processing. On the production side, investigation established that the state effort to provide income through cash crops for the majority of poor people in Indonesia’s rural areas was the major factor. In addition, security reasons and political interests have been factors influencing the state to support upgrading. Regarding security reasons, in the 1980s, many ex-rebels emerged from the forests wherein cocoa farming had been a familiar commodity for them. Subsequently, state support was mainly tied to political reasons, such as the need to sure up electoral votes. Politicians utilized the cocoa programs to show the voters, and influential local bureaucrats, their degree of concern regarding the smallholders’ livelihoods and their cocoa farming.

On the processing side, state support was exercised through trade policies. The VAT and the export tariff were the instruments used by the state to facilitate domestic upgrading. Important findings were that the nationalist rhetoric and constant industry lobbyists’ appeals to the government heavily influenced the government’s decision to pursue its trade policies. Whereas the rhetoric of economic nationalism emphasised the need for value-added activities in the country, and promoted the processing of raw materials domestically for ostensibly geopolitical reasons, the notion that neighbouring countries enjoyed the value-added aspect of the cocoa beans was widely disseminated by state bureaucrats. An argument mounted by the government claimed that by imposing the export tariff, for example, domestic investment would accelerate, and compensate for the inefficiency of the country’s logistical infrastructures. In the interim, the government would, it was claimed, continue to improve its infrastructure facilities. The other factor that highly influenced the state to exercise trade policies was the constant effort by the
processors’ association to advocate trade policies as a vital instrument for national industry upgrading. Since the implementation of VAT in 2001, the cocoa processors had been delineating the negative impact of the policy to the government, advocating two policies at the same time: (1) enacting the VAT; and (2) imposing the export tariff to accelerate the upgrading process. Constant lobbying through various approaches to the state bureaucrats succeeded in enacting the VAT in 2007, and the imposition of an export tariff in 2010. It took longer for the export tariff to be endorsed, since this policy had been fiercely contested by cocoa traders and exporters who argued that the export tariff would reduce the farmers’ incomes.

Section 4.5 explains the impact of government upgrading on the actors in the value chains. There were two main actors that were directly impacted on the state’s upgrading interventions: the farmers and the cocoa processors. The government support for production upgrading was mostly on a relatively short term basis; and tended to selectively ignore the more dynamic aspects of private sector involvement in providing farmer support services. In fact, any provision of sustainable income and profit for the smallholder farmers required consistent support, either from the government or from the private sector. On the other hand, the impact of government support for the upgrading of cocoa processors was highly significant. After three years of export tariff implementation, the installed capacity of processing facilities had doubled their investment, mainly as FDI. However, it was only the big companies that could maximize the opportunity, given that most of these companies were strongly linked to global buyers. Smaller companies that operated below 20,000 tonnes per year struggled to maintain their operations for various reasons, mainly related to raw materials competition and securing contracts for their products. Thus, despite the advantage they had gained from the export tariff, linking up with the global buyers became a critical factor when tapping for opportunities.

In the main, this chapter has discussed how the state supported the upgrading process, and increasingly shifted its trade and marketing policy to a ‘hands-on’ policy. It became clear that in order to understand the economic development process in this context, the upgrading process in the cocoa industry required wider
perspective in the institutional settings wherein the upgrading process takes place. This chapter has shown that the socio-political context embedded in the upgrading process had strong influential factors that shaped the process and outcome of the upgrading activities.

The following two chapters will draw upon case studies of how development agencies and lead firms exercised their upgrading activities by employing the Value Chain approach. In particular, they will show how the development strategies of Development Agencies that were oriented towards neo-liberal institutions interplayed with the Value Chain Approach (Chapter 5), and how lead firms strategized their upgrading interventions and integrated their support for poor smallholder farmers in the global value chains of the cocoa industry (Chapter 6).
5 DEVELOPMENT AGENCY-DRIVEN UPGRADESCING
CHAPTER 5: DEVELOPMENT AGENCY DRIVEN UPGRADEING

5.1 Introduction

In this Chapter, I will discuss development agency-driven upgrading activities in the cocoa sector in Indonesia, and the intersection between development programs and the concept of upgrading in the Value Chain Approach (VCA). I will discuss the increasing role of lead firms in the development agencies program, and how agencies that tend towards a neo-liberal paradigm adjusted their program interventions for poverty reduction, making them more inclusive and tailored to the needs of the poor.

I will argue that the intersection between the development intervention program and the VCA was in the area of tactical approach to poverty alleviation through the upgrading concept of the GVC, the increasing role of lead firms in driving the upgrading process, and in the institutional interests of donor agencies.

This chapter will start by discussing the increasing adoption of VCA by global development agencies: then it will explore upgrading cases driven by development agencies. Finally, it will discuss the interplay between the development agencies’ program and the VCA for development interventions.

5.2 Development strategies and Value Chain Applications (VCA) in the context of development programs

5.2.1 Reflection on development strategies

Neo-classical economics nurtures a longstanding pro-growth paradigm supported by free market competition. This can be referred to by the well-known “Washington Consensus”, reflecting the policy position of the IMF, World Bank, and US Federal Treasury in the 1990s. The Washington Consensus was treated as a general policy guideline for economic development by the IMF and the World Bank, and set out essentially a neoliberal development strategy for developing countries, as explained earlier in Chapter 2.
The paradigm and the approach, however, invited criticism due to a general ignorance of the ground conditions in the developing countries, e.g., the inability to cope with the poor and their social conditions. Particular concerns focused on the endorsement of free market competition that failed to recognise the imperfect situation and institutional environments of the poor. A prominent example of this imperfect situation for rural farmers in developing countries was their inability to access financial support from banks due to lack of collateral, and their inability to deal with global buyers due to the complexity of market requirements.

After attempting to cope with the reality on the ground, dominant development agencies such as the World Bank increasingly recognised the weakness of the approach, and proposed a more comprehensive approach that would not only incorporate local social conditions and institutions, but also acknowledged the existence of imperfect markets. This is reflected in the various proposed approaches discussed in Chapter two, and referred to as the ‘Post Washington Consensus’. It was argued that the focus of the World Bank began to change under the “presidency of James Wolfenson with funding projects that had a more direct effect on poverty” (Lancaster, 2007, p. 50).

This chapter will explore how the Development Agency organizations which leaned towards a free market paradigm, such as the World Bank groups and USAID, began promoting their pro-poor development strategies through a sectoral approach that embraced the discourse of value chains.

5.2.2 VCA application by development agencies

The VCA approach seemed to provide a bridge between the consistent holding of a neo-liberal economic paradigm and the need to directly address the issue of persistently imperfect market conditions for the poor. Over the last few decades, many international development agencies, both multilateral and bilateral donor agencies, have increasingly adopted the VCA approach (Neilson, 2014).
5.2.2.1 Multilateral donor agencies

Multilateral donor agencies include the United Nations Industrial Development Organisation (UNIDO), the International Labour Organisation (ILO), and the World Bank (Subramanian et al., 2007; Webber & Labaste, 2010). UNIDO adopted the VCA approach mainly to support small-scale producers’ (SMEs) general industrial development, and to support small-scale farmers vis-à-vis agro-industry improvement in developing countries. For example, in India, VCA was introduced by UNIDO to support SMEs in the automotive industry component. UNIDO endorsed the partnership program to upgrade the SMEs and to integrate them into the global automotive industry (Kaplinsky & Readman, 2001). In the case of the small-scale farmers interventions for agro-industry development, UNIDO oriented its support towards publishing strategic documents on how to design and implement a pro-poor value chain for development that incorporates the technical and social dimensions (UNIDO, 2011). As well, it focused on how to assess value chain interventions that were more engaged with poverty, gender and the environment (Henriksen, Riisgaard, Ponte, Hartwich, & Kormawa, 2010). In short, the VCA was adopted as a key strategy to translate its support to the weakest producers in global value chains.

Another major development organisation that employed VCA within the last decades was the World Bank, which published a guidance document on how to employ the VCA to support agriculture and rural development (Webber & Labaste, 2010). The joint facility of the World Bank groups, i.e., The Foreign Investment Advisory Service (FIAS), published guidance in the form of how to use VCA to improve the Business Enabling Environment (BEE) (Subramanian et al., 2007). Apropos of this VCA, the World Bank combined the competitiveness concept from a management perspective (Porter, 1990) with the value chains upgrading concept from a development perspective (Gereffi et al., 2001).

5.2.2.2 Bilateral donor agencies

Along with the multilateral organisations, individual (bilateral) development agencies adopted the value chains concept of development such as the SNV (Baan & Janssen, 2006), USAID (Gammage, 2009; Goldmark & Barber, 2005; Kula et al.,
2006; Steen et al., 2005; USAID, 2009), and the GTZ (GTZ, 2008; Humphrey, 2005; Stamm, 2004).

The SNV justified its adoption of the Value Chain Approach (VCA) as pro-poor development, claiming that the method offered a market-based solution to supporting the poor. Furthermore, it claimed the VCA could be used as a strategy to improve inclusion of small-scale producers into the global market that in turn would provide opportunities for the poor to improve their productivity, increase their incomes, and provide new employment opportunities. The SNV demonstrated the application of the VCA in various development programs, such as empowering Nepal’s cardamom farmers, improving market linkages, facilitating tea farmer groups’ entry into green tea global value chains, and supporting poor local communities via a community-based tourism project (Baan & Janssen, 2006).

USAID employed the VCA to translate its economic growth with poverty reduction into a practical strategy. For this organization, the capability to combine an ‘economic growth’ mission with a ‘poverty alleviation’ purpose was the main advantage of using the VCA, two purposes that had previously been seen as separate in the donors’ perception (Kula et al., 2006). USAID subsequently published VCA guidance for program design and implementation: (a) to design and support the competitiveness of small-scale firms in a global value chains (Goldmark & Barber, 2005; Kula et al., 2006); and (b) to improve the productivity of MSEs (Micro and Small Enterprises) in the agriculture sector that had implications for the prosperity of poor communities, and integrate them into global value chains in the agricultural industry (Steen et al., 2005). As well, there was as a guide to assessing the gender and pro-poor aspects of program interventions (Gammage, 2009).

Similar to USAID, GTZ published a guide on how to design and implement a VCA for development (titled a ValueLinks manual (GTZ, 2008)). The manual, which was designed to provide guidance for GTZ implementers, put great emphasis on upgrading activities as a basis for program intervention and formulation. Prior to this manual, two documents were published; a concept study of how a VCA was imperative for trade policy and the promotion of economic development (Stamm, 2004), and a study of how a VCA could enhance agribusiness development in
developing countries (Humphrey, 2005). Both studies provide a thorough analysis of the global market challenges, their impact on the poor communities, and the changing approach of development interventions that emphasised broader economic and social dimensions. Thus, this study seemed to provide the foundation for the adoption of a VCA by the GTZ, and the publishing of the ValueLinks manual.

Looking at the major interventions, the application of the VCA for development has ranged from improving the business climate and trade policies (Stamm, 2004; Subramanian et al., 2007), humanizing working conditions (Herr & Muzira, 2009), promoting gender equity (Barrientos et al., 2003; USAID, 2009), facilitating the integration of MSEs into global value chains (Kaplinsky & Readman, 2001; Kula et al., 2006), and supporting small-scale producers in the agricultural sector (Humphrey, 2005; Steen et al., 2005). All of these program designs and interventions were tailored to development strategies supporting economic growth and poverty alleviation in developing countries.

In terms of agriculture, the idea of linking small-scale producers, such as smallholder farmers, to global buyers or lead firms has been considered a significant contribution of the value chain approach. It has been credited with reducing the numbers of the poor in developing countries. Through this linkage, small-scale farmers gain access to global markets that could provide a better price for their products; and, they can access the technologies commonly provided by lead firms. It was assumed that linking smallholder farmers to global buyers could benefit the smallholder farmers; for example, linkages could facilitate product upgrading, which meant better quality or/and higher volume, and on-farm efficiency improvements.

The following case studies will investigate more deeply how development agencies such as USAID and the International Finance Corporation (IFC) used the VCA as an intervention approach to support poor smallholder farmers in Indonesia.

5.3 Development agencies’ upgrading activities

Both USAID and the IFC, as private sector arm of the World Bank, are considered among the biggest drivers of upgrading interventions in the cocoa sector in Indonesia. Both organizations have closely associated with or tended towards the
neo-liberal policy prescription, hoping that free and open markets will boost economic growth.

Both organizations’ work in the cocoa sector has aimed to improve the economic conditions of the rural poor by supporting productivity improvements for smallholder farmers. But, during the period 2000-2010, their approach to upgrading activities shifted from highly technical solutions towards market and financial support. This approach also heralded a shift from direct support for smallholder farmers to greater support for lead firms in the Indonesian cocoa industry. In the following sub-section, I delineate how this strategy shift occurred and its implications for the upgrading process.

5.3.1 Upgrading farming activities

5.3.1.1 Finding technical solutions

The identification of Cocoa Pod Borer (CPB) infestations on the island of Sulawesi in the early-mid 1990s was considered a major threat to cocoa production in Indonesia. The majority of cocoa farmers at the time were still enjoying ‘forest rent’, with relatively few agricultural inputs. Thus, in anticipation of a massive infestation, a research project was conducted to find low cost practical solutions that would enable farmers to control CPB.

To this end, a project funded by USDA in collaboration with the Indonesian Coffee and Cocoa Research Institute (ICCRI) and the ASKINDO was conducted in Sulawesi between 1995 and 1998, known as the CPB Management Project (personal communication with ASKINDO, 18 August 2010). The project was initiated to identify a method of controlling CPB. The result was the introduction of four main farming activities: frequent harvesting (Panen sering); pruning (Pemangkasan); sanitation of pod husks and litter (Sanitasi); and, fertilising (Pemupukan), activities commonly recognised by the Indonesian acronym PsPSP’ (Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI VOCA), 2005, pp. 18-19).

The method was promoted as a low cost practice to control CPB that would ensure productivity improvement of the cocoa trees. It was considered low cost, given that
the major practice relied on mechanical prevention rather than using high cost pesticides and other chemical inputs, although it did require increased allocation of labour. In order to prevent the CPB inside the pods from multiplying, infested pods were regularly removed from gardens. The second practice involved pruning activities. Pruning not only creates better air circulation, but allows more sunlight into the gardens, a practice that impacts unfavorably on the adult CPB moth environment. The third practice, sanitation, cuts into the life cycle of the CPB. Larvas living in the pod husks are killed either by burying them or covering them with plastic for several days. The last practice is fertilizing. Cocoa plants rendered healthy through better soil fertility and nutrition, cab better resist CPB Infection. However, farmers were advised to compost and use organic fertilisers rather than chemical fertilisers (ACDI VOCA, 2005).

Contrasting with the above argument of introducing supposedly low cost practices, Ruf observed two major points about standard practices resulting from the project. First, a hidden aim of USDA funded research was to eliminate the use of pesticides in CPB management, since there were concerns over pesticide residues in cocoa shipments to the US. In fact, pesticides had been used as an effective control of CPB in the mind 1990s, mainly in the Island of Sulawesi and in Sabah (Ruf & Yoddang, 2004, p. 156). Secondly, frequent harvesting had been widespread during the high yield-forest rent period, but had been progressively abandoned due to declining yields.

In any ways, the research project succeeded in combined low material input practices that had been expected to control CPB with increased labour allocation. The recommended practices were, therefore, promoted to become a minimum standard practice in cocoa farming activities.

5.3.1.2 Technology transfer

In order to disseminate the method, the USDA funded a project called the Sustainable Cocoa Enterprise Solutions (SUCCESS) project, which was launched in 2000 in Sulawesi. The main aim of the project was to develop and disseminate the

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6 This view was observed as a part of examiner feedbacks for this thesis.
PsPSP techniques among cocoa farmers. Farming practice techniques that emphasised non-pesticide usage were promoted using the Farmers Field School (FFS) method. The information was then passed on to those cocoa farmers who were considered lacking in technical knowledge using various project interventions, the main aim being to disseminate technical knowledge.

At the end of the three year program, in 2003, ACDI VOCA, the implementer of the project reported successful dissemination using the FFS method. The project reportedly trained approximately 35,000 farmers and disseminated a Video Compact Disc (VCD) containing the CPB control method. Ultimately, it was estimated to reach 59,000 farmers (ACDI VOCA 2005, pp. 11-12)

Building upon the SUCCESS project, and the dissemination of PsPSP farming methods, USAID Indonesia, Mars Inc, and the World Cocoa Foundation (WCF) formed the SUCCESS Alliance Project. The alliance reflected the increasing involvement of global buyers, such as Mars Inc and the numerous international buyers represented through the WCF, as partners in development interventions. The project was established to achieve two main objectives (ACDI VOCA, 2005, p. 13):

1. Improve the quantity and quality of smallholder farmer-grown cocoa in Indonesia through the adoption of good crop husbandry methods and effective integrated pest management practices and maintain a regular source of income for cocoa farmers
2. Strengthen the partnership between the local governments, universities and farmer groups and the US private sector to better utilize resources to support the sustainable development of the cocoa industry while ensuring the conservation of the forest base.

The main three distinctions from the previous SUCCESS project were: (1) additional bio-control methods as Integrated Pest Management (IPM) and the promotion of a side grafting method to rehabilitate the aging cocoa trees; (2) the support of farmer groups and the establishment of a business development service that was prepared to continue to serve cocoa farmers; and, (3) wider coverage areas. This SUCCESS Alliance project, extended the coverage areas, not only in Sulawesi and Papua, but also in North Sumatera, and Bali.
The SUCCESS Alliance project succeeded in training 30,665 farmers using the FFS method, including trained farmers in side-grafting and in business management. The project formed and trained 31 farmer groups, disseminated VCDs containing standard farming practice among 69,439 farmers, and estimated approximately 271,000 beneficiaries of communication programs through this media. The project claimed to have increased individual farmers’ savings of $435 as a result of their participation in the FFS during the three year implementation period (ACDI VOCA, 2005, p. 16).

It seems that the SUCCESS and the SUCCESS Alliance projects emphasized reaching targets for the number of farmers trained. This approach reflected the USAID Result-Based Management approach that was embraced during the 1990s. According to Lancaster (2007), Result-Based Management was a tool that was created to manage public programs and expenditure. It was adopted by the private sector, where a project was measured based on measurable results expected within a given time period. But, as Lancaster points out, there were limitations to this kind of approach wherein data used for indicators was sometimes unreliable; and, attributing changes to the indicators to aid interventions was problematic. In addition, Lancaster highlighted that this approach only emphasised the dissemination of technology: it poorly incorporated any understanding of the complex social conditions of aid beneficiaries.

In the final year of the SUCCESS Alliance project, my interviews with several field technicians identified the various economic and social factors that hindered farmers’ implementation of the full practices of the recommended method. These included economic factors such as lack of motivation due to the unavailability of price incentives for better quality, lack of cash to buy fertilisers, and competing crops and income generation which divided the time they spent in the cocoa gardens. The social factors were mainly rooted in a ‘zero maintenance’ mindset derived from the advantages of ‘forest rent’, uncertainty of land ownership due to historical land opening (which was either owned by the government or by local ethnic groups as a part of customary land), and from the local practice of short-term share cropping arrangements. Share croppers focused more on harvesting pods and avoided re-investing in the next harvest seasons (ACDI VOCA, 2005).
The Success Alliance project ended in 2005. It had tried to resolve as many main economic issues as possible in a relatively short period of time, including market linkages for a better price. An initial partner was PT. Mitra Celebes, a subsidiary of Continaf and a supplier of Blommer Chocolate USA. Blommer were traditional buyers of Sulawesi cocoa beans; but, since the CPB outbreak, Bloomer’s supply from Sulawesi had declined. The partnership involving three organisations - Bloomer, SUCCESS and Continaf (BSC) - was intended to increase the flow of quality cocoa to Blommer USA by increasing the linkages between SUCCESS Alumni farmers, intermediate traders and Continaf/PT. Mitra Celebes. It was reported that by October 2005, Blommer had purchased close to nine million US dollars worth of cocoa beans through the program (ACDI VOCA, 2005, p. 61).

Even though some farmers succeeded in accessing the market, this market linkage program only existed during the last several months of the project, and in response to farmers’ requests regarding incentives to provide good quality beans. It was clear that the project was not directly designed to conduct a market linkage program, but mainly to provide a technical solution to addressing pest and disease infestations.

In summary, the three projects applied a ‘supply driven’ intervention approach to upgrade the technical capacity of Indonesia’s cocoa farmers. The PsPSP method was promoted intensively and disseminated among the cocoa farmers, the main target being to train as many cocoa farmers as possible. This dissemination project was conducted from one particular area to another during the whole year of the project intervention. In effect, this was the main weaknesses of the ‘supply driven’ approach. The approach was founded on a project basis: everybody got a similar package of knowledge (Berry, 2012), whereas the fact was that the farmers had different demands relevant to solving their varied farming issues.

