

REPOSITIONING FARMERS AGRO-FOOD VALUE CHAIN: DESK RESEARCH FROM THREE DEVELOPMENT PROJECTS IN NTT PROVINCE

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ABSTRACT

Smallholder farmers are the most vulnerable groups in the agro-food value chain despite their vital role as the producer. The vulnerabilities are due to limited access to information, education, training, limited access to inputs, and power in the supply chain. Moreover, the farmers are also vulnerable to various shocks caused by climate change, market shocks, price fluctuations, and market uncertainties. The majority of farmers living in the remote area, causing them to rely on the other market players to sell their products. This condition brings small benefit to the farmers. Several programmes initiated by international organizations have been using value chain as programmatic approach, and tool to identify key areas of improvement and more importantly giving a better position for farmers in the supply chain by increasing value of their products, bargaining positions power, organizing farmers in groups as well as other supports that will allow farmers to be in a stronger position and gain more benefit in the market through better networking or working directly with buyers or companies. The paper focuses on analyzing the experiences of three selected value chain intervention in NTT province of Indonesia in bridging the farmers to have new roles, better capacities, and in repositioning the farmers in the agro-food value chain from the most vulnerable groups into a more sustainable player in the value chain. It uses desk research to capture initial lessons learnt of the three development project in NTT province commenced during the period of 2013- 2016. The findings showed that an integrated intervention based on a comprehensive value chain analysis could contribute in enhancing farmers' role not only as agro food producers in making direct trading with big buyers and by passing collectors or middlemen, having new contract farming with big companies as opposed to working in a subsistence based farming, and replicate so that they have a better position in other livelihood or commodity that they can produce. Further field research on looking at the real impact of each project need to be carried out to complete this desk research.

Key words: value chain, decent work, farmers, agro-food, sustainable development.

ABSTRAK

Petani adalah kelompok yang paling rentan dalam rantai nilai pangan-pertanian meskipun mereka memiliki peran vital sebagai produsen. Kerentanan ini disebabkan oleh keterbatasan akses kepada informasi, pendidikan, pelatihan, akses terbatas terhadap bahan baku sebagai input dan daya tawar dalam rantai pasok. Lebih lanjut, para petani juga rentan terhadap berbagai tekanan mendadak (*shock*) yang disebabkan oleh perubahan iklim, perubahan mendadak di pasar, fluktuasi pasar, dan ketidakpastian pasar. Mayoritas petani hidup di daerah terpencil, yang menyebabkan ketergantungan mereka terhadap aktor pasar lainnya untuk memasarkan produk mereka. Kondisi ini tidak menguntungkan bagi para petani. Beberapa program yang diprakarsai oleh organisasi-organisasi internasional telah menggunakan rantai nilai (*value chain*) sebagai pendekatan programatik, dan alat untuk mengidentifikasi area-area utama yang membutuhkan peningkatan dan yang lebih penting memberikan posisi yang lebih baik bagi petani dalam rantai pasok dengan cara meningkatkan nilai tambah produk mereka, posisi tawar, pengorganisasian petani dalam kelompok serta dukungan lain yang memungkinkan petani berada pada posisi lebih kuat dan mendapatkan lebih banyak manfaat di pasar melalui jaringan yang lebih baik atau bekerja langsung dengan pembeli atau perusahaan. Makalah ini fokus pada analisa pengalaman tiga intervensi rantai nilai (*value chain*) yang dipilih di provinsi NTT di Indonesia dalam menjembatani petani untuk memiliki peranan yang baru, kapasitas yang lebih baik, dan menempatkan kembali posisi petani dalam rantai nilai (*value chain*) pertanian-pangan dari kelompok yang paling lemah menjadi pemain yang lebih berkedudukan kuat dan berkelanjutan dalam rantai nilai (*value chain*). Kajian ini menggunakan kajian pustaka untuk menangkap pembelajaran awal dari tiga proyek pembangunan di provinsi NTT yang dimulai selama periode 2013-2016. Temuan menunjukkan bahwa intervensi terpadu berdasarkan analisa rantai nilai (*value chain*) yang komprehensif dapat berkontribusi dalam meningkatkan peran petani, tidak hanya sebagai produsen pertanian-pangan namun juga dalam melakukan perdagangan langsung dengan pembeli skala besar dan melewati kolektor atau perantara, memiliki kontrak pertanian baru dengan perusahaan untuk bekerja di pertanian yang berbasis subsisten, dan mereplikasikannya sehingga mereka memiliki posisi yang lebih baik dalam mata pencaharian atau komoditas lain yang dapat mereka hasilkan. Untuk melengkapi kajian pustaka ini dibutuhkan penelitian lapangan lanjutan untuk melihat dampak nyata dari setiap proyek.

