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## NGO as Triple-Helix Axis: Some Lessons from Nias Community Empowerment on Cocoa Production

Corinthias P. M. Sianipar <sup>a,b,\*</sup>, Kitri Widaretna <sup>c</sup>

<sup>a</sup> Institut Teknologi Bandung (ITB), Jl. Ganesha 10 (Gedung SBM-ITB), Bandung 40132, Indonesia

<sup>b</sup> Bandung Polytechnic for Manufacturing (POLMAN), Jl. Kanayakan 21, Bandung 40135, Indonesia

<sup>c</sup> Swisscontact Indonesia (NISA Project), Jl. Sisingamangaraja 34, Gunungsitoli-Nias 22813, Indonesia

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### Abstract

Community empowerment is one of the main development purposes in developing countries. While development only results in a ratio between the “before” and “after” conditions, empowerment can maintain the continuity of the development through the good relationship between related parties, in terms of knowledge production and field application. Since the parties in community empowerment are tightly related to the Triple-Helix model, Non-Governmental Organization (NGO), as a non-profit organization in community empowerment projects, should catch its opportunities as the axis of those three helices. The case of Nias community empowerment on cocoa production presents some lessons which seek to illustrate the links between parties in a community empowerment project. While each of the three helices makes its movements by itself, NGO fills in the gap in interactions between helices as well as interaction among sub-entities in each helix. The convergence between helices builds opportunities for each connection, so it is analyzed carefully through internal information to find the most appropriate relationship in the field. By focusing on the gathering of new thought of the Triple-Helix approach, this paper proposes a simple model as the initial step to develop new applications of the concept, then emerges a new thought that Triple-Helix can be implemented in wider phenomenon among societies, and give opportunities for further research around it.

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*Keywords:* NGO; community empowerment; appropriate technology; cocoa production; triple-helix

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### 1. Introduction

The dynamics of global economics in the last decades were noted through the change in world economic power. Many international agreements, especially on economic issues, were done more often, or with a bigger

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\* Corresponding author. Website: <https://cpmsianipar.com>

E-mail address: [iam@cpmsianipar.com](mailto:iam@cpmsianipar.com); [cpm.sianipar@gmail.com](mailto:cpm.sianipar@gmail.com)

scope, between developed countries to developing countries. Months ago, Indonesia returned to the investment-grade status from BB+ to BBB- (Fitch Ratings, 2011), the same status ever obtained 14 years ago. It means that Indonesia has become a country with bigger opportunities for investors. On the other hand, Indonesia is a developing country with natural resources as its base in economics. The structure of Indonesian export is still dominated by primary commodities, such as oil & gas and agricultural products (Adam & Negara, 2010).

These facts show that Indonesia is an emerging country that has big opportunities to develop the investment environment through the development of primary commodities. The development will increase the bargaining position of Indonesia in the bilateral and multilateral agreements. Free trade, which began in 2010, should give opportunities for each country to an agreement through specialization in superior commodity production, especially in hot commodities in the world like agricultural commodities (Hutabarat, *et al.*, 2007).

One of Indonesia's hottest agricultural commodities in the world is cocoa. For the last 20 years, Indonesia has been the world's third-largest cocoa producer after Ivory Coast and Ghana, contributing export earnings in excess of US\$1.4 billion per year (Asia Pulse, 2011). In mid-2008, the Indonesian government announced a large national program to revitalize the cocoa industry, known as the *Gernas Pro Kakao*. The key view is the 55% cocoa production growth to 2014/15 (Wood, 2010). Government initiatives to replace aging trees will see an increase in yields as well as planted area, allowing Indonesia to compete with Ghana, the world's second-largest producer.

## 2. Literature Review

### 2.1. Nias Cocoa Production

Cocoa (*Theobroma cacao L.*), one of the world's most important perennial crops, is primarily used for chocolate production, with an estimated global output of 3.5 million tons of beans being produced in 2006 (ICCO, 2007). The area of cacao plantations has increased greatly during the last decade in Indonesia, now the largest cocoa producer in South-East Asia, following the decline of Malaysia's production in the last 20 years (Moser, *et al.*, 2010). Indonesia has 1.5 million hectares of cocoa plantations, mostly in the eastern Sulawesi Island, with an extra 10,000 to 20,000 hectares of additional production due this year (Wall Street Journal, 2011).