5.3.1.3 Integration of market linkage and technical support

After three consecutive projects aimed to support cocoa farmers through technological means, USAID then supported a project that was specifically designed to apply a Value Chain Linkage approach (known as the Agribusiness Market and Support Activity (AMARTA) program). AMARTA built on the market linkages that were being formed during the latter stages of the SUCCESS Alliance program.
Utilizing ‘market pull’ as a catalyst for improvements to smallholder cocoa production and quality, farmers have been slow to adopt interventions that control CPB because there has been an absence of market linkages. AMARTA will develop and implement models that connect farmer groups with exporters and processors. The result expected is that the quality premium paid by processors will reach the farmer, encouraging the farmer to adopt measures that will improve the quality (Badcock et al., 2007, p. 15)

This happened because the premium price paid by the exporters was only enjoyed by some traders and collectors.

Generally speaking, collectors and traders were maximizing profit by combining high-quality beans with sub-standard beans. This resulted in average export standard beans by combining cocoa waste to reach a maximum 2.5 per cent, the highest waste limit of the Indonesian national standard. At the exporter level, sometimes this waste was separated again before exporting to international buyers. For the grading and cleaning activities conducted by exporters, the international buyers paid a premium price to the exporters. Thus, this premium price did not filter through to the smallholder farmers. The ultimate outcome was that the farmers were discouraged from producing good quality beans, due to lack of incentive to do so.

For this reason, the AMARTA project was delivered to improve the adoption of the recommended farming method by integrating technical assistance into the supply chain. Price incentives would be delivered through local collectors and traders in the traditional supply chain of cocoa beans. AMARTA supported a cocoa exporter to establish buying stations in major producing districts, and to recruit the new field staff required for each buying station. By supporting and incorporating technical support through the supply chain, it was expected that technical support would continuously be available to smallholder farmers (Badcock et al., 2007).

At this point, USAID’s support became integrated within the supply chain of global buyers. AMARTA decided to work with Blommer Chocolate and one of its suppliers, and international exporter, PT. Olam Indonesia.
According to an internal evaluation of the program (AMARTA, 2010), it was reported that during the technical assistance period 2007-2008, the assisted cocoa farmers increased their production by 44 per cent in West Sulawesi, 37 per cent in South Sulawesi, and 27 per cent in South East Sulawesi. In terms of quality improvement, 48 per cent of farmers reached appropriate bean size, 35 per cent fulfilled the standard moisture content, 47 per cent got full price due to meeting the waste standard, and 40 per cent delivered mould-free beans. Over all, farmers received a 20-26 per cent higher price when selling to international buyers (Agribusiness Market and Support Activity (AMARTA), 2010).

The USAID projects were a long standing effort to upgrade smallholder cocoa farmers. Over the 10 year period, USAID changed its tactical approach from capacity development through to providing support for direct training to market linkage programs with embedded technical support, in collaboration with large buyers.

5.3.2 Improving access to finance

Financial access is one of the critical conditions required to support smallholder cocoa farmers in Indonesia. The majority of smallholder cocoa farmers are required to buy inputs, and to pay additional labour during farm maintenance and harvesting. Without having working capital to improve farming conditions, it seems likely that cocoa farmers will be unable to upgrade in sustainable ways.

5.3.2.1 Imperfect markets for smallholder financing

The major issues contributing to poor access to finance are related to the absence of collateral, farmer’s informal status, their lack of credit history, and, to some extent, discrimination by the loan officer due to farmers being illiterate or poorly educated (Goldmark & Barber, 2005, p. 16). In addition, from the banking perspective, financing small-scale farmers is considered to have high transaction costs that will require high interest rate application to enable banks to recover or to gain profit from providing financing (Adams, 1992). Combinations of strict loan conditions and relatively unattractive consumers have resulted in only a few smallholder farmer’s accessing credit from formal banks.
A traditional practice involves smallholders accessing finance from their immediate buyers. The main advantage of this system is the buyer’s willingness to provide credit without requiring formal collateral such as land title. However, local collectors charge credit ‘interest’ through a discount price on saleable cocoa beans. Farmers are bound to sell their beans to cocoa collectors and to become ‘price takers’, a practice that reduces a significant portion of their incomes. By having to rely on local collectors as suppliers of financial support for smallholder farmers, ‘profit extraction’ practices keep the farmers poor.

USAID program interventions in the AMARTA II program 2006-2011 tried to provide support for micro enterprise by attempting to solve the collateral requirement and by supporting a loan guarantee program. Through this program, access to finance was delivered through cooperation with financial institutions such as Bank Danamon under USAID’s Development Credit Authority (DCA) loan guarantee program (SEGIR Global Business, 2009) and the IFC through its client bank BTPN.

As part of the DCA programs, USAID and Danamon Bank agreed to support micro and small borrowers through the ‘Danamon Simpan Pinjam (DSP) micro-finance arm of Danamon Bank. This cooperation, which commenced in 2005, generally targeted small scale enterprises that had a monthly income between Rp. 500,000 and Rp. 5,000,000 (approximately US$50-US$530). This credit scheme, which was developed to provide loans from one to five years lending duration, started with a very small loan, approximately between Rp.100,000 and Rp. 500,000 (US$11-53), and gradually expanded subject to borrower consistency and a timely repayment history. Danamon disbursed approximately $16 million the form of approximately 9,348 small business loans, (SEGIR Global Business, 2009).

The guarantee programs seemed only to work when a guarantor was available related to a project. With reference to lessons learned from various lending programs for small-scale farmers and financed by the World Bank, Adams (1992) observed that inducing commercial banks to disburse lend guarantee programs for small-scale farmers only works for short term periods and has limited impacts. Commercial banks involved in this loan guarantee program commonly served a limited number of farmers over a short period of time, only to satisfy their public
obligations. Furthermore, Adams claims, serving small-scale farmers and micro enterprises involved high transaction costs; thus, by extension, high interest rates were required for the sustainability of the financial institutions.

The credit scheme offered by USAID guaranteed the lending program offered by Danamon Bank: it provided opportunities for micro enterprise that earned income on both a daily and monthly basis. Through the guarantee program, the bank was able to expand its customer base since the loans had been secured. However, this credit scheme was not adopted by cocoa farmers, as their income cycle was only on a seasonal basis. This indicated the most common gap in the credit scheme in Indonesia that had been provided commercially by the country’s national banks.

Inevitably, for the smallholder farmers, this became a burden, as their incomes only materialized during the harvest season. In many cases, farmers obtained loans from the bank by incorporating their payment several months ahead into the loan agreement. This meant that farmers borrowed additional money on top of their working capital needs as a reserve from which to pay their monthly payment before the harvest season. This became a huge burden for the smallholder farmers, who in some cases took out loans much bigger than they needed.

In short, the characteristic needs of small businesses earning regular monthly incomes are different from those of the cocoa farmers who function on a seasonal basis. Thus, the credit scheme that was developed for smallholder farmers was poorly adapted to the demands of cocoa farming.

5.3.2.2 Developing inclusive financing

Based on an effort to understand the smallholder financing environment, the IFC opted to provide some pilot projects supporting the smallholder farmers in agri-financing. Indeed, the core business of IFC was to provide loans to private investors, as it was established to serve the financial needs of non-government organisations and businesses. As well as running commercial activities, the IFC also provided technical assistance and advisory services that worked to upgrade the various industrial sectors, including the cocoa sector.
For the IFC, the upgrading of smallholder farmers through improving their access to financial support had been the main program proposed for the cocoa sector. It was not only driven by its recognition of the failures of the banking industry to serve small-scale producers, but was also part of the organisation’s vision to alleviate poverty through its strategy of supporting local financial markets (International Finance Corporation (IFC), 2013).

The IFC engaged in the cocoa sector through two main projects: (1) the Agribusiness Linkage Program that came under the major umbrella program for Eastern Indonesia, known as the SME (PENSA) Assistance, during the period 2003-2008, and the SADI programs in the period 2008-2012.

In 2003, the IFC was granted a multilateral fund to manage the PENSA program, with the main purpose of supporting business development. The ultimate goal was to reduce poverty and stimulate economic growth in Indonesia. PENSA consisted of programs in agribusiness linkage, access to finance, oil, gas and mining industry linkages, a business enabling environment, and a handicrafts export promotion activity. This grant was funded by multilateral donor countries including Australia, Japan, the Netherlands, Canada, and Switzerland (IFC, 2003).

The IFC’s engagement in the cocoa sector was conducted through the agribusiness linkage programs (alongside seaweed, maize and poultry programs). The IFC strategy to upgrade the cocoa sector would be implemented through lead firms, which was expected to drive changes in industry practices. As clearly stated in the IFC cocoa report:

‘...it is important to continue engagement with the cocoa sector with the objective of attracting major investments involving large commercial players and international financial institutions. Such investments are needed to achieve fundamental changes in farming practices, rationalisation of the supply chain, and fair trade practices. This will help to realize the considerable potential for increased production of higher quality cocoa which will encourage further investments in the downstream processing and value adding” (IFC, 2003, p. 6).

The IFC’s direct engagement with small farmers, therefore, was designed only to conduct specific small-scale pilot projects, which had the potential to be developed further by private lead firms, including through market and financial linkages. The
pilot projects only covered approximately 400 farmers (based on the author’s internal report during engagement with the IFC).

Based on the IFC experience during the PENSA project, the IFC found that the major impediment for access to finance programs was the absence of land titles, which could otherwise be used as collateral with commercial banks in Indonesia. In particular, in the cocoa-producing districts in Sulawesi, our research found that a minority of farmers held land titles in the three major cocoa producing districts in Sulawesi: Polman (16%), North Kolaka (41%), and North Luwu (33%) (Neilson et al., 2011).

Land titling in Indonesia continues to be an exhausting process which requires government official approval at various levels and in different government agencies. Formal and ‘informal’ facilitation costs were estimated to be approximately $400 (Personal communication, with IFC program officer, 20 August 2010). Those farmers who did not have land title were generally excluded from subsidized agricultural lending programs.

The following lessons were learnt from the IFC PENSA experience: the scheme should exclude the land title requirement; transaction costs should be minimized through a farmer group screening process; ensuring that definite buyers are ready to buy farmers products, providing field staff who continuously assist farmers; and, monitoring the usage of credit by farmers. Lastly, there is a need to design a credit disbursement and loan payment system that meets the seasonal cycle of commodities being financed (Personal communication, with IFC program officer, 20 August 2010).

5.3.2.3 Establishing a commercial agri-finance model

Building on its IFC PENSA experience, the IFC developed a pilot project of a credit scheme to support smallholder farmers under the SADI program through its investee client the BTPN Bank. The IFC provided technical assistance to BTPN Bank in designing the credit for smallholder farmers on a commercial basis.

What is new and important in the IFC pilot agri-financing scheme is a reliable mechanism and data base for each individual farmer. This helped the banks to
obtain comprehensive information about their consumers. In order to meet this need, the IFC relies upon a data base provided by a lead firm. In the context of the pilot project, Armajaro, another investee client of IFC, saw an opportunity to exercise leverage and to utilize the increasing amount of voluntarily certified cocoa beans (UTZ certification and Rainforest Alliance) as the platform for data screening. Through this certification process, detailed demographic and production data on individual farmers are collected and audited. In this regard, the requirement for land title is replaced by ‘voluntary certification’ by an international agency, which is paid for by the buyers.

The above credit scheme had three requirement: i) proof of residence (KTP); ii) to be a member of a farmer group; and, iii) be recommended by a lead firm. The last condition was essential, given that credit worthiness relied upon certification. Thus, certified farmers were seen as low risk due to the certification premium they could obtain by selling through Armajaro. To operate this new credit scheme, the BPTN bank recruited field staff who had agricultural backgrounds and were capable of administering and monitoring the loans.

In terms of disbursements and loan payments, the loan package was developed and tailored to the seasonal cocoa cycle. The loan package consisted of working capital for labour to conduct pruning and harvesting, and for fertilizers. The total loan amounted to six million rupiah for one hectare of cocoa farm. Even though the total credit duration was for one year, the farmers were expected to pay the first cycle of the credit soon after the harvest season arrived (See Table 5.1 for more detail). Farmers were required to sell their cocoa beans to the lead firm through farmer groups. And, Armajaro, as the lead firm, would deduct the loan payment and pay it into the BTPN bank, as the financial providers.
Table 5-1 Agri-finance package for smallholder cocoa farmers, developed by the IFC and the BTPN Bank

<table>
<thead>
<tr>
<th>Credit Cycle</th>
<th>Credit Disbursement</th>
<th>Loan Repayment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Month</td>
<td>Type of loan</td>
</tr>
<tr>
<td>Cycle 1 (Decembe r-June)</td>
<td>December</td>
<td>Cash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fertilizer</td>
</tr>
<tr>
<td></td>
<td>February</td>
<td>Cash</td>
</tr>
<tr>
<td>Cycle 2 (July-Novembe r)</td>
<td>July</td>
<td>Cash</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fertilizer</td>
</tr>
<tr>
<td></td>
<td>August</td>
<td>Cash</td>
</tr>
<tr>
<td>Total Credit</td>
<td>Total</td>
<td>Credit</td>
</tr>
</tbody>
</table>

Source: Author, based on raw data provided by the IFC, 2014

Through this loan package, farmers gained some benefits from increased farm inputs and cash loans, loan collection during the selling of produce, and insurance for the loan recipient. If a loan recipient died, the loan was settled automatically. In addition to the benefits, some capacity building services were provided including an interactive learning process and training in Good Agricultural Practices (GAP) via demonstration plots and discussions.

The AMARTA program then attempted to scale-up this model into a commercial pilot project expected to cover 6000 smallholder farmers. This new financing model was hoped to increase farmer output by at least 20 per cent if farmers correctly applied input and good agricultural practice (Personal communication with IFC program officer, 20 January 2014).

5.3.2.3.1 Disbursement, productivity and net income result

After three cycles of loan disbursement (from mid-2011 to the end of 2012) the program succeeded in disbursing 588 agri-finance packages, including 441 farmers (1st cycle, 40 farmers; 2nd cycle, 99 farmers; 3rd cycle 302 farmers) in Polman District, West Sulawesi, and 147 farmers in North Luwu district, South Sulawesi (the program’s 3rd cycle only). According to the IFC evaluation, which was based upon
the farmers’ survey, in all cycles, the agri finance package seemed to improve cocoa production, productivity and net income of the participating farmers, compared to non-participating farmers (Table 5.2).

Table 5-2 Economic data comparison of cocoa farmers, between participant and non-participant farmers of Agri-Finance program, supported by the IFC

<table>
<thead>
<tr>
<th>Items</th>
<th>Polman District</th>
<th>North Luwu District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Participant</td>
<td>Non-Participant</td>
</tr>
<tr>
<td>Loan (Rp)</td>
<td>2,056,856</td>
<td>798,525</td>
</tr>
<tr>
<td>Fertilizer use (kg)</td>
<td>302</td>
<td>241</td>
</tr>
<tr>
<td>Yield (kg)</td>
<td>810</td>
<td>651</td>
</tr>
<tr>
<td>Revenues (Rp)</td>
<td>16,190,308</td>
<td>13,013,419</td>
</tr>
<tr>
<td>Costs (Rp)</td>
<td>4,590,841</td>
<td>2,383,842</td>
</tr>
<tr>
<td>Net Income (Rp)</td>
<td>11,599,465</td>
<td>10,629,577</td>
</tr>
</tbody>
</table>

Source: Gusli, 2014

5.3.2.3.2 Loan outcome efficiency

In terms of agri-finance package efficiency, the results were mixed. Participant farmers in the Polman district showed an unimpressive result. Even though their yields and incomes increased, the participant farmers’ efficiency was far from impressive when compared to their non-participants, since their costs were also considerably higher.

One of the causes underpinning the high cost was the high price of fertilizer. The recommended fertilizers, a premium brand on the market, were not subsidized by the government, whereas non-participants were using subsidized fertilizers. Furthermore, according to the survey, even though the overall result indicated improvement, the revenues and the production costs were imperfectly correlated with fertilizer use. This means that several other factors contributed to the farmers’ performance, apparently due to a combination of Good Agricultural Practices, such as timely pruning, frequent harvesting, good sanitation, and safe pesticide usage, together with appropriate fertilizer usage (Gusli, 2014).
5.3.2.3.3 The role of buyers

An important feature of the Agri-Finance project was the important role of Armajaro as the off taker. According to an evaluation survey conducted by by Gusli (2014) approximately 60 per cent of participant farmers considered that Armajaro played a significant role in upgrading farmers’ production and income performance, given that the company was providing training packages and paying premium prices.

However, the involvement of Armajaro did not necessarily ensure loyalty, with only 36 percent of farmers in Polewali and 72 percent in North Luwu selling their beans to the company. It became very clear that side selling occurred in both places; but, the percentage in Polman district was much higher, such that it could easily be predicted that the loan payment rate (through deducted payments) in Polman district was correspondingly low.

According to the evaluation survey, two main factors affected this mixed result: the farmers’ perceptions of the off-taker, and the social contexts of the farmers. Farmers claimed that they did not sell their beans to Armajaro to avoid automatic repayments and, the price offered by other buyers was better. In fact, many of the participant farmers in the program had a strong relationship with the local buyers. In this social context, in Polman, quick cash was a factor with which most farmers were concerned, while in North Luwu, price was the primary factor.

Based on my own experience of the IFC pilot project of linking farmers to banks, poor adaptation to crop seasonality remained a key challenge. Furthermore, any credit should embed a mechanism to deal with failed seasons, one that resulted in the continuity of the loan repayment. Through the Agri-Finance program, the first issue of the cycle of credit on a seasonal basis was addressed; but, the second issue dealing with crop failure did not satisfy the farmers. In contrast, traditional collectors would collect their farmer loans after the harvest, but would be willing to postpone repayment following a failed harvest.

Regardless of the mixed result, the Agri-Finance package for the smallholder farmers was an innovative effort to encounter the market failure of Agri-Finance for poor people. The IFC, in collaboration with its investee Bank BPTN, together with
Armajaro as the off-taker and national Agro input providers, indicated that this innovative credit scheme required further adjustment. In particular, it needed to reduce the transaction costs, offer cheaper agro inputs, and to have stronger farmer groups as the bridging institution between individual farmers and other players in the scheme.

### 5.4 The intersection of Development Agency programs and the GVC approach

The stated mission of the development agencies, both USAID and IFC, has been to create opportunities for poor people to escape poverty and improve their lives. Both institutions agreed that in order to pursue that mission, the private sector should be the forefront driver of the development. The above two cases of smallholder upgrading of productivity and quality of cocoa beans produced by smallholder farmers clearly describe the increasing role of private players or lead firms in development agency programs. These programs not only respond to the farmers need to have a committed buyer for high quality products, but are also driven by the intention to develop sustainable support that would be carried out by lead firms.

In this regard, it is obvious that development programs delivered by agencies were embedded with strong economic interests for the participants involved. These included the economic interests of: i) the poor; ii) the development agencies themselves; and lead firms. The question, therefore, is: how did the economic interest stimulated by foreign aid interplay with the value chain development approach? Based on the above cases, it seems that there were three main spheres in which the interests of development agencies intersected with the VCA. They included: (1) the mission of the agencies vis-à-vis poverty alleviation, which was implemented through the tactical approach of the GVC’s upgrading concept, (2) the establishment of a viable business case for the upgrading process; and, (3) the politico-economic interests of the development agencies.
5.4.1 Poverty alleviation and the tactical approach to the upgrading concept

The mission to alleviate poverty, and to provide better income opportunities for the people, well resonated with the upgrading concept of GVC. The common premise to improve the poor people’s incomes was by improving their productivity, their quality product, and linking them to big buyers that valued quality beans. By doing so, it was expected to open the path to better livelihoods and an escape from poverty. Based on these premises, the development agencies’ mission on poverty reduction resonated tactically by employing the upgrading concept of the GVC approach.

Since low-income smallholder farmers contribute approximately 90 per cent of the national production, upstream upgrading activities mainly target these smallholders. The program mainly provides and disseminates the latest technology on GAP and assists those farmers to establish market linkage to global buyers, to be able to get a premium price for their products. In short, poverty alleviation is the main area in which the development agencies and the GVC approach intersect, particularly when translating the poverty reduction program into action.

5.4.2 Lead firm engagement in sustainable business development

The effort to establish scalable and viable businesses by engaging with lead firms is another area in which the development agencies and the GVC approach intersect. In their efforts to build a sustainable business case, both USAID and the IFC increasingly engaged with lead firms not only in the design phase, but also in the implementation stage.

Apropos of the USAID program, for example, the objective to improve the adoption of the recommended farming methods was designed in a way that integrated technical assistance into the supply chain activities. This approach was commonplace in the mid-2000s. The agencies shifted their program approach from disseminating technical support for cocoa cultivation towards a more market-oriented approach which emphasised their method of ‘market pull’ strategies; that is promoting incentives to encourage the cocoa farmers to adopt the technology needed to improve their cocoa farms. Cocoa buyers were integrated into
development programs, their main role being to provide a price incentive for the best quality cocoa, and, to position buyers as key players in the development interventions. The AMARTA project, for example, supported an international cocoa exporter linked to US-based cocoa processors, the goal being to establish buying stations at the centre of cocoa production and to recruit field staff who had technical skills on the GAP that was embedded in each buying station. In fact, the shift of strategy that emphasised market access and incentives was the result of previous program assessments and a recommended design that adopted the value chain approach to poverty reduction in the cocoa sector (Kula et al., 2006; Panlibuton & Meyer, 2004).

