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2 Executive summary

Numerous value chain approaches have been applied by development agencies, private sector firms and governments worldwide over the last two decades. However, relatively little research had been conducted on the effectiveness of these approaches for improving rural livelihoods, for achieving broader development goals and for encouraging sustainability. A systematic assessment of these approaches was therefore timely to enable policy-makers and the private sector to make better-informed decisions about long-term sustainability strategies.

The overall goal of this project was thus to improve smallholder livelihoods and sustainability through more effective value chain interventions. It achieved this by rigorously evaluating the impacts of specific interventions in the coffee and cocoa sectors of Indonesia, and then disseminating research findings with key stakeholders and decision-makers within Indonesia and globally. The project examined the following three specific value chain interventions: i) Certification schemes and sustainability standards; ii) Buyer linkages and relationship coffees between farmers and roasters; iii) The establishment of Geographical Indications (GIs). In addition, the project also assessed policy strategies for downstream industrialisation within the Indonesian coffee and cocoa sectors.

Overall, the project found that buyer-driven value chain interventions facilitated a transfer of resources and technical know-how into rural communities, which enhanced the livelihood assets for some individuals. However, one of the key contributions of the project was to document the limitations, in terms of broader developmental impacts, of these interventions in complex social and physical landscapes, particularly where household livelihoods are diverse. We identified a tendency for proponents to overstate the development impacts in these contexts, and the project has consequently contributed to a global reformulation of the sustainability strategies adopted by major commodity buyers.

Research findings were published in top-ranking academic journals, and disseminated widely in videos, podcasts, reports, seminars and conferences to industry actors, governments, development agencies and non-governmental organisations. The research has had, and continues to have, real-world impacts alongside scholarly influence. Specifically, the research led a global push to recalibrate private sector sustainability strategies in the following ways:

Limits of supply chain sustainability standards: Recognising their developmental limitations, major commodity buyers have begun to decrease their dependence on third-party standards and are instead experimenting with alternative "area-based" corporate sustainability strategies.

Need to adopt a service-delivery orientation: Our research highlighted the absence of inherent benefits to smallholders from many value chain interventions (with reputational benefits instead accruing to downstream actors). We specifically called for a greater service delivery orientation, which has subsequently been adopted by many industry actors as a Service Delivery Model (SDM).

Addressing landscape dynamics: The project emphasised how rural development outcomes were a product of the way value chain interventions intersected with broader social and landscape dynamics, and this contributed to the more recent global trend towards "landscape approaches" to sustainability.

Industrial policy and global value chains: By analysing industrial development as coconstructed by the "strategic coupling" of value chain governance structures with regional institutional settings, we helped familiarise the concepts of "global value chains" and "global production networks" within Indonesian policy-making circles.

3 Background

Key Issues and opportunity

The livelihood and sustainability benefits of value chain interventions, enacted by development agencies, the private sector and government actors, were inconclusive and actively debated by industry actors and within the academic literature. Despite this, numerous interventions had already been introduced in the Indonesian coffee and cocoa industries, including:

- 1. Certification and verification schemes for sustainable production, such as Rainforest Alliance, Utz Certified, the Common Code for the Coffee Community and the Starbucks Cafe Practices Scheme (*Certification Schemes*),
- 2. Facilitating closer vertical relationships between producers and lead firms (in both domestic and international markets) through enhanced buyer linkage programs (*Buyer Linkages*),
- 3. The protection of regional brand assets as place-based intellectual property with subsequent enforcement through the value chain (*Geographical Indications*),
- 4. Industrial policies that support domestic upgrading into new value chain functions through the downstream processing of coffee and cocoa beans (*Downstream Processing*).

Despite these initiatives, relatively little systematic research had been conducted on their effectiveness in improving rural livelihoods, for achieving broader development goals and for encouraging sustainability, such that the project addressed the following research questions:

- 1. What is the effect of certification schemes on smallholder livelihoods and environmental outcomes in producing regions?
- 2. Does development support for stronger buyer linkages along agricultural value chains result in improved rural livelihoods and poverty alleviation?
- 3. Does the legal protection of regional product identities through Protected Geographical Indications provide a viable model for rural development in the Indonesian specialty coffee industry?
- 4. How could government policies more effectively incorporate a value chain approach to agricultural development and industrial policy in the coffee and cocoa sectors?

Justification

Coffee and cocoa were Indonesia's third and fourth most important sources of agricultural export earnings (after rubber and oil palm) in 2011 (BPS, 2011). An estimated 2 million farm households across Indonesia were involved in coffee and cocoa production. In comparison with Indonesia's other major export-oriented agricultural commodities, coffee and cocoa are both overwhelmingly smallholder crops, and are consequently held to have a greater strategic importance for poverty alleviation. The typical coffee or cocoa farmer cultivates a one-hectare plot in an isolated region with poor access to social services, and with an income that oscillates either side of the poverty line depending on conditions in world commodity markets. Coffee and cocoa farming perform important social security functions across Indonesia by injecting cash into many otherwise impoverished rural areas, where few alternative employment options exist. Improved value chain interventions in these industries, therefore, have the potential to substantially improve the livelihoods of many vulnerable rural households within Indonesia, and indeed globally.

A range of value chain approaches to sustainability and development were evident in both the cocoa and coffee industries in Indonesia. These approaches had received significant policy attention from international development agencies (Australian Aid, USAID, GTZ, the IFC, Swiss Contact, UNDP, VECO, and the Ford Foundation), NGOs (WWF,

Conservation International, the Common Code for the Coffee Community), government departments (Department of Agriculture, Department of Industry, Department of Trade, and the Departure of Justice), and the private sector (Ecom, Starbucks, Mars, Nestlé, Mondelēz, and several smaller specialty coffee buyers).

As the project was in the design phase, we published a review documenting how value chain approaches to development had become widely adopted by various international development agencies globally (Neilson, 2014). Despite this widespread implementation, relatively little research had been conducted on the effectiveness of the approach for poverty reduction, livelihood improvement, achieving broader development goals and sustainability. Given the number of interested stakeholders involved, such research had considerable applied policy interest.

Certification schemes attempt to provide assurance to consumers about product origin, quality, safety, social or environmental attributes. In the process, they create a conduit for linking farmers with new markets, and an exchange of knowledge and development assistance along a value chain. It was clear, however, that the impact and effectiveness of the various value chain schemes was variable or unclear, and systematic assessment was relatively undeveloped (Bray and Neilson, 2017). While buyer-driven interventions in farm-practices were widespread, there was a lack of impartial evidence of actual smallholder benefits and the constraints limiting smallholder engagement in such systems. Throughout the course of the project, proponents of value chain interventions became aware of these limitations and actively sought alternatives to standard practices. Active engagement with these ongoing debates constituted the primary focus of the project.

Addressing a research gap: Previous research on value chain interventions

Just prior to project commencement, Blackman and Rivera (2010) concluded that empirical evidence on the benefits of sustainable certification was extremely limited, and that the use of diverse methodologies was a key cause of inconsistent results. Some findings included: farm-level profitability was negatively affected in some cases (Lyngbaek, 2001; Kilian et al., 2006; Valkila, 2009); price premiums and enhanced profitability were elsewhere documented (Bacon, 2005; Wollni and Zeller, 2007; Kamau et al., 2010; Gibbon et al., 2009; Jones and Gibbon 2011); while other studies emphasised broader social outcomes beyond economic benefits (Bacon et al. 2008; Utting, 2009; Ruben and Fort, 2012). A comprehensive desk-based report published by the IIED (Blackmore et al., 2012, p. 83) claimed that "we were unable to identify any existing research on the impacts of certification in Indonesia" highlighted the research need for the project in Indonesia.

A review of thirty donor-led value chain interventions (buyer linkage schemes in the terminology used in our project) by Humphrey and Navas-Alemán, 2010) concluded that despite ample anecdotal evidence from donors about the efficacy of a value chain approach to development, there have been virtually no systematic impact assessments conducted. Collections of case studies led by the World Bank show limited benefits and mixed results for producers and also a failure to develop or utilize consistent impact assessment methods (Jaffee, Henson, and Rios 2011). At the time, no systematic impact assessment has been conducted on the poverty alleviation effects of buyer-linkage value chain interventions in Indonesia.

The literature on Geographical Indications (GIs) was even more scarce. GIs had, however, been associated in some instances with employment creation, price increases, and protection of cultural property (Giovanucci et al., 2009), although this came at a price and there were several caveats. Giovanucci et al. (2009) recognised that GIs can be difficult and costly to establish and enforce, and can come to be dominated by local political elites. There had been no systematic assessment of the suitability of GIs in Indonesia, and no attempts to assess the developmental impact of existing GIs in the coffee industry.

The value chain literature had long referred to downstream processing as "functional upgrading" (Gereffi, 1999; Gibbon, 2001; Humphrey and Schmitz, 2002). Drawing primarily from processes of industrialisation in East Asia, this literature identified demand-responsiveness (Hamilton and Gereffi, 2009) as a key determinant of functional upgrading, instead of the more rigid applications of import-substitution policies that dominated earlier development strategies. Few attempts had been made to apply the theory of value chain functional upgrading to the primary commodities sector through resource-based industrialisation. This project addressed this gap.

4 Objectives

The overall goal of this study was to improve smallholder livelihoods and economic development through more effective value chain interventions.

Objective 1: Assess the farm-level impacts of introducing **certification schemes** for sustainability on smallholders in the coffee and cocoa industries of Indonesia.

- 1. Conduct a comprehensive literature review on the internationally documented farm-level effects of certification schemes. This will include a review of the evidence and strength of correlation between individual indicators and on-ground livelihood and environmental sustainability impacts.
- 2. Conduct multi-year household surveys at two coffee and two cocoa growing regions, including one RCT for each commodity, across Indonesia to determine the impacts of certification on a range of sustainability indicators monitored at the farm-level.
- 3. Identify institutional determinants, mechanisms and causal relationships between value chain arrangements, certification and observed farm-level effects through field-based observations, stakeholder interviews and analysis.
- 4. Generate recommendations for improving the farm-level benefits of certification, and work together with industry / development partners to introduce these recommendations.

Objective 2: Assess the impacts of **buyer linkage** value chain interventions on smallholder livelihoods and poverty alleviation pathways in rural areas.

- 1. Conduct a comprehensive literature review on the documented impacts of valuechain linkage projects on poverty alleviation and economic development,
- 2. Determine the extent to which donor agencies and the private sector have engaged with, evaluated and documented poverty reduction impacts from buyer-linkage interventions in rural Indonesia,
- 3. Facilitate the establishment of 'relationship coffees' at different locations across Indonesia through action-research interventions,
- 4. Conduct multi-year household surveys at four coffee growing regions, involved in buyer-linkage interventions, to determine the impacts on smallholder livelihoods monitored at the farm-level.
- 5. Generate recommendations for improving the farm-level benefits of buyer-linkage schemes, and work together with industry / development partners to implement these recommendations.

Objective 3: Analyse the costs, benefits and legal enforceability of establishing **Geographical Indications** as a rural development tool in the Indonesian specialty coffee industry.

- 1. Conduct a comprehensive literature review on the internationally documented impacts of geographical indications as a development tool.
- 2. Determine the viability of legally enforcing GIs within the Indonesian legal system, and in the global market, through a review of Intellectual property case law.
- Evaluate the social and economic impacts of three existing GIs in Indonesia (Gayo, Kintamani and Bajawa) on rural livelihoods through a farmer-based survey and stakeholder interviews.
- 4. Establish a Theory of Change for how GIs are expected to result in improved rural development in the Indonesian coffee sector.

5. Provide recommendations on geographical indications as a rural development tool in the Indonesian coffee industry.

Objective 4: Determine the extent to which a value chain perspective could be beneficial for the design of state-led **downstream processing** programs in the Indonesian coffee and cocoa sectors.

- 1. Conduct a review of the international experience of value chains and functional upgrading, with a specific focus on recent developments in the international coffee and cocoa sectors,
- 2. Analyse recent Government of Indonesia development policies in the coffee and cocoa sectors to ascertain the extent to which they are informed by an understanding of value chain dynamics and opportunities,
- 3. Identify the impact of current industrial policies on the downstream processing of cocoa and coffee beans within Indonesia, using indicators such as investment levels, changing export structure of raw and processed products, employment estimates, farm-gate price effects,
- 4. Generate policy recommendations for effectively integrating value chain approaches to industry development programs in Indonesia.

5 Methodology

5.1.1 General Methodology

The project assessed the farm-levels impacts of three different value chain interventions: Objective 1 (Certification Schemes); Objective 2 (Buyer Linkages); and Objective 3 (Geographical Indications). Farm household surveys were critical aspects of Objectives 1-3, but were complemented with other data collection activities related to the specific value chain intervention. The methodology thus utilised a mixed methods approach that drew upon both quantitative and qualitative analysis. The scale of analysis for Objective 4 (downstream processing) was at the regional and national, rather than the household level.

In total, there were 14 field-based case studies (Table 1): three cocoa case-studies, nine Arabica coffee case-studies and two Robusta coffee case-studies. Coffee and cocoa growing provinces with significant existing value chain interventions were chosen. Given the highly participatory nature of the research, it was necessary to establish relationships with key stakeholders, and so sites were also dependent on the willingness of industry partners to collaborate.

Value Chain Intervention	Location	Commodities	Key stakeholders	Key Researchers
Certification	1. North Luwu (South Sulawesi)	Сосоа	Swiss Contact / Mars	UNHAS
	2. North Aceh	Сосоа	Swiss Contact	J-PAL / USYD
	3. Semende (South Sumatra)	Robusta Coffee	Ecom / Mondelez / JDE	ICCRI / J-PAL / USYD
	4. Lampung	Robusta Coffee	SCOPI	UNILA / USYD
	5. North Sumatra	Arabica Coffee	Ecom	ICCRI / COSA
Buyer Linkages	6. North Sumatra	Arabica Coffee	5 Senses	ICCRI / USYD
	7.West Java	Arabica Coffee	Morning Glory	ICCRI / USYD
	8. Bajawa (Flores)	Arabica Coffee	Kopi Bumi	ICCRI / USYD
	9.Enrekang (South Sulawesi)	Arabica Coffee	Megahputra	ICCRI / USYD
	10. North Toraja (South Sulawesi)	Arabica Coffee	Coffeewar	UKIT / USYD
	11. Luwu (South Sulawesi)	Cocoa	Mars	USYD
Geographical	12.Bajawa (Flores)	Arabica Coffee	ICCRI / Pemda	ICCRI / USYD
malodions	13.Gayo (Aceh)	Arabica coffee	ICCRI / Pemda	ICCRI / USYD
	14. Kintamani (Bali)	Arabica coffee	ICCRI / Pemda	ICCRI / USYD

Table 1 Field Study Sites

5.1.2 Assessing the farm-level impacts of introducing certification schemes for sustainability in the coffee and cocoa industries of Indonesia (Objective 1).

Activity 1: This assessment commenced with a comprehensive literature review on the internationally documented farm-level effects of various certification schemes. This was conducted at the University of Sydney and included a review of the evidence and correlations underpinning the link between individual indicators and on-ground livelihood and environmental sustainability impacts. A matrix framework was designed to record the existing evidence between impacts and indicators such as prices received, improved social cohesion, access to finance, market access, and specific environmental practices. The review article was published in an academic journal (Bray and Neilson, 2017) and has been widely cited for its contribution to understanding potential livelihood impact pathways.

Activity 2: Household livelihood surveys constituted the primary method of assessment for Objective 1, although the sampling design and survey tool varied across the five sites. Initial commodity-based workshops were held in April 2013 to develop research design in a collaborative way with industry actors. At the cocoa workshop, hosted by the Cocoa Sustainability Partnership (CSP), results of a 2012 pilot study were presented to industry stakeholders alongside the proposed methodology and indicators for the ACIAR Survey. The workshop helped to finalise the indicators used in the study. Training sessions for enumerators (from SurveyMETER, UNHAS, and UNILA) were conducted by the University of Sydney, ICCRI and J-Pal Southeast Asia prior to conducting field surveys. COSA provided substantial technical support to ICCRI for the analysis, particularly in years 1 and 2 of the project, after which in-house capacity at ICCRI was well-developed and assistance subsequently provided remotely.

Research methods used at each of the five sites will now be briefly described.

Semende: Probably the most rigorous methodology was applied at this site, involving multi-year household surveys (2015, 2017, 2019) of around 1500 coffee-growing households each year (using panel data). These field surveys were conducted by a professional survey firm (SurveyMETER) and supervised by the Jakarta office of J-PAL Southeast Asia. The research design included a comparison of 4C-certified versus non-4C farmers, which were matched using Propensity Score Matching (PSM) and Instrumental Variables (IV). We then applied a randomised control trial (RCT) research design to assess the effect of "upgrading" from the "entry-level" 4C standard to the more stringent Rainforest Alliance certification, which were randomly allocated at the farmer group level. Household responses were then further supported by an observation-based soil survey undertaken by ICCRI.

North Aceh: This cocoa-producing site involved working with Swiss Contact to manipulate a rolling baseline for the introduction and roll-out of a sustainability program. In total, 558 households were surveyed over a 3-year period (2018-2020). Surveys were again undertaken by SurveyMETER under the supervision of JPAL-Southeast Asia. The rolling baseline approached allowed a quasi-experimental research design to minimise the distorting effects of selection bias.

North Luwu: In 2018, A study on the gender effects of certification was undertaken in this cocoa-growing region. 466 cocoa-growing female representatives of households were surveyed by researchers from UNHAS. The sample were all enrolled in a Swiss Contact program (SCPP), but the sample hosueholds were further stratified into: i) households Rainforest Alliance-certified by Mars' ii) households Rainforest Alliance-certified by Mars' ii) non-certified households. 90 farmer group leaders were also surveyed.

Lampung and South Sumatra: A list of over 6,000 4C-enrolled coffee producers were obtained from three coffee firms in these two provinces. From these, 558 household

representatives were surveyed across five sites and from the supply bases of the three firms. Sites included the districts of Tanggamus, West Lampung and Muara Enim. A relatively straight-forward survey tool was specifically designed to gain an understanding of farmer attitudes towards, and perceptions of, buyer-driven sustainability programs. All farmers were 4C-certified. Surveys were undertaken by researchers from UNILA and a PhD student from the University of Sydney.

North Sumatra: This site involved leveraging a 2012 baseline survey of 209 farmers in Dairi district undertaken by COSA. The target farmers had just obtained both UTZ certification and C.A.F.E. Practices verification in October 2012, while a matching control group was selected and measured to enable a proper assessment of the impacts of sustainability efforts on the target farmers. In 2016, ICCRI researchers tracked down 72 of the 200+ farmers who participated in the 2012 survey and surveyed 58 farmers. The certification program and trade network, however, had effectively dissolved during the intervening years, and this affected the ability to undertake a meaningful analysis on the original baseline data.

Activity 3: It was necessary to identify the causal mechanisms and contexts through which any observed changes actually occurred, and this was achieved through a series of in-depth interviews and village-level case studies, which relied upon qualitative research methodologies. Interviews were undertaken with various stakeholders, including the certification agencies, the sustainability managers of implementing companies, the internal control system (ICS) officers, local traders, government representatives and village leaders, and with participating farmers. Four detailed village-level studies using participant-observation techniques were undertaken in Lampung and South Sumatra by a PhD student from USYD in close partnership with *skripsi*-level students from UNILA. This added further ethnographic observations and analytical depth to these studies. A 2018 study of Fairtrade cooperatives in Aceh was also undertaken by USYD and ICCRI, and involved an Australian masters-level student.

Activity 4: Research findings, with specific recommendations, were provided to various industry stakeholders by way of preliminary reports, workshops, seminars, conferences, and podcasts. ISEAL, SCOPI, ASKINDO and the CSP were all particularly important platforms for wider research dissemination. A full list of project dissemination activities is provided in Section 8.4.

5.1.3 Assessing the impacts of buyer linkage value chain interventions on smallholder livelihoods and poverty alleviation (Objective 2)

Activity 1: A detailed literature review of international research was undertaken to document impacts of value-chain linkage projects on poverty alleviation, industrialisation and economic development. This review examined internationally documented farm-level effects of value chain donor interventions that adopted 'lead-firm' and 'buyer-linkage' approaches to development. This was undertaken by researchers at the University of Sydney and ICCRI. During the first year of the project, key researchers from USYD, ICCRI, UNILA, and UNHAS were involved in a 'value chains' workshop held in Bandung to ensure all researchers possessed a similar intellectual framework of analysis for the various interventions being examined.

Activity 2: The extent to which poverty impacts have been addressed, assessed and documented under past value chain interventions in Indonesia was determined through a systematic desk review of project documents for past (and ongoing) value chain linkage projects in Indonesia, combined with interviews with key informants involved in those projects). These will include activities performed by USAID, the IFC, SwissContact, and Veco. This activity was conducted by ICCRI researchers with assistance from the University of Sydney, and provided the insights needed to design appropriate methodologies under subsequent activities.

Activity 3: The emergence of 'relationship coffees', where specialty roasters develop unique links with growers at origin, was a defining feature of the so-called 'third wave' of coffee consumption (Silva et al. 2012). The livelihood impacts of these relationships, however, were poorly understood, and were generating much heated debate within the specialty coffee industry. This activity primarily involved an 'action-research' methodology, whereby researchers actively supported and facilitated closer trade relationships between farmer organisations and specialty coffee buyers (Case studies 8, 9 and 10). Case studies 6 and 7 were established directly by the firms and were monitored by the research largely without 'action-research' support. The general approach to the 'action-research' facilitations was to assist farmers deal with the commercial demands of specialty buyers through technical advice, and to provide advice to assist buyers to manage their relationships with farmers. Further advice was also provided to the established relationship under case study 6, including presenting the firm with a 'Theory of Change' report. Minor financial support for infrastructure development at the farm-level was provided by the project, although buyers were encouraged to make their own investment in local infrastructure as part of the relationship-building process (and most did this). This research approach enabled an 'insiders' perspective on the value chain, and so generated innovative research findings. The relationships were then monitored over successive harvests to determine the extent to which expectations were met and constraints identified. A case study involved field visits and interviews was also undertaken of the Mars Cocoa development program on the island of Sulawesi.

Activity 4: This activity involved household level surveys designed and developed specifically for each site. Where appropriate and practically feasible, farmers enrolled in the intervention were selected as a target group alongside a control group. Livelihood indicators used included pricing, labour allocation, yield, access to technical advice, access to finance, profit-sharing, and employment, alongside wealth indicators such as the possession of particular material goods. The following household surveys were undertaken in relation to these value chain linkage interventions: West Java (2015, 86 households); North Sumatra (2015, 200 households); North Toraja (2018, 32 households); Bajawa (2020, 100 households). These household surveys were then complemented by ethnographic fieldwork, participant-observation and stakeholder interviews. Content analysis of roaster websites was also undertaken to understand the way relationship coffees were being presented to consumers.

Activity 5: Specific recommendations were developed in consultation with implementing agencies and companies through a series of workshops and discussion groups, and included the specific design of a Theory of Change document for case study 6 and presented to the roaster involved. The primary audience was the domestic and international specialty coffee community, who were specifically targeted through the engagement activities listed in Section 8.4.

5.1.4 Assessing the costs and benefits of establishing Geographical Indications as a rural development tool (Objective 3)

Activity 1: A comprehensive literature review on the internationally documented impacts of geographical indications (GIs) as a development tool was undertaken by researchers at USYD and ICCRI. This drew upon both the peer-reviewed academic as well as the "grey literature" published by development organisations.

Activity 2: Geographical Indications are a legal form of intellectual property, and their effectiveness depends on being able to enforce the exclusive use of the GI identity within the market. The project therefore examined the practical viability of legally enforcing GIs within both the Indonesian legal system and internationally through a review of Intellectual property case law. This was conducted at the University of Sydney and involved a legal review of the regulations recognising GIs as a form of intellectual property, the nature of

implementing regulations and procedures, along with a review of any GI cases within the Indonesian court system.

Activity 3: In order to assess the social and economic impacts of existing GIs on rural livelihoods, a study of the three coffee GIs (Bajawa, Kintamani and Gayo) was undertaken. This activity involved a 2016 survey of 156 coffee farmers living in Kintamani and Bajawa to determine their attitudes towards, knowledge of, and benefits derived from the GIs. This household survey was complemented by a series of stakeholder interviews with heads of farmer organisations, exporters, local roasters, and international importers and roasting firms to collect data on the perspective, and attitude, of these industry actors, towards the GIs, providing general insights into the benefits of this intervention. A retailer survey of coffee products sold in Indonesian supermarkets and sold under protected place names was undertaken in Jakarta, and complemented an analysis of roaster websites to identify apparent violations of GI intellectual property. These various data collection techniques enabled an assessment of progress along the Theory of Change (Activity 4), which was then used as the primary analytical method. A further field study in 2018 was conducted in the Gayo region of Aceh by researchers from the University of Indonesia, involving a 100-respondent survey, the results of which were then compared against GIs in Thailand and Colombia.

Activity 4: Researchers from USYD and ICCRI drafted a Theory of Change document for Geographical Indications in the Indonesian coffee sector following a field-based assessment of the functioning a variety of different regional GIs (Bajawa, Kintamani, Ijien, Central Java, and West Java). This involved interviewed with GI producer boards (MPIGs) and farmers in five different GI regions. This then produced a draft Theory of Change document for circulation to a wide section of stakeholders, which was then discussed at a workshop with GI representatives in Surabaya in 2016, where the draft Theory of Change document was discussed, debated and edited. This resulted in the final Theory of Change document used in the study.

Activity 5: Recommendations on geographical indications as a rural development tool in the Indonesian coffee industry were very actively provided, shared and debated with government, development agencies and the international specialty coffee sector. A full list of project dissemination activities is provided in Section 8.4.

5.1.5 A value chain perspective on the downstream processing of Indonesian coffee and cocoa products (Objective 4)

Activity 1: A desk-based review was conducted by the University of Sydney and ITB on the international experience of value chains and *functional upgrading* (ie. downstream processing). This study then involved two international case-studies (Brazil and China), where national governments have actively intervened - apparently successfully - to support downstream processing in the coffee sectors of each country. The focus of these case-studies was to analyse the relationship between state policies and global value chain structures that combine to shape outcomes for industrialisation. This analysis included data collection on industrial policies, processing facilities and their ownership in other coffee and cocoa producing countries.

Activity 2: Recent Government of Indonesia development policies in the coffee and cocoa sectors were analysed to ascertain the extent to which they are informed by an understanding of value chain dynamics and opportunities. This activity (led by ITB researchers) involved content analysis of policy documents, presentations, speeches and newspaper articles, and focused on the increasingly popular policy notion of *hilirisasi* (downstream industrialisation in the resource sectors). The analysis generated a strategically important platform for informing the subsequent preparation of policy papers under the project. The study included an analysis of Indonesia's place within GVCs for coffee and cocoa.

Activity 3: This activity, also led by ITB researchers, involved collecting data on the impact of industrial policies on the downstream processing of cocoa and coffee beans within Indonesia. This was achieved through a review of the current state of the coffee and cocoa processing sectors in Indonesia, involving the collection and analysis of export data (and the changing structure of raw and processed products over the last decade), an analysis of investment data and the installed capacity of processing facilities, ownership patterns (eg. domestic versus foreign) of processing facilities, farm-level effect of industrial policy, changing supply chain strategies, employment estimates in processing, and changing patterns of domestic consumption. Much of the analysis involved desk-based research and the collation of secondary economic data. This was complemented with a series of stakeholder interviews with industry actors, processing managers, exporters, and government officials.

Activity 4: The three preceding activities (an international policy comparative, Indonesian policy analysis, and Indonesia industry analysis) provided the necessary background for direct engagement with Indonesian government policy-makers. These research findings were effectively communicated to government decision-makers, including the Ministry of Trade, the Coordinating Ministry of Economic Affairs, and in-country researchers at the World Bank. Members of the research team participated in relevant industry development seminars and workshops organised by government and industry actors throughout the project. A policy paper was presented to the Ministry of Trade in 2018 and subsequently published in *World Development*.

6 Achievements against activities and outputs/milestones

Objective 1: To assess the farm-level impacts of introducing certification schemes for sustainability in the coffee and cocoa industries of Indonesia

No.	Activity	Outputs	Completion date	Comments
1.1	Literature review on farm-level effects of certification schemes.	Completed and published	2017	Article published in International Journal of Biodiversity Science, Ecosystem Services & Management (and widely cited)
1.2.1	Stakeholder planning workshops – cocoa & coffee	Initial workshops held with CSP, ASKINDO, ICCRI, Cocoa Board, SCOPI, IDH	2016	Completed
1.2.2	Data management systems designed	System designed	2015	Completed
1.2.3	Researcher training in survey methodology	Researchers trained	2015-2016	Completed
1.2.4	Field surveys conducted	Semendo 2015 Baseline (1588 respondents) Semendo 2017 Midline (1500 respondents) Semendo 2019 Endline (1500 respondents) Southern Sumatra Perceptions survey (550 respondents) 2015 North Sumatra COSA follow-up survey (58 respondents) in 2016 North Luwu cocoa study on gender in 2018 (466 respondents) North Aceh cocoa study (550 respondents) from 2018-2020	2019	Final survey rounds completed in 2020
1.2.5	Survey data cleaning and analysis	2015, 2017 and 2019 Semendo data cleaned and analysed	2016-2020	ISEAL Report published based on 2015 and 2017 rounds.
		from COSA Vietnam survey 2016 North Sumatra	2018	Data analysed – unpublished North Sumatra data
		CIEdHEU	2019	was not used
		2018 Gender study cleaned and analysed	2017	Presented to Industry (CSP and Mars)
		Perceptions data analysed		Working paper circulated
		North Aceh cocoa data analysis	2020-2022	Data analysed for publication
1.2.6	Annual Stakeholder Meetings – cocoa & coffee	Regular workshops held with SCOPI, ISEAL and local government (Muara Enim).	2015-2020	Meetings held and results shared

1.3.1	Stakeholder interviews	Interviews completed	2015-2019	Insights used for various publications
1.3.2	Village-level case studies	4 village studies completed in Lampung and South Sumatra	2016-2017	Article published in Asia Pacific Viewpoint Josh Bray PhD Thesis accepted 4 UNILA skripsi accepted
1.3.3	Institutional Analysis of certification schemes in Indonesia	Kankanamge study on the "Role of Business in sustainability"	2015	Kankanamge, GMT Masters Thesis
		Fairtrade Gayo Study completed Josh Bray study in South	2018	Kayla Lochner Masters Thesis (article prepared for <i>Asia Pacific</i>
		Sumatra finished		Viewpoint) Article published in Singapore Journal of Tropical Geography
1.3.4	Estimate costs of implementing certification schemes	Undertaken as part of 1.3.1	2015-2019	Completed by researchers at UNILA
1.4.1	Annual reports prepared for stakeholders	Annual reports prepared for ACIAR	2015-2019	Reports circulated to advisory group
		Specific reports prepared for ISEAL and SCOPI	2016, 2018	ISEAL Reports disseminated to international stakeholders
1.4.2	Results prepared for academic publication	 Articles published in: Asia Pacific Viewpoint, Singapore Journal of Tropical Geography International Journal of Biodiversity Science, Ecosystem Services & Management. Research Reports published by ISEAL on Evidensia. 	2017-2019	Articles already published and widely cited and discussed. Further publications are in draft format based on quantitative survey data analysis.
1.4.3	Results presented at conferences, industry seminars, workshops and online forums	Various conferences included ASIC and other industry and government events	2014-2022	Numerous presentations during project (see Section 8.4)

Objective 2: To Assess the impacts of buyer linkage value chain interventions on smallholder livelihoods and poverty alleviation

No.	Activity	Outputs/ milestones	Completion Date	Comments
2.1.1	Literature Review on 'Value Chains for Development'	Literature review completed.	2015	Paper prepared by Faila Hartatri (ICCRI)
2.1.2	Value Chains conceptual Workshop	'Value Chains' workshop held in Bandung.	2015	Completed and shared understanding developed
2.1.3	Conceptual papers prepared for publication	'Value Chains' papers prepared by workshop participants.	2015	Discussion Papers prepared and shared

2.1.4	Value Chains Conference in Indonesia	Agri-Food Research Network conference held in Bandung	2017	Hosted by ITB with strong international attendance (200+ attendees)
2.2	Review of value chain activities in Indonesia	Review completed.	2014	Published in <i>Review</i> of International Political Economy
2.3	Support provided for value chain linkages	Value chain linkages developed in Enrekang, Toraja, Bajawa, Sumedang and Simalungan	2015-2020	Farmers benefit from linkages
2.4.1	Design survey indicators	Planning workshop held and survey too developed.	2015	Completed
2.4.2	Researchers training in survey methodology	Field researchers appropriately trained	2015	Completed
2.4.3	Field surveys conducted	Survey data collected in Enrekang, Toraja, Sumedang, Bajawa and Simalungan	2015-2020	Completed
2.4.4	Stakeholder interviews	Stakeholder interviews held	2015-2019	Completed
2.4.5	Data analysis	Preliminary / final results disseminated to stakeholders	2016	Theory of Change presented to Five Senses
2.5.1	Stakeholder Workshops (combined with Activity 1.2.6)	Annual Workshops held	2015-2019	Completed
2.5.2	Preliminary research papers prepared	Reports made available to stakeholders within Indonesia and journal articles published in: - Review of International Political Economy - World Development - ASIC Coffee science conference proceedings - Handbook on Global Value Chains - Roast Magazine - The Conversation - Innovative Markets for Sustainable Agriculture (FAO) - Singalong Journal	2017-2019	Journal articles published in <i>Review</i> of International Political Economy and World Development, have been particularly widely cited by other scholars and development agencies
2.5.3	Presentation of results at conferences, industry seminars, workshops and online forums	Numerous presentations during project	2014-2020	Numerous presentations during project (See Section 8.4)

Objective 3: To analyse the costs, benefits and legal enforceability of establishing Geographical Indications as a rural development tool in the Indonesian specialty coffee industry

No.	Activity	Outputs/ Milestones	Completion date	Other Comments
3.1	Literature Review	Geographical Indications, GPNs and power: a review of the literature	2016	Led by Josephine Wright
3.2.1	Legal review of GIs within the Indonesian legal system	Article published in the European Intellectual Property Review	2017	Led by Simon Butt

3.2.2	Legal field visits to GI coffee case studies	Visits undertaken	2017	Completed
3.2.3	Report finalised on the viability of legally enforcing GIs within the Indonesian legal system	Article published in the European Intellectual Property Review	2017	Article published
3.3.1	Household survey designed	Survey prepared and piloted	2016	Completed
3.3.2	Survey implementation in Gayo, Kintamani and Bajawa	Survey in Kintamani and Bajawa completed	2016	Completed (USYD, ICCRI)
		Survey in Gayo completed	2017	Article by Triska Damayanti (UI)
3.3.3	Survey data analysis	Bajawa (2016) 100 respondents	2016	Completed
		Kintamani (2016) 56 respondents Gavo (2017) 100 respondents	2016	
			2017	
3.3.4	Stakeholder interviews + focus groups in Gayo, Kintamani and Bajawa	Interviews undertaken	2016-2017	Completed
3.3.5	Value chain interviews	Interviews undertaken	2016-2017	Completed
3.3.6	Research report prepared	Research findings written up and published in: - Journal of Rural Studies - International Journal of the Commons	2017	Published in top-ranking international journals. Research theses written by Josephine Wright and Triska Damayanti
3.4.1	Field Assessment of existing GIs	7 GIs visited	2016	Review prepared
3.4.2	Prepare draft Theory of Change (ToC)	ToC prepared and circulated.	2016	Theory of Change Document disseminated
3.4.3	Stakeholder Interviews and community workshop in Surabaya	Workshop held	2016	Completed
3.4.4	Value chain interviews	Interviews undertaken	2016-2017	Completed
3.4.5	Revised ToC report prepared	ToC document Finalised	2017	Theory of Change Document available
3.5.1	Policy paper and recommendations prepared and shared with donors / industry actors	Research papers circulated / published, including at the Specialty Coffee Association of America (SCAA)	2018-2019	Intensive engagement with national and international stakeholders
3.5.2	National workshop on Gls	GI Workshops held in Surabaya (June 2016), Sanur, Bali (April 2018), and Jakarta (August 2018)	2016-2018	Completed. Further details in Section 8.4.

Objective 4: To promote a value chain perspective on the downstream processing of Indonesian coffee and cocoa products

No.	Activity	Outputs/ milestones	Completion Date	Other comments
4.1.1	International comparative study of agro-industrialisation	Comparative study (China) completed 2016	2016	China study published in the <i>Singapore</i>
		Comparative study (Brazil) completed 2018	2018	Journal of Tropical Geography

4.2.1	Analysis of Government of Indonesia <i>hilirisasi</i> policies	Report / article prepared by ITB	2018	Policy Paper presented at Ministry of Trade
4.2.2	Global Value Chain study of coffee and cocoa industries	Journal papers prepared	2018	Paper published in Economic Geography
4.3.1	Detailed industrial policy impact proposal	Undertaken by ITB		Completed
4.3.2	Secondary data collection	Data collected by ITB	2018	Completed
4.3.3	Stakeholder interviews with industry actors and government	Interviews undertaken by ITB	2018	Completed
4.3.4	Research Report prepared	Reports made available to stakeholders within Indonesia and journal articles published in: - Singapore Journal of Tropical Geography - World Development - Economic Geography	2019	Paper published in top- ranking international journals.
4.4.1	Share recommendations with donors / industry actors	Research presented to Government	2018	Presented to Ministry of Trade and Canadian Trade Board (2018)
4.4.2	Seminar participation	Presented at conferences in Dunedin, Bandung and Trondheim. Seminars at Ministry of Trade	2017-2019 2018	Completed
4.4.3	Final Project workshops and seminars	Major workshops held in Jakarta, August 2018 Online workshops and conferences in 2020 and 2021	2018	Hosted by SCOPI (2020) and ICCRI (2021)

7 Key results and discussion

This project included a range of activities that covered a number of topics and research questions across the four key project objectives. The following results and discussion section thus provides summaries (or abstracts, where available) of individual research publications and outputs. Key findings addressing specific research objectives are underlined for clarity.

Research Questions

- 1. What is the effect of certification schemes on smallholder livelihoods and environmental outcomes in producing regions?
- 2. Does development support for stronger buyer linkages along agricultural value chains result in improved rural livelihoods and poverty alleviation?
- 3. Does the legal protection of regional brands through Protected Geographical Indications provide a viable model for rural development in the Indonesian specialty coffee industry?
- 4. How could government policies more effectively incorporate a value chain approach to agricultural development and industrial policy in the coffee and cocoa sectors?

7.1 Objective 1: Certification Schemes and Sustainability Standards

Donoghoe, M., Hilmy, M., Neilson, J., and Toth, R. (Unpublished). Certification or Certainty? Impacts of 4C Certification on Coffee Smallholder Livelihoods.

We evaluate the impacts of a voluntary sustainability program based on the most common global standard, 4C, in the Indonesian coffee value chain. The program is implemented by an international coffee exporter with smallholder farmers, and combines training, certification premium payments based on audited compliance with standards, and enhanced market access. We employ two complementary quasi-experimental approaches to identify the impacts of the program on farm and broader household livelihood outcomes. **Our results suggest that within the lens of coffee production, the program has modest impact. However, overall household income rises significantly, resulting in a decline in household poverty, as households shift labour from their coffee plots into other agricultural work. We posit that this is due to both to a reduction in perceived income risk due to enhanced market access, and the development of social capital through the program, which together allow households to diversify into higher-earning (but perhaps riskier) work. This highlights an alternate mechanism for linkages to international value chains to impact diversified, smallholder production units.**

Bray, J. G. (2019). Institutional environments and the livelihood impacts of voluntary sustainability standards: A Village-based analysis from southern Sumatra's coffee sector. *Singapore Journal of Tropical Geography*, 40(2), 291-311.https://onlinelibrary.wiley.com/doi/abs/10.1111/sjtg.12275

Lead roasting firms are operating through Indonesia's coffee exporters to introduce voluntary sustainability standards (VSS) in an attempt to secure supply, and to simultaneously meet corporate social responsibility requirements, even as empirical

studies continue to show uncertain benefits for producer livelihoods. Value chain interventions like VSS, however, are not rolled out over a blank canvas, and many contributing factors determine their overall impact on livelihoods, particularly the local institutional environment. This study assesses the extent to which variability of empirical outcomes is determined by the institutional environment, by identifying specific processes through which VSS interact with pre-existing social, political and economic institutions to influence livelihood outcomes. These include: firmspecific corporate strategies (including producer training); livelihood strategies of households (including access to assets); government programs; and local political economy, as manifest particularly through patronage between traders and suppliers. VSS have thereby become an additional institutional layer shaping livelihood strategies and regional development outcomes, best viewed as providing access to a new social network that may be exploited by producers. The interaction between VSS programs, livelihood strategies and pre-existing institutional environments in a particular place often dictates the variable outcomes for producers, making attribution of impact causation to VSS enrolment problematic.

Jeff Neilson, Russell Toth, Niken Sari, Joshua Bray, Manann Donoghue, Bustanul Arifin, Hanung Ismono (2019). *Final Report: Evaluation of the Impacts of Sustainability Standards on Smallholder Coffee Farmers in Southern Sumatra, Indonesia,* ISEAL FOUNDATION. <u>https://www.isealalliance.org/get-involved/resources/evaluation-impactssustainability-standards-smallholder-coffee-farmers-0</u>

This mixed-method study examines the impacts of sustainability standards on the livelihoods and poverty status of smallholder Robusta coffee farmers in southern Sumatra, Indonesia. The study combines qualitative and quantitative methodologies to assess whether farmer livelihoods are improved as a result of: i) initial involvement in a program audited against the Common Code for the Coffee Community (4C) standard; and ii) upgrading from 4C to the more stringent Rainforest Alliance (RA) Standard. Our study in the Semendo region indicated that 4C-enrolled farmers had slightly higher income levels, with a lower propensity to be in poverty, than non-enrolled farmers. Coffee management practices and coffee yields, however, had not dramatically improved. Therefore, we are hesitant to attribute improved well-being to the assumed theory of change pathway whereby enrolled farmers learn improved coffee-farming techniques, apply them, obtain higher coffee yields and subsequently higher incomes. Instead, program enrolment contributed to the enhancement of social capital and institutional strengthening, and these were responsible for generating significant non-coffee related benefits to the household. Across southern Sumatra, where certification is a strongly exporter-driven process, sustainability standards performed a pivotal role in triggering the upstream engagement with farmers by coffee trading firms and manufacturers. This engagement was associated with the establishment of farmer training centres, field schools and enhanced knowledge dissemination. New knowledge-dense social networks linked to international coffee firms have consequently been created as a result of sustainability standards. Coffee yields and coffee income decreased right across southern Sumatra during the study period between 2015 and 2017 due to a drought, but they decreased less among 4C farmers. 4C-enrolled farmers reported spending more time coffee-farming in 2017 than non-4C farmers, which could have been an important factor leading to lower yield decline. However, the relatively higher yields were not commensurate with the significantly increased labour allocations. The 4C program encouraged the increased planting of shade trees, and adoption of this practice increased. We believe that increased shade tree density was an important factor enhancing the resilience of coffee production during a debilitating dry season.

Bray, J. G. and Neilson, J. (2018) Examining the interface of sustainability programs and livelihoods in the Semendo highlands of Indonesia, *Asia Pacific Viewpoint*, 59(3). 368-383. <u>https://doi.org/10.1111/apv.12205</u>

Voluntary sustainability standards are used as both a means of securing coffee supply by large coffee firms and a development intervention to address rural poverty and environmental management in the Global South. Using a case-study approach, we have examined the interface between a value-chain sustainability programme and the livelihood trajectories of smallholder producers in upland Sumatra. Our research found the programme has had minimal impacts for coffee producers to date. The level of commitment required of producers appears incompatible with the particular way that coffee is currently embedded within local landscapes, livelihoods and poverty alleviation pathways. Various sustainability standards articulate a narrative of rural development underpinned by an assumption that agricultural modernisation is the preferred pathway out of poverty for rural households. As a result, there is some risk that sustainability programmes may be inadvertently attempting to encourage household investment in a particular kind of agriculture, which is intended to assist sustainability of supply, but is poorly aligned with prevailing processes of poverty alleviation. These observations are based on a detailed study of agrarian change among the Semendo people of South Sumatra province, where processes of rural development are far more complex than assumptions presented by mainstream sustainability standards.

Bray, J. G. and Neilson, J. (2017). Reviewing the impacts of coffee certification programmes on smallholder livelihoods, *International Journal of Biodiversity Science, Ecosystem Services & Management*, 13(1), 216-232. https://doi.org/10.1080/21513732.2017.1316520

Certification programmes and voluntary standards for sustainability are now a common feature of many agricultural landscapes worldwide. The rapid expansion of such programmes has only recently been accompanied by concerted attempts to assess the lived experience of enrolled producers. This article reviews empirical research assessing the impact of certification programmes on coffee smallholder livelihood assets, and presents an initial framework for both conceptualising and analysing change in livelihood assets resulting from certification. Several of the reviewed studies identified enhanced livelihood assets arising from certification under specific institutional and contextual settings, but causation was difficult to establish. A greater number of studies found either neutral or mixed impacts, and a small number reported negative impacts. While a consensus has yet to be reached regarding all livelihood impacts of certification programmes, we present a series of propositions that reflect widely reported impacts. Further findings drawn from the review include: (i) stronger pre-existing institutions within the producer community are more likely to result in benefits for individual households; (ii) the value chain structures through which certification programmes are implemented are highly varied and strongly influence livelihood outcomes; and (iii) methodologically, existing studies rarely present either reliable baseline data or a realistic control group for comparison, making causation difficult to establish. Across the studies, it can be surmised that certification is generally more likely to generate positive rather than negative impacts, although the large number of neutral/mixed findings suggests that a considerable degree of uncertainty persists. Our propositions aside, the research to date certainly does not provide an overwhelming endorsement of certification schemes and their impact on producer livelihoods.

Neilson, J. and Toth, R. (2016). Baseline Report: Evaluation of the Early Impacts of Sustainability Standards on Smallholder Coffee Farmers in Lampung and South Sumatra,

Indonesia, available at: <u>https://www.isealalliance.org/sites/default/files/resource/2019-02/ISEAL%20DIPI%20Indonesia%20baseline%20study%20report.pdf</u>

This baseline report presents the initial stage of a research project with the overarching goal to examine the impact on farmer livelihoods and poverty alleviation within Indonesian coffee-growing communities as a result of processes of verification or certification against different sustainability standards. This report presents the baseline survey results and preliminary findings for the project. **Our results suggest that within the narrow lens of coffee production, the program has modest impact, at best. However, overall household income rises significantly, and we see important improvement on a measure of poverty. This seems to be generated by households shifting labour effort from their coffee plots into other, potentially higher earning, agricultural work. We argue that this is consistent with the market access channel bringing about a reduction in cash income risk, and the development of social capital as a result of program enrolment, which together allow households to diversify into higher-earning (but perhaps risker) economic activities.**

7.2 Objective 2: Buyer linkages and relationship coffees

Dwiartama, A. hartatri, DFS, Neilson, J. and Vicol, M. (2020) Sembilan mitos tentang pengembangan petani kopi khas, *The Conversation*, 1 September 2020, <u>https://theconversation.com/sembilan-mitos-tentang-pengembangan-petani-kopi-khas-144879</u>

Neilson, J, Vicol, M. and Hartatri, DFS. (2019). 9 Myths about Coffee Farmer Development. A Closer Look at "Relationship Coffee" in Indonesia. *Roast Magazine*. <u>https://dailycoffeenews.com/2019/01/11/inside-roast-magazines-january-february-issue-now-shipping/</u>

The global specialty coffee sector has grown rapidly in recent years amid the increasing demand for high quality coffee. In Indonesia, coffee has long been a smallholder crop, typically grown by (often poor) family farmers before being traded as a commodity through a complex and long value chain to roasting and consumption. The trend in many specialty coffee value chains over the past decade, however, is towards closer relationships between specialty roasting firms and coffee farmers with a focus on producing high quality and traceable coffee. While such relationships appear to offer exciting opportunities for farmers, there has been little independent assessment to date of the development impacts of relationship coffee in their communities. Just what kinds of relationships or value chain structures lead to what outcomes for farmers remains under-researched, and the claims made by specialty roasters about the benefits of relationship coffee are largely unverifiable. Our research, conducted over the last ten years in Indonesia, suggests that the development outcomes of relationship coffee interventions can often be disappointing. Here, we identify some of the pitfalls, challenges and opportunities related to coffee farmer development. We do this by presenting nine myths commonly believed by development actors about coffee development in Indonesia that we believe need to be re-assessed. While these myths have been drawn from the Indonesian experience, we believe they are likely to have strong resonance elsewhere.

Neilson, J. (2019). Livelihood Upgrading? Value chains and rural development amongst Indonesia coffee producers. In G. Gereffi and S. Ponte (eds), *Research Handbook on Global Value Chains.* Edward Elgar. 296-309. <u>https://doi.org/10.4337/9781788113779</u>

This chapter applies the fundamental concept of upgrading in global value chains (GVCs) beyond the standard applications to firms (industrial upgrading) and to labour within firms

(social upgrading) by examining livelihood improvements amongst otherwise independent rural smallholders who are integrated within the supply chain of a lead firm. **This analysis brings into question the applicability of GVC approaches to understanding economic development in complex smallholder production landscapes.** At the same time, given the increasing penetration of capital via GVCs into rural territories, and the increasingly dominant narrative of value chain–led development among donors and development institutions, the framework provides an important theoretical approach to understanding the political economy of agrarian landscapes. Value chain governance structures do present opportunities to reshape rural livelihood trajectories (e.g., transfer of knowledge, training, ideas and sometimes physical supports), and the GVC analytical framework (i.e., power and governance) offers new possibilities for a political economy–inspired approach to rural livelihood analysis.

Hartatri, DFS., Aklimawati, L., and Neilson, J. (2019). Analysis of Specialty Coffee Business Performances: Focus on Management of Farmer Organizations in Indonesia, *Pelita Perkebunan*, 35 (2), 140-155. https://mail.ccriournal.com/index.php/ccri/article/view/382

Indonesian specialty coffee farmer organizations are established by the Government of Indonesia (GoI) for managing coffee production, processing, and marketing in farmer group level. This research aims firstly to understand the performances, challenges and

risk management of specialty coffee business on farmer organizations across Indonesia, and secondly to understand the profits gained by specialty coffee farmer organizations. **The research results show that alternative model of value chain interventions (VCIs) is required for improving the profits of specialty coffee business on farmer organizations level and farmers' livelihoods.** Maximization the VCIs to increase the benefits for farmers, the VCIs should be incorporate both off-farm and on-farm aspects.

Vicol, M., Neilson, J., Hartatri, F. and Cooper, P. (2018). Upgrading for whom? Relationship coffee, value chain interventions and rural development in Indonesia, *World Development*, 110, 26-37. <u>https://doi.org/10.1016/j.worlddev.2018.05.020</u>

Value chain upgrading interventions have emerged in recent years as a dominant approach to rural development. In coffee value chains, upgrading opportunities are presented by the growth in consumption of specialty coffees, which are associated with direct engagement with producer communities by roasting firms, along with an apparent increased commitment to social responsibility. Known in the industry as "relationship coffee", such interventions align with a value chain approach to development and are promoted as offering upgrading opportunities for otherwise marginalized rural communities. In this article, we critique the dominant development discourse of relationship coffee in Indonesia via three case studies of livelihoods and local agrarian dynamics across three coffee-growing communities on the islands of Sulawesi, Bali and Java. We find that the relationship coffee model does present opportunities for producer upgrading. However, these benefits have been subsequently captured by key individuals within the producer community who are able to accumulate wealth and consolidate their social position. As it is currently implemented in Indonesia, the relationship coffee model has reproduced local patterns of inequality rather than contributing to poverty alleviation efforts. These insights suggest the urgent need to develop a critical political economy of upgrading in the global value chain and rural development literature.

Neilson, J. and McKenzie, F. (2016). Business-oriented outreach programmes for sustainable cocoa production in Indonesia: An institutional innovation, in Loconto A, Poisot A. S and Santacoloma P. (Eds) *Innovative markets for sustainable agriculture* –

How innovations in market institutions encourage sustainable agriculture in developing countries, Rome: Food and Agriculture Organization of the United Nations. 17-36. https://www.fao.org/policy-support/tools-and-publications/resources-details/en/c/1207376/

This chapter introduces a business-oriented farm extension outreach system that has emerged in the Sulawesi cocoa sector in response to industry concerns over the longterm sustainability of global cocoa supplies. Mars Inc. has been particularly active in cocoa farmer engagement across Sulawesi and is now one of a number of private sector actors seeking more effective models to encourage sustainable farm practices. This is promoted as a business-oriented farm extension outreach system that harnesses the entrepreneurial spirit of rural households; nurtures agricultural service providers as viable business models within farm communities as knowledge exchange spokes; and motivates growers to adopt sustainable productivity interventions. This business-oriented outreach programme utilizes entrepreneurial farmers (cocoa doctors) as knowledge brokers in the cocoa farming community. These agents, instead of being disinterested messengers, are becoming facilitators of knowledge exchange and interaction among stakeholders, and are being presented with new incentives to facilitate knowledge exchange. Researchers and extensionists (such as CDCs) play important "network brokerage roles", especially in the early stages of the innovation process. Farmers should, however, be equal participants in networks, which allows for knowledge creation and exchange on their own terms and in a way that encourages greater farmer-driven experimentation and innovation. The outreach programmes described in this chapter have been adapted to local conditions, and look towards an institutional model where sustainable farm practices can be developed in a partnership between smallholder farmers and corporate actors in the value chain.

Fold, N. and Neilson, J (2016). Sustaining Supplies in Smallholder Dominated Value Chains: Corporate Governance of the Global Cocoa Sector, *The Economics of Chocolate*, (eds M. P. Squicciarini, and J. Swinnen) Oxford University Press, Oxford. 195-212. <u>https://global.oup.com/academic/product/the-economics-of-chocolate-</u> <u>9780198726449?cc=au&lang=en&</u>

In all countries where cocoa is grown, agricultural systems are dominated by smallholder farmers. At the other end of the supply chain, chocolate manufacturing is highly concentrated amongst a relatively small number of large multinational firms, and the intermediate processing stage of cocoa grinding is even more highly concentrated amongst major trading companies. The aim of this chapter is to illuminate the significant transformations in institutions and governance that are presently occurring along this cocoa–chocolate value chain. In particular, we believe we are witnessing a new level of corporate regulatory influence over the world's cocoa farmers that is largely unprecedented. This shift reflects the peculiarities of supply uncertainty in the global cocoa industry, but is also indicative of likely changes across other commodity sectors in an increasingly resource-constrained world economy. These emergent regulatory systems are often framed by a corporate discourse of 'sustainability', and especially the need to sustain supplies of cheap cocoa in the face of predicted growth in global chocolate consumption, especially in emerging markets such as China.

Neilson, J. and Shonk, F. (2014). Chained to Development? Livelihoods and global value chains in the coffee-producing Toraja Region of Indonesia, *Australian Geographer*, 45 (3). 269-288. <u>https://www.tandfonline.com/doi/full/10.1080/00049182.2014.929998</u>

A popular rural development strategy in recent years has been through the adoption of what has been widely called a 'value chain approach', where improved linkages between small producers in underdeveloped rural communities and 'lead firms' constitute the foundations for development interventions. Whilst the global value-chain framework can deliver insights into the broad structural processes shaping livelihood

possibilities, the adoption of value chains as a development strategy tends to disregard the complexity of smallholder livelihoods that shape poverty alleviation pathways in different contexts. The relationships between global value chains, development interventions, and rural livelihoods are explored in this article through a case study of smallholder coffee farming in the Toraja region of Indonesia. In this case, valuechain interventions in the coffee sector are unlikely to significantly contribute to improved rural welfare due to the diversified reality of local livelihoods, the nuances of how coffee production is embedded within Torajan culture and economy, and excellent prevailing market opportunities. The livelihood framework, therefore, provides an important corrective for the sometimes excessive optimism presented by advocates of a value-chain approach to rural development.

7.3 Objective 3: Geographical Indications

Quiñones-Ruiz, X.F., Nigmann, T., Schreiber, C. and Neilson, J. (2020). Collective action milieus and governance structures of Protected Geographical Indications for coffee in Colombia, Thailand and Indonesia, *International Journal of the Commons,* 14(1), pp. 329–343. DOI: <u>https://doi.org/10.5334/ijc.1007</u>

In an attempt to capture a greater share of the symbolic value of coffee in the market, some producers have started to safeguard the geographical names of specific origins through Geographical Indications in their home country, and then subsequently registering Protected Geographical Indications (PGI) under European Union (EU) law. To enable effective value capture, such initiatives require successful collective action. We explain how the need for collective action has manifested within four coffee Protected Geographical Indications in Colombia, Indonesia and Thailand (2 cases). The process of institutionalizing the GI required powerful, and well-resourced actors to assume a lead role resulting in relatively little participation from actual producers themselves. Therefore, this does not truly satisfy the IAD requirements for effective collective action, such compliance with the EU requirement for collective action was mainly observed as an administrative formality. The design of guiding rules for collective action processes are seen to significantly affect their effectiveness and the distribution of any benefits generated. This article emphasizes how this design is shaped by the positionality and particular interests of the actors involved, their different capacity to exert power and influence, their diverse attitudes towards moral legitimacy, and varying relationships with external actors such as development agents, research organizations and state agencies.

Neilson, J., Wright, J. and Aklimawati, L. (2018). Geographical Indications and value capture in the Indonesia coffee sector, *Journal of Rural Studies*, 59 (2018), 35-48. <u>https://doi.org/10.1016/j.jrurstud.2018.01.003</u>

Geographical Indications (GIs) are a form of collective intellectual property through which, it is anticipated, producers can capture the place-related value embodied within a product. As such, they are often promoted as a development initiative for lagging rural communities to improve livelihoods and alleviate poverty. This article applies the concepts of value capture and strategic coupling from the Global Production Networks (GPN) literature to assess the developmental impacts of formally-registered (protected) GIs in the Indonesian coffee sector. Based on an assessment of indicators along a logical impact pathway, our study finds little evidence, and a limited likelihood, of tangible economic benefits for coffee growers resulting from current GIs in Indonesia, at least in the

immediate future. This poor developmental performance is explained in terms of the inability of local institutional settings supporting the GIs to strategically couple with the actor practices of lead firms in the coffee sector. The GIs, however, do appear to deliver intangible benefits for some stakeholders in terms of promoting a sense of regional pride and cultural identity. While one intention of GIs is to assert a moral claim over the geographical and cultural property embodied in consumer products, they require far greater engagement with extra-legal moral conventions throughout the value chain to achieve rural development outcomes.

Butt, S. (2017). GIs in Indonesia: Indications of Legal Atrophy? *European Intellectual Property Review*, 39(5), 303-310.

Geographic Indications have been registrable in Indonesia for almost a decade. However, no legal proceedings have ever been brought in Indonesia to pursue alleged GI violations. This article outlines Indonesia's GI laws and seeks to explain why they have been used to register GIs but never to enforce them. While many Indonesian GIs appear well known domestically, very few, if any, of its GIs are known beyond its borders. Creating international demand will, therefore, likely be very expensive. State involvement is a prerequisite to registration and protection when primary producers lack the capacity to organise themselves or to control powerful supply chain actors, but it has two important ramifications. The first is that producers become reliant on government financial and organisational assistance. If this is withdrawn, then the administration and enforcement of the GI ceases, unless alternative funding is secured. Secondly, with state involvement comes the risk of state domination, and even de facto acquisition, particularly if the GI becomes commercially successful. This risk is very real in Indonesia. For GIs to take hold, Indonesian farmers and producers will thus need to trust that the statewhether national or local-will share any increased value obtained as a result of the GI and will not demand an unfair proportion of any proceeds.

Aklimawati, L. (2017). Dynamic of Arabica Coffee Marketing Organization in Ngada District: Progress upon Implementing of Geographical Indication, *Pelita Perkebunan*, 33 (1) 66 – 79 www.ccrjournal.com/index.php/ccrj/article/download/254/297

Farmer organizations perform an important role in coffee agribusiness development. Realizing the importance of organizations, the aim of this research was to identify the coffee market structure in the scheme of Geographical Indication; to analyse the dynamic of coffee marketing organization at the farmer level; and to analyse added value of wet parchment bean sales at the farmers organization. This research was conducted in Ngada District which includes Bajawa, Golewa and West Golewa Sub-district. **The results showed that the coffee market structure in Ngada District led to imperfect competition market (monopsony/oligopsony). The dynamic of farmer organizations was a "work-in-progress", but it allowed improved access to market information and networking.** Vertically organizational relationship between farmers and other market cooperatives has been established. Added value at UPHs/cooperative in the coffee supply chain was 15.35% of output value.

7.4 Objective 4: Value chains and industrial development

Neilson, J., Dwiartama, A., Fold, N. and Permadi, D. (2020). Resource-based industrial policy in an era of global production networks: Strategic Coupling in the Indonesian cocoa sector. *World Development*, 135. 10545. <u>https://doi.org/10.1016/j.worlddev.2020.105045</u>

Processes of industrialisation have long been associated with labour productivity improvements, rising incomes, and ultimately economic and social development. The preferred policy strategy to achieve these development objectives, however, remain intensely debated. A specific policy strategy of resource-based industrialisation (RBI), involving pre-export value addition to raw materials, is frequently pursued by resource-rich countries in the global south. We apply the analytical framework of Global Production Network (GPN) theory, and its central notion of strategic coupling, to the case of cocoa processing in Indonesia. Our findings demonstrate that the apparent success of an **RBI** policy in encouraging growth of a domestic cocoa processing sector, primarily through the use of export restrictions, is highly dependent on industry-specific **GPN dynamics.** Through an assessment of "downstreaming" policies in Indonesia, this paper provides an explanation for the success and limitations of such industrial policies in the contemporary global economy. Industry outcomes are strongly influenced by Indonesia's position within a set of globally-connected networks and the alignment of national policy with the particular strategies of lead firms within these networks in a process of strategic coupling. We further argue that the inherent importance of upstream supply within resource-based industrialisation demands further attention when applying concepts of strategic coupling to this particular policy framework.

Neilson, J. and Wang, J-H, Z. (2019). China and the changing economic geography of coffee value chains, *Singapore Journal of Tropical Geography*, 40 (3). 429-451. https://doi.org/10.1111/sjtg.12279

For the past three centuries, the economic geography of the global coffee sector has been characterized by the supply of beans from tropical countries for consumption in North America and Europe, with various modes of value chain coordination enacted by lead firms to ensure reliable and affordable supply. This pattern is now fundamentally changing, with growth in coffee consumption in emerging markets, including China, exceeding that in established markets. But China is not only a growing consumer market, it is less well known that rapidly increasing agricultural production in Yunnan province of southwest China has also inserted the country as an important source region for coffee, and this has been pivotal in facilitating the emergence of Chinese lead firms in the sector. This article presents the emergence of China, and Chinese firms, at a critical juncture for the structure and governance of the global value chain for coffee. The processes through which this is occurring are outlined, and the implications for regional development prospects across Southeast Asia are discussed. We argue that the changing economic geography of coffee value chains, and their increasing drivenness by Chinese actors, is starting to reshape the regional coffee industry in profoundly new ways.

8 Impacts

The primary project impact pathways for the project are set out in Figure 1. There were some direct impacts resulting from actually undertaking the research. This included the important capacity impacts on researchers in Indonesian partner institutions and student and early-career researchers in both Australia and Indonesia. There were also some direct social and economic benefits on firms and individual farmers participating in the research. However, the key impact pathways in the project occurred at much larger scales through influencing debates regarding value chain approaches to development, both nationally and internationally. This influence has already contributed, and continues contributing to, shifts in programmatic approaches and policies by development agencies, industry associations, coffee and cocoa buyers, intergovernmental organisations, standards associations, non-governmental organisations and government agencies. While it is not always possible to quantify final economic, social and environmental project impacts, the following sections attempt to specify intermediate impacts where possible.



Figure 1. Project Research Impact Pathways

8.1 Scholarly impacts – now and in 5 years

The project has had considerable scholarly impact by making innovative conceptual contributions to understanding the relationships between value chains, development and livelihoods. Indicators of the scholarly impact of research include the Impact Factor (IF) of journals where articles are published and the number of citations of particular articles. The project has produced 20 peer-reviewed research articles (as of November 2022). Many of these articles were published in very high IF journals, including:

- World Development (ranked 2/257 for "Development" by Scopus IF),
- Journal of Rural Studies (ranked 12/257 for "Development"),
- Economic Geography (ranked 10/704 for "Geography"),
- Journal of Economic Geography (ranked 32/704 for "Geography"),
- *Review of International Political Economy, Asia Pacific Viewpoint* and the *Singapore Journal of Tropical Geography* (all Q1 ranked journals).

The scholarly impact of project research is reflected in the application by other scholars of the ideas presented in specific project outputs, and this is indicated by the high citation

rates of these publications in a relatively short period of time. According to Google Scholar (November 2022), project research has been cited as follows:

- Neilson (2014) "Value chains and development practice" had been cited 165 times,
- Vicol et al., (2018). "Upgrading in relationship coffee interventions" cited 127 times,
- Bray and Neilson (2017). "Impacts of Coffee certification programmes" cited 100 times,
- Neilson, Wright et al. (2018) "Geographical Indications and value capture" cited 87 times,
- Neilson and Shonk (2014). "Chained to Development" cited 55 times.
- Neilson, Pritchard et al. (2018). "Cocoa-chocolate global production networks" cited 40 times.
- Neilson et al. (2020). "Resource-based Industrial Policy" cited 20 times.

Several hundred researchers around the world are benefitting from, and applying, insights generated by the project. Research from this project is being widely read and debated. The project has already had a significant scholarly impact and is expected to have further impacts in the coming years, as more recent publications become more widely known.

The 2022 translation of a series of international journal articles from the project, and their publication as an Indonesian language book by Kriya Rasa Publishing (Neilson and Hartatri, 2022) has been a considerable undertaking. Making this body of work available in the Indonesian language for the first time is expected to have a considerable impact on the scholarly community within Indonesia for years to come.

Furthermore, the research methodologies used for the evaluation of sustainability standards have been widely shared with the ISEAL international network, and have influenced the design of standards' evaluation around the world through this network.

8.2 Capacity impacts – now and in 5 years

The project has involved a number of early-career Indonesian researchers, who are now publishing in international academic journals both through the project and outside of the project (notably Hartatri, Dwiartama, and Aklimawati). Faila Hartatri was also involved in compiling and checking the translation into Indonesian of a major collection of coffee-related publications to be published by Kriya Rasa as a book in 2022. This process itself was a significant capacity-building exercise for Hartatri and ICCRI. The project has helped develop strong analytical skills within ICCRI that will be a service to the Indonesian coffee and cocoa industries for years to come.

The project has developed research capacity through an active research training support program for student researchers. This has included 1 Post-doctoral researcher (Australian) now working in Wageningen University (Vicol), 1 PhD student (Australian, Bray), 3 Masters students (2 Australian and 1 Indonesian), 4 Honours students (Australian), and 5 undergraduate student researchers on advanced *skripsi* projects (Indonesian).

A project research assistant (Derby Sumule), who developed skills and knowledge in coffee value chains through the project, has since co-founded SEEDS, an innovative online coffee traceability platform, and Kopi Bumi coffee trading company, where relationship coffees are being developed across various Indonesian coffee origins. Sumule and Dwiartama have also gone on to use project-developed knowledge to inform the design and implementation of a GIZ-funded *Coffee Innovation Fund* project in Flores.

Capacity building has occurred in the design and use of RCTs amongst various project partners including UNILA, ICCRI, J-PAL, University of Sydney researchers and Survey Meter. These Indonesian project researchers are now using their skills to manage RCTs across a broad range of non-ACIAR projects.

8.3 Community impacts

The project is having considerable community impact through policy change both globally and within Indonesia. The key impact pathway (presented in Figure 1) in the project is: i) high-quality assessment of the livelihood impact from various value chain interventions; ii) reporting and publishing evidence of impact in leading academic journals and other forums; iii) active dissemination of research findings via videos, podcasts, workshops, conferences and stakeholder meetings; iv) changed attitudes amongst influential decisionmakers, including government policy-makers, sustainability managers of global commodity firms, sustainability standards organisations, development scholars, international development agencies and non-governmental organisations; v) new policies, programs and approaches are designed and implemented by these influential decisionmakers based upon project insights; and finally vi) as a result of improved program design, there are enhanced outcomes in terms of livelihoods and environmental performance.

Proxy quantitative indicators of project impact can be used to assess impact, such as a 2020 article in the conversation reaching 126,753 readers (as of September 2022), a project video (https://www.youtube.com/watch?v=eUubv6lyGCM) being watch 19,125 times on Youtube (as of February 2022) or an Indonesia-language policy paper (DOI: 10.13140/RG.2.1.1010.9844) being read 7,486 times. Project-related research postings on LinkedIN have received more than 2,000 views, and the comments and data analysis of LinkedIN post views indicate that global sustainability managers of agribusiness firms are important viewers (which is highly suggestive of impact reach). Policy changes whether taken by governments, private sector firms or development agencies, are informed and influenced by a broad range of ideas and factors that can be difficult to ascribe to individual pieces of research. Oftentimes, research contributes to a broader "discourse" that eventually comes to be accepted as true and valid and subsequently applied by decision-makers. The influence a particular piece of research has on such broader discourses can be (very roughly) intimated by scholarly citation rates. This project has evidently had an impact by contributing to emergent discourses related to sustainability, development and value chains.

In this project, moreover, a fairly clear impact pathway can be established in regards to the design and use of sustainability standards, as initial project findings became available during a time of considerable upheaval within the standards sector: Rainforest Alliance merged with Utz and reassessed its standard; the Global Coffee Platform separated from the 4C Association; and Enveritas emerged with an entirely new (and potentially revolutionary) approach to sustainability standards. The project has directly fed into these processes, often through the partnership with the ISEAL Alliance. The project leader recently received a letter from the Cofounder & CEO of Enveritas stating that "your pioneering research on coffee value chains in Southeast Asia...has been influential to guiding and shaping Enveritas' work" (Appendix 2). Considering that Enveritas now operates in 15 countries and claims to have verified more than half of global coffee production, this project impact is considerable. Similarly, Rainforest Alliance has reoriented its programs to be both more "service-delivery driven" and to be attentive to "landscape-scale processes" affecting outcomes, which are core ideas that emerged out of early project findings. This occurred following sustained engagement between project researchers and Rainforest Alliance's global impacts monitoring team.

In addition to scholarly citations, impact is also indicated by direct citations of project research in reports and material published by development agencies (IDH, Coffee Barometer), intergovernmental organizations (the International Coffee Organisation and the Food and Agriculture Organisation of the United Nations), and corporate firms (JDE). The project's work on the cocoa value chain (Neilson et al., 2020) has been relied upon for a 2022 *Market Study on Cocoa Quality: Scope and opportunities for a competitive, profitable and sustainable cocoa value chain* by the FAO. Project researchers also assisted the FAO study as expert advisors.

8.3.1 Economic impacts

In addition to the above-mentioned key policy impact pathway, action-research interventions (especially under Objective 2) have had direct impacts on those individuals involved in farmer linkage activities. Kopi Bumi (established as an offshoot of the project's action research interventions) has become a regular buyer of around 50 tonnes coffee annually from Bajawa since 2014, increasing the farm-gate prices of around 500 farmers in Flores by 10-20%, and its purchases from Toraja and Aceh have directly impacted around 500 farmers. Our partnership with Five Senses Coffee has also helped them refine their value chain structures in North Sumatra that has flow-on effects for their supply base of farmers (as reported by the firm in https://fivesenses.com.au/blogs/news/a-report-card-on-tiga-raja).

Action-research activities involved facilitating direct relationships between farmer organisations and downstream buyers. This resulted in increased prices and income for participating farmers and, perhaps more importantly, involved capacity improvements that have resulted in the longer-term ability to engage with specialty coffee markets. This is demonstrated most clearly in the case of the Benteng Alla cooperative (featured in <u>https://www.youtube.com/watch?v=eUubv6lyGCM</u>), where the project was instrumental in developing the "Benteng Alla" brand. This brand reputation continues to add value to local coffee production.

Furthermore, project insights, including the concept of "farmer tipping", have been applied by Dwiartama (ITB) and Sumule (SEEDS) in the <u>GIZ Coffee Innovation Fund project in</u> <u>partnership with Upnormal Coffee Roasters</u>, which is rolling out innovative supply chain traceability programs in Flores, affecting around 1,000 coffee farmers. SEEDS is also now impacting thousands more farmers in Aceh and West Java through the online platform.

The involvement of two project researchers (Arifin and Neilson) on the supervisory board of SCOPI has meant that project insights have fed directly into the design of programs now affecting coffee farmers from right across Indonesia. The potential of private sector farmer training and extension activities, and the need to coordinate these activities at the industry-wide level, was a particular outcome of project research and resulted in initiatives such as the National Curriculum Project. Such initiatives have improved the technical knowledge (and possibly incomes) of perhaps 50,000 farm households across Indonesia.

The strategic capacity building of researchers at ICCRI is also expected to have longerterm impacts on policy advice and program design for coffee and cocoa related projects across Indonesia, given the central importance of partnerships between this research institute and the Indonesian state, which will have flow-on economic effects.

8.3.2 Social impacts

The research has contributed to a discursive shift within sustainability organisations and industry towards a more holistic understanding of producer livelihoods and rural development. This is reflected in a shift from statements such as "Our aim is to improve livelihoods by increasing coffee (or cocoa) yields and income" towards "Our aim is to support ways that coffee (or cocoa) can be an integral part of broader livelihoods". This is an important shift that recognises both the prospects and limitations of value chain approaches to development. Such shifts are resulting in broader-based sustainability program designs that work in partnership with local authorities and will ultimately improve the health, education and well-being of rural producers.

The research into livelihood impacts of value chain linkage programs has reshaped the way ICCRI designs and implements development activities, such as MOTRAMED and their support for local processing units (*Unit Pengolahan Hasil*, UPH), across the various coffee-growing regions of Indonesia and is reflected through the research article, published by Hartatri et al. (2019).

The <u>presentation</u> of the study into Geographical Indications at the Specialty Coffee Association of America, along with associated media coverage, prompted a re-think on the moral legitimacy of using geographical place names in the global coffee sector. This is having social impacts across the industry globally.

8.3.3 Environmental impacts

The integration of landscape-wide assessments into the next generation of sustainability standards has been strongly advocated through the project and is likely to result in more effective tools to address deforestation in coffee and cocoa growing landscapes in years to come.

8.4 Communication and dissemination activities

Research findings have been communicated to various audiences through numerous written outputs and peer-reviewed publications. These are listed in Section 10.2. In addition, the research team has pro-actively engaged research end-users throughout the life of the project by sharing research findings with key stakeholders at various workshops, seminars and conferences, as well as through online events (listed below).

While the range of engagement activities with research end-users has been diverse, the project developed strategic partnerships with the following two organisations, which became particularly effective research dissemination platforms.

- The <u>ISEAL Alliance</u>, based in London, is a global umbrella organization for sustainability standards, whose members include Fairtrade International, Rainforest Alliance and the 4C Association. Through a strategic partnership with ISEAL, the project was able to leverage their global influence to disseminate research findings with the global leadership of standards organizations and global lead firms in the coffee and cocoa industries.
- 2. The Sustainable Coffee Platform of Indonesia (<u>SCOPI</u>), based in Jakarta, is the national country platform for the Global Coffee Partnership (GCP), whose members include leading global and national coffee companies, key ministries and departments of the Government of Indonesia, and international development agencies actively supporting the Indonesian coffee sector. Two project researchers (Neilson and Arifin) were on the SCOPI Supervisory Board and the project was able to regularly disseminate research findings with SCOPI's broad membership base.

Research findings were disseminated at the following specific events:

- 1. 4 February, 2014, World Bank hosted "Road Map for the Coffee Sector in Indonesia" Roundtable, Ministry of Trade, Jakarta,
- 2. 6 May, 2014, "Resource-based Industrialization" World Bank Office Jakarta, https://www.youtube.com/watch?v=g0wDodGbDRg
- 3. 2-3 November, 2015, ISEAL Members Workshop, London
- 4. 13-15 March, 2015, Melbourne International Coffee Expo 2015, Melbourne
- 5. 31 March, 2015, SCOPI Launch, Coordinating Ministry of the Economy, Jakarta
- 6. 25 June 2015, SCOPI Members Meeting, Jakarta
- 7. 7 July, 2015, Top Gear Coffee Community (Potential of Geographical Indications in the Indonesian coffee sector), Yogyakarta
- 25 August, 2015, "Indonesia's changing position within food GPNs", Indonesian National Planning Agency (Bappenas), Jakarta, https://www.youtube.com/watch?v=GfXfrl47bUE
- 9. 6 October, 2015, ISEAL Webinar, Demonstrating and Improving Poverty Impacts (DIPI) project,

- 10. 25 February, 2016 SCOPI Workshop and Taskforce launching, Coordinating Ministry of the Economy, Jakarta
- 11. 6 May 2016, "Future of Standards", Greenpeace event, University of Sydney
- 12. 10 May, 2016, ICCRI Coffee Field Day, Bondowoso, East Java
- 13. 28 May, 2016, "Green is the New Gold", Ubud Food Festival, Ubud
- 14. 1-3 June, 2016, SCOPI Master Training Program, Pagar Alam, South Sumatra
- 15. 10 June, 2016, National Geographical Indications Workshop (ICCRI), Surabaya
- 16. September 7, 2016, "Relationship Coffees", Five Senses Popup event, Sydney
- 17. 30 June, 2016, project workshop with University of Lampung, Indo Cafco, and ICCRI, Bandar Lampung
- 15 November, 2016, "Whither Sustainability Standards?" and "Do producers benefit from GIs?", International Conference on Coffee Science (ASIC), Kunming, China.
- February, 2017, 'Future Challenges of Coffee Eco-Certification in Indonesia', Discussion Series on Agricultural Commodities, Embassy of the Republic of Indonesia in Brussels (Bustanul Arifin)
- 20. February 6, 2017, "GVC in Cocoa" lecture, University of Indonesia, Jakarta.
- 21. 8-9 February, 2017, ICCRI workshop and field visit, Jember and Bondowoso.
- 22. March, 2017, 'A Global Value Chain approach to economic geography, with a case-study of the cocoa sector', GTA NSW ANNUAL CONFERENCE, Homebush
- 23. April 2017, ReCo talk on geographical indications, Specialty Coffee Association, Seattle, <u>https://www.youtube.com/watch?v=UJQqKwyJEx4</u>
- 24. May 2017, 'Recent Developments in the Global Value Chain for coffee: challenges and opportunities for Myanmar', Myanmar Coffee Forum, Naypyidaw
- 25. July 2017, 'The Identity Politics of Coffee', Global Coffee Report, http://gcrmag.com/market-reports/view/the-identity-politics-of-coffee
- 26. October 2017, 'Coffee livelihoods and agroecology in a changing environment', World Plantation Conference, Jakarta
- 27. 1 December, 2017, "Fortress Farming as a sustainable livelihood", Southeast Asian Geographers Association, Jakarta
- 28. 4 December, 2017, "Food Processing and value chain development" Agri-Food research Network Conference, Bandung.
- 29. February 2018, Workshop on the role of sustainability standards and beyond, Jakarta, Indonesia (with ISEAL, Ford Foundation and SCOPI).
- 30. February 2018, Dampak standar-standar keberkelanjutan / Voluntary Sustainability Standards (VSS) terhadap penghidupan petani kopi, Seminar Dinas Perkebunan, Kabupaten Muara Enim,
- 31. April 2018, Organised a panel session on relationship coffees at the Ubud Food Festival, Ubud
- 32. April 2018, GI Stakeholders meeting with the Indonesian Coffee Board, Sanur
- 33. 2018, Singalong online publication, <u>https://www.readsingalong.com/coffee-</u> <u>conversation-with-dr-jeffrey-neilson/</u>
- 34. June 2018, "Fortress Farming as a sustainable livelihood", Asian Studies Association of Australia (ASAA)
- 35. 19 June, 2018, presentation of cocoa projects to Mars-Wrigley global research team, Sydney
- 36. June 2018 ISEAL Webinar "Evaluation of the Impacts of Sustainability Standards on Smallholder Coffee Farmers in Southern Sumatra"
- 37. August 2018, GI stakeholders meeting organised by SCOPI, Jakarta

- 38. August 2018, "Downstreaming in global value chains", Ministry of Trade seminar, Jakarta
- 39. October 2018, presentation at Cornell Conference on Indonesia, Cornell University
- 40. 2019, January-February Issue. Roast Magazine, "9 Myths About Coffee Farmer Development: a closer look at relationship coffee in Indonesia.", <u>https://www.roastmagazine.com/shop/backissues/janfeb19</u>/
- 41. 2019, January, Perfect Daily Grind https://www.perfectdailygrind.com/2019/01/how-coffee-initiatives-can-help-savelives/
- 42. January 2019, Open seminar at Rahayu Roastery on the '9 Myths of Coffee Development' held with coffee community, 'Let's Ask Jeffrey Neilson', Yogyakarta
- 43. 21 May 2019, Sustainability Standards Workshop at the University of Lampung (with industry and environmental NGOs), Bandar Lampung,
- 44. May 2019, Workshops with Swiss Contact, <u>https://www.swisscontact.org/en/country/indonesia/news/news-</u> <u>detail/news/swisscontact-and-the-university-of-sydney-using-social-network-</u> <u>analysis-to-the-benefit-of-the-sulawesi-cocoa-supply-chain.html</u>
- 45. July 22, 2019, Research presented to Swiss Contact Headquarters, Zurich
- 46. July 22, 2019, Research presented to Barry Callebaut and the Swiss Sustainable Cocoa Platform, Zurich
- 47. July 23, 2019, Research presented to the Swiss Coffee Traders Association, Zug / Zurich,
- 48. August 2019, ISEAL Podcast recording on the impacts of sustainability programs, London
- 49. August 2019, Institute for British Geographers (IBG) annual conference, London
- 50. September 2019, The 4C Association, Cologne,
- 51. October 2019, Research presented to Rainforest Alliance, Amsterdam,
- 52. October 2019, Research presented to Jacobs Douwe Edberts, Amsterdam,
- 53. October 2019, Research presented to Global Coffee Platform, Bonn,
- 54. October 2019, Wageningen University and Research Environmental Policy Group seminar
- 55. November 2019, IDH Sustainable Trade Initiative, Utrecht,
- 56. November 2019, Indonesian Cocoa Association (ASKINDO Conference), Denpasar,
- 57. November 2019, Wageningen University and Research Rural Sociology Group seminar
- 58. November 2019, Government of West Java, Bandung,
- 59. February 2020, Philokopi "Bincang Kopi" podcast recording, Jakarta
- 60. 25 June 2020, <u>SCOPI e-conference</u>, International Perspectives on the Future of Indonesia Coffee Sustainability
- 61. 8 September, 2021, "Changing Landscapes of Ethical Sourcing", Living wages and Living Incomes in fair Supply Chains Conference, Online NGO event, Cologne
- 62. 7 October 2021, Keynote on "Agrarian Transitions" International Symposium on Maths and sciences, University of Indonesia, Jakarta
- 63. 7 December 2021, Keynote on "Landscape Approaches to Sustainability" at <u>Holistic Coffee Expo</u>, Jember.

9 Conclusions and recommendations

9.1 Conclusions

The global economy is now largely constituted by international production platforms that operate across national borders, and which are coordinated by powerful economic actors ("lead firms"). These production platforms are generally referred to as either Global Value Chains (GVCs) or Global Production Networks (GPNs) and their coordination actions are enacted through "governance" structures. The corporate strategies of lead firms, and the resulting value chain governance, have come to be recognised as key determinants of regional development processes. This dynamic has been especially evident in the manufacturing sector, and was an important factor driving industrialisation in east Asia. The extent to which lead-firm driven value chain strategies might contribute to processes of rural development in the Global South has been uncertain, and this project has made significant contributions to these debates through field research in Indonesia.

The project has documented how the outcomes for rural development and the livelihoods of rural households, resulting from value chain interventions, have been highly variable depending on local institutional contexts. Resources, knowledge and financial support are indeed flowing along the value chains for cocoa and coffee towards rural households in Indonesia, but this is also linked to increased control by lead firms over producers and broader institutional environments. This flow of resources has presented opportunities for development agents (local and national governments, international development agencies and NGOs) to harness these resources in ways that might contribute to regional and rural development. Understanding the nature of prevailing value chain governance structures has thus emerged as a fundamental requirement for the effective design of development interventions. The Indonesian state, in particular, has generally not yet been able to leverage these potential resources to formulate effective rural development policy initiatives. This project has made several practical suggestions how to do this, while also remaining alert to the "dark side" of value chain engagement (Yeung, 2015)

The project, however, has also stressed that establishing relationships between rural producers and powerful downstream actors is insufficient (on its own) to stimulate livelihood improvements and rural development. A key insight of the project has been to highlight the developmental limitations of value chain interventions in the many regions where households engage in highly diverse livelihoods and where poverty alleviation pathways tend to occur through off-farm activities. Project research has demonstrated that rural households do not necessarily act as profit-maximising entrepreneurs (firms), and this observation often explains why value chain interventions are less successful than hoped. In such regions, farming is important for livelihood resilience, but not necessarily wealth accumulation and poverty alleviation. To be effective, value chain interventions need to be sensitive to this possibility.

Related to this finding has been the need to understand how value chain interventions intersect with development processes at the regional scale. To have a greater developmental impact, downstream firms need to be engaging with a broader range of actors and stakeholders in production regions "beyond the chain". Increasing awareness of this need, partly prompted by the project's key findings, has since prompted corporate strategies attempting to initiate "landscape approaches" to sustainability.

9.2 Recommendations

The project has generated numerous specific policy recommendations for the Indonesian government, development agencies and private sector actors. For the Indonesian government, this has focused primarily on the potential benefits of policy formulation that incorporates a value chain perspective and seeks to strategically leverage resources and

knowledge being offered by downstream actors. For development agencies and private sector actors, we have highlighted the benefits of broadening their frame of reference to be sensitive to influences "beyond the chain", and to recognise that livelihood improvements are often shaped, sometimes to an overwhelming degree, by these influences. For lead firms, this means re-assessing the ability of their programs to trigger sustainable rural development.

Lead firms and NGOs are increasingly questioning the capacity of sustainability standards to improve the livelihoods or rural producers. In response, a rising trend has been for firms to make a commitment to a "Living income", but this is a complex aim to achieve in practice. A key challenge is that market processes (supply and demand) set prices, which in turn are a key factor determining income levels. Given the generally poor historical performance of market interventions, firms are starting to experiment with alternative approaches (such as cash payments partially de-linked from supply) to achieve a living income for farmers. As such, rural livelihoods are starting to be shaped by various payment flows (consider also government social protection payments and payments for ecosystem services) that are effectively delinked from production. Amidst a high degree of institutional experimentation, the rural development outcomes of these processes remain uncertain and require further research.

The project has clearly demonstrated the policy-relevant utility of applying a peoplecentred "livelihoods approach" to value chain interventions, and indeed to rural development more broadly. Understanding household-scale dynamics, the intersection of on-farm and off-farm income, the role of food self-provisioning, and access to natural resources, needs to be put front and centre of the international agricultural research agenda. More effort is needed to understand the specific role of farming within diversified livelihoods across Southeast Asia, the nature of agrarian transitions, and how policy settings and programmatic interventions may need to be adjusted accordingly.

Given the recent emergence of "landscape approaches" to sustainability, as being developed by both lead firms (such as JDE's *Common Grounds* or Tchibo's *Joint Forces*) and NGOs (Rainforest Alliances *Landscale*, IDH's *SourceUp*, and the Enveritas approach), there is an exciting research opportunity to examine the impacts of such approach across multiple commodities (coffee, palm oil, rubber, cocoa, soy, shrimp). Many of these programs are in the early stages of development, and are largely experimental. This presents particular opportunities for "research for development" agencies to assess potential benefits and possible threats of landscape approaches.

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11 Appendixes

11.1 Appendix 1:

2020 Letter of recognition from Enveritas.