Kata kunci: Rantai Nilai (*value chain*), pekerjaan yang layak, petani, agro-pangan, pembangunan berkelanjutan.

INTRODUCTION

Agro-food as agriculture product in Indonesia is dominantly produced by smallholder farmers. In 2015, a total of 34 per cent of employed people working in agriculture (Allen, 2016), and 23 % of them are living in poverty (Sonia Fitri, 2015). One of the area in Indonesia that still struggling in reducing its poverty rate is NTT province. It is a home of 5,3 million people where in 2016, 22 per cent of the population still living in poverty during the last couple of years (BAPPEDA Prov NTT, 2016). There are five main challenges for addressing the poverty issues in the rural area of NTT, namely: i) access to economy or financial access in order to attain food through programs such as poverty reduction, increase investment and infrastructure; ii) intervention to accelerate and prevention of malnutrition through monitoring of chronic malnutrition or stunting; iii) increase the production of essential local food iv) improve access to clean water and adequate sanitation facilities which will improve nutritional outcomes; and v) address the increasing vulnerability to climate change risks, particularly focusing on improving drought resistance (BPKP NTT, 2015). During the period of 2013 to 2016, there was a strong demand to harness development programme to give more impact to the most vulnerable, and in this case the attention falls to farmers as the most vulnerable actor in the value chain that are facing formidable challenges in improving their lives out of poverty. To address such condition, the suggested formula for an agrarian based economy are: “An intensification of agriculture, aimed at increasing returns to both land and labour, needs to go hand in hand with an increased market-orientation of production. New cultivation methods with the twin aim of achieving both intensification and higher returns and an environmentally sustainable mode of production, will imply a large increase in agriculture-related investments as well as

significantly increased use of cash inputs in agricultural production. This will both facilitate and necessitate an increased production for the market” (Ronnas & Kwong, 2011).

Several international organizations during the recent decades have been trying to use the value chain as a development approach and tool in addressing the rural poverty, and supporting farmers to have a more sustainable livelihood. This paper, explores the type of support provided for farmers beyond the current function as “food producers” from three different value chain based programme implemented in NTT province by International Labour Organization through its Decent Work for Food Security (DW4FS) project, the Australian Indonesia partnership for rural development (AIP-RURAL) through its project called PRISMA, and the World Vision Indonesia (WVI) through its local value chain development programme. The paper will synthesise the use of the value chain approach in the context of its interventions in enhancing smallholder farmers to have better position in the value chain.

The paper however will not be intended to evaluate the effectiveness of the value chain approach that are being implemented by the three organizations nor reviewing the tools itself, rather the paper analyze the lessons learnt coming out of the project’s implementation reports on the impacts towards farmers’ position.

LITERATURE REVIEW

The concept of value chain that this paper is referring to “a set of activities that an organization carries out to create value for its customers (Hakemulder, 2015). Porter proposed a general-purpose value chain that companies can use to examine all of their activities and see how they're connected. The way in which value chain activities are performed determines costs and affects profits, so this tool can help you understand the sources of value for your organization” (Porter, 1985 in

Hakemulder, 2015). This concept during the past decades is widely used by international development agencies such as ILO, UNDP, GIZ, and many other organizations¹ that put it in many different form as the guiding principle of an entire development program or policy, or simply represent the concern for economic viability of (any) development strategy. Programs may be organized around specific value chains or take a value chain perspective by including a reference to markets in a design that focuses on regional development or natural resources otherwise (Heinze, 2017b). In the context of food and agriculture, a value chain can be defined as “A collection of sequential and parallel activities or functions interrelated with the production, manufacturing and marketing of food” (Heinze, 2017b). A more comprehensive definition of value chain is provided in Asian Development Bank (2013) that runs as “Value chains are organized links between groups of producers, traders, processors, and service providers, including nongovernment organizations, that join together to improve productivity and the value added from their activities”. Over time, development agencies and academia have presented a variety of market-based approaches building on the value chain concept. Widely quoted variants of value chain development include: Value chain (or subsector) development, linking farmers to markets, making markets work for the poor, Public-private development partnerships, Inclusive business, Standard initiatives for global commodities (Heinze, July 2017a).