For the IFC, lead firm arrangements were not new business, since its clients have always been lead firms in their respective industries. What was new was its approach to investment that promoted ‘inclusive businesses’. As well as being commercially viable and scalable, the basic nature of the business model required its investees to expand access to goods, services, and income generating opportunities for poor people (Jenkins, et al. 2011).

In the context of the cocoa industry in Indonesia, this approach required lead firms to establish close supply arrangements with smallholder suppliers. It also required lead firm field staff to deliver services for smallholder farmers including “buy back” arrangements (guaranteed purchase of farmers’ products in return for provision of inputs), technical advice, dissemination of best practices, access to credit facilities and quality incentives. The IFC agreed to support lead firms in providing these services in order to enable the smallholders to achieve success and to be a role model for the broader industry (Personal communication with IFC program officer, 20 January 2014). This approach was clearly demonstrated in the Agri-Finance program (as explained in the previous section).

As regards the existing scalability outcome of the development agencies’ programs, in both cases it became clear that the lead firms were becoming increasingly involved in the development agencies program activities in the cocoa sector in Indonesia. In particular, they played a role in the effort to improve the livelihoods of poor smallholder farmers.
5.4.3 Economic interests in value chain upgrading

Important issues associated with the development agencies’ programs included the politico-economic interests of both USAID and the IFC. For USAID, the rationale to support the upgrading of activities in the cocoa industry was rooted in its strategic goal in Indonesia. The Department of State-USAID strategic goal for Indonesia was clearly stated in USAID documents as follows: to ‘strengthen world economic growth, development, and stability while expanding opportunities for United States (US) businesses and ensuring economic security for the nation’ (USAID, 2004, p. 41).

In the context of the US’s economic interest in the cocoa sector, cocoa beans produced by smallholder farmers in Sulawesi had been the major raw material for chocolate companies in the US. US chocolate manufacturers were the largest international buyers of processed cocoa products from Sulawesi, purchasing approximately 40 per cent of total cocoa exported from Sulawesi in 2000. The importance of the Indonesian cocoa industry reflected future US demand for Sulawesi cocoa. US manufacturers were able to process cocoa from Sulawesi as a mix of chocolate products⁷, the assumption being that the beans’ quality would not further deteriorate (Badcock et al., 2007).

As a result of the increasing onset of pests and diseases in Sulawesi in the late 1990s, the US faced an increasing shortage of supplies from Indonesia. This seems to have been one of the driving factors propelling USDA to start its project for finding the solution to manage the spread of the CPB, and for subsequent interventions by USAID through the Success Alliance and AMARTA programs.

The adoption of the VCA by USAID in the AMARTA program seems not to have been coincidental, given the fact that the share of cocoa beans exported to the US from Indonesia continuously declined. The requirement to establish market linkage with Blommer, a US-based cocoa processor, through its exporter partner PT Olam

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⁷Sulawesi beans are well known for their high melting point of their butter; but, they have reduced aroma. They are mixed with African or Brazilian chocolate with high aroma but a low melting point.
Indonesia in the AMARTA program seems to validate this economic interest. Thus, USAID’s support for poverty reduction, seemed steeped in political and economic interests.

In the IFC case, it was unique in as much as the institutions, as development institutions, had a mandate to work through commercial activities. As enunciated clearly in the company statement:

“IFC is a development institution. But we invest on commercial terms, because we believe that market discipline is a powerful driver of consumer choice and sustainable growth. We expect our investment to generate financial returns, which demonstrates that our clients are generating value for their customers efficiently. We also expect our clients to adhere to strict social and environmental standards, which ensure that they are generating value for customers and investors at the expense of other stakeholders” (Jenkins, 2010).

Investing in commercial terms means that all decision-making was decided on the basis of commercial arrangements. In the case of the inclusive financing model through the agri-finance program, the loan package was developed by the IFC in collaboration with investees including BTPN Bank and the Armajaro company. The loan model, if successful, was intended to tap huge low income customers for the BTPN and potentially loyal and captive suppliers for Armajaro.

Both cases were trying to show the importance of lead firms in supporting the poor through direct support and intervention at the community level, reflecting a value chain upgrading model of development. On the other hand, lessons learnt both from the market linkage and the agri-finance project indicated that the tactical GVC approach in the implementation process seemed to imply a strong, top-down approach and little actual empowerment at the farmer group level.
5.5 Conclusion

This chapter has shown how development agencies have applied the upgrading concept to activities in the Indonesian cocoa sector. The chapter has discussed how development agencies have shifted their interventionist approach from field technology transfer towards the increasing adoption of market linkage programs as a result of the increasing application of the Value Chain Approach (VCA) to agricultural economic development.

However, this approach has been adopted not merely because of the increasing popularity of the VCA for development as indicated in the introduction to this chapter. Rather it has been deeply shaped by the various contextual and socio-institutional factors. These factors include: the farmers’ need to have committed buyers for their products, the lead firms’ anxiety vis-à-vis shortage of supply, and the politico-economic interests of the donors. All of these factors collectively influence the upgrading process that in turn has affected their approach to using a Value Chain mechanism for upgrading activities. Given this fact, the point made by Neilson (2014, p. 57) seems valid, that “the adoption of a value chains for development discourse reflects the persistent ability of mainstream neo-classical economics, and the organisations that embody such thinking, to co-opt critical theory and perpetuate long-held commitments to neo-liberal development approaches”. The following chapter will explore in depth how lead firms develop their own interventions in the effort to upgrade cocoa production in Indonesia.
6 LEAD FIRMS-DRIVEN UPGRADING
CHAPTER 6: LEAD FIRMS-DRIVEN UPGRADING

6.1 Introduction

In the literature, lead firms are often described as influential companies that exercise their power regarding what to produce, how to produce, and when to produce. They are also considered to be sources of learning for new technologies, for improving the production process, and for delivering consistent and high quality products (Humphrey & Schmitz, 2002).

Lead firm-driven upgrading quite often translates into how said firms facilitate and accelerate the upgrading process of their suppliers, either through exercising a high product standard for their supplier (Fold & Larsen, 2011) or providing direct support for their suppliers (Gereffi, 1999; Gibbon, 2001; Humphrey & Schmitz, 2000).

Exercising standards requirement is often a simple way to drive suppliers to upgrade their products and quality. However, this mechanism can frequently only be followed by big suppliers or companies. For the smallholder farmers, meeting high standard requirements may exclude them from the global value chain (Fold & Larsen, 2011). The question is therefore: how can a lead firm exercise an upgrading process with a global requirement, e.g., certification standards, and at the same time offer solutions to farmers’ potential exclusion from the global market?

In the context of direct support for upgrading smallholder farmers, lead firms-driven upgrading looks promising. Potential technology transfer could be delivered by lead firms to improve the productivity of smallholder farmers, the assumption being that lead firms could upgrade smallholder farmers with the latest technology of farm management. By adopting this technology, poor smallholder farmers can upgrade their production and increase their incomes. However, a consequence may be that the poor smallholder farmers will become increasingly dependent on the lead firms. Upgrading support quite often requires longer term contracts to allow the knowledge transfer to materialize (Brach & Kappel, 2009). In the smallholder case, this could see them fall into a captive governance relationship with much more powerful actors.
This chapter will explore the case study of Mars Incorporated’s farmer development support in Indonesia. In particular, it will explore: (1) the question of how lead firms support the upgrading of smallholder cocoa farmers in Indonesia; (2) some important factors that drive Mars as a top lead firm in the industry to upgrade cocoa farmers in Indonesia; and, (3) how its upgrading support mechanism has impacted on various players along the cocoa value chain.

6.2 Description of Mars

Mars, one of the lead global firms operating in the Food and Drink industry, was founded in 1911 in the United States of America. According to Forbes (2014), the company employs 75000 staff. Its headquarters are in McLean, Virginia, and in 2013 it reached total sales of $33 billion. It operates six business segments: Chocolate, Petcare, Food, Wrigley, Drinks and Symbioscience. Specifically in the confectionary industry, the company is the top global lead company in the industry, producing the highest net sales value (International Cocoa Organization (ICCO), 2015).

<table>
<thead>
<tr>
<th>Company</th>
<th>Net Sales US$ millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mars Inc (USA)</td>
<td>18480</td>
</tr>
<tr>
<td>Mondelez International Inc (USA)</td>
<td>14350</td>
</tr>
<tr>
<td>Ferrero Group (Luxemburg/Italy)</td>
<td>10,911</td>
</tr>
<tr>
<td>Nestlé SA (Switzerland)</td>
<td>10,466</td>
</tr>
<tr>
<td>Meiji Holdings Co Ltd (Japan)</td>
<td>9,818</td>
</tr>
<tr>
<td>Hershey Foods Corp (USA)</td>
<td>7,485</td>
</tr>
<tr>
<td>Chocoladenfabriken Lindt &amp; Sprungli AG (Switzerland)</td>
<td>4,022</td>
</tr>
<tr>
<td>Arcor (Argentina)</td>
<td>3,500</td>
</tr>
<tr>
<td>Ezaki Glico Co Ltd (Japan)</td>
<td>3,049</td>
</tr>
<tr>
<td>August Strock KG (Germany)</td>
<td>2,272</td>
</tr>
</tbody>
</table>

Source: ICCO, 2015

The company promotes its sustainability commitments that focus on improving the quality of life for its customers. It is also known for its raw material supplies from smallholder farmers. It is also known for its raw material supplies from smallholder farmers. According to Mars (2013), in order to be sustainable in business, the company needs to address three challenges: the company operation, raw material sourcing and customers. As part of this operation, the company needs to reduce its
environmental footprint. As regards its raw material sourcing, the company needs to ensure the sustainable source of its product ingredients. And, consideration for its customers requires the company to address nutrition and obesity.

In recognition of the company’s commitment and efforts for sustainability, Mars was awarded the best Ethical Corporation Responsible Business Award in 2013 by Ethical Corporation. The award recognises companies’ sustainable business practices across their operations, mainly the reduction of energy use, water and waste across their operation, and their leading efforts in the cocoa sustainability work in the cocoa industry (Mars, 2013).

Over the last decades, in an effort to achieve sustainability in the cocoa industry, Mars has not only been working to support cocoa farmers through its technology transfer programs, but has pledged its commitment to source 100 per cent certified cocoa beans by 2020 (Mars, 2014b). In the context of upgrading smallholder cocoa farmers and the cocoa industry in Indonesia, both programs will be discussed in more detail in the following section.

6.3 Lead firms driven-upgrading

The main objective of Mars’ sustainability program has been to improve the farming methods employed by smallholder cocoa farmers. The company calls it ‘Farmers First’, the underlying assumption being that for the cocoa industry to be truly sustainable it requires sustainable cocoa production at the smallholder level. Smallholder farmers, the major cocoa producers, should be able to use this commodity to build a profitable business, which means establishing farming as a business, improving incomes and profitability. The projected outcome will be that farmers can support their families adequately (Harner, 2012).

Mars believes that the most effective way to improve farmers’ incomes is by improving their productivity. This is considered the important way to empower farmers’ economic activities and create lasting change in their livelihoods (Harner,

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8 Ethical Corporation is a global business publication focused on global business and exploring how large companies are responding to the sustainable agenda (www.ethicalcorp.com)
With this as its major goal, Mars has exercised its capacity to upgrade farmers using two main approaches: first, providing technical support that is embedded in the supply chain; and, second, supporting farmers’ compliance with global certification standards.

### 6.3.1 Technology transfer programs

Over the last decade, Mars has been providing technical transfer support to cocoa farmers in Indonesia. Mars representatives recorded that the total number of farmers trained during the period 2003-2014 was 43,403 smallholder farmers (Own calculation, based on Mars representative primary data, 2014). Direct training conducted by Mars accounted for 16,534 farmers, and indirect training by field technicians trained by Mars was recorded at 26,869 people. The majority of farmers (84%) trained were on Sulawesi Island. The remainders were from other islands across Papua, Nusa Tenggara and Sumatra. All of the training was delivered via six major technology transfer programs (see Table 6-2).

The company program support could be classified into three evolving approaches over the ten year period. First, managing fully the technology transfer program; second, working with other extension agencies, including NGOs, privately funded extensions and the government in an attempt to leverage impacts; and, third, empowering local farmers as private extension agents.
### Table 6-2 Mars technology transfer programs between 2003-2014

<table>
<thead>
<tr>
<th>Years</th>
<th>Program</th>
<th>Approach</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-2005</td>
<td>Pest Reduction Integrated Management (PRIMA)</td>
<td>Value chains integrated with research and technology transfer; partnered with ACDI-VOCA</td>
<td>1000 ha in Nolling Village Luwu, South Sulawesi</td>
</tr>
<tr>
<td>2006</td>
<td>PRIMA outreach</td>
<td>Value chains integrated with research and technology transfer</td>
<td>743 ha in Pongo, North Luwu, South Sulawesi</td>
</tr>
<tr>
<td>2006-2008</td>
<td>Mars Sustainability</td>
<td>Provided Training of Trainers to CSP partners (ASKINDO, Swiss Contact, Mercy-corps, Government extension services); partnered with CSP, IFC, ASKINDO and Swiss Contact</td>
<td>248 field technicians and 5137 farmers trained, across Flores, Maluku, South Sulawesi, South East Sulawesi</td>
</tr>
<tr>
<td>2009</td>
<td>Mars Cocoa Clinic (MCC)</td>
<td>Centre of excellence; partnered with Local Extension Agency (Disbun Luwu)</td>
<td>Palopo, Luwu, South Sulawesi; Papua</td>
</tr>
<tr>
<td>2010</td>
<td>Mars Cocoa Development Centre (MCDC) Tarengge</td>
<td>Research and Training centre for field technicians, owned and managed by Mars</td>
<td>28 ha of research, demonstration and training facilities in Tarengge, East Luwu South Sulawesi</td>
</tr>
<tr>
<td>2011-Present</td>
<td>Cocoa Development Centre (CDC) and Cocoa Village Centre (CVC)</td>
<td>Partnering with other cocoa buyers to develop local entrepreneurs with primary business to provide integrated services to smallholder cocoa farmers</td>
<td>3 CDCs in East, South and Central Sulawesi.</td>
</tr>
</tbody>
</table>

Source: Interviews with company representatives, 2014

#### 6.3.1.1 Fully managed extension activities

Fully managed upgrading support for smallholder farmers was conducted when Mars delivered the Pest Reduction Integrated management (PRIMA) project in 2003 in Nolling village, Luwu district, South Sulawesi. The project was a co-funded project between the Dutch Government and the Mars Sustainability Program, with the primary objective of combating pests and disease infestations, primarily the CPB pest. This suggests, of course, that it is not always clear what constitutes a corporate program and what should be considered a donor-funded activity.

During the course of the project, Mars demonstrated integrated practices to combat CPB, including applying standard farming practices (Fertilizers, Pruning,
Frequent Harvesting and Sanitation), performing safe and measurable pesticide usage, demonstrating the pods sleeving method, utilizing CPB predators such as ants, and using chemical pest traps. In addition to these pest practices, Mars also conducted rehabilitation projects.

Regarding off farm activities, Mars developed a market linkage program by establishing buying stations in the middle of the project areas, which were intended to absorb the increasing production from the assisted smallholder farmers. In addition, Mars also supported the establishment of farmer groups within the project areas.

It is important to note that the PRIMA project was relatively successful in terms of persuading farmers to upgrade their farming practices. A study conducted by Perdew and Shively (2009) revealed that after three years of project implementation, farmers showed some positive impacts. Among these impacts were a spraying strategy to combat CPB (which showed yield difference); and, a number of field visits ensured the adoption of CPB control. An important policy implication found in the study was the farmers’ adoption of the control mechanism. According to the study, the PRIMA project’s extension visit appeared to facilitate adoption of effective pest management practices.

However, the PRIMA project was considered difficult to scale up, given that the cost associated with the project was extremely high. And, the project only covered 1000 hectares, with 734 participant farmers during the three years project implementation. Learning from this first hand project experience, Mars expanded its program to include North Luwu district and started collaborating with other extension agencies to reach a larger number of farmers. The PRIMA project model was duplicated in North Luwu district. This covered 743 hectare farms, with some modifications such as fewer field staff and demonstration plots, and partnering with local government extension agencies.
6.3.1.2 Leveraging extension outreach

The second approach was leveraging field staff by providing training to other extension agencies. Mars undertook two approaches, providing trainings to the extension agencies, and vocational trainings to the students at senior high schools and technical colleges.

Under the Mars Sustainability name, Mars actively provided the training of trainers to NGOs and government extension activities. After closing the PRIMA project program and its outreach in 2006, Mars continued to operate on the ground, with an emphasis on providing learning experiences and training to other extension agencies. Between the years 2006 and 2014, Mars trained 1224 field technicians operating across Indonesia, covering Sumatra, Sulawesi, Nusa Tenggara, Maluku, and Papua. Details of these organizations appear in Table 6-3.
Table 6-3 Names of institutions and numbers of trainers trained by Mars over the period 2003-2014

<table>
<thead>
<tr>
<th>Typical Institutions</th>
<th>No</th>
<th>Name of organization</th>
<th>Year of training</th>
<th>Participant trainers</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGOs</td>
<td>1</td>
<td>ACDI-VOCA</td>
<td>2004</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Swiss Contact:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Flores</td>
<td>2007-2009</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Aceh</td>
<td>2010-2012</td>
<td>374</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Nias</td>
<td>2011</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- South Sulawesi (CPQP)</td>
<td>2013</td>
<td>64</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>Mercy Corps</td>
<td>2008-2009</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Veco</td>
<td>2013</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>ACIAR:</td>
<td>2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Polman</td>
<td>2010</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Manokwari</td>
<td>2010</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>North Sulawesi</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>ASKINDO</td>
<td>2006</td>
<td>15</td>
</tr>
<tr>
<td>Govt Extension Agencies</td>
<td>8</td>
<td>Maluku Province</td>
<td>2008-2009</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>South Sulawesi</td>
<td>2003-2010</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>South East Sulawesi</td>
<td>2008-2010</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>Nusa Tenggara Timur</td>
<td>2006-2010</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Sumatera</td>
<td>2012</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>Lampung</td>
<td>2012</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Aceh</td>
<td>2007</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>Papua</td>
<td>2007</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Gorontalo</td>
<td>2013</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>Bogor-BRIEC</td>
<td>2010</td>
<td>1</td>
</tr>
<tr>
<td>Private actors (CDC Partners)</td>
<td>18</td>
<td>ECOM trading</td>
<td>2013</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Armajaro</td>
<td>2013</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>General Food</td>
<td>2011-2013</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>PT. Olam</td>
<td>2014</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>CC</td>
<td>2013</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>PT. LONSUM</td>
<td>2013</td>
<td>43</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>PVS</td>
<td>2010</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>25</td>
<td>Guan Chong</td>
<td>2013</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>RA</td>
<td>2013</td>
<td>13</td>
</tr>
</tbody>
</table>

Source: Mars Sustainability Data, 2014
Mars provided training to senior high technical schools and local Technical Colleges (see Table 6-4). This support was aimed at improving the attractiveness of the field extension staff as a promising career for the younger generation in rural areas, specifically those young people who resided in the centre of the cocoa producing areas. This approach was implemented to check the trend of young people migrating to urban areas looking for job opportunities in the cities.

Table 6-4 Academic institutions and numbers of students participating in the GAP training

<table>
<thead>
<tr>
<th>Institutions</th>
<th>Name of Institutions</th>
<th>Participants</th>
<th>Types of training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior High Technical School</td>
<td>SMK Tomoni, South Sulawesi</td>
<td>75</td>
<td>Good Agricultural Practices (GAP), Rehabilitation technique (side grafting, chupon grafting), Nursery Management</td>
</tr>
<tr>
<td></td>
<td>SMK Bone-Bone, South Sulawesi</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SMK Walendrang, South Sulawesi</td>
<td>81</td>
<td></td>
</tr>
<tr>
<td>Polytechnic</td>
<td>Pangkep, South Sulawesi</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>Universities</td>
<td>UNANDA, South Sulawesi</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNCOK, South Sulawesi</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>UNIPA, Papua</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Total trained</td>
<td></td>
<td>367</td>
<td></td>
</tr>
</tbody>
</table>

Source: Mars Sustainability Data, 2014

Given the scale of training it has provided to support the various extension agencies, Mars has put considerable effort into the upgrading process for productivity improvement in Indonesia. However, in order to allow the upgrading process to occur sustainably at the farmers’ level, long-term programs and consistent support are required at the community level. Mars, in an attempt to address these issues, has developed a private extension model, designed to empower Indonesia’s smallholder farmers.

6.3.1.3 The ‘hub and spoke’ private extension model

The extension outreach that has been intensively conducted through partnering with other institutions, discussed above, has two main limitations: (1) it is lacking in monitoring and continuity of support at the community level; and, (2) it is lacking in supply chain integration that provides a significant incentive for farmers to maintain
their farms. These two issues needed to be urgently addressed to enable upgrading of farmers and motivate them to applying the GAP to cocoa.

In an effort to establish sustainable extension activities, Mars developed an extension model that could be operated privately and sustainably. This private extension service, built around the Cocoa Development Center (CDC), would function as ‘the hub’, and the Cocoa Village Clinic (CVC) as ‘the spoke’. One CDC is expected to support 30 CVCs, and one CVC to support at least 100 farmers (Mars, 2012).