Nias is the biggest island in the Nias archipelago. On the edge of the Indian ocean, the archipelago is included in North Sumatera province. The island is divided into four Kabupaten and one Kotamadya. Nias is the third biggest cocoa agricultural area in Indonesia, after Central Sulawesi and Flores (de Blij & Müller, 2010). The production output of cacao in Kabupaten Nias is the third biggest commodity, after rubber and coconut (the datas are combined with Kotamadya Gunungsitoli, Kabupaten Nias Utara, and Kabupaten Nias Barat). Badan Pusat Statistik (BPS, 2009) has noted that in 2008, rubber commodity reached 1.170 tons productivity output, coconut in 964 tons level, and cacao with 830 tons production of dry bean.

The selling price is decided by the production volume and the quality of the output. Related to an increased productivity, there should be an extensification and intensification of agriculture. On the other hand, the quality level should be improved through postharvest treatment. They are processed as on-farm or upstream systems.

The intensification effort for cocoa in Nias had been made by many local bodies or international institutions. Many of them were applied as joint cooperations with local government in the recovery phase after the tsunami (Aceh-Nias in 2004) and earthquake (Nias in 2005) disasters, for example, in Kecamatan Bawolato, Idanögawo, and Gunungsitoli Idanoi (Swisscontact, 2011). In short, Nias cocoa farmers have had the basic knowledge of cocoa cultivation methods. So, that is a good time to bring better development of postharvest treatment in order to increase the quality of the cocoa commodity. Usually, farmers sell the dry bean. It is produced through the postharvest process. The commodity will be sold to the local buyers and exporters.

Harvest and postharvest treatment are the most important things in cocoa cultivation, since both decide the output quality of cocoa commodity. Although the high production level, the shipping amount will decrease when the harvest and postharvest processes do not do well. Furthermore, bad quality dry cocoa bean means the buyer

will not place the price appropriately, even though the exporters eventually deny the dry cocoa bean supply from the farmers. Because of that, the quality must be kept at –minimum– the same level as the trading standard through good postharvest processing. Through the above facts, Swisscontact (hereinafter will be referred to as only “the NGO”) entered the field to develop the postharvest system for Nias cocoa farmers. It is a non-governmental organization (NGO) from Switzerland, with the tagline “We Create Opportunities.” Founded in 1959 by the cooperation between the private sector and academic sector in Switzerland, it is funded by private donors as well as the Swiss government (Swisscontact, 2010). Its activity in Nias is funded by Swiss Solidarity which is based in Geneva, Switzerland. They give the name for the project “NISA,” the acronym from *Nias Income-generation through Sustainable Agriculture*. The project was started in January 2009.

Unlike the downstream processing steps in the northern hemisphere, the upstream processing steps rarely involve sophisticated equipment (Ng, 2011). In postharvest cocoa processing, the quality of dry cocoa beans is tightly related to fermentation and drying processes. The main idea in the drying process is to decrease the water percentage in cocoa beans to meet the trading standard requirement (Ülrich, 2009). One thing that highly influences the drying process performance is the local environment (Sianipar, 2010), so the drying technique must give more attention to the local condition. Furthermore, it is stated that the most appropriate technique of cocoa drying in Nias was solar-powered drying, or using sunlight as the source of heat. Amin (2009) explained six main principles in drying cocoa beans using sunlight:

1. *Drying base*. A good drying base uses conductor material to absorb more heat from the sunlight. More light means more heat, so the drying process will be done faster. Farmers usually use thick plastic sheets, concrete floors, or just spread the bean on the asphalt street.
2. *Rain-proof*. Mobile roofs or mobile floors can be used to keep safe the cocoa bean from rain.
3. *Color & material*. Dark colors and steel-type materials are often used around the drying area to collect more heat from the sun.
4. *Heat collector*. The shape and position of the heat collector must produce a high temperature to get faster evaporation of water from the cocoa bean.
5. *Airflow*. The airflow must be guided to attach more water but does not reach the saturation level. The air should keep in fast flow but must reach the whole skin of the cocoa bean.
6. *Heat isolator*. The heat must be kept at some level of temperature. The cocoa bean should be kept in hot or warm conditions to prevent the absorption of water at night or on a rainy day.

On the field, smallholder farmers are responsible for roughly seventy percent of total global cocoa production (Clay, 2004; Donald, 2004). An estimated 5–6 million smallholder farmers earn most or all of their cash income from cocoa production (Clay, 2004). Researchers, as the living pillar of the academic sector, must catch the opportunities to help them. Academicians should apply their knowledge to society. Capitalization of knowledge happens when knowledge generates an economic added value (Viale, 2010). It means that researchers should use their knowledge to give economic added value to the farmers through their innovations. Furthermore, the increase in the economic value of the farmers will also increase business opportunities for them. The higher quality means the higher selling price of the dry cocoa bean. Everything related to the optimization of the drying process should also be capitalized on to bring the empowerment of society.

## 2.2. Triple-Helix

The capitalization of knowledge should also be treated as a result of the intellectual property of the researcher. As one of the three pillars of Indonesian education, social responsibility from the academic sector to society should be mediated by the government. Dalle (2003) and Maurer (2002) have documented that many research products are distributed and transferred to others using institutions that range from commercial. These institutions should be the government representations acting as the neutral side from the appropriate ministry or department. Government can act as the policymakers who accommodate the intellectual rights of researchers, or as the neutral

funding committee in the research as well as the application of the research result among the society. There should be a framework that highlights the difficulties in sustaining the production of knowledge when it is the outcome of a collective enterprise (Gambardella & Hall, 2010).

The connection between researchers representing universities, farmers on the business side, and government as policymakers as well as the funding committee build the scheme of Triple-Helix. The triple helix is a model for capitalizing on knowledge in order to pursue innovation (Etzkowitz, 2008). The triple-helix model seems to play an anti-cyclic role in innovation (Viale, 2010). It expresses its potential when the interaction between researchers, farmers, and the government is not autonomous but a dynamic way of the society (Sianipar, *et al.*, 2013). It works as a “nudge tool” (Thaler & Sunstein, 2008), whose aim is to maintain a sufficient flow of innovation through the right incentives and institutional mechanisms for the academy –cocoa farming industry collaboration.

### 2.3. Theoretical Framework

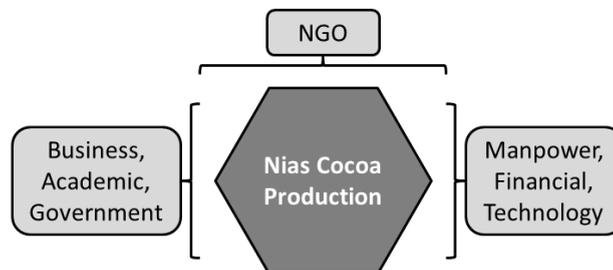


Fig. 1. Theoretical Framework

The failure and success of sustainable economic development are tightly influenced by the way the government does the governance (Firdausy, 2010). Economic development statistics are often seen from the contribution of industrial sector output to the economics of the country or the related area. In short, the output level is decided by the combination of economic inputs, such as manpower, financial investment, and technology (Nugroho & Hidayat, 2010). Because of that, the helices in Nias case should be understood as business, academic, and government that are collaborating in the field to form a triple-helix. The three are interrelated in terms of investment, labor, and technology. Non-Governmental Organization (NGO), as a non-profit organization, should catch its opportunities as the axis of coordination for the triple-helix model. The discussion should find the position of NGO in filling the gap between those helices to incorporate three economic inputs as the foundation to reach Nias sustainable economic development on cocoa production.

### 3. Methodology

The paper presents a systematic approach that seeks to illustrate the links between parties in a community empowerment project, especially the convergence of business and university that is boosted by government, based on the Triple-Helix model. The first section explains the background of what this study addressed. Then, the second section reviews the literature on each idea. The result is the theoretical framework that is used as guidance in reaching the main purpose of this study. The following section is used to discuss the convergence between the three helices, which build the opportunities of each connection based on the theoretical framework, so it will be analyzed carefully through the archived information from internal publications to find the most appropriate relationship in the cycle of field condition. The last section will collect the main idea of this study into several conclusions in a simple model. Finally, further researchers can extend or develop new research based on this study. Ideas can be found in that section to give initial insights.

## 4. Discussion

### 4.1. First Phase, Early Approaches

Nias grows with its unique shape of society. Although included in the North Sumatra province, the society acts in different ways from North Sumatra native people, Batakese. Understanding the implication of culture from the behavior or the words of Nias people can be too difficult for non-Nias people (Brown, 2003). Although the Indonesian government is an authority that is highly acknowledged locally, the origin of the Nias people is seen as non-Indonesian but shared with the wealthy outsiders (Wolff, 2006). The development of Nias means that NGOs should deep-enter the Nias society in smart ways.

As the successor of former NGOs in Nias, they –at the first step– follow the result of those other NGOs, make an assessment through field surveys, and catch other sensitive issues related to their work. Schültz & Nugroho (2006) undertook a village assessment of the locations where NGOs were working based on the sustainable livelihoods approach. That is, a detailed assessment was undertaken that provided them with village profiles incorporating the following:

1. *Human capital*. The level of technical knowledge of cocoa cultivation, education, and literacy.
2. *Natural capital*. Quantitative assessment of cocoa stocks, conditions, and available areas for new planting.
3. *Social capital*. The ability of farmers to work together and coordinate on issues such as disease control as well as the role of women in cocoa-producing households.
4. *Physical capital*. Available supporting infrastructures such as roads and bridges.
5. *Financial capital*. Access to credit, presence of savings.
6. *Value-Chain Processes*. Individual villages' position in the value chain of cocoa differs. The NGO wants to analyze this to help villages to come up with a future Community Action Plan.
7. *Structure and Organizations*. What are the existing working structures or organizations in the village? What has been tried in the past, what has failed and why?

As identified above, cocoa farmers as the main business persons in the cocoa industry are severely restricted by their lack of knowledge and technical expertise regarding more beneficial cultivation, harvesting, and postharvest techniques. So, the NGO planned to facilitate a variety of technical training for the first helix –cocoa farmers of Nias– through an activity called “*Sekolah Lapang*” (field school). It will provide the appropriate techniques for farmers related to the on-farm process of cocoa. The “school” is also a ToT (Training of Trainers) in order to prepare the society through the knowledge-transfer. So, there is not only community development but build community empowerment (Sianipar, *et al.*, 2013). The autonomy should behave as the product of empowerment, and it will produce sustainable development in the cocoa society of Nias.

The concept of *Sekolah Lapang* was to develop the knowledge of farmers directly on the farm. The experts were invited from many institutions which have a tight relationship with the cocoa industry, such as M.A.R.S., Inc., ICCRI (Indonesian Coffee and Cocoa Research Institute), and from Indonesian Ministry of Agriculture. They transferred their knowledge of how to transform the traditional methods of cultivating cocoa to the modern ones, without losing the society's identity like multi-commodity farming. As they note, farmers in Nias did not focus only on cocoa. They focus on many commodities in a single household (Ülrich, 2009).

From a field survey (Schültz & Nugroho, 2006), it was ascertained that the average cocoa farmer owns or has access to around one hectare of vacant land that can be planted with new seedlings. So they decided to supply the farmers' trees in the target areas. The supply will be treated as a supplement to the *Sekolah Lapang*. This way, the farmers will have enough trees to see the benefits of increased production in the medium term and will be able to graft and selectively propagate from these trees using the cultivation skills the experts in the *Sekolah Lapang* are training them. The survey result was combined with the statistics from the Department of Agriculture to estimate the following number of cocoa farmers in the target areas, and then the supply scheme (included in the *Sekolah Lapang*) was introduced to the farmers:

1. Cocoa focal points are identified in each village. These people were sent to ICCRI for training and will be the main focal point for cocoa activities in the village in the future.
2. Agreement between cocoa farmers and the NGO. The NGO is willing to supply a number of cocoa seedlings to each village based on the needs assessment. It also supplies polybags and fertilizer, while the community supplies sand and soil for potting as well as an area for germination beds and seedlings. Complete lists of farmers' names and the number of seedlings they will each receive are compiled.
3. While the facilities are prepared in the village, the NGO purchases and supplies the seeds.
4. Distribution of seedlings to farmers occurred between 1-2 months after they had been put into polybags.
5. A sample of the farmers participating in this activity will also participate in the monthly monitoring of household economic status and primary production activity.

#### *4.2. Identification of Surrounding Issues*

##### *4.2.1. Market & Product information*

There is very limited knowledge among Nias farmers of the value chain of the commodity they produce. That is, farmers are mostly unaware of what happens to their product after it is sold at the market or to the local trader. Without any understanding of the value chains of cocoa from production to consumption, farmers are in a poor position to argue for better prices from their local buyers. Furthermore, in order to value add their products through better postharvest treatment, farmers need to understand the chain more completely. For example, to get value-added, it would be beneficial for farmers to understand that cocoa needs to be fermented in order to develop the chocolate flavor of cocoa which occurs when proteins are broken down into amino acids.

Another major issue contributing to low "farmer bargaining power" is the lack of knowledge regarding national commodity prices for cocoa. Very few farmers are accessing this information that is available on Radio Republik Indonesia. The NGO has found that the majority of farmers are not aware that this information is available. In some remote work locations where there is no electricity, there are also very few radios. The following activities are being planned to tackle this issue:

1. Distribution of value chain posters for cocoa. In the beneficiary villages, the NGO distributed graphic posters showing farmers the supply chain from the raw product to the consumer. The distribution of these materials is done by the Field Facilitator Officers who have been trained in value-chain analysis.
2. Radio Republik Indonesia Stickers. In conjunction with RRI, the NGO distributed stickers with clear, simple information regarding the time and day that market information can be accessed.
3. Distribution of solar-powered/wind-up radios. In villages that don't have electricity, the NGO distributed radios that do not rely on batteries or the electricity grid.

##### *4.2.2. Gender*

In March 2006, the UNDP funded and facilitated a workshop titled "Nias Agricultural Development and Consolidation Workshop" to bring all stakeholders in agriculture together to create action plans for agricultural reconstruction and development in Nias. One of the most profound conclusions from the working group discussions on cocoa was that past attempts to carry out skills training in Nias had not had the desired impact because of poor consideration of the gender components of cocoa farming (UNDP, 2008). According to the field surveys, more than 50% of cocoa cultivation and harvesting work is done by women. However, according to sources from this workshop as well as the Department of Agriculture, women have never been directly involved in any skills training exercises.

As part of the program, the NGO ensures that women are involved in all aspects of the training that is carried out, including ToT training courses in Nias as well as outside of Nias. Before planning field training for cocoa

cultivation and harvesting, the women participants were consulted and asked to propose which potential times and venues they would be most comfortable with and which would not interfere with or increase the burden of other income-generating activities and domestic chores. Likewise, in the distribution of cocoa seedlings, women were consulted to ensure that the village preparations for distribution, such as preparing the potting mix, did not impact on or further burden the women in the village.

#### 4.3. *Afiluo Dryer: The Engineering and The Acceptance*

For most economic practitioners, economic development is often interpreted as an effort to increase the production of goods and services by society (Nugroho & Hidayat, 2010). Rostow (1960) stated that the increase in output production structure is characterized by the transformation from pure-traditional agriculture to industry. Technology is always needed to bring a multiplier effect to the transformation process. But in Nias, technology should not change, whether just an improvement, the basic behavior of the Nias farmers. Based on the works of Ülrich (2009) and Amin (2009), the NGO then came up with the idea of developing drying equipment to help farmers get a faster drying process for cocoa beans. The main idea was to shorten the drying time of cocoa beans. Thus, there should be designed a dryer which could be easily adapted by the farmers, even with low-level capability or knowledge. The most suited type of technology was the appropriate technology, a technology that accommodates technical and economic aspects, and also includes sociocultural aspect –of where the product will be applied– into the engineering process (Sianipar & Adhiutama, 2012). Appropriate technology was tightly related to applied science subjects, so the NGO invited two researchers from two different vocational education institutions to bring the idea into reality. They were the second helix.

After the preliminary and prototyping process of designing the dryer, it was researched and developed in collaboration with the farmers. In order to get a good acceptability level from the society, the dryer was named “Afiluo.” The word *afi* means “wings,” while *luo* means “sun,” so the name *afiluo* means “a dryer with the sun as the power source and wings as the heat collector” (Sianipar, 2010). Then, after the development process together with the farmers, it appeared that the acceptance of the dryer was fly so high because farmers were very excited about the Afiluo and a lot of people volunteered themselves to make the dryer. It is caused by the fact that the Afiluo could help them to solve their common root problems (Sianipar & Zebua, 2011; Swisscontact, 2011), such as:

1. *Water content.* There were evidence that the Afiluo could produce higher temperature than the traditional method. The temperature was twice the level compared to the temperature outside the dryer. Through higher temperatures, cocoa beans were dried into 7%-8% water content, the same as in SNI (Indonesian National Standard) level, so the farmers could avoid price-cutting punishment from the buyers.
2. *Drying time.* The trial phase of Afiluo showed that cocoa beans could be dried faster, until two days shorter than using a traditional drying method, so the postharvest process could be done in a shorter time. Quality increased but it did not spend much time.
3. *Panic effect.* Harvest season in Nias occurs in the rainy season. The farmers will be trapped in a panic when they use the traditional drying method, since they need to recollect the bean when the rain comes. With many farming products, the farmers could not have enough time to keep the beans safe at all times.
4. *Bean color, taste, and aroma.* They happened since the fermentation process, but they became perfect because of the use of Afiluo. The balance in heat distribution in the beans’ body made the taste and aroma spread evenly. Good heat transmission from the sun to the bean brings beautiful bean color.
5. *Animal disturbance.* Using Afiluo, the drying process will be safe from animal disturbance such as dogs, chickens, or pigs, so the waste percentage decreases, increasing the selling price of the dry cocoa beans.
6. *Manufacturing cost.* Usually, the farmers seem afraid of the high cost of “farm machines.” Afiluo was made with an appropriate technology approach, so it was easy to build at a low cost. Ninety-five percent was made from local materials in Nias, and 85% was constructed from wood (Sianipar, 2010).

7. *Usability*. Society would have simple equipment. There were no greasing instructions, tank to contain fossil fuels, and even no electrical installation. The use of Afiluo would not change existing behaviors.

#### 4.4. *The Last Helix: Nias Government*

From three factors in the theoretical framework, the increase in manpower quality and technology were applied as explained before. So, the last factor was the financial investment from the government. The increase of input modal was received from the investment of Nias government through the PT Bank Sumut as a governmental institution (BUMN) in North Sumatra province which engaged in financial investment (hereinafter will be referred to as only “BUMN”). In order to build the investment guidance, the NGO and the BUMN develop the purpose and target of the investment process (Swisscontact, 2011). The main points were:

1. Fostering microentrepreneurs –farmers– who owned business feasibility but not bankable yet.
2. As the critical issue in Nias, the main target was women from pre-prosperous families or with low-level income who owned micro-business in the cocoa industry and trading. As a note, they will receive the investment if their businesses have good prospects in the future.

The BUMN developed the investment through a credit scheme. There were several important points in the basic provision list, but the most important idea was all credit members should prove themselves as good members (QM-Quality Members) at the time they receive each investment phase. The money should be distributed to another two inputs of production: the knowledge improvement of manpower, and the application as well as replication of dryer as the technology investment.

On the other hand, the Nias government, through the Department of Industry, Trading, Energy, & Natural Resources (Disperindag ESDM), also helps to boost the cocoa bean quality through an institutional movement in the standard application of fermentation in postharvest cocoa processing (Swisscontact, 2011). The movement had the purpose of sensitizing the public that good fermentation before the drying process is very important to get high cocoa quality, reach the export quality level, then receive a high selling price.

## 5. Conclusions

The development of triple-helix in Nias cocoa industry was revolutionizing the way of collaboration between stakeholders. The first helix was the farmers. The farmers act as the business institution (B) of cocoa production and trading, since they were the main party in the cocoa business. The improvement of farmers’ knowledge was about the techniques in cultivating, harvesting, and postharvest processing of cocoa processing. The NGO acts as the facilitator of the knowledge transfer and development through training for farmers as well as training of trainers (ToT) as the future focal points.

The second helix was the researchers as the representation of university (U). The researchers came to Nias to apply their scientific knowledge to the application of appropriate technology. Their knowledge produced the Afiluo dryer as equipment for the cocoa farmers to shorten the drying time as well as keep the good cocoa quality after fermentation. The convergence of business and technology in the application of the dryer could have such an effect on financial performance, so the knowledge of the researcher was kept safe by the NGO through the scheme that the capitalization of knowledge – the dryer – must be applied only by the farmers directly, not by other commercial institutions.

On the other hand, the government (G) joined the triangle as the third helix. Capitalization of knowledge needs financial investment and supporting policy from the government. The Nias government, through PT Bank Sumut (BUMN) and the Department of Industry, Trading, Energy, & Natural Resources (Disperindag ESDM), made their movements related to the financial investment and also a program in the application of good fermentation and drying process.

In business (B) helix came up Bn, “n” means the business institution consisted of many farmers. Bn interacted with another Bn and also with the NGO in their circle. University helix (U) consists of two researchers from two different institutions (U1 and U2). Their collaboration was met with the NGO as the party that invited them to capitalize on their knowledge. The last helix, Government (G) made its movements through two institutions (G1 and G2). Their joint linkage with cocoa production was connected through the NGO.

Finally, the NGO would be the axis of those three helices. The collaboration between farmers as business institutions (B/Bn), the university through the researchers (U1 and U2), and the government through G1 and G2 became the cycle in which coordinated by the NGO. As