

Improving Quality and Competitiveness of Agriculture in South Halmahera through Fairtrade Product Concept

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Abstract—South Halmahera is one of the districts in North Maluku Province, Indonesia in which the potential of agriculture is not followed by the income of the farmers around. Therefore, we propose to apply sustainable supply chain management and the fair-trade concept for the agriculture products. The results of this research are expected to be applied to solve the problem in developing the economy potential of Papua-Maluku islands region and to give strategic solution for agriculture main program in South Halmahera. This research focuses on mapping the requirements of fair-trade in comparison to actual situation in South Halmahera by doing gap analysis and build action plans to fulfil the requirements for sustainable supply chain management and fair trade certification.

Index Terms—sustainable development, economy, South Halmahera, agriculture, fairtrade, rural development

I. INTRODUCTION

South Halmahera is one of district in North Maluku province, Indonesia. South Halmahera is included in the economic corridor of Papua - Maluku Islands. This corridor is the “Centre of National Food, Fishery, Energy, and Mining Development”. Economic condition in South Halmahera itself on PDRB had increase either nominally or real in 2014 [1]. PDRB on base price on 2014 is Rp3,667,596.4, increased from Rp3,163,962.7 on 2013 and Rp2,851,733.5 in 2012 [1]. Percentage distribution on each sector to total of PDRB on base price in 2014 still showing domination of three big sector whereas Agriculture Sector is the dominating one with 37.53%. Spice agriculture or plantation sector of South Halmahera is showing a huge potential with an area of 42.229 Ha with productivity of 2.66 ton/Ha (Coconut, cacao, clove, nutmeg, coffee, vanilla, kapok, pepper, canary, and cashew). Nevertheless, the potential itself isn't accompanied with appropriate income for local farmer.

Therefore, we propose to apply the fair-trade system to these agriculture products. This concept will adjust the price of the product to a reasonable level for local farmer. In this year research, we will focus on mapping the requirements of fair-trade in comparison to actual situation in South Halmahera by doing gap analysis and

build action plans to fulfil the requirements which haven't been fulfilled.

II. LITERATURE REVIEW

Fairtrade has grown in this world for a long time and has been giving a big impact on trading sector. The definition Fairtrade according to Levi [2] is a product of the ethical consumption movement. It is based on the idea that the global trading system does not do justice to the world's poor. Paying more than strictly necessary for poor producers' goods, are seen as a better way to promote development than making strict financial donations.

The first Fairtrade label was launched in 1988, inspired by a sharp fall in coffee prices. It was established by Dutch NGO Soledad, and was named after the fictional character, Max Havelaar, who fought against exploitation of coffee pickers in former Dutch colonies [3]. It was also the year when the first Fairtrade coffee from Mexico is sold into Dutch supermarkets. It is branded “Max Havelaar”, after a fictional Dutch character who opposed the exploitation of coffee pickers in Dutch colonies [4]. The introduction of a Fairtrade label was a major shift in strategy, as it allowed large companies to use the Fair trade label on those of their products that adhered to Fairtrade standards, without certifying the rest. This paved Fairtrade products' way onto supermarket shelves, and on to wider commercial success.

The Dutch pioneers were immediately copied, and national Fairtrade certification organizations were set up across Western Europe, North America and Japan. Some of them used Max Havelaar as a name, while others chose different names, Transfair, Fair Trade Mark [5].

Various national certification organizations united and formed the Fairtrade Labelling Organization, FLO in 1997. To harmonize standards and certification procedure is the aim of this new umbrella organization. FLO launched a global Fair trade label five years after its creation in order to replace the various national labels and to improve Fairtrade's visibility and facilitate inter-country trade [4].

In accordance to some studies, a participation in Fairtrade system can reduce poverty [6] as well as Fairtrade also helps economic welfare to increase [7]. It happened because Fairtrade helps environment protection, supports social sustainability, and minimizes power

imbalance in global value chain between trader, processor, and producer. Fair trade can be obtained by following these five methods; labelling and certification, special price, technical help, avocations, and micro-credit. This standardized price aims to give a higher price for fair trade product to increase the profit margin for the local farmer [8]. Fair trade certified products are labelled to make consumer understand that by buying it, they can help local farmers, get a better quality, and get a certified product.