The CDC-CVC concept emphasises four innovative extension systems designed to answer the needs of smallholder farmers, enabling them to elicit continuous support from extension staff. The concept introduces a business-oriented outreach system, delivers continued engagement between extension agents and farmers, provides an affordable productivity package, and integrates the service within the supply chain system through ‘a spoke and hub’ network (Mars, 2012).

This business-oriented outreach system seemed intended to answer the lack of extension services available to the cocoa sector. Government extension services in Indonesia have been prioritised to supporting the central government’s program for self-sufficiency of staple food, mainly for rice, such that the budget allocation to support cocoa-related extension activities has been limited. Government extension activities for cocoa are only active when there is a project such as the GERNAS program. Even then, the GERNAS project only employed extension staff on a contractual basis, unlike the extension staff for food crops. Upon completion of the project, the extension activities ended. The business-oriented outreach system allows extension activities to be sustainably operated without government and donor support. It is designed to accommodate the need for cocoa buyers to secure their supply and, at the same time, to provide business opportunities for independent extension services to undertake business activities such as agro-inputs and technical services.

The second aspect of this concept is the continued engagement between extension staff and farmers. Lessons learned from the various donor-funded projects implemented over the last decade indicate that Indonesia’s smallholder cocoa
farmers require constant interaction with extension agents. The SUCCESS alliance project, for example, succeeded in providing short-term training and technical support to cocoa farmers. However, upon completion of the project, the extension support also ended. Farmers often need continued access to expertise to consult and discuss the problems they were facing on their cocoa farms. Some places, such as Nolling and Kamanre in Luwu district and Pongo in North Luwu, where Mars had been present for approximately ten years, demonstrated the benefits of such continuous engagement with farmers.

The third innovative component was providing an affordable productivity package, an important factor in making sure that the upgrading process materialized at the farmers’ level. Quite often smallholder farmers found that the recommended agro-inputs for productivity improvement were far too expensive for them. Hence, many were reluctant to invest in the recommended productivity package. The case of the IFC’s access to finance programs (see discussion in previous chapters) is one example, where the recommended productivity improvement package included one of the most expensive brands in the market. Thus, while use the recommended fertilizer resulted in production increase, total profit gained from this package was questionable. The increased production did not automatically suggest an increase in profitability.

The last important feature of the approach was integrating the service within the supply chain system through ‘a spoke and hub’ network. The biggest challenge facing the private extension services was to enlarge the coverage areas to as many cocoa farmers as possible at the minimum cost. By adopting the ‘hub and spoke’ network, extension activities could reach thousands of farmers with reduced costs due to engagement with independent extension agents.

By promoting the above concept and business rationale, Mars seemed keen to tap into the existing business entities at the village level by scaling up the CVC model, which involves local collectors and local agro-input suppliers. These two business entities were, in fact, already quite dominant at the village level; but, they rarely were engaged systematically in providing technical support for the farmers. The
agro-input suppliers, who had a strong sales team equipped with strong knowledge and technical skills, are generally compensated based on their sales.

In the following section I will in more detail how the CDC and CVC were delivered in an effort to upgrade the technical capacity of the smallholder cocoa farmers.

6.3.1.3.1 The hub-Cocoa Development Centre (CDC)

In its role as a hub, the CDC functioned as a centre of technical support and learning. The CDC facilities aimed to provide a Wow! Farm (a well maintained demonstration plot), a budwood garden, nursery and coaching centre. It was suggested that the site for a CDC should be centrally located amongst a high concentration of cocoa growers, and near old cocoa plantations in need of rehabilitation (Mars, 2012).

According to Mars (2012), the initial cost of setting up such a facility amounts to approximately US$35,000 with an annual cost of US$30,000 to run. The cost would be lower if the CDC facility was integrated into the existing buying operation in the rural areas. The majority of Mars’ CDC facilities were established as part of its buying stations. To leverage its outreach, the CDC model was open to duplication by other private companies or NGOs.

The CDC appeared to be an improved model of the PRIMA project, in which Mars developed and managed demonstrations to encourage farmers to adopt improved technologies. The difference was that the CDC staff were also required to establish outreach facilities in the surrounding areas through a network of CVCs.

6.3.1.3.2 The spoke-Cocoa Village Clinics (CVCs)

An entrepreneurial spirit, which was predominantly rooted in the Buginese people in South Sulawesi, had been the major characteristics of the vast majority of cocoa farmers in the Island (Ruf et al., 1996; Ruf & Yoddang, 2001). Learning and adopting the existing entrepreneurial spirit of cocoa farmers combined with over ten years
period of hands-on experience with evolving programs (as explain in the above sections) working to provide sustainable technical support to cocoa farmers in Sulawesi, Mars designed the CVC as a franchise model for local entrepreneurs, specifically to serve the needs of cocoa farmers at the village level. Interested farmers would attend training in agronomical and business management at the Mars cocoa academy. Following graduation, the farmers would become ‘cocoa doctors’ with the ability to establish a set of business services to serve farmers in their communities.

It was agreed that there were three main possible services that a cocoa doctor could provide to surrounding farmers: (1) selling agro input products, such as planting materials, fertilizer, and pesticides spraying products; (2) providing farm maintenance services, such as grafting or spraying; and, (3) conducting administration services, such as managing an Internal Control System (ICS) for certification.

In order to gain the farmers’ trust, an important step for the cocoa doctor was to demonstrate a ‘Wow farm’ that would make surrounding farmers believe that the cocoa doctor’s advice was credible. The power of ‘seeing is believing’ would be exercised through this farm, and farmers are expected to seek advice after trusting the cocoa doctors expertise. A Wow farm is expected to produce at least 2000 kilograms of cocoa beans per hectare. The cocoa doctor should start his extension activities by providing both technical provisions and the required agro inputs to improve the farmers’ cocoa farms, such as ‘drugs and vitamins’ for the trees, which could be purchased from the cocoa doctors. In short, the CVC model nurtures an entrepreneur-extension agent, who should become financially independent and generate income from technical provisions and agro inputs.

To be able to establish a fully functioning CVC requires a gradual upgrading process. One cocoa doctor I interviewed from the Wajo district in South Sulawesi, explained

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9 The program development manager of Mars in Sulawesi, Husssin Purung, is a cocoa expert with strong experience in cocoa plantation in Sabah, a Malaysian citizen but a Buginese descendant was hired 20 years ago to develop technical support program to cocoa farmers in Indonesia.
that his upgrading process trajectory materialized after intensive technical support and business coaching from the Mars’ CDCs. The upgrading path that he was pursuing was a combination of process and functional upgrading of value chain activities. Not only was he a farmer, but he gradually improved his farming practices and became an agro-input trader and cocoa bean collector in his village.

His upgrading trajectory started when it was suggested that he should rehabilitate his unmaintained 5 ha cocoa farm, which only produced 200 kg/ha in 2010. The CDCs staff assisted him to rehabilitate part of his cocoa crop (approximately 0.7 ha). Then he decided to become a cocoa doctor so he attended the intensive training program offered by the cocoa academy. After graduating from the academy, he initiated his CVC as a seedling distributor, before expanding (after three years) into other services and products (grafting buds, grafting services, fertilizer, even agricultural tools). In 2014, he then upgraded his business activities into collecting and buying cocoa beans, hiring two workers to help him maintain his farm, and casual staff to help him manage the nursery business. Over the period 2012-2014, he recorded a total of 418 customers, of whom approximately 12 per cent came from his village whilst the majorities were from further afield. In terms of revenue, he reported earning more than US$8,100 annually, a significant income for a person living in rural areas of Indonesia.

An important observation was that the CVC model required the cocoa doctor to have a strong entrepreneurial spirit. Indeed, the Buginese people, the major ethnic group on Sulawesi Island who started the expansion of cocoa cultivation (Ruf et al., 1996), appear to have a deep-rooted sense of individual entrepreneurship. In fact, many of the cocoa programs that had been working to organize cocoa farmers in groups did not deliver satisfying rewards to the individual achievers. The CVC model seemed to sit comfortably with the Buginese people’s proclivity for individual entrepreneurship.

In short, the CDC-CVC model presented and discussed above was an innovative approach developed to tap into the entrepreneurial spirit within the farming communities. The model provided some answers to the need for locally-based extension agents, who should be available to address farmers’ issues. The model
also became a tool for integrating independent extension agents into the buyer supply chains.

**6.3.2 Exercising a voluntary standard**

The second mechanism that Mars employed to upgrade the smallholder farmers was by promoting certification standards. The certification program was part of Mars' global commitment to source 100 per cent sustainably-certified cocoa by 2020. But, this objective has had some consequences for the smallholder farmers, such as looking at cost effective ways of doing the certification process that would allow the farmers to become more effectively integrated into the global cocoa value chain.

The most challenging factor vis-à-vis smallholder farmers acquiring certification was the need to have an ICS (Internal Control System) in place that would conduct an internal audit and develop a documented quality assurance system. The latter would be the basis for the periodic inspections conducted by an external auditor appointed by a certified certification operator. The central role of the ICS was to prepare, assist, and monitor farmers and the cocoa farms, in order to comply with certification requirements. To do this, the ICS required staff who could constantly monitor and verify internally the quality assurance of the certification implementation.

The fact was that it would be costly for farmers to implement the certification on their own. Characteristically, some smallholders joined farmer groups with an average membership of 25 farmers, although the combined area of these farms was only around 25-30 hectares of land. At this size, it would be very challenging for smallholder farmers to participate in the certification programs.

Mars initiated four different models of ICS to enable the delivery of the certification program and offer solutions to the smallholder farmers. The models were: i) fully funded and managed by Mars; ii) outsourcing the operations of the ICS; iii) co-funding with a local collector; and iv) operated under a ‘CVC plus certification’ model.
6.3.2.1 Fully funded and managed ICS

A fully funded and managed certification program was initiated and conducted in 2010: it covered approximately 3000 hectares in Luwu district South Sulawesi. It was considered a field learning experience for the company that would facilitate an understanding of the dynamics of smallholder farmers as well as the companies pursuing certification standards.

Based on the Mars’ experience, attracting farmers to join certification in the first place was indeed a question of incentive. For this reason, in the initial stage, Mars offered various incentives to participant farmers. Based on my interviews with participant farmers in the initial phase of the certification program in 2010, several incentives motivated them to join the program. First, there was the price incentive and fee. Mars nominated a price of approximately Rp. 500 per kilogram, with an additional fee for farmer groups’ management (Rp. 100 kg) and a transportation fee at Rp. 100 per kilogram. Second was safety equipment for pesticide spraying. Mars provided safety equipment including masks, glasses and boots. Lastly, farmers gained new knowledge about safety and environmental farming practices, such as safe pesticide usage, cleanliness of pesticide tools, and waste management. Among the above incentives, the most crucial was the price and fee incentive. As one of Mars field staff said: ‘farmers are only willing to join if there is significant price incentive’. The Mars certification program in Luwu district, South Sulawesi along with Rainforest Alliance (RA), was apparently the first cocoa program to be awarded certification in Indonesia.

6.3.2.2 Outsourcing

The outsourcing ICS model was a model whereby a local business provided ICS services. A subsidiary business entity of a farmer cooperative managed the internal quality assurance of the certification program.

Looking at the institutional context of business service providers, the outsourcing models accommodated existing NGOs’ networks and independent service providers and cooperatives. Former field staff from the USAID programs developed a network of NGOs and built institutional capacity of local cooperatives and farmer groups.
This network, which operated independently, had a wide range of coverage across Sulawesi Island. Since 2007, some NGOs within the network have started business facilitation services, whereby interested companies could link their supply chains to assisted collectors. NGOs provided services to farmers such as productivity and quality improvement programs; in return, the field staff would receive a fee from the buyers. The local NGO in West Sulawesi, Wasiat, was the first NGO to successfully arrange this model and expand it through its networks, including CV Marewa in North Luwu district, a traditional source area for Mars. These existing institutions were utilised by Mars by developing an outsourcing mechanism that allows the local NGOs and their affiliates to offer ICS services.

Through this outsourcing mechanism, Wasiat, together with its extended networks, successfully facilitated external audits in December 2014 in two provinces, West and South Sulawesi. In both provinces, the NGO has assisted and facilitated an external audit, in total covering 7,387 hectare farm areas with 234 farmer groups and 6396 participant farmers. The details of each location appear in Table 6-5. Based on information provided by CV Marewa, the incentive for this certification program was US$140 per ton, US$100 for individual farmers and US$40 for ICS service for CV Marewa.

Table 6-5 ICS outsourcing service providers in Sulawesi

<table>
<thead>
<tr>
<th>Local NGOs</th>
<th>Farmer groups</th>
<th>Areas (ha)</th>
<th>Farmers</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasiat</td>
<td>82</td>
<td>2,222</td>
<td>1564</td>
<td>Polewali Mandar, West Sulawesi</td>
</tr>
<tr>
<td>Cahaya Sehati Cooperative</td>
<td>60</td>
<td>2,035.80</td>
<td>1778</td>
<td>East Luwu district, South Sulawesi</td>
</tr>
<tr>
<td>CV Marewa 45</td>
<td>92</td>
<td>3,129.39</td>
<td>3054</td>
<td>North Luwu district, South Sulawesi</td>
</tr>
</tbody>
</table>

Source: Parmansyah-WASIAT, 2014

6.3.2.3 Local collectors

Local traders have also become Mars’ partners for targeting un-organized farmers. Mars has co-invested with local collectors to conduct the certification process. According to the regional director of Mars, investing together with its suppliers and partners to support farmers is part of the company’s commitment to sustainable
production. Thus, investing through certification is a mechanism employed to ensure that Mars’ investment benefits farmers in effective ways (Choo, 2014).

Mars offers three phases within three years to upgrade local collectors to be able to implement full certification. During the first year, Mars fully pays all costs associated with the ‘ICS set-up’: this includes training and a farming audit. The second year, Mars offers cost sharing 50:50 per cent of the cost; and, by the third year, local traders are expected to be self-financing. This approach of local collector upgrading through certification was piloted in Tinombo, Central Sulawesi, and covered approximately 1800 hectares of cocoa farms.

What is important to highlight regarding this co-investment with local collectors is the target farmers. Un-organized farmers are quite often excluded from any or all program developments—either from governments or development agencies, which generally require some form of farmer organisation. Offering an alternative mechanism for specific farmers will allows them to integrate with Mars’ supply chains in Indonesia.

6.3.2.4 CVC plus certification

The ‘CVC plus certification’ model serves two purposes: (1) it is designed to provide business services for the cocoa doctor; and, (2) it aims to complement what is perceived by Mars to be an absence of productivity improving measures in the SAN standard. Fold and Neilson (2016) write of this hybrid approach to upgrading smallholder farmers as a part of global leading firms efforts to boost long-term global production.

Along with some other chocolate companies, Mars are concerned that certification programs do not explicitly enhance farm productivity, and they perceive productivity to be the major indicator shaping farm incomes. According to Mars’ sustainability manager, “certification is considered meaningless for farmers without productivity improvement”. The argument is that the 10 per cent price premium for certified cocoa is insignificant compared to potential income gains possible from tripling productivity per hectare. This rationale echoes arguments made by Mars’ regional director that positions sustainable production as the end goal, “sustainable
production means farmer prosperity, sustainably supply, and responsible practice, with emphasis on focusing on high performing farmers” (Choo, 2014).

The existing CDC-CVC model is presented by Mars as a ‘franchise’ that can be used a means to triple production (Mars, 2012), and which can be combined with certification. In other words, the private extension services of the CVC model are designed to provide services that not only improve productivity, but also comply with certification requirements. This service has recently been offered to the one of the CVCs in East Luwu district, South Sulawesi.

Mars-driven upgrading activities for smallholder farmers has manifested through four main activities. First, Mars has integrated its farmer support programs into their supply chain. As a private company, Mars’ main business activity requires cocoa beans to be grown by farmers. Observations from the field revealed that technical support provided to farmers proved quite difficult without market integration. The areas in which Mars was actively involved in providing technical support, which had been operating for approximately ten years or more, were located in the centre of the cocoa-producing region. The sustainability operations in Luwu, North Luwu and Eastern Luwu, were integrated into buying stations.

Second, Mars provides research and training facilities, as evident at the latest Cocoa Academy facilities in Tarengge, East Luwu, which were a result of a decade of evolution of cocoa development programs carried out by Mars in Sulawesi. The training and learning facility was established initially by borrowing farmers’ cocoa farms during the PRIMA project in 2003. The training facility and learning site expanded further during the PRIMA outreach project in North Luwu in 2006. Responding to local government requests to establish learning sites, Mars established a cocoa clinic in collaboration with local extension agencies. By 2009, Mars decided to establish a fully-managed research and training centre facilities in Tarengge.

Third, the company is maximizing the existing available local institutions to leverage the extension activities to larger coverage areas. During its extension activities, Mars continuously works with other extension agencies, either from private extension (NGOs) or from government extension agencies. Furthermore, Mars has
developed an innovative CDC-CVC private extension model. The CDC model was developed to align the need for private actors to provide technical support to farmers with integrating this service into supply chains. The cocoa doctor in the CVC model makes an effort to incorporate individual entrepreneurs in local communities. In the certification programs, an effort to utilize local existing institutions as leverage is also being exercised. The three models (outsourcing, the local collectors and the CVC model) - I discussed in the previous section-were models designed to accommodate the existing social context of smallholder farmers.

Mars continuously upgrades its extension structures and certification model so that it will be able to operate efficiently and reach a wider group of farmers. The extension structure has evolved from fully managed and funded extension agents to empower farmers to carry out the extension activities. In short, the above approaches were developed to encourage farmers to engage with productivity-related upgrading activities. The cocoa academy, the private extension services and certification are all tools to support this process.

6.4 Institutional interests

In this subsection, I will discuss the factors that drive Mars, a lead firm in the global cocoa industry that provides support to process upgrading of smallholder cocoa farmers in Indonesia. Two main business reasons drive the company to support smallholder farmers; the first is to deal with the potential problems surrounding a lack of raw material supply; and, the second is to improve the brand reputation of the company.

6.4.1 Potential issues related to supply

Mars’ intense support for improving cocoa farmers’ productivity was driven by the fear of future unmet demands and their price consequences. Four reasons related to potential future shortages were of critical concern. First, future demands from new emerging markets such as China: second, the geopolitical instability of West Africa, the major cocoa producing region; third, looking at alternative regional supplies; and, fourth, maintaining the cheap price for long-term supply.
6.4.1.1 Increasing demand from new markets

There is a general perception that cocoa demand will continue to increase in the coming years. Using the assumption of 2 per cent annual growth, Mars have publicly voiced a prediction that the world will require at least one million more metric tonnes if it is to fulfil the demand by 2020. This projection is based on the assumption that farm-related issues will be addressed properly and sustainably (Mars, 2014).

Among the growth markets, China is presented as a huge untapped market, and as wealth there increases, chocolate consumption is expected to rise substantially. Based upon a euro monitor data analysis, chocolate sales in China between 2006 and 2010 increased by 50 per cent; and, the country is predicted to be the world’s fastest-growing confectionary sector by at least 2016 (Ferdman, 2013).

Mars leads the chocolate confectionary market share in China at 40 per cent in 2013, and is predicted to continue to lead the market share during a period of continuous growth. The multi brand strategy it employs in China, complemented by aggressive advertising around Christmas and Valentine’s Day, and supported by strong penetration of China’s smaller cities through internet marketing seems to have positioned Mars to stay as market leader in the country for years to come (Euromonitor International, 2013).

In addition to tapping new emerging markets, Mars has also developed specific products promoted as healthy chocolate that will help to improve human health through cocoa flavanols. Dark chocolate, which contains more flavanols than regular chocolate, was reported as the fastest growing segment of the $10 billion-a-year global chocolate market (NBC News, 2006). Mars’ cocoa flavanols chocolate, which is branded CocoaVia®, is marketed mainly in the US market. It targets consumers seeking to maintain a healthy circulation system (Mars, 2014a). Notwithstanding some research questioning this health claim (Wollgast & Anklam, 2000), others such as Steinberg, et al. (2003), have re-asserted the links between cocoa flavonoids and cardiovascular health, and further recommending consuming flavanol-rich chocolate in moderate amounts.
On the market side, a combination of economic growth in developing countries such as China and the development of new niche markets for further chocolate penetration of health-conscious people, has driven the cocoa demand on the global market. This increasing trend will possibly continue over the coming years, contingent to market expansion of Mars into new areas and new segments of customers. This aggressive marketing in new markets and ongoing product innovation in traditional markets underlies industry predictions for future growth and therefore prompts concerns whether long-term supply can meet these predictions.

6.4.1.2 The instability of the major cocoa producing region

As outlined in Chapter Three, approximately 70 per cent of world cocoa beans come from West Africa, and any socio-political uncertainty in this region could trigger supply shortages and the subsequent price hikes.

The West African region is indeed prone to constant geo-political instability. In early 2000, the Ivory Coast, the largest cocoa producer in the world, was constantly embroiled in civil unrest and an anti-foreigner mindset that resulted in thousands of people leaving the country and impacting on hundreds of thousands of its citizens, leaving those who stayed dependent upon food assistance (Senghore & Grospierre, 2004). This civil war contributed to the uncertainty surrounding cocoa production, given that many farmers and labourers felt unsafe when cocoa farming. The latest political unrest to trigger a cocoa price hike was the 2012 power struggle between Laurent Gbagbo, who refused to step down from power and Alassane Ouattara, the winner of the election. As a result, cocoa exports from the Ivory Coast halted for almost ten months, with serious implications for global prices at the time (Artcon, 2011).

The latest issue in this region that has disrupted the cocoa industry has been the spread of the deadly Ebola virus in 2014. Even though there is no evidence yet of any Ebola cases in the Ivory Coast, the hardest hit areas have been Sierra Leone, Guinea and Liberia, the latter two of which share borders with the Ivory Coast (Wexler & Jerving, 2014).
The prospect of an Ebola outbreak in Ivory Coast, and possibly elsewhere in South East Asia and West Africa has been of major concern to the global buyers. If Ebola spread to these countries, then without doubt the flow of cocoa would be disrupted. For this reason, the World Cocoa Foundation, whose members are big global cocoa-chocolate players, announced a US$600,000 donation for humanitarian purposes, to support Ebola care and prevention efforts in West Africa (McCoy & Neumann, 2014). Should the Ebola outbreak reach these Ivory Coast and Ghana, agricultural quarantine and travel restrictions will most likely be automatically applied.

Regarding the constant instability in the West African region, it is hardly surprising that the leading cocoa companies have started to extend their support to countries outside of the region, including South East Asia and primarily Indonesia.

**6.4.1.3 Looking for alternative cocoa supplies**

The Mars operation in Indonesia, which started in 1996, was intended to secure alternative raw from the African region. Through the processing facilities in Makassar, South Sulawesi, Mars managed to buy not only standard cocoa beans from Indonesia, but also wet beans directly processed at the country level.

The major reason why Mars directly operated buying stations at the country level was so that it could manage the post-harvest treatment of newly-harvested cocoa beans, essential for the new health products discussed above (Mars, 2014a). The flavanol content of the cocoa beans can be enhanced if cocoa beans are directly processed within a few hours of harvesting. To this end, Mars established buying stations for wet beans directly at the country level (Mars, 2014a).

The farmers received a premium price for the beans’ freshness and high quality. This proved a double incentive for the farmers: (a) they did not need to spend up to five days to dry the cocoa beans; and, (b) they could get quick cash for their newly-harvested beans. In addition, the farmers enjoyed continuous support from the Mars field technician through the company’s CDC-CVC facilities. This was of mutual benefit to both the farmers and Mars. As explained on the Cocoaavia website:
Mars Inc. helps the farmers produce high-quality cocoa by educating them in sustainable farming practices that foster healthier farms and trees. This helps farmers increase their incomes, leading to improvements in overall quality of life. In exchange, the farmers help Mars, Inc. secure the best and most fresh cocoa for its flavanol-rich products, like CocoaVia® supplement (Mars, 2014a).

Indonesia has been relatively free of social unrest over the last decade, despite a few incidents having occurred in the Poso region of Central Sulawesi, one of the major cocoa producing districts in Sulawesi. Over all, political stability and security in Indonesia, indeed in South East Asia as the whole, tends to be relatively favourable compared to West Africa.

6.4.1.4 Maintaining a cheap cocoa price for long-term supply

As one of the world’s largest commercial end-users of cocoa beans, Mars is keenly interested in maintaining supplies of raw material that will help the company to continue to produce affordable chocolate for its customers. Indeed, affordability is pivotal to its expansion plans in China and other emerging markets. Its efforts to maintain such a product for its customers were stated by its global marketing officers as follows:

We are committed to our brands being affordable to many people. To do this, we want to make sure the raw materials we need continue to be available and affordable (Mars, 2013, p. 39).

At the same time, one of Mars competitors in the cocoa and chocolate industry, the Hershey Company, has announced it will increase the price of its chocolate products due to the high price of key raw materials such as cocoa. In 2014, the company decided to increase by approximately 8 per cent the price of its instant consumable, multi-pack, packaged candy and grocery lines (The Hersey Company, 2014).

Regarding the securing of sustainable supplies that allow leading companies such as Mars to provide affordable chocolate brands to its customers, Fold and Neilson (2016) argue that despite the opportunities to improve the livelihoods of cocoa farmers, the primary concern for global chocolate manufacturers is to secure long-term cheap raw materials to meet the demands of emerging markets such as China.
In line with Fold and Neilson’s argument, the ICCO also announced that there was no threat to cocoa supplies for chocolate manufacturers for three main reasons: (1) over the last decade, the global cocoa market experienced five years’ of surplus and five years’ of deficit and, in 2014, the latest year, the cocoa stocks were in surplus; (2) the price of cocoa fluctuates widely on a yearly basis; the current price is just below the average historical price (1850 – 2014) in real terms (adjusted for inflation); and, (3) because the cocoa commodity is similar to other agricultural commodities, farmers could be incentivised to produce more when the price rises. In other words, cocoa production will adjust to price changes with only a slightly longer time due to the lag between planting new materials and harvesting (ICCO, 2014b). In this regard, there seems to be less a genuine crisis of cocoa supply than a crisis of cheap cocoa for chocolate manufacturers.

6.4.2 Brand development

Another important business interest for a company, either through certification or in direct support to local farmers, is to build strong brand recognition as a responsible company. In recent years, global consumers are constantly being educated by NGOs about environmental matters, labour, and social issues. For example, an Oxfam announcement regarding top global food companies mentioned several companies that have failed to protect farmers. This information was broadcast through various media in Europe, such as BBC News (2013) and via a blog (Cockerell, 2013). Through these exposes, Oxfam’s chief executive emphasised the importance of consumers knowing how their food was produced:

Consumers have the right to know how their food has been produced and the impact this has on the world's poorest people who are growing the ingredients. Companies have a responsibility to treat local producers, communities and environments with respect (BBC News, 2013).

As regards child slavery issues, global activists went even further, producing a real life documentary on child trafficking. Titled ‘The Dark Side of Chocolate’, the movie was filmed in West Africa using a hidden camera. It was made by Mistrati and Romano (2010) and broadcast in several cities in European countries. The issue has been widely publicised across North America and Europe for more than a decade now, such as the early report on a New York Times blog (Onishi, 2001).
The global brand reputation of recognised companies is about building a good image not only about advertisements, but also about doing real work on the ground. All of these efforts should become part of a long-term business policy, designed to convince their costumers that they are both ethical and responsible. As Nadvi (2008) points out, brand recognised companies are most vulnerable to reputation issues and Roberts (2003) argues that reputations are companies most valuable assets. For this reason, non-compliance with ethical practices could potentially exclude them from profitable markets and business generally. They require strong commitment and consistent work on the ground to build and are disturbingly easy to destroy.

With reference to responsible sourcing, one way of building a responsible reputation is by joining voluntary private standards, internationally recognized such as Rainforest Alliance, Fair Trade, and UTZ certified. Even though these private standards have been challenged by some company representatives vis-à-vis their effectiveness to improve the social conditions of small producers in particular (Choo, 2014), as third parties they are not perceived to have strong conflicts of interest. In addition, they are external tools and may be used to encourage powerful intermediaries with otherwise little interest in implementing sustainable business practice solutions. In the global cocoa-chocolate industry, power relationships are considered bipolar, shared between cocoa shared between cocoa grinders and chocolate manufacturers (Fold, 2002). Thus, certification could be an effective tool for chocolate manufacturers to impose sustainable practices on their strong suppliers.

As regards sustainability efforts at the global level, Mars was awarded the 2013 Ethical Corporations Responsible Businesses Award; and, the Sustainable Cocoa Initiative was among the initiatives that allowed the company to achieve the award along with the ‘Sustainable in a Generation’ program. It represented an effort to eliminate fossil fuel energy use and greenhouse gas emissions, minimize impacts on water quality and availability, and mitigate the impacts of waste by 2040 (Hower, 2013).
Overall, the effort to build strong brand reputations as ethical and responsible companies was among the strategies employed to stay competitive in the business. This particular business interest, in building a strong brand that is associated with ethical practices, is another strong driving factor behind Mars support programs at the farm-level in Indonesia.

6.5 Impacts of lead firm-driven upgrading

Mars private innovative extension approach has provided alternative technical support to the Indonesian smallholder cocoa farmers. The franchise CDC-CVC model, provides support and technical assistance to cocoa farmers. Unlike the government and donor approaches that tend to be project based and time bounded for a certain period, the CDC-CVC private extension model provides continuous support to cocoa farmers. This model attempts to leverage an entrepreneurial spirit and profit-oriented motives.

As evidence from the field indicated, the entrepreneurial spirit of the cocoa farmers, particularly in Sulawesi, is quite high, and is reflected in the presence of local collectors, lead farmers, and private agro input suppliers. While most of them own cocoa farms, at the same time they undertake additional business activities and provide services to the cocoa farmers. Utilising institutions such as local-level entrepreneurship is helping provide sustainable services to cocoa farmers.

The positive side of this model for farmers is that these services are available in their local communities and operated by local farmers. As Neilson and McKenzie (Forthcoming) claim, they are ‘becoming facilitators of knowledge exchange and interaction among stakeholders, and being presented with new incentives to facilitate knowledge exchange’. Thus, the cocoa doctors perform an important role in adapting good agricultural practices to local conditions.

For the local collectors in the village model, the CVC model could be a potential opportunity as well as a threat to their businesses. The natural relationship of the CDC-CVC design is to integrate technical support into the supply chain. Local collectors can take this as an opportunity when adopting the CVC model as part of their business models. In essence, local collectors could provide technical services as
well to cocoa farmers. Conversely, the CVC model could also become competition for local collectors if a local lead farmer gradually upgrades himself to be a cocoa doctor and later purchases cocoa beans from farmers.

The CDC-CVC model is a new model that has established a new benchmark for buyers and suppliers’ relationship coordination. Thus, it becomes obvious that this model would promote a new governance relationship among the cocoa actors in the supply chains.

For the big traders or exporters, the CDC-CVC model and the certification programs could be used as a tool to strengthen its ties to the suppliers, from market coordination to a more relational type of coordination. Buyers who sponsored CDC facilities built a strong relationship with the CVCs; through the latter, the buyers could provide close monitoring of production and quality improvement. This would most likely occur when a cocoa doctor upgrades himself to be a purchasing agent.

The CDC-CVC model, along with certification, would likely improve and strengthen the engagement coordination between buyers and suppliers, either between local collectors (who had become cocoa doctors, or cocoa doctors who had upgraded and integrated their service with the purchasing agent) and farmers, or between local collectors and exporters. This would bring a new dynamic of linkage coordination to the cocoa sector in Indonesia.

6.6 Conclusion

This chapter has discussed how a lead firm has provided opportunities for process upgrading amongst smallholder cocoa farmers through direct support and exercising voluntary standards. A detailed discussion was presented regarding the factors that have influenced lead firms’ upgrading strategies, and how said firms’ direct support has evolved to meet the local dynamics, and regarding the impact on the actors along the cocoa value chain.

As the leading firm in the industry, Mars has a powerful influence over how their raw materials should be produced. Its commitment to sourcing 100 per cent sustainable cocoa beans by 2020, in fact, has impacted directly on smallholder farmers. The company utilized the market institutions to exercise its power to
upgrade cocoa producers and to ensure its suppliers along the global cocoa value chains comply with the requirements.

This chapter addressed how lead firms support the upgrading of the cocoa smallholder farmers in Indonesia. This was done through an evolving approach of a technology transfer mechanism that has allowed Mars to reach more farmers on the ground. It discusses how Mars has continuously improved its approach responding to local dynamics, such as the increasing participation of NGOs, local governments and private actors to provide technology transfer to farmers. Mars had been utilising this trend not only to scale up the outreach of the company but to facilitate more cocoa farmers’ training on GAP. The latest innovative solution to providing continuous support to smallholder farmers is tapping into the institutional setting of the local community, the entrepreneurial spirit of individual people within said community. Offering local farmers who demonstrate a strong entrepreneurial spirit a self-funded extension service provider through a ‘franchise like’ model has allowed Mars to expand its outreach to upgrade smallholder cocoa farmers.

In Section 6.4, I discussed some important factors that drive Mars to invest in technology transfer to cocoa farmers in Indonesia. I have also discussed the business interest as the primary objective; that is, how factors such as the need to secure long term cheap cocoa supplies and brand development initially became important driving factors to support smallholder farmers. Working to support smallholder farmers has allowed the company to achieve those objectives. The company believes in a win-win synergy whereby increased production means more income for farmers, while more raw materials will allow them to produce affordable chocolate products for end consumers.

Section 6.5 discusses the various support mechanisms that have impacted on players along the chain. The latest model to support farmer development has had some consequences for the farmers, local collectors and big traders in Indonesia. The immediate consequence has been the shift of governance relationship between suppliers and buyers among actors in the cocoa value chain. The endorsement of certification all the way down to farmer level, and the offering of a ‘franchise like’ private extension model has moved the market type coordination towards a
broader relationship and captive coordination. Certificate holders, for example, potentially represent captive coordination to the smallholder farmers while the CVC franchise model tends to encourage both relational and captive coordination, depending upon the level of agreement played out by the ‘cocoa doctors’ with the CDC sponsors.

In effect, the case study of Mars shows the factors that drive the global lead firm to exercise its power to set up a benchmark of how to produce raw materials; and, how the company deals with the potential consequences at the farmer level. Despite the genuine effort to provide better livelihoods to cocoa farmers by improving their incomes, in fact, business factors still remain the primary objective of the companies that drive the process of technology and skill transfer. Apropos of the consequences, Mars, as the lead firm, has used certification as a tool to make sure that its suppliers re-invest in the cocoa farms, and to ensure the sustainability of cocoa production. In fact, the setting up of a global target to source certified raw materials has potentially excluded some cocoa farmers from the global value chains. Mars developed an alternative certification model that could be fit into a different social context of communities in Indonesia, such as organized and un-organized farmers tied to local collectors.

In short, in its effort to upgrade Indonesia’s smallholder cocoa farmers, Mars has provided technology transfer services either direct or indirectly to cocoa farmers. The company has continuously, and adaptively, improved its approach to encourage farm-level improvements on a wide scale and, it is hoped, in a sustainable manner. The latest approach to certification and the CDC-CVC ‘franchise’ model has shifted coordination governance from market towards relational and potentially captive governance. There is no doubt that the lead firm has brought positive impacts to the farmers through new technologies, but, on the other hand, it has potentially created an imbalance in the power relationship between the lead firms and its suppliers, including the smallholder farmers. This will be discussed in chapter seven, the discussion chapter.
7 DISCUSSION
CHAPTER 7: THE INSTITUTIONAL (POLITICAL) INTERESTS OF UPGRAADING AGENTS

7.1 Introduction

This chapter examines how to advance the understanding of upgrading processes in the GVC by incorporating multiple key players as drivers of the process, and looking more deeply into actors’ interests as the underlying factors within the institutional settings that influence governance structures within the GVC. The interaction between institution and governance in turn shapes the upgrading possibilities along the GVC.

The conventional understanding of upgrading processes in the GVC is focused on the strong role of lead firms (Gereffi, 1999, p. 1022) and the way governance structures determine the upgrading processes (Gereffi et al., 2005).

My argument will build on previous arguments on the centrality of governance towards upgrading (Gereffi, 1999; Gereffi et al., 2005) and the co-creation of governance and institutional settings that determine upgrading outcomes (Neilson & Pritchard, 2009). To understand upgrading processes along the GVC, initially Gereffi (1999) introduced the governance concept as the key starting point. Governance was conceptualised as the power exerted by global lead firms, with Gereffi (1994) initially recognising two main types of governance in the GVCs. The first is the buyer-driven chain, where the retailer is positioned as the lead firm and the second is the producer-driven chain, where the producer is the lead firm. Gereffi et al. (2005) then suggested the interpretation of governance of the GVC as ‘the co-ordination of economic activities through non-market relationships’, in which a new typology of governance was based on ‘complexity of transactions’, the ‘ability to arrange information systematically’, and the ‘competence and capability of suppliers’ in the GVC (p. 4). This new typology helps to understand the relationship between firms along GVCs, and in particular how the upgrading process might occur in a certain type of relationship that firms might have.
The co-creation of institutions and governance that facilitates upgrading (Neilson & Pritchard, 2009) constituted a new manner in which to understand with greater nuance how the upgrading process could occur. Neilson and Pritchard argued that the interaction of institutional settings and governance of the GVC created a causal dimension that in turn facilitates and connects to upgrading outcomes.

This chapter will start the analysis by discussing the cases of multiple key players as the drivers of upgrading; then it will discuss the co-creation of governance and institutions cases, and finally, it will discuss the political interests of actors in the cocoa industry in Indonesia.

### 7.2 Multiple key players as the main driver of upgrading

The conventional understanding of upgrading processes in the GVC is focused on the strong role of lead firms (Gereffi, 1999, p. 1022). Mainly considered as the source of learning process for their suppliers, a powerful value chain actor that could exercise high standard and the provider of upgrading supporting facilities for their suppliers (Gereffi, 1999; Gibbon, 2001; Humphrey & Schmitz, 2000). However, the notion of lead firm as the sole key actor to facilitate upgrading is dubious. The presented cases in the previous chapters show how different key players operated at various level of upgrading processes. The multiple key players as the driver of upgrading, shown from the cases in Chapter Four, Five and Six, shaped outcomes in terms of both process and functional upgrading.

#### 7.2.1 Process upgrading

The process upgrading in the GVC typology, is commonly defined as ‘transforming inputs into outputs more efficiently by reorganizing the production system or introducing superior technology’ (Humphrey & Schmitz, 2002, p. 1020). In the context of farm level upgrading, this type of upgrading has been associated with improving farming practices, and includes the efficient use of farming inputs and adopting new technology and practices.
The presented cases in the previous chapters pointed out that Mars, a lead firm in the cocoa industry, in fact, works in parallel, with other key drivers of upgrading actors in the cocoa value chain in Indonesia.

Mars worked to upgrade its suppliers through two main strategies. First, providing direct technical support to smallholder cocoa farmers, and secondly, exercising global certification standards. In the early years of its technology transfer program in 2003, Mars emphasised its supports to combat the high infestation of CPB through direct supports. The firm disseminated standard practices of how to manage cocoa farms, such as appropriate fertilizer usage, regular pruning to reduce humidity; and introducing new methods of combating pest and diseases such as, utilizing predators and chemical pest traps.

Those direct supports were carried out, in fact, in many cases in collaboration with the state and development agencies. Among the programs are the PRIMA project, which focus on integrating value chains, research and technology transfer, partnering with ACDI VOCA; the Mars Sustainability project which a focus on expanding and disseminating the outreach of standard farming practices in partnership with CSP members such as ASKINDO, Swiss Contact, and IFC; and the Mars Cocoa Clinic in partnership with local extension agencies. Some of those partners delivered direct technical support at different locations and even overlapped in locations where Mars operated, such as the USAID funded projects (the SUCCESS, the SUCCESS Alliance, and the AMARTA project) and the State funded project (such as GERNAS). Those program details could be seen in the Chapter Four and Five.

Important information to be highlighted is the number of smallholder farmers reached from the process upgrading projects. Even though Mars seems the most consistent training provider over the last 11 years, the number of farmers reached by its direct supports were considered small. The latest record in 2014 indicated that total farmers who had received direct training from Mars was 16,534 farmers, with additional indirect training by field facilitators was 26,869 people. Meanwhile, the SUCCESS and the SUCCESS Alliance projects, successfully trained approximately 70,000 farmers, and disseminated the farm management practice indirectly to an
estimated 271,000 people. In the meantime, the GERNAS project, the state led national cocoa project intended to reach 450,000 cocoa farmers. However, there was no official announcement at the later stage of the program, in which final information that reveals the actual number of farmers reached from the GERNAS. Regardless the outcome of those projects, the total number of farmers reached out for trainings and supports to improve the farm management indicated that lead firm outreach through direct technical supports was much less than those reached by development agencies and the state.

The second strategy from was the requirement to enforce global sustainability standard for its suppliers. As a leading chocolate firm at the global level, Mars has required the implementation of ethical sourcing for its entire global suppliers to comply with sustainability standards, such as Rainforest Alliance and UTZ certified.

A challenge for Mars is to ensure that all its suppliers (the grinders) apply their same professed commitment to sustainability. The structure of the global cocoa and chocolate industry has been identified as ‘bi-polar’, in which the power between the manufacturers and grinders is somewhat equal (Fold, 2002). This equal power is a result of the high concentration of chocolate manufactures on one side, along with even greater concentration amongst cocoa grinders (Fold & Neilson, 2016).

In fact, given that the grinders are primarily trading companies with limited interaction with end consumers, it is not surprising if their overt commitment to ethical sourcing seems limited. In this context, the Mars’ pledge to global voluntary standards could be seen as an important strategy to exercise value chain governance over their equally powerful suppliers. This strategic move is in line with Roberts (2003) suggestion that lead firms need ‘to develop systematic mechanism for interacting with all their key stakeholders’ (p.168), in particular to push the commitment of suppliers to provide assurances of their pledge to sustainability practices. This notion is consistent with the idea of Mars director of Asia operations, who emphasises that ‘certification must be positioned as a system for verification of quality support services to farmers’ (Choo, 2014).

Such a strategy to govern its suppliers through third party mechanisms may also provide several benefits for smallholder farmers. For the producers, this private
governance has helped smallholder farmers to secure supply relationships with Mars, and additional price incentive for premium quality. This finding corroborates Gibbon, Ponte, and Lazaro's (2010) finding in their study on sustainability standards and its implementation in the agro-food exports in East Africa. The sustainability standard has help to enhance ‘the possibility for producers to undertake direct exports, increased their security of contract and had measurable financial benefits’ for producers (Gibbon et al., 2010, p. 137). In the context of Mars’ linkage with smallholder farmers in Indonesia, the farmers only sell to locally active international firms, but do not performed export activities themselves.

In the social upgrading context, Knorringa and Pegler (2006) indicate that the ‘increasing importance of standards, and codes of conduct’ drive global branded companies (p.477), which in turn drives the social upgrading processes. As such, the effect of Mars global governance strategies has been felt by all suppliers along Mars supply chains, as they started to adopt third party certifications. At the global level, one aspect of public pressure to apply the third party standards was to counter child labour and human trafficking in Africa (Mistrati & Romano, 2010). In this context, social upgrading is pursued through an imposition to meet global standards for ethical sourcing practices.

However, despite the benefit, the lead-firm strategy to govern the GVC through implementation of corporate governance raises potential public concerns of smallholders’ exclusion. Farmers could be excluded from the cocoa GVCs due to the strict standard requirement. Several studies elsewhere have presented evidence of this exclusion due to the stringent standard requirements imposed on agro-food producers from the European market (Dolan & Humphrey, 2000; Fold & Larsen, 2011). One of the classic argument for this exclusion is that transaction and supervision costs are lower when dealing with larger producers (Dolan & Humphrey, 2000, p. 167). However, in the context of cocoa industry, smallholder farmers dominate global production (see Chapter 3). Excluding smallholder farmers means reducing the global supply of cocoa. As such, Mars realised that pledging 100 per cent compliance with sustainability standards means that the company needs to engage at the farmer level to able to include smallholder farmers in the GVC. As such, this second strategy to facilitate process upgrading at the farm level came
with various ICS and market linkage arrangements that allow smallholders to get
global certifications. Details of those models were explained in the Section 6.3.2.

The effort to build various, locally-adaptive, market linkage arrangements in relation
to certification programs, substantiates findings from Perez-Aleman and Sandilands
(2008), who claimed that value was constructed both at the top and bottom of
supply-chain pyramids. They emphasised that an active lead firm is required to
provide support in the early period of adopting sustainability practices, helping
farmers break barriers to entry into the global market, and empowering small
producers during the process, as well as providing them with support during the
implementation phase of the sustainability standards. Following these practices
means that certification reduces the exclusion of farmers from GVCs.

7.2.2 Functional upgrading

Functional upgrading is defined as ‘acquiring new functions to increase the overall
skill content of activities’ (Humphrey & Schmitz, 2002, p. 1020). Based on this
definition, two major functional upgrading activities were identified during the
period of this research, occurring at different segments - the cocoa producer level
and at the trader-grinders level. Both segments have materialized functional
upgrading, but have been triggered by different key players.

7.2.2.1 The new independent private extension agents

New independent private extension agents emerged mainly in South Sulawesi, due
to the new franchised-extension model, the CVC’s. The CVC’s is an independent-run
clinic, where lead farmers transformed into cocoa doctors to serve cocoa farmers at
the village level. The service spans across the selling of agro-input products,
providing farm maintenance services, and delivering administration service for ICS
for certifications.

In this case, Mars offered and facilitated farmers to attain new roles and run new
activities by improving the skill set of farmers. Mars provided not only agronomical
training to the farmers, but also business management. The business management
skill set was introduced to allow farmers to run profitable services. Mars seems to
be tapping the entrepreneurial spirit of the Buginese people that is socially
embedded within the cocoa farmers (Ruf et al., 1996). The spirit that drive the lead farmers to take a new role as a ‘cocoa doctor’, where farmers assume the new function of an extension agent and at the same time engage in agro-input trading and service provision for farm rehabilitations.

What is important to highlight from the above conventional upgrading is the impact of the CDC model and the certification programs (as discussed in the previous section) to the value chain level also appears to entail an intrinsic feature of ‘social upgrading’. Discussion elsewhere of social upgrading in the GVC has been mainly related to improving labour conditions within firms that have engaged in economic upgrading activities (Barrientos, Gereffi, et al., 2011; Barrientos, Mayer, et al., 2011; Fernandez-Stark, Frederick, & Gereffi, 2011; Knorringa & Pegler, 2006). Based on the Knorringa and Pegler (2006) classification of areas where social upgrading in the GVC might take place, and as presented in Chapter 6, it is identified that social upgrading occurred at two levels: at the value chain and at the global level.

At the value chain level, the alignment of social upgrading activities come from the hypothesis that the social upgrading at the value chain level, likely occurs when ‘chain responsibility is more mainstreamed as part of ethical sourcing’ (Knorringa & Pegler, 2006, p. 477). Through the CVC-CDC model for example, Mars promotes the need of suppliers to complement their business activities with supporting services at the community level. Ethical sourcing such as transparent price and quality in the trading practices, and imposing the environmental practices on farm management are among the features of mainstreaming the ‘ethical practices’ along its supply chain in Indonesia.

At the firm level, social upgrading affects the suppliers’ staff along the chains who deal with procurement functions. Roberts (2003), in a study of understanding the ethical sourcing initiatives, pointed out that ‘to effectively implement ethical sourcing codes of conduct, will require companies to build the capacity of procurement functions to manage environmental and social issues in their supplier network’ (p.169). In this case, the supplier ‘offers more opportunities for representation and learning’ to their procurement staff and possibly the marketing
staff who manage to control the image of companies (Knorringa & Pegler, 2006, p. 477).

7.2.2.2 The expanding cocoa processors

The functional upgrading has also occurred within the cocoa processing segment of the value chain. Within this segment, the state has instituted trade policies that favor processing operators or companies, mainly through the export tax policy. The policy has provided pricing advantages for cocoa processors operating in Indonesia compared to the competing companies operating overseas, but mostly depending on cocoa beans from Indonesia. Details of the trade policy discussion were explained in the Section 4.3.2.

In the case presented in Chapter four, it was clear that the export tariff and the abolition of VAT were the major triggers of the growth of grinding companies in Indonesia. It was recorded that since the implementation of the policies, the grinding facilities have doubled in capacity from 235,000 tons to 539,000 tons. In other words, through setting up new institutional settings, the Indonesian state has generally been successful in attracting investors in the cocoa industry.

Those state policies have triggered functional upgrading that could be seen in two of the world’s largest cocoa grinders (Barry Callebaut and Cargill). Those companies expanded their operations in Indonesia; right after the 2010 tax was introduced. This strategic move to expand their operation in Indonesia seems to consolidate their global operations and strengthen their supplier networks in the country. Barry-Callebaut has become the largest grinder in Indonesia. In terms of supplier networks, it has acquired local partners with strong trading networks across the major cocoa producing areas in Indonesia. Meanwhile, Cargill already had its own strong trading networks across Indonesia prior to the tax. Its reputation for quality and premium price, successfully built its network as the network for high quality beans.

Besides the above major global grinders, smaller grinders also expanded their processing facilities, such as the opening of new processing operation Malaysian
based companies, such as PT. Asia cocoa and JB Cocoa, and the expanding capacity
of PT. Bumi Tangerang, an Indonesian based company.

Unlike the situation in India, where protective state supports allowed the initial
growth of downstream activities in the coffee sector (Neilson and Pritchard, 2009),
the Indonesian state did not restrict foreign investors from operating in Indonesia.
This policy might be the result of the non-protectionist view embraced mainly by
the Indonesian policy makers (Basri & Hill, 2011; Basri & Patunru, 2012), which
could be a legacy of trade reform during the economic crisis. The structural
adjustment program that was a part of Indonesian agreement with the IMF meant
that domestic ‘trade in agriculture products was fully deregulated’ (Soesastro &
Basri, 2005, p. 7). The cocoa sector, in fact, had never been tightly regulated
(Akiyama & Nishio, 1997).

An interesting fact is, even though the cocoa sector never had been tightly
regulated, the capacity of cocoa processing facilities had remained stagnant at
around 200,000 tons capacity per year, up until the imposition of the export tax.
This clearly indicated that strategic decisions undertaken by global and local
companies to exercise functional upgrading was driven by the state. Hence, it could
be argued that the state has performed a major role in driving the cocoa industry
upgrading, in particular in putting institutional settings in place that provide
advantage to the cocoa processors in the cocoa value chains in Indonesia.

In short, this sub-section discussion has confirmed that multiple key players have
been the driving actors that facilitate and triggers the upgrading processes in the
cocoa industry in Indonesia. As such, incorporating the notion of multiple key
players as the driver of upgrading in the GVC could enhance and provide better
understanding of upgrading trajectories in developing countries.

7.3 The co-creation of governance and institutions in Indonesia

The centrality of lead firm governance in in the GVC has been widely applied to
understand the upgrading processes in developing countries (see Chapter 2 on lead
firms). However, the GVC approach has also attracted some critical concerns among
the scholars due to the limited attention given to the institutions that affect the
upgrading processes (Bair, 2005; Neilson & Pritchard, 2009; Selwyn, 2008). Bair (2005) pointed out that while the GVC framework has advanced the understanding of governance structures for the upgrading prospects, it is not in itself sufficient. She argues that to complement the strength of the chain framework, ‘closer attention to the larger institutional and structural environments in which commodity chains are embedded is needed in order to more fully inform our understanding of the uneven social and developmental dynamics of contemporary capitalist at the global-local nexus’ (Bair, 2005, p. 153). In line with Bair’s argument, Selwyn (2008) argued that the GVC ‘framework has failed to investigate the role of local institutional context and how it impacts on firm upgrading opportunities’ (p.380). Selwyn (2008) emphasises the need to invest in ‘factors that create upgrading processes, mechanism such as government and private research institutions, and bodies providing infrastructures to continue firms’ competitiveness’ (pp.380-381).

Responding to such criticisms, Neilson and Pritchard (2009) argued that ‘the GVC approach has been conceptualised all too frequently as being solely about governance, leading to the misguided perception that the approach has little to say on the complex questions about why and how particular industries come to be located in particular places’ (p.8). Further, they emphasise that ‘what is missing in the literature is the precise articulation of ‘institutions’, and how they relate to GVC governance’ (p.9). In fact, they emphasised that ‘institutions are not just framing devices external to product/commodity systems (‘out there’), but exist also as the rules, norms and behaviour vehicle that shape the very essence of how product/commodity system are organized (‘in here’) (p.9). In this regard, they incorporate institutional analysis in the GVC framework:

“Systems of value chain governance intermesh with the institutional life of territoriality embedded production arrangements: institutions shape governance forms, and governance is enacted through institutions. The point is: institutional formations and governance arrangements coexist in an iterative way nexus within global value chains” (Neilson & Pritchard, 2009, p. 9).
The following discussion will further develop the co-creation of institutions and governance in the context of upgrading processes in the cocoa industry in Indonesia.

7.3.1 The governance of cocoa exporting

Setting formal institutions as the ‘rules of the game’ in order to drive economic development in Indonesia has been a characteristic feature of Indonesian economic development, reflecting a ‘developmental state’ approach (Amsden, 1989; Wade, 1990). This approach was undertaken when the state pledges to expand the national grinding capacity of the cocoa industry.

Chapter 4 discussed how the founder of AIKI, consistently approached and met with key actors within the Indonesian Government. In brief, the association sought concessions from the government to provide supportive institutional settings, such as the export tariff and the abolition of VAT that would favour the growth of grinding companies in Indonesia. The rationale behind him making such requests were to add value to cocoa beans domestically, which would, it was argued, create domestic employment along the GVC, contribute to the multiplier effect that such investment would create, and finally it will generate state revenue, especially when cocoa beans exported after processed in Indonesia.

AIKI (despite having a relatively small member base) intensified its lobbying in the months before and after the presidential election both in 2004 and in 2009, and both times was apparently successful in gaining important policy concessions (removal of the VAT and the export tax respectively),

However, ASKINDO, in which the majority of members are exporters (both local and international exporting companies), was consistently opposed to the export tax. In the national discourse, ASKINDO consistently raised the argument of the potential negative impacts on farm-gate prices. However, the underlying motive was the fear of the value chain impacts resulting from the installed institutions, and the new governance structure in the cocoa industry in Indonesia. It was predicted by the major members of ASKINDO that when the export tariff policy was passed and imposed by the Indonesian government, most of the exporters would have to
reorganise their buying operations in Indonesia. The restructuring operation would require them to either affiliate with the local grinders or close their operations. Indeed, evidence since the introduction of the export tariff suggests that these fears were well founded (Fold & Neilson, 2016).

The strong governance from local grinders to establish policy regulations that favours grinders leads to the enactment of an export tariff, as a new institutional setting in the cocoa industry. This institutional setting, in turn, attracted new FDI in the industry, including Barry Callebaut and Cargill. The combination of strong market networks in the cocoa GVC, and strong supplier networks within Indonesia, has created a new governance structure in the industry. The big players consolidate the bean trading and grinding activities, making stronger bi-polar market structure in the global cocoa-chocolate industry. The ongoing interplay between institutions and governance is clear from this discussion, and suggests we need to more clearly understand the motivations and power structures that can intervene in these processes of co-creation.

The new FDI in grinding has created unequal competition for some local grinders. A source from a local grinding company in Indonesia expressed resentment towards the expansion of foreign companies, stating that ‘we failed to anticipate the impact of this policy on the increasing competition between the foreign and locally owned grinding companies’ (Personal Communication, June 5, 2013). The expression of this player reflects how fierce the competition has become after the substantially expanded foreign grinding presence in Indonesia. Historically, the Indonesian state has applied a ‘hands-off’ policy for trading beans (within Indonesia), unlike the marketing board in Ghana (Akiyama & Nishio, 1997). The export tax policy only limited bean exports, but did not restrict the role of foreign companies in local trading activities within Indonesia. Thus, the presence of foreign companies, supported by better financial operation, technological superiority, global market linkages and strong local supplier networks, has tended to marginalise local companies.

Nevertheless, having linkages with lead chocolate manufacturing firms can also help local companies compete with the new governance structure in the cocoa industry.
in Indonesia. The bi-polar competition between cocoa grinders and chocolate manufacturers, has also opened opportunities for some local companies, especially if manufacturers prefer to have a diversification of suppliers to avoid dependency on the few global grinders. PT. Bumi Tangerang, for example, successfully doubled its grinding capacity after the export tariff was implemented. Before the tax, the company had established strong market networks with a global lead firm in the chocolate and food industry, Nestle. Meanwhile, other domestically owned companies are not able to collect rents from the export-tariff policy, since an established market linkage with global buyers is absent. This case, seems to resonate with the GVC premise on the need to have linkage with lead firms to stay competitive in the globalised world (Gereffi, 2011, 2014; Gereffi et al., 2001; Gereffi et al., 2005).

7.3.3 Farmers’ on upgrading

Farmers upgrading in Sulawesi illustrates how institutional settings and governance of the GVC created a causal dimension that in turn facilitates and connects to the upgrading activities. Two main examples can be drawn from the presented cases in the Chapter 6 are the certification program and the new business outreach model.

7.3.2.1 The certification schemes

Global certification schemes are one example where global markets institute governing mechanisms, where it shapes how to produce and to source raw materials in the cocoa industry. At the local level, it institutes new models of engagements and relationships between buyers and suppliers.

Generally, governance relationship between farmers and lead firms in the cocoa industry, in Indonesia, is a market relationship. The cocoa bean produced from farm is not a complex product. It is a simple agricultural product, with a modest cultural technique production. Buyers and sellers are quite easy to switch from one to another.

Through the certification arrangements, the buyers-farmers’ relationship shifted toward captive relationship. Even though the productions of certified cocoa beans are not complex in terms of technological sophistication, but the introduction of
new practices that meet the certification standards is socially complex. A great deal of interventions, such as, financial and management supports, traceability and standard practices monitoring mechanism at the farm level, were required to be able to pass the audit. Thus, intense interactions between farmers and buyers were occurred due to the increased need to meet certification standards.

The most challenging requirement is the cost of doing certification itself. For farmers, thousands of US Dollars for certification processes is considered high cost. This challenge has driven Mars, as the lead firm, to find cost effective ways of doing the certification. Mars developed several models where organizations or buyers, could fund the cost of doing certifications. The four models presented in the Section 6.3.2 were the options. They were the fully funded certification with internally managed ICS, fully funded with outsourced ICS, and local collectors funded as well as the CVC certification plus arrangement. All arrangements were designed to find the most effective mechanism to integrate smallholder farmers into global markets and meet the certification requirements for their products. Since the cost of doing the certification was absorbed by the buyer, all four different models have put farmers as the captive suppliers for their buyers.

Despite the captive relationship resulting from the arrangements, the certification program facilitates the ‘exchange of knowledge and development assistance along the value chain (Neilson & McKenzie, Forthcoming, p. 12). As such, the buyers provide supports to the participant farmers not only to improve their farming practices that should follow the guidance of certifications, but also the arrangement improves the capacity of farmers. In other words, it facilitates and drives upgrading processes at the farm level.

7.3.2.2 The business oriented outreach model

Business oriented outreach has become a new institutional mechanism to upgrade smallholder farmers. It is an innovative institutional mechanism that is delivering new skills and innovations to the cocoa farming community in Indonesia (p.12) (Neilson & McKenzie, Forthcoming). The longstanding provisions and interaction between lead firms, farmers, and research institutions, which was started in the
year 2000, seems to have encouraged Mars to establish this new extension mechanism.

The CDC-CVC model, as explained in Chapter 6, provides an alternative mechanism to deliver sustainable extension services to smallholder farmers. The model ties together the entrepreneurial spirit, business opportunities, and the need to provide continuous extension services to smallholder farmers. This new model, in fact, institutes a new governing system between cocoa buyers and farmers who become the cocoa doctors, as independent extension providers.

Several contexts that need to understand why this functional upgrading could be materialised. The context includes the increasing need to find alternatives to project-based extension providers, and to benefit from the socially embedded entrepreneurial spirit of cocoa farmers.

Over the last 14 years period, various transfer technology programs had been delivered to support the upgrading processes for smallholder farmers in Indonesia. The major shortcomings of those programs included their short term and project basis, and the fact that they tended to be administered in a top down manner. The extension staff working to support the cocoa farmers only worked during the project duration. Once the project ended, then the services were also stopped. In fact, the majority of smallholder farmers need continuous support, requiring technical staff to be available on the ground when they need to have consultations and help. In a few villages, the fellow farmers, who are skillful would support their peers. But those peer supports are not available in wider areas. In addition to this problem, the availability of farming inputs were also scarce, due to the facilitation role from the extension staff supported by the projects, having been stopped.

A solution for the extension providers was sought by tapping the entrepreneurial spirit of cocoa farmers, which is a strong trait that is socially embedded mainly in the Buginese ethnic, as the major smallholder farmers in Sulawesi. Among the smallholder farmers, there were lead farmers, who have attended several trainings from various cocoa projects. Some of them, in fact, have started providing services to their surrounding farmers. The service includes regeneration services such as side grafting, selling entries and developing nurseries for new seeds and fertilizers.
These were natural responses from local farmers seeing the opportunities after gaining some skill from trainings. Many of those businesses existed since the USAID SUCCESS project and Mars PRIMA project in the early 2000s. However, those business services were carried out individually but with a limited coverage, without any business standardisation and technical supports. It is purely driven by the individual farmers who saw business opportunities in their neighbourhoods.

The CDC-CVC model was, therefore, designed to allow lead firms or cocoa buyers to provide supports for sustainable farm practices through independent extension providers. It’s a franchise model arrangement that provides standardisation of technology and business model. It would allow the participant farmers to have skill and knowledge, in the farming as well as in the business practice. At this point, the relationship occurred between the lead firms with its CDC, and farmers with their CVC, where a knowledge transfer mechanism created technology diffusion to smallholder farmers at the village level.

In terms of maintaining and standardising the service of farmers as the cocoa doctor, the lead firms provide a great deal of upgrading supports and interventions. This relational value chains occurred in fact without the need to provide product exchanges. However, gradually once the cocoa doctors and their CVC business model was operating, the relationship stepped up to the business transactions, where the cocoa doctors could buy cocoa beans from farmers in their villages, and sell it to the lead firms, that supported them to establish and run CVC.

In this context, the governance relationship that occurred between farmers and lead firms were shifting. Before the CDC-CVC model, the governance was in the market relationship. After the CDC-CVC model, the governance arrangement became relational value chains, but with simple products, the supplying of cocoa beans. The relationship shifted from loose to the relatively tight due to the intense interaction during the knowledge transfer and the standardisation of business practices for the extension outreach. The CDC as an institution funded by a lead firm provides continuous monitoring and supports to the cocoa doctors with its CVC business model. An important point from this finding is that the governance relationship occurred between lead firms and farmers were driven by the need to
upgrade the competency of smallholder farmers to be the extension agent. The category of relational value chain only occurred in the context of improving the competency and capability of farmers to be private extension providers. As such, this typology slightly deviated from the Gereffi et al. (2005) definition that requires, strong coordination due to the complexity of products that need information arrangement (codifiability) capability of suppliers.

In any case, the above discussion shows how interactions between institutions and governance both at the local and global level has shaped the upgrading processes in the cocoa industry in Indonesia. The presented discussion on the governance of exporting cocoa demonstrated how deeply the institutional life of cocoa industry stakeholders in Indonesia, influenced the government rules in the trading policy. In turn, the trading policy has considerably success in driving national upgrading at the processing level, which in turn, impacted new structural governance between cocoa traders and exporters; and cocoa processors in the national industry. For farmers’ level upgrading, the institutional settings through the certifications and the CDC-CVC model has created new governance arrangement between farmers and lead firms. The certification has driven process upgrading at farm level and also created various new modes of engagement between buyers and farmers. The CDC-CVC model demonstrated how a local norm, which is the strong entrepreneurial spirit of the Buginese, and the experiences of lead firms engagement with farmers and some extent research institutions, were utilised and adopted to develop the CDC-CVC model, a franchise-like model for private extension providers.
7.4 The political interests of key actors associated with the chain

Now we come to the third point of the discussion, and the main contribution of this study. Neilson and Pritchard (2009) point out that ‘the institutions are not just framing devices external to product/commodity system, but exist also as the rules, norms and behaviours vehicle that shape the very essence of how product/commodity system are organized’ (p.9). At this point, this section advancing this argument by looking at the underlying interests that shapes the rules, norms and behaviours of key actor associated with the chain, including – most importantly - their political interests.

The existing literature on GVCs and GPNs has only addressed these political interests marginally. Some literatures might seem to touch on these subjects, such as the inquiry to bring the political economy and cultural economic approach into the GPN frameworks (Coe, Dicken, & Hess, 2008); or bringing the embeddedness perspective into GPN framework (Bair, 2008); and the relevance of national trajectories in mediating local and global relations (Fernández, 2014); and taking an actor-centered approach toward theory development (Yeung & Coe, 2015).

Glassman (2011) perhaps can be identified as explicitly trying to insert the political process as in integral aspect of value chain production processes. Glassman (2011) pointed out that ‘GPNs has avoided the discussion of political issues that speak to the messiness, contestation, and violence that often accompanies globalization’ (p.154). In fact, ‘politics clearly enters directly into the mix under the heading of extra firm relationships, including through legal structures, government contracts, and join research and development collaborations with the state (Glassman, 2011, p. 157). At this stage, Glassman tended to focus on war and geopolitics to extend the understanding of the globalization process rather than the more mundane vested interests of individual actors.

This study’s contribution focuses on the ‘politics’ or political interests of upgrading actors which underlie the co-creation of institutions and governance in the GVC of cocoa industry in Indonesia.
7.4.1 Dual role of the IFC

Apparently conflicting interests are a major challenge for the IFC when supporting upgrading processes in Indonesia. On the one hand, the IFC is a development agency and on the other it operates as a private investment entity. This dual role is reflected in the binary structure of the organization, which is divided into technical advisory services and investment. The combination of these two roles has been adapted both in supporting the poverty alleviation program, as well as supporting the growth of its clients. Translating this dual role into upgrading processes, IFC positioned its clients as the driver for development, including supporting the poor people.

The implementation of pro-poor development policies is aligned with the Organisation for Economic Co-operation Development (OECD), an organisation that operates in 23 developed countries and which highlights the issue of ‘pro-poor development policies’:

For the private sector to deliver pro-poor growth, a set of factors need to be in place that allow all private sector actors to participate in and benefit from growth. These factors are providing incentives for entrepreneurship and investment, increasing productivity through competition and innovation, harnessing international economic linkages, improving market access and functioning, reducing risk and vulnerability. Putting these factors into place requires action on a number of interconnected fronts; macroeconomic stability, a sound enabling environment for investors, reducing important barriers to doing business, and building supply-side responsiveness. (Manning, 2005, p. 38)

Chapter 5 presented the result of this dual role, which put IFC in a dilemma. On the one hand, the IFC tried to develop an inclusive financial support for smallholder farmers, on the other hand the company needed a bridge for its client interests. Following this dilemma, IFC was also confronted with the need to decide target areas with high levels of poverty incidence, but the scale that allows operating for the lead firms was not always feasible in these areas.
This conflict of interests tended to favour the IFC investee. It was obliged to ensure that the technical assistance designed and developed through the advisory service of the IFC would be linked to the lead firm, which was one of IFC’s clients. Therefore, IFC needs to convince its clients that the proposed program is profitable and feasible for their business. At this point, the conflict of interest tends to favour the investee clients rather than the poor.

An important observation is that even though the governance relationship tended to be ‘locked-in’ through contract farming. However, the cocoa bean is a commodity, and the nature of value chain governance is ultimately a market relationship, where buyers and sellers are easy to find (Gereffi et al., 2005). Thus, it is not surprising when farmers, dissatisfied with a contract, find it easy to conduct side selling.

In short, conflict of interest could be important factors to understand the upgrading agencies’ behaviour. The IFC case on inclusive financing shows how the institutions and governance are deeply influenced by their own vested interests.

**7.4.2 USAID and aid-for-trade**

The stated interests of USAID are to expand the economic opportunities for US firms, as well as ensuring the economic security of the USA (USAID, 2004). Translating this mission into development practice, USAID frequently employs the GVC approach due to its potential capability to bring together two principal aims—economic growth and poverty alleviation (Kula et al., 2006)—by offering market-based solutions (Baan & Janssen, 2006) to poverty alleviation.

It is not surprising if the large agricultural projects supported by USAID in Indonesia are also connected to US economic actors. In the cocoa sector, despite the fact that the volume of cocoa beans exported directly into the US market has tended to decline from 134 thousand tonnes in 2000 to 89 thousand tonnes in 2010 (UN Comtrade, 2015), US chocolate companies continued to remain critically dependent on Indonesian cocoa, even if it has been processed elsewhere first, such as in Malaysia. Since the export tax, while the volume of beans exported to the USA has
crashed further to only seven thousand tonnes in 2013, being somewhat replaced by 26 thousand tonnes of cocoa butter to the USA (UN Comtrade, 2015).

In the market linkage program, it’s clear that USAID’s politics on aid were reflected through the pre-design partnership with US-affiliated companies/suppliers, such as Armajaro and Olam (the latter intended to supply Hershey in the US). This approach is designed to secure commitment from buyers to work to upgrade smallholder farmers. However, this selective support creates unfair competition among the excluded companies, similar to concerns voiced elsewhere in the Indonesian coffee sector, ‘drawing concern from existing industry actors that the programme was providing an unfair advantage to what was widely considered to be a US business interest’ (Neilson, 2014, p. 55).

Working in the context of corporate capitalism, selective partnership and aid for trade demonstrate how the private sector is driven to develop economic growth in developing countries. This top–down practice is identified by Gereffi (2014) as a common practice by the World Bank that urges private players to build the capacity of developing countries in their economic activities. In this context, Neilson (2014) argued that the value-chain development approach is only utilised as ‘an institutional system’ for the expansion of multinational capital, and rises concern on the potential advocates from development-agency institutions that might recommend a ‘one-size fits all value chain for development’, especially when used as a ‘diagnostic tool to further ideologically driven reform agendas’ (p. 23). A such, when the GVC tool was applied in policy recommendations, the reports revert to an agenda that departs very little from the Washington Consensus (Ravenhill, 2014).

The political interests of USAID also appear to be reflected in their policy recommendations. Related to the issue of the export tariff, USAID funded a team of consultants, consisting of an international consultancy teamed with Ministry of Trade staff (Marks et al., 2007), to investigate the potential effect of the export tariff on the smallholder farmers in Indonesia. The conclusion suggested that the export tariff would reduce the farm-gate price, which would in turn reduce the profitability of the farmers. Some stakeholders in Indonesia accuse this study of policy bias, since it was funded by USAID, which it was suspected would favour
trade openness, which would also favour the exporters. As such, it is not surprising that USAID supported consultants advocating an open trade policy against the export tariff.

**7.4.3 Mars’ political interests**

From the management perspective, firms need to become political actors in their own right, so as to adapt the challenging institutional environments, particularly when confronted with social and environmental demands (Scherer, Palazzo, & Matten, 2014; Skippari & Pajunen, 2010), or when confronted with labour issues (Contu, Palpacuer, & Balas, 2013) or when directing certain government policies in attempt to improve their performance (Luo & Zhao, 2013).

The mobilisation of public resources to address the potential lack of future supplies demonstrates the driving role that lead firms may have in altering institutional settings. Mars’ effort in mobilising public resources is another important strategy that shapes the upgrading processes in Indonesia. Since the early USAID interventions in Indonesia, the Mars global sustainability team has been involved in supporting the programs, either through the WCF, such as the Success Alliance program; or through the designing team of USAID program in Indonesia, such as the AMARTA program. Mars has also been involved in providing supports for the GERNAS design program through the CSP forum.

In this context, Mars demonstrates its action as a corporate political entity. Looking at their actions from a corporate political perspective helps us to understand how Mars behaves in supporting the cocoa upgrading processes, both at the global and national level.

**7.4.4 The interests of state based actors**

**7.4.4.1 Political economy**

The political economic reasons have also been the major motive for state-facilitated upgrading of the cocoa industry in Indonesia. The Indonesian government has a strong desire to become one of the major cocoa-grinding countries in the world (Barani, 2010). This ambition was highlighted by the Vice Minister of Agriculture
during a research interview in 2010 in which he stated that ‘at least all cocoa beans produced in Indonesia should be ground in Indonesia’. Senior bureaucrats the Vice Minister of Agriculture and the Director of Directorate General of Estate Crops agreed on the political economic perspective of adding value to Indonesian cocoa beans in Indonesia instead of in neighbouring countries such as Malaysia and Singapore. Although there was some ambiguity whether this value-adding activity should be reserved for domestic (indigenous) economic interests or whether FDI should be encouraged. Indigenous-informed political nationalism is also found in other countries, such as in India who also attempted to support the growth of local coffee chains (Neilson & Pritchard, 2009).

On preliminary examination, the (former) director of the Directorate General of Estate Crops embraced the traditional dichotomy of ‘foreign versus local’ business players. He demonstrated a strong intention to nurture and empower locally owned grinders through ‘specific protection and companies’ empowerment’ (Barani, 2010, p. 113). The former director stated that if Indonesia succeeds in creating value-added activities, ‘we are not fettered in the same way as the VOC colonial period, when Indonesia only produced raw materials’ (Barani, 2010, p. 116), apparently alluding to the impacts from declining terms of trade for raw materials. The former director further embraced the need to protect infant industries in Indonesia. However, the Vice Minister of Agriculture emphasised that Indonesian investment regulations are no longer discriminative between domestic or foreign investors, as long as these investors are serving the major interests of Indonesian economic development in creating jobs and reducing poverty (personal communication, 19 August 2010). The other reason for not supporting the dichotomous view of local versus foreign ownership, it was claimed by the Vice Minister, was to prevent reciprocal policies from other countries to the due to potential Indonesian companies expanding overseas.

At the Indonesian state level, it’s clear that one of the underlying motives for the government to support the upgrading processes is the political economic reason. The need to add value added to the cocoa beans in Indonesia is highly desirable, to change the landscape of cocoa grinding industry, especially in the South East Asia region.
7.4.4.2 Patronage and rent seeking behaviour

The rent seeking motive seems obvious in driving upgrading processes in the Indonesian state programs, and has generally been observed when the state supports industry development by subsidising it (Öniş, 1991).

This mentality is embedded within the institutional settings of the bureaucratic system in Indonesia. It entails a great deal of collusive practices between the bureaucrats, the business players and the members of parliament (both national and local) (Ananta & Riyanto, 2006). According to the Hadiz & Robison (2005), this practice comes from a long New Order legacy in the post-reformasi era in Indonesia: ‘it is the reorganisation of the old predatory power relations within a new system of parties, parliaments and elections’ (p. 231). The decentralisation of authority perpetuates these practices further (Hadiz, 2004a). Due to decentralisation, local districts in Indonesia have greater authority in some areas, including in the fields of agriculture, industry, trade and investment. As such, predatory practices that can be found at the district level increase the number of interest groups to be compensated in business activities (Resosudarmo & Kuncoro, 2006).

This study’s observations of several agricultural projects in South Sulawesi strongly indicated such practices and mentality. For example, the cases of the chocolate manufacturing plant in Gowa in South Sulawesi and the SE seeds distribution. All those projects are most likely ‘supply driven’. The machinery rarely operated due to high costs, while the SE seeds were not well adapted to the local environment. However, these interventions did, one presumes, successfully serve another deeper purpose – ensuring patronage support from important political constituencies within the bureaucracy.

As such, it is not surprising that there were corruption allegations during and after the GERNAS project. These corruption allegations generally identified the corruption occurring at the district-government level, but some reports also indicated a potential connection to the central government (AgroIndonesia, 2009; Infokorupsi, 2011; Lengkong, 2014; Luwurayanet, 2011; Politik Indonesia, 2010).
In fact, the alarming potential downfalls of GERNAS was anticipated by stakeholders in the Indonesian cocoa sector through the CSP forum, when providing input to the government before the intervention (Neilson, 2008). The report clearly identified nine major technocratic components, which it was argued if implemented, would maximise the chance of success of GERNAS. The components ranged from the planning to the implementation stage; including data management, provision of planting materials, appropriate technological support, recruitment and training facilitators, sustainable cocoa-farm system, government policy, farmer credit, monitoring and evaluation, and greater coordination of the action plan.

Patronage and rent seeking behaviour has clearly affected the decision making and delivery of upgrading processes in the Indonesian state programs. Patronage and oligarchy re-emerged and were consolidated in the post-democratisation period (Hadiz & Robison, 2005; V. R. Hadiz, 2004b; Young, 2005). Winters (2013) noted that since the democratisation era in Indonesia, the power of the oligarchy has actually become stronger and thus, the ‘oligarchy rightfully holds a central place in the analysis of Indonesian politics’ (p. 12).

As overall, the various political interests presented above shows how political interests deeply influence the dynamics of institutional settings and governance in the cocoa industry in Indonesia. Inserting these political interests within an advanced framework to complement the current framework would help advance the nuance of understanding the upgrading processes in the GVC.

7.6 Conclusion

This chapter contributes to the understanding of the underlying institutional dynamics that drive upgrading activities in the GVC. This chapter demonstrates that it is important to explore in greater understanding of upgrading processes by incorporating the analysis of multiple key players as the driver of upgrading activities at different levels and segments along the value chains within an industry. Along with these upgrading actors, it is essential to explore in greater depth the upgrading actors’ interests (which become the motivations influencing dynamics in the institutional environment). This finding advances the analytical framework in understanding the upgrading in the GVC. As discussed in the section 7.1, the
analytical framework to understand the upgrading in the GVC was in the co-creation of institutional settings and governance shaping upgrading activities. This study advances this analytical framework by revealing the need to incorporate the multiple upgrading agents and to understand their interests, especially the political interests, as the underlying institutional settings that should co-create governance and in turn shape upgrading activities.

Adopting this analytical framework has helped this study to understand how the real world of upgrading activities in the cocoa sector materialised and was shaped by the Indonesian state, development agencies and the lead firms. From the GVC perspective, this advanced analytical framework will help to understand different adaptations of the GVC framework into development practice and within development strategies.

The findings of this study demonstrate that institutional actors’ political, ideological, and commercial positionality play a significant role in shaping the dynamics of upgrading trajectories in Indonesia. This study has demonstrated that the Indonesian state needs to strategise its policy development so that it aligns with the current dynamics of GVCs and in particular, the strategies of both lead firms and development agencies.
8 CONCLUSION
CHAPTER 8: CONCLUSION

This study set out to advance an understanding of the upgrading processes within GVCs. Thus, to support the thesis argument, I have drawn empirical case studies of upgrading interventions implemented by the state, development agencies and a lead firm in the cocoa industry in Indonesia. The intensive support for the various upgrading program interventions provided by various agents in the cocoa industry prompted me to strive to understand the real work of upgrading activities. The core questions that guided this inquiry were:

1. What interventions have been taken by the state, firms and development agencies to promote upgrading within the Indonesian cocoa industry?
2. How processes of value chain upgrading are facilitated and shaped in practice by the actions of these different sets of development actors?
3. How can an improved understanding of upgrading processes be usefully applied to ensure appropriate development strategies in developing countries?

All of the above questions support the main aim of this study which is to understand the upgrading concept of the GVC by presenting three upgrading agents working in the same sector. Examination of the three upgrading actors, which collectively influence sectoral upgrading, appears infrequently presented in the extant GVC literature.

Guided by the three main questions, I conducted field research in Indonesia to gather the relevant information pertinent to the activities of the three different upgrading actors. Prior to and after my field visits, I reviewed the relevant literature on economic development paradigms and the GVC literature as an alternative framework to understand the current global dynamics (Chapter 2). In order to situate the context of the cocoa industry in Indonesia, and to situate the following results chapter and the discussion chapter, chapter 3 explored the global value chains of the cocoa industry. Chapters 4, 5 and 6, presented the thesis findings in an
attempt to answer (part of) questions one and two. The findings which I have analysed in Chapter 7, provide answers to the third research question.

This concluding chapter is presented in three sections. Section one discusses the major empirical findings of this study to describe how the concepts found in the GVC literature have been translated into development practice by three different upgrading agents. Section two, discusses the implications of the research for the analytical framework for understanding upgrading of the GVC, and for the potential future policy derives from the study. In the final section, the discussion centres on policy implications that might be undertaken to facilitate upgrading processes for sectoral development in developing countries, including the Indonesian state.

8.1 Major empirical findings

8.1.1 Upgrading as development strategy

This study found that the adaptation of GVC to development was translated into a market-linkage program, i.e., into two ways of development: first, external endorsement of the lead firms such as the market linkage implemented by the Development agencies (USAID and IFC); and second, a market linkage that was internally (as an integrated part of global strategy) developed and delivered; for example the market linkage developed by Mars.

The consequences of these two approaches were different. These differences were mainly discernible in the consistency of the lead firms to provide technical support for smallholder farmers. Regarding the externally endorsed type of market-linkage, the lead firms involved in the program were only capable of providing technical support during the project duration. The expectation that lead-firms’ role would continue to support smallholder farmers when the project finished, failed to materialize. This might have been due to the dependence of lead firms on donor support during the project duration. Conversely, Mars’ technical support over the last two decades demonstrated the consistency of technical support to smallholder farmers. This consistency most likely resulted from the internalization of a ‘farmer-first’ credo among the three pillars of Mars (besides efficiency and customers) that enable the company to sustain its global business. Positioning farmers first in the
company’s strategy allowed decision-makers within the company to put equal importance on the continuity of the company’s sourcing operation and technical support for farmers, as an integrated strategy of its business operation.

Despite the significant interventions delivered by various upgrading agents in Indonesia cocoa industry, national cocoa production has stagnated for almost a decade, and is now estimated at around 400 thousand tonnes (International Cocoa Organization (ICCO), 2014a). There were two slightly different reasons that could logically explain the cause. First, the three different upgrading agents may not have achieved their intended objective in facilitating upgrading at the producer level. The expansion programs supported by the government in several different places across Indonesia’s major island and implemented through the GERNAS project were only capable to covering the declining production occurring in various other places. As a result, national cocoa productivity (see Chapter three) was declining year by year. With reference to the development agent case, the USAID program, the total number of cocoa farmers trained directly by the project was estimated at approximately around 50-60 thousand farmers; and, through its communication tools, the program was believed to have reached approximately 300 thousand (Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance (ACDI VOCA), 2005). However, some questions surround this claim that the reported trained farmers, who moved from one project to another, were the same farmers. Hence, the claim may have been too high. The number of people directly trained constitute approximately one fifth of the total cocoa farmers in Indonesia. The other reason was that the knowledge transferred did not necessarily translate into adoption of improved farm management. The farmers’ technology adoption needed a constantly supportive environment, such as the availability of field technical experts resident in the local communities, rewarding market incentives, and financial support. Any suggestion of availability of technical support at all times, was not applicable in the cases of USAID, IFC and the GERNAS project, all of whose programs were project based.

The second view is that the current level of national cocoa production could be considered adequate, since Indonesian cocoa trees have reached the declining stage due to loss of ‘forest-rent’. Taking into consideration the forest-rent scenario, and
drawing a comparison between Indonesian and Malaysian national cocoa production might provide a good example of this view. The advantage accruing from young cocoa trees resulting from fertile forest land, and the absence of pests and diseases in the early years of cocoa growth due this ‘forest-rent’ is no longer a reality when cocoa trees have reached 20 years of growth. The declining stage resulting from aging trees, infertile soil, high pest incidence and disease has culminated not only in high production costs, but also in demotivating behaviour among cocoa farmers. Thus it is hardly surprising that some farmers are converting their cocoa trees into other profitable commodities. This scenario occurred in Malaysia, where massive cocoa trees were converted into other crops. As a result, national cocoa production in Malaysia has significantly dropped year by year since the late 1990s, and has continuously declined to the point where the country’s total cocoa produced is similar to the level of sub-district production in Indonesia. A discussion of the comparative national production among the major cocoa producing countries in three different regional production areas (global level) is presented in Chapter three.

A further impact deduced by this study is that upgrading interventions have tended to perpetuate the dependency of small producers on external support, especially on global cocoa buyers. Mars’ upgrading interventions, for example, have provided strong supports to the local communities, while at the same time technical support from Indonesian government is weakening. In due time, this dependency might continuously increase, leading to the farmers being entirely reliant on global buyers for social supports as well as extension services.

8.1.2 The positionality of upgrading agents

This study found that upgrading actors’ interests constitute significant drivers that shape institutional settings for upgrading activities. Their interests or motives are politically, ideologically and commercially driven, and are deeply embedded in each upgrading agents’ institution. Examination of the Indonesian state, Development agencies and a lead-firm reveals how rooted these factors are, in influencing the upgrading dynamics in the cocoa industry. This influence is explored in the two main upgrading interventions: (1) the policy exercised (export tariff) to facilitate
downstream processing; and, (2) the technical support targeting smallholder farmers.

Apropos of policy, this study found three major interests underpinning the upgrading agents’ decision-making process that resulted in contradictory recommendations to upgrade the country’s cocoa industry. The first was commercial interest. Trade policy is mainly contested between AIKI, which represents the grinders, and ASKINDO, which mainly represents the exporters. Due to the conflicting commercial implications among the two organizations, the export tariff recommendation was advocated differently. AIKI supported export tariff implementation as it would favour grinding expansion. Conversely, ASKINDO opposed it, saying it would challenge their competitiveness. The Indonesian state and USAID also held contradictory views on the export tariff. The Indonesian state favours implementing it for politico-economic reasons, such as to improve the value added activities of cocoa within the country, rather than have neighbouring countries engaging in value added activities. USAID, on the other hand, supported consultants who recommended against an export tariff, the main argument being to avoid price decreases at the farmer level. Reducing the price at the farmer level would eventually reduce the farmers’ incomes, and in turn, would increase the number of poor in Indonesia. However, despite appearing to support the farmers’ argument, in effect USAID embraced a free market view vis-à-vis economic development in line with consultant recommendations. In addition to the USAID ideological view, somehow, the politico-economic reasons also contribute towards policy advocacy. A market linkage program funded by USAID selectively works with US affiliated (extended trader) networks in Indonesia, suggesting a politico-economic interest that is difficult to ignore.

On the technical side, this study found all the three upgrading agents exercising a ‘top-down’ approach to their upgrading interventions with smallholder farmers. However, due to diverse interests and motives, this approach was delivered differently by each agent.

As regarding Indonesian state interventions, this study found that upgrading programs were delivered in the form of ‘supply driven’ projects. A number of
projects delivered via the GERNAS program, for example planting material and drying machines, were poorly adapted to the farmers’ needs. The planting material was incompatible with the local environment; and the machines were not compatible with the operational scale for smallholder farmers. This study further found that the strong legacy of socio-political conditions, for example, a project mentality that reflect the vested interests of oligarchy, a legacy of the former New Order authoritarian regime re-emerged, in this democratic and decentralized political system. As such, the vested interests that underpinned the supply-driven approach to several projects delivered by the Indonesian state significantly influenced the institutional settings surrounding the government program. The resultant corruption allegations that accompanied the GERNAS project in various districts were strong evidence of this corrosive element.

Regarding the Development agencies, the USAID and the IFC, this study found that political economy and the tendency of ‘nurturing clients’ strongly nuanced the underlying institutional interests, and impacted on the upgrading intervention delivered and supported by the development agencies. In the political economy sphere, USAID’s market linkage program selectively supported lead firms affiliated to the US companies, a similar argument to the policy recommendation discussed previously. In the IFC case, its efforts to develop a financial agri-input credit scheme that was aligned with their ‘nurturing clients’ approach. The IFC developed a scheme especially to help its investee clients to expand their economic activities in the rural areas. In this context, the major concern was the availability of IFC partners to provide the best outcomes for farmers; the best price for the beans, and the best benefit from financial support. But, as the study found providing the best for farmers was difficult, both for the beans and for the financial scheme. Finally, after three cycles of harvest season, this financial scheme was discontinued.

In the case of Mars, clearly commercial interest was the major driver supporting the upgrading for smallholder farmers. As a lead-firm in the cocoa-chocolate industry, Mars primary interest was to sustain its raw material supplies. This study found that among the commercial interests, fear of future lack of supplies and meeting the increasing demand from emerging markets were identified as the major commercial hazards that influenced Mars’ institutional and corporate governance. While their
approach to upgrading smallholder farmers emulated the top-down approach, the distinctive difference from other upgrading agencies was Mars ability to present at the country level consistently, and to continuously improve its technical support model.

8.2 Theoretical implications

This study advances an understanding of upgrading in the GVC in ways that suggest (i) the need to incorporate several key players as the main driver of upgrading; and, (ii) the imperative to explore deeper the institutional settings that influence the decision-making processes for GVC upgrading agents.

Based on the presented cases (Chapter 4, 5, and 6) and the discussion (Chapter 7), upgrading processes within the value chains are influenced by several powerful actors in the industry, but not necessarily in the form of rational coordination of activities between lead firms and suppliers. The second argument is that political aspects of upgrading agents, manifest in their interests, have deeply influenced the institutional settings within the GVC. As such, exploration of the underlying factors that impact on decision-making process within each institution, along with the GVC, would provide an understanding of the institutional dynamics driving upgrading activities in the GVC.

The above arguments advance the previous understanding of how to facilitate upgrading in the GVC proposed by two complementary arguments; first, the need to understand the centrality of the lead firms’ governance that allows value chains actors within a GVC to upgrade (Gereffi, 1999; Gereffi et al., 2005). This concept emphasises the strategic roles of the global buyers who act as lead firms nurturing firms in developing countries to be able to integrate with the global market. Therefore, establishing linkages with lead firms could potentially improve the capacity of firms in developing countries. This linkage relationship governs via five types of relations from loose to tight: markets, modular, relational, captive, up to the hierarchy relationship (Gereffi et al., 2005). From this relationship, the value chain actors might learn how to operate efficiently, develop new products, and increase product quality. They might even step up to higher value activities, such as branding and marketing, and shift to other profitable sectors (Humphrey & Schmitz,
At this point, this thesis argue that instead of singling out one key player as the driver of upgrading, it is imperative to incorporate multiple key players, which are equally important in driving the upgrading processes for value chain actors. The type of intervention and the level of operation of those key players might different within the value chains, but their activities profoundly contributed and drove the upgrading process within the chains.

The second argument postulates that advances on understanding of upgrading in the GVC is that the co-creation of institutional settings and governance facilitates upgrading activities (Neilson & Pritchard, 2009). Neilson and Pritchard (2009) suggest that institutional settings that embed sites where value chain actors are situated influence the governance of the GVC; and that institutions and governance in turn facilitate upgrading activities in developing countries. In this context, institutions set by the state, for example, allow firms in developing countries to prepare themselves to compete with global firms. This study has considered providing nuanced ways to understand upgrading activities in developing countries.

Here, I advance the analytical framework to understand the real world of upgrading activities. This thesis suggests a need to explore further the underlying interests of upgrading agents that shape institutional settings in the GVC. The upgrading agents’ interests, which demonstrate political consideration on how each agent behaves (see Chapter 7), show how deeply the said interests are induced in setting institutions and influencing governance of the GVC. Due to the different interests rooted in each institution, the transition to upgrading value chains actors in the real world, has resulted in the employment of different approaches. In some cases, different upgrading actors suggest different institutional arrangements; they even contradict each other. For example, take the case of export tariff regulation that was intended to upgrade the downstream processors in the cocoa industry. This study suggests deeper exploration of the institutional interests of agents who advocate and deliver program interventions to better understand upgrading activities in developing countries.

This study, additionally suggests adding political aspects (especially on upgrading agents’ interests) as an extended analysis to understand the myriad interests that
shape the institutional settings and governance that in turn drive upgrading activities in the GVC.

8.3 Policy implications

Translating the upgrading concept of the GVC into development practices generally involves mediation through the interest of upgrading agents. Nevertheless, this study provides important insights to provide meaningful upgrading processes. The insights might benefit those upgrading agents, such as the state, the development agencies and the lead firms delivering upgrading interventions in developing countries.

Apropos of any effort to redefine the strategic role of the Indonesian state, the state needs to develop meaningful dialogue among industry stakeholders; that is to act as an inter-scalar mediator (Yang, 2009) that will facilitate information exchange between local and international firms. In this context, the state will be required to think thoroughly to identify the strategic coupling between local and international firms that operates within the global production network (Yeung, 2009). In addition, when targeting upgrading for domestic companies operating in the primary commodities, the Indonesian state needs, as Gibbon (2001) suggest, to provide pre-conditioning stages that allow local firms to compete in the GVC.

The programs of Development agencies are generally focused on stimulating economic changes in the impoverished areas; and to the poor producers, the weakest actors in the GVC. The crucial part is how to balance the unequal power relationship between lead firms and poor producers. As such, adopting market linkage program in the development action, would be meaningful when complemented with empowerment programs for the poor producers. This might reduce the ‘exploitation nuance’ of the market linkage for the benefit of lead firms to secure raw material supplies.

For the lead firms, integrating technical supports for farmers as an integrated part of commercial activities would be an important step to provide meaningful upgrading support for farmers. The second step would be the ability to respond to local dynamics by constantly adjusting the upgrading programs, either in the
technology package or in the delivery method. Lastly, dealing with small producers, comes at a cost (huge numbers with small scale producers dispersed in widespread areas). Thus, developing an empowerment business mechanism for individual farmers, as ‘an independent extended agent’ from the lead firms, might help to reduce the cost and increase the coverage areas for upgrading support to farmers.

In conclusion, this study suggests that upgrading agents that would like to provide meaningful upgrading activities are required to: understand the institutional interests among other actors in the GVC; acknowledge local social dynamics (including politics) and adapt to these; and, situate the policy and programs in the latest sectoral dynamics in the global context of the industry in question.

8.4 Future research

The geographical scope of this research is limited to the Indonesian context and to the cocoa sector to Indonesia. There is potential to undertake similar research in other geographical contexts or in other sectoral contexts to understand how upgrading activities are delivered by upgrading agents. The focus should remain on the critical assessment of upgrading agents’ interests that are embedded into institutional settings of the chain.
References


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Sturgeon, T. J. (2008) From commodity chains to value chains: Interdisciplinary theory building in an age of globalization. *Industrial Performance Center, MIT.*


Appendices

Appendix 1 Permitted letter from the Indonesian government

Pemerintah Provinsi Sulawesi Selatan
Badan Penelitian dan Pengembangan Daerah (BALITBANGDA)
Jalan Urip Sumohardjo No. 269 Telp. (0411) 436936-436937 Fax. 436934
Makassar, 19 Mei 2010

Kepada

Yth. Bupati Luwu Utara

di-

Mosambu

Berdasarkan surat Lecturer, School of Geosciences The University of Sydney Australia nomor : tanggal 17 Mei 2010 perihal tentang di atas, mahasiswa peneliti dilahirkan ini:

Nama: Rafiuddin Paini
Nomor Peserta: M30825558
Program Studi: School of Geosciences
Pekerjaan: Mahasiswa (S3)
Alamat: Rm No. 405, Madison Building Darlington NSW 2006 Australia

Bermaksud untuk melakukan pengambilan data di daerah luas dan sekitarnya dalam rangka penyusunan skripsi, dengan judul:

"UPGRADING IN GLOBAL VALUE CHAIN: A CASE STUDY OF COCOA INDUSTRY IN INDONESIA"

Yang akan dilakukan dalam jangka waktu 3 bulan, yaitu mulai 28 Oktober 2010

Sehubungan dengan hal tersebut di atas, pada prinsipnya kami 

menghormati

harap dimudahkan dengan ketentuan:

1. Sebelum dan selusuh melaksanakan kegiatan, kepada yang bersangkutan melapor kepada Bupati/Walikota/Ca. Kepala Bappeda/Balitbangda, apabila kegiatan dilaksanakan di kab/kota;
2. Penelitian tidak menyuap atau diberikan reward kepada yang bersangkutan;
3. Mentasnya semua peraturan perundang-undangan yang berlaku dan mengikuti adat istiadat setempat;
5. Surat ini akan dicantumkan dalam dan dinyatakan tidak berlaku apabila tanda tangan pemegang surat ini tidak memenuhi ketentuan tersebut di atas.

Demikian disampaikan untuk dimahumumi dan dipergunakan sepertinya.

at, Kepala Badan

Kahrib Penelitian Pengembangan Sosial dan Kelembagaan

Tanggal: Pembina

NIK: 19588177 198703 2 010

Tentuian (Kepada Yth.):
1. Gubernur Sulawesi Selatan di Makassar (sebagai pimpinan);
2. Lecturer, School of Geosciences The University of Sydney Australia;
4. Mahasiswa yang bersangkutan;
5. (Diterima).
Appendix 2 The translation of the permitted letter from the Indonesian government

THE GOVERNMENT OF SOUTH SULAWESI PROVINCE
LOCAL RESEARCH AND DEVELOPMENT BUREAU
(BALITBANGDA)
Jalan Urip Sumohardjo No.269 Telp. (0411) 436936-436937 Fax. 436934
MAKASSAR 90231

Makassar, 19th May 2010

To: The Head of North Luwu District
At: Masamba

Number: 070.5.1/4054/Balitbangda
Attachments: -
Topics: Research Permit / Recommendation

Based on the letter from the lecturer of School of Geosciences, The University of Sydney Australia, dated 17th May 2010 regarding the above topic, following student/researcher:

Name: RaEuddin Palenring
Student Number: M388255668
Program Study: School of Geosciences
Working status: University student (PhD)
Address: Rm No. 405, Madsen Building Darlington NSW 2006 Australia

aims to conduct data gathering in your area/office as a part of thesis research, with the title:

“UPGRADING IN GLOBAL VALUE CHAIN: A CASE STUDY OF COCOA INDUSTRY IN INDONESIA”

This will be conducted during the period: 1st July up to 28 October 2010

In relation to the above objective, in principal, we agree to provide a research permit for the above activities with the following obligations:

1. Before and after conducting the activities, the student should report to the Head of District/Mayor represented by the Head of Bappeda/Balitbangda, if the activities are conducted in a particular District/Municipality;
2. The research does not deviate from the original research permit;
3. Obey all current laws and local customs;
4. Submits 2 (two) copies of research results to the Governor of South Sulawesi, through the Head of Local Research and Development Bureau of South Sulawesi;
5. The research permit will be discontinued and will not be considered valid if the research permit holder does not obey the above clauses.

The above clauses are declared to be understood and to be used as necessary.

On Behalf of the HEAD OF BUREAU
The Head of Sub Division for Social and Institutional Research

SIGNATURE AND STAMP
[Mr. H. A. Mardiana, M.S.] Level: Pembina
NIP: 195811171987032010

Duplicated for:
1. The Governor of South Sulawesi at Makassar [reporting];
2. The Lecturer of School of Geosciences, The University of Sydney;
3. The Head of Bureau for Inter-Districts and Municipality of Sulsel Province;
4. The student;
5. Archives

This is a translation made from the Indonesian by Jeff Neilson (NAATI Accreditation No. 31364)
Appendix 3 Letter of support for meeting facilitations from the CSP

No. 588/CSP/MKS/05/10

Makassar, May 17th 2010

Mr. Rafiudin Palirungi
School of Geosciences, Faculty of Science
Rm 405, Level 4, Madsen Building F09
The University of Sydney NSW 2006 Australia
T: +61 2 9351 6444
M: +61 416 014 949
E: rafi.palirungi@sydney.edu.au

Dear Mr. Palirungi

It was great to know that you are coming to Indonesia to do fieldwork for your PhD study. We understand that you are going to conduct your field research from July 1st until October 28th 2010.

In respond to your request to have CSP to facilitate your meetings with cocoa stakeholders, we are very delighted to perform such role, and would certainly be happy to assist. Research on the socio-economic and development aspects of the cocoa farming/industry is currently very limited in Indonesia. I believe that the results from your intended research will enrich the state of the current knowledge in this field. Subsequently, we strongly support your research and are delighted to be involved. The CSP will assist in helping you identify, and make contact with, appropriate cocoa industry stakeholders across Indonesia.

We would like to extend our warm welcome to you, and a very best of luck in doing the fieldwork component of your research. Please let us know if we can be more helpful to your research in any other matter.

Best Regards,

Rijal M. Idrus
Secretary General

Secretariat: IFC Office, Grahapari Indosar Building 4th Floor Jl. AP. Pematang No. 45
Appendix 4 Participant information statement

SURVEY AND INTERVIEW PROTOCOLS

PARTICIPANT INFORMATION STATEMENT

(1) What is the study about?

This study will investigate factors affecting the development of the cocoa industry in Indonesia and provide an understanding of how the cocoa actors in Indonesia could improve their competitiveness in the global market through engaging in the global value chain. The study will seek to understand the influence of policy settings and private sector sourcing strategies affecting the participation of cocoa growers in the global value chain for cocoa.

(2) Who is carrying out the study?

The study is being conducted by Ralfuddin Palirungu and will form the basis for the degree of PhD at the University of Sydney under the supervision of Jeffrey Nelson.

(3) What does the study involve?

- Semistructured interviews will be conducted with farmers, traders, processors, local government and service providers related to the cocoa industry.
- Focus group discussions with farmer groups will also be undertaken during the field research.
- Photos may be taken for documentation purposes only if permission is provided.

(4) How much time will the study take?

Interviews will take approximately one hour per participant and focus group discussions will be around one and a half hour per discussion.

(5) Can I withdraw from the study?

Being in this study is completely voluntary - you are not under any obligation to consent and - if you do consent - you can withdraw at any time without affecting your relationship with The University of Sydney.

You may stop the interview at any time if you do not wish to continue. Any audio recording and photos will be erased and the information provided will not be included in the study.

(6) Will anyone else know the results?

The dynamics of cocoa industry upgrading in Indonesia
All aspects of the interview, including results, will be strictly confidential and only the researchers will have access to information on participants. A report of the study may be submitted for publication, but individual participants will not be identifiable in such a report.

(7) Will the study benefit me?

The study attempts to understand the constraints affecting cocoa industry upgrading in Indonesia. Research findings may be presented to policy-makers in Indonesia and international development agencies, who may use the findings to develop appropriate cocoa development programs. As a participant in the Indonesian cocoa industry, this may benefit you indirectly.

(8) Can I tell other people about the study?

Yes, you are encouraged to talk to others about the study.

(9) What if I require further information?

When you have read this information, Rafuudin Palirungi will discuss it with you further and answer any questions you may have. If you would like to know more at any stage, please feel free to contact Rafuudin Palirungi, student, +61416104949 or Rafi_palirungi@sydney.edu.au.

(10) What if I have a complaint or concerns?

Any person with concerns or complaints about the conduct of a research study can contact the Deputy Manager, Human Ethics Administration, University of Sydney on +61 2 9357 8176 (Telephone); +61 2 9357 8177 (Facsimile) or hm.research@sydney.edu.au (Email).

This information sheet is for you to keep.
Appendix 5 Participant consent form

PARTICIPANT CONSENT FORM

I, .......................................................... [PRINT NAME], give consent to my participation in the following research project.

TITLE:  The dynamics of cocoa industry upgrading in Indonesia

In giving my consent, I acknowledge that:

1. The procedures required for the project and the time involved have been explained to me, and any questions I have about the project have been answered to my satisfaction.

2. I have read the Participant Information Statement and have been given the opportunity to discuss the information and my involvement in the project with the researcher(s).

3. I understand that I can withdraw from the study at any time, without affecting my relationship with the researcher(s) or the University of Sydney now or in the future.

4. I understand that my involvement is strictly confidential and no information about me will be used in any way that reveals my identity.

5. I understand that being in this study is completely voluntary – I am not under any obligation to consent.

6. I understand that I can stop the interview, or my participation in the focus group, at any time if I do not wish to continue, and that any photographic or audio recordings will be erased and the information provided excluded from the study.

7. I consent to:

   i) Audio-taping  YES ☐  NO ☐
   ii) Receiving Feedback  YES ☐  NO ☐
   iii) Photos taking  YES ☐  NO ☐
If you answered YES to the "Receiving Feedback Question (ii)", please provide your details i.e. mailing address, email address.

**Feedback Option**

Address: 


Email: 


Signed: 


Name: 


Date: 


Appendix 6 Letter request for an interview

To: ........................................

My name is Rafiuddin Palirungri, a PhD candidate at School of Geosciences the University of Sydney.

As part of my doctoral research, I am conducting research on the topic of 'how to improve the competitiveness of the cocoa industry players in Indonesia'. This is part of my candidature fulfillment to obtain my degree. Therefore, I would like to conduct an interview with you at a convenient time to discuss various issues related to the sustainable development of the Indonesian cocoa industry.

I look forward to hearing from you shortly. If there is any further information that you require prior to the interview, kindly send an email to rafi.palirungri@sydney.edu.au, or contact me at the secretariat of the Cocoa Sustainability Partnership at +62 411 425280.

Thanks in advance.

Best Regards,

Rafiuddin Palirungri.