Since 2012, three international development programmes use the value chain development as the tools to address the development challenges, specifically in rural area of NTT. The ILO calls it as value chain for decent work approach, the

AIP-Rural calls it as Making Market Work for the Poor (M4P) and while WVI calls it as local value chain development. In general the use of the value chain in this context is to address systemically the pertaining issues faced by farmers in the province. The approaches consider business process is not happening by its own but rather from an interaction of many variables that can support a business to run well in getting its supply or it cannot run well since there is a challenge in one of the elements needed to make the supply chain running well. The value chain concept then used in order to map out all the actors in the specific value chain of agriculture product to identify the factors affecting the farmers in gaining the advantages in the value chain, and making systemic intervention in the market or in the supply chain that can become a strong driver in giving incentive for farmers. The common features that are used by the three project is on providing supports for farmers to improve their income through a better access to market, new roles, and improve bargaining position in the value chain through market driven capacity building, and other direct intervention along the value chain.

METHODOLOGY

Desk research is chosen as the methodology for this paper since it suit the intended objective of the study as an initial step to identify whether or not the value chain for development approach can be used in addressing the poverty in the rural areas, specifically in supporting farmers to come out of poverty through improvement of their position in the value chain. Desk research or known as secondary research is an approach that collects, and analyses data sourced from the writings of social scientists and other authors (Curtis & Curtis, 2011). Furthermore, it is using the same methods as a literature review, but are looking at the materials that become part of the main research (Bryne, 2017). It is done through reviewing findings from

¹ For full list of organizations using the value chain development approach: www.value-chain.org

evaluation reports, progress reports, and other relevant project documents available online from three international organizations (ILO, WVI, and AIP Rural) that are using value chain development as approach in rural development and addressing rural poverty. The review focused on three reports of that were published as well as shared by the organizations. The limitation to this study is that authors only rely on data and information available on the internet and other reports or journals that can be obtained. The analysis were carried out by classifying the value chain interventions from the three organizations which have direct impact to farmers' role or function in the value chain sector.

Value chain intervention model

Generally, the value chain-based intervention model initiated with an analysis to select the targeted sector or sub-sector of the product and analyze the key problems along the chain. The process then continued with developing intervention design which can be done using participatory approach or conducted by a group of experts assigned to analyze the value chain. Then intervention will be developed according to criteria developed by each of the organizations. The whole process could take up six months to one year depending upon the processes and the scale of the value chain as well as geographical coverage. In summary, the value chain intervention model can be summarized in the table 1:

The focus of the intervention from the three different organizations put emphasis and attention in different area based on the organizations' or development mandates. The ILO focuses on improving the capacity of the farmers to organize themselves into viable groups and increase their capacity in conducting collective bargaining with the market actors which also include training to increase entrepreneurial model, the WVI put emphasis on the enhancing farmers access to market. Finally PRISMA put

focus on the support in enabling market that can become the pull factors of the value chain and give systemic change to farmers' income.

The opportunity of intervention is enormous starting from the very basic interventions such as farmers training, up to market governance. This choice depending on the opportunities and the analysis on intervention that can make a systemic change in the whole supply chain by adding value in each of the analysis carried out in the beginning of the intervention. The quality of the intervention will be also depending on the flexibility as well as available budget that is needed to support the value chain development.

DISCUSSION

The farmers (new) position in the value chain

The three organizations provided their focused on creating systemic intervention to change the live of famers. In particular related to the changes of the farmers' role or position in the value chain some changes cover several aspects such as: i) improved roles from the current function as producers, ii) new roles and functions; iii) and new roles and function in other value chain.

Modifying current roles

In general, the value chain development in NTT can be described Farmers trading small volumes, that then move inefficiently through a fragmented value-chain, with many layers each collecting margins, and impeding market signals getting back to producers in (Connell, 2014;). Based on the value chain interventions of the three organizations, some major modifications of the role of farmers that can be identified are: firstly, Through collective efforts in a formalization of farmer groups, farmers able to increase their production to sell larger volumes through either (a) expanding their production areas or (b) using improved practices such as in

improving efficiency in their work that can save time, and cost. Thus, they can have a better bargaining position in trading with buyer, and by pass collectors or middlemen. In this context, within groups farmers able to revitalize themselves to take advantage by combining their role as market provider among themselves that able to shorten their transaction to big buyers instead of selling their product to the collectors or middlemen. Secondly, farmers able to provide better quality product through sorting or use of improved technologies, seeds, and farming techniques which enabled by better market information flow up the chain by direct trade or more informed collectors.

Creating new roles and functions in the value chain

Farmers could also take up a new role as producers of other product. For example, farmers groups able to upgrade themselves into village enterprises able to become a producer for inputs product of the value chain. Supported by knowledge and new roles that are acted by the farmers, farmers now have chances to have contract or gain support form big companies or major buyer in providing farming necessities like seeds and fertilizers or even tools that needs bigger capital such as pick-up truck or tractor. By having better capacity, farmers could organize themselves as local business service providers for other farmers. The service that the local organization could offer cover access to market network, shared information on strategies to improve productivity, and lastly organizing local self-help group or cooperatives that could manage their financial transaction.

Creating new roles and functions in the other value chain

Not only knowledge on how the value chain works, knowledge of negotiation and finance will enable farmers to climb and have better position in the value chain of food supply as well as other value chain. In reality farmers are doing not only one value chain. For example, cattle raisers

could also become a maize farmers or other type of agro-food products. Therefore, with improve skills farmers could take another role in another value chain such as a service provider, local market intermediaries, etc. In some cases, from the reports, farmers that have more than one commodity to work on tends to replicate the successful path into other commodities.

CONCLUSIONS & IMPLICATIONS

From all the information that are gathered and analyzed, this study concludes that farmers with the right integrated support can be upgraded and enhanced to have a better position in the value chain which at the end it will impacted their income as well its resilience towards the market fluctuations, and other development challenges. The implementation from the three organizations showed promising evidence that value chain as sustainable development tool can be used in addressing poverty among farmers in the rural context in Nusa Tenggara Timur province.

Some constraint still exist in the implementation of the value chain for development works as it is required huge amount of intervention and time consumption. The process of the value chain research until intervention in general based on the experience of the three organizations will require at least six to one year depending on the scale of intervention. Therefore, it is a big investment for any user of the tools if they are going to use it. In term of resources, many guidelines, and information about the process for conducting value chain development-based project are available in English which will prevent local authorities, such as local head of village up to district level where limited number of key policy makers and government officials understand English well. Furthermore, number of experts that need to be engaged in order to have a solid combination of theoretical and practical field information in making the value chain analysis will be additional challenge for local government to carried out a comprehensive value chain

development intervention. However, learning from the promising impact of the intervention from the three organization, competent authority i.e. local government could develop a partnership with local university in designing a more suitable value chain development intervention approach that could be adapted to local context and within budget constraint.

Further research is required in order to measure the effectiveness of the value chain in the development programme in terms of its added value creation and sustainability, how much shares that the farmers can earned based on the new roles that they have in the value chain, what are the impact of the price fluctuation to the value chain intervention and who will benefit the most, and what are the factors influencing competitive advantage of a province's agricultural product: networking or competition development option to fight poverty in the rural area of Indonesia. Moreover, other variables related to sustainability such as environment, and climate change need to be taken into account in carrying out value chain development intervention programme. Therefore, the approach need to integrate not only economic and social aspects in analysis but also need to include environment considerations in the implementations.

Currently the Government of Indonesia has regulated a specific fund allocation dedicated to enhancing the economic development in each of the village in Indonesia. In one hand the allocated fund, which is quite significant in numbers, could become a resource for rural communities to improve their livelihoods and local business. However, if it is not well managed and do not have clear strategies then the resource will be wasteful. A value chain development could become an answer to this challenge. A proper training and capacity building for local authorities at the village level with support from local universities could develop local based value chain

development that can addressed the issues at the local level to use the abundance resource provided by the government.

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Table 1
Value chain intervention model in NTT from three organizations

Identified problems/constraints/need/opportunities	Value chain intervention activities or solution	Expected impact
Productivity, poor harvest handling, poor post-harvest storage, quality of products (type of specification according to market need),	<ul style="list-style-type: none"> - Skills training for farmers on good agriculture practice (GAP) Improve inputs for farmers such as related to seeds, fertilizers, other related inputs as required by each sectors. - Entrepreneurship training and financial education training 	Improved productivity, able to manage the limited resources, improved income, and sustainable agricultural practices, intensification of production, expansion of production capacity, better cash flow management.
Limited market access, conflict of interest between market actors along the value chain, lack of coordination, and lack of stability for market connection and input supply	<ul style="list-style-type: none"> - Introduce producers to potential opportunities in local markets (be it local, district, or provincial) - Training in having contract farming. - Organizing farmers into viable business groups such as cooperative, self-help group, village enterprise, collective trading groups. 	Increased yields, income, and work opportunities, securing market through contract farming.
Enabling business environment, lack of market governance	<ul style="list-style-type: none"> - Facilitating of business meetings - Training of local business services providers - Training of government officials Capacity building for intermediary 	Improved systemic market change and stimulate market pull, factors and market push factors, attract more investment.

Source: (own analysis).