Based on Fairtrade America FAQ, Fairtrade International consists of worldwide Fairtrade organizations, similar to Fairtrade America. As a system, this system is based on a principal of owning and governing partly by our farmer and workers that have a half part of votes in the Fairtrade General Assembly. Fairtrade International does have to responsible for the Standard made by Fairtrade for products to help workers and farmers [9].

Beside the International Fairtrade, there is USA Fairtrade which is the independent, non-profit, local marketing organization for Fairtrade International working with businesses in the country who trade Fairtrade products, and authorization of permit by the FAIRTRADE [9].

Also, based on Fairtrade America FAQ, FTUSA enacted law is full of uncertainties regarding today's standards and certification, and a collaboration means a risk to credibility of the international Fairtrade Standards and certification process. For the similar reason, the international Fairtrade system won't recognize FTUSA certifications. In other case, FTUSA's certification is not vouched by ISO65 and therefore does not meet FLO-CERT's standard requirements [9].

III. METHODOLOGY

In order to get the certification of fair trade, the current situation in South Halmahera will be analysed through

Focus Group Discussion and Field Trip in cooperation with high officials of South Halmahera province, high officials of the Capital City of Ternate, Farmers and Traders. The purpose of this Focus Group Discussion is to exchange insights into the current state of nutmeg and clove agriculture in Southern Halmahera as well as the socialization of fair trade programs that will be implemented. Field Trip is implemented so that writers can see directly the process from planting to harvesting on the field.

After the authors get information about the current situation, the next step is to map the business process information obtained through the FGD and do Gap Analysis.

IV. RESULT AND DISCUSSION

A. Supply Chain

The overall supply chain for exporting commodities from South Halmahera can be mapped according to the Focus Group Discussion (FGD) results as it is shown in Fig. 1. This supply chain is considered long as it has six supply points. The chain starts with farmers from South Halmahera who harvest and sell their crops to farmer's association for their region or individual collectors. In this phase, the farmers do not separate their crops based on grades but they combine all crops inside one sack. Then, the farmers get their payment according to how heavy the crops are, the price given from each collector has small variation.

Mostly, individual collectors and farmer's association obtain the crops from many different farmers. Due to the demand from the higher level collector and the variation of crops, they have to differentiate their collected crops based on grades (A, B, C, and D). These crops are then sold to other individual collectors or straight to the higher level collector which is Inter-island Collector.

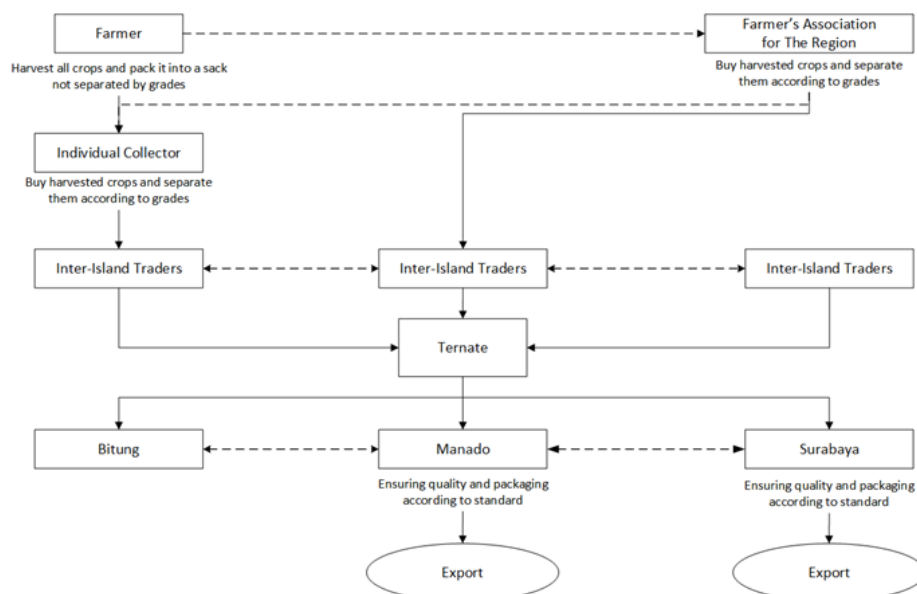


Figure 1. Supply chain of exporting commodities in south halmahera

These Inter-island collectors then sell their collected crops to traders in Ternate. Traders in Ternate are the one who re-check and pack the crops in accordance to destination area's standard. Mostly, they sell the crops to Bitung, Manado, and Surabaya. Then, as Manado and Surabaya have access to export, most crops from South Halmahera are exported to China and India through these two ports. Hence, these two ports are the one who is responsible in export quality assurance and contacts.

Currently, this supply chain does not run by contract, but instead it runs solely on one-time-agreement between seller and buyer. Hence, buyers can buy from different sellers than the one selling them before.

B. Current Condition Mapping and Gap Analysis

In this paper, the desired performance to be achieved is the condition which allows Fairtrade certification. Hence, Criteria chart made by FLOCERT [10]-[12] is the desired performance. Meanwhile, the current actual performance can be mapped according to Focus Group Discussion results and Field Trip.

There are three categories of desired performance that needs to be met in order to get a Fairtrade certification, those are Public Compliance, Small Producer Organization, and Human Labour. To be even more specific, each category is completed with three subcategories which is shown in the Table I.

TABLE I. SUBCATEGORIES FOR FLOCERT CRITERIA

Categories	Public Compliance	Small Producer Organization	Human Labour
Sub-Categories	General Compliance		
	Labour		Economic Impact
	Operational		Social Impact
	Environment		

TABLE II. FAIRTRADE FULFILLED OPERATIONAL COMPLIANCE MAPPING

Applicable for:	FLOCERT Compliance Criteria	Criteria Type	checklist	Description
OPERATIONAL				
Proper use and handling of pesticides (Pest management)				
1st grade, 2nd grade, 3rd grade	If you have a central storage for pesticides and other hazardous chemicals then you maintain it in a way that comply with fair-trade criteria (see Fairtrade Public Compliance – small producer organization)	C	v	
1st grade, 2nd grade, 3rd grade	You and the members of your organization do not reuse pesticide and other hazardous chemical containers for water or food transport or storage.	C	v	
1st grade, 2nd grade, 3rd grade	You and the members of your organization do not use the materials on the Fairtrade International Prohibited Materials List (PML) part 1 (red list) on the Fairtrade crop.	M	v	
1st grade, 2nd grade, 3rd grade	Prohibited materials (if used/stored) are clearly marked not for use on Fairtrade crops.	C	v	
Traceability				
1st grade, 2nd grade, 3rd grade	You have a written description of product flow (path) from members to buyer.	C	v	business process have been mapped
Documentary Traceability Requirement				
Trader	You clearly identify all Fairtrade products as Fairtrade in all trade documentation (e.g. invoices, delivery notes and purchase orders), including all relevant documentation sent to and received from the additional entity.	0	M	Yes

TABLE III. FAIRTRADE FULFILLED LABOR COMPLIANCE MAPPING

Applicable for:	FLOCERT Compliance Criteria	Criteria Type	Checklist	Description
LABOR				
Commitment to Fairtrade				
Multi estate, Single plantation	A person responsible for Fairtrade matters (Fairtrade Officer) is appointed and is responsible for the overall co-ordination of Fairtrade in the company and for handling all necessary Fairtrade related communications. This person reports to the senior management. In the case of multi-estates, the Fairtrade Officer is appointed at the head office and is responsible for all plantations under Fairtrade certification.	C	v	Owner of the farm

Multi estate, Single plantation	The Fairtrade Officer acts as a liaison between Fairtrade International, FLOCERT, workers and managers regarding Fairtrade matters and ensures the implementation and monitoring of the company's performance regarding the Fairtrade requirements.	C	v	
Multi estate, Single plantation	The company allocates office space for meetings and space for the Fairtrade Premium Committee, trade union/elected worker representatives, and other committees involved in Fairtrade to keep equipment and files and provides other resources such as facilities, equipment, training, etc. needed for the successful implementation of Fairtrade matters.	C	v	There's location for implementation
Multi estate, Single plantation	The company allocates other resources such as facilities, equipment and training etc. for the successful implementation of Fairtrade matters.	C	v	There's location for implementation
Multi estate, Single plantation	The company has legal and legitimate right to land use and land tenure and respects the land rights of local and indigenous people.	M	v	
Multi estate, Single plantation	Where land claims and disputes are on-going, there is evidence that a legal resolution process is active.	M	v	
Occupational health and safety				
Multi estate, Single plantation	Work processes, workplaces, machinery and equipment on the production sites are safe as possible and inherent health risks have been minimized and risk management strategies are in place for adequate control.	M	v	
Multi estate, Single plantation	Clean drinking water is provided close by for all workers and is clearly labelled	C	v	
Trader	You comply with applicable legislation in relation to the safety of work processes, workplaces, machinery, accident prevention, and personal protective equipment.	R	V	
Labour Rights				
Trader	You are aware of the applicable labour laws in your country and of the fundamental ILO conventions.	C	v	
Trader	There are no indications that you violate any of the local labour laws or the fundamental ILO conventions.	M	v	
Trading with integrity				
Trader	There are no indications that you engage in unfair practices that clearly damage the producers' or other traders' capacity to compete or in the imposition of trading conditions on suppliers that would make it difficult for them to comply with Fairtrade Standards.	C	v	Yes
Management of Production Practices				
1st grade, 2nd grade, 3rd grade	You have informed your members about the Fairtrade standards for environmental practices and labour practices (the latter only applicable where members employ workers).	C	v	already told to the member
Freedom of labour				
1st grade, 2nd grade, 3rd grade, trader	You and the members of your organization do not discriminate on the basis of race, colour, gender, sexual orientation, disability, marital status, age, HIV/AIDS status, religion, political opinion, membership of unions or other workers' representative bodies, national extraction or social origin in recruitment, promotion, access to training, remuneration, allocation of work, termination of employment, retirement or other activities.	M	v	There's no indication of discrimination, hiring child labouring, abuse when author went on the field trip
1st grade, 2nd grade, 3rd grade, trader	You and the members of your organization do not engage in, support or tolerate the use of corporal punishment, mental or physical coercion or verbal abuse and do not engage in, support or tolerate behaviour – including gestures, language, and physical contact – that is sexually intimidating, abusive or exploitative.	M	V	
1st grade, 2nd grade, 3rd grade, trader	You and the members of your organization do not have forced labour, bonded or involuntary prison labour and have not employed children below the age of 15 or under the age defined by local law	M	v	
1st grade, 2nd grade, 3rd grade, trader	Your members' children below 15 years only help on your members' farms after school or during holidays, the work they do is appropriate for their age and physical condition, they are supervised and guided by their parent or legal guardian and they do not work for long hours or under dangerous or exploitative conditions.	C	V	

1st grade, 2nd grade, 3rd grade, trader	You and the members of your organization have not submitted workers of less than 18 years of age to any type of work which, by its nature or the circumstances under which it is carried out, is likely to jeopardize their health, safety, morals or their school attendance.	C	V	
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TABLE IV. FAIRTRADE FULFILLED GENERAL COMPLIANCE MAPPING

Applicable for:	FLOCERT Compliance Criteria	Criteria Type	checklist	Description
GENERAL COMPLIANCE				
Structural requirements				
2nd grade, 3rd grade	A 2nd grade organization is legally formed by at least two 1st grade member while 3rd grade member is formed by at least two 2nd grade member organizations as legal entities, under the control of a central structure.	C	v	Still on going, but it will be at least two member
Organizational Requirements				
Environmental management				
1st grade, 2nd grade, 3rd grade	One person or a group of persons has been given the responsibility to ensure that your organization complies with the environmental requirements.	C	v	higher ups
Trader	You are aware of the applicable environmental laws in your country.	C	v	
Right to trade Fairtrade products				
Trader	You accept announced and unannounced audits of your premises, including additional entities	M	v	Yes
Trader	Your additional entities where Fairtrade activities take place comply with the definition of additional entity and are registered with FLOCERT	C	v	Yes
Trader	Products sold as Fairtrade, not in consumer-ready packaging, are only sold to Fairtrade traders with a valid certification or permission to trade	C	v	Yes
Trader	You purchase certified products from producer organizations and not from individual members of the organization OR you demonstrate the inability to buy from the producer organization by citing national/regional law(s) prohibiting this, or written request by the producer organization, citing the advantage to them on such an arrangement and this is accompanied by a framework contract between you and the producer organization, regulating the following: traceability, volume, price, delivery terms, payments terms and invoicing method.	C	v	No
Trader	You designate one official contact for Fairtrade-related matters.	C	v	Already have the candidate
FLOCERT requirements				
Small Licensee	You comply with the definition of small licensees according to the FLOCERT Small Licensee definition.	C	v	Yes
Social Development				
Multi estate, Single plantation	Your company explains workers the purpose of the Fairtrade Premium (requirement 2.1.19) and the role of the FPC	C	v	

TABLE V. ACTION PLAN FOR EVERY SUBCATEGORIES

Public Compliance		
Subcategory	Reality	Action Plan
General	No certification, no fixed buyer, no trademark	Certification, fixing buyer, and create label that complies with regulation
Labor	Local farmer wants payment first to live their life	Create regulation and cooperation
Operational	Didn't meet any standard	Ensure standard
Environment	Need to try to reduce environmental footprint	Need to work together with government
Small Producer Organization		
Subcategory	Reality	Action Plan
General	Already have a legal organization	Make sure organization structure based on the standard
Labor	No manager for compliance with standard and some still discriminate	Add a law to comply with fair trade rule and hire a manager to manage compliance

Operational	No operational standard procedure on product's transport, storage, etc.	Establish an OPS and comply with the standard
Environment	Member not using any kind of dangerous material	Making sure members comply with standard
Human Labor		
Subcategory	Reality	Action Plan
General	Need person to be responsible for general fair-trade matters	Choose someone to be a fair trade officer
Economic	There isn't any fair-trade premium	Develop a premium that make local farmer get more benefit and get an officer to manage the premium
Social	Doesn't have any capacity building for human labor	Add event on working hours for fair trade needs
Environment	Need to make sure work environment is safe for labor (facility, operational standard, etc.)	Develop a standard and rework some facility

From the Table II, Table III and Table IV, we already map some of fair-trade criteria which already fulfilled. Although we have some of desired condition met from current condition, there are still many criteria that should be fulfilled from Fairtrade Public Compliance in term of Small Producers Organization, Hired Labour and Trader. This means that South Halmahera still have more subcategories to work with.

After knowing the gap between the current and desired condition, action plans on how to achieve that condition is then created. But as every subcategories have different progress in achieving the desired condition, the action plan is also vary for each subcategory. The action plan for each subcategory is shown in the Table V.

V. CONCLUSION

Based on the result and discussion, we have identified action plans for South Halmahera to achieve the desired condition for Fairtrade Certification. Most of the major actions are required from the technical side. South Halmahera will need supporting social activities and counselling so that all entities that have to work for the desired condition are in the same track.

ACKNOWLEDGEMENT

The authors thank and acknowledge the financial support received from the Ministry of Research and Higher Education of Republic Indonesia (Kemristekdikti) and MP3EI Grant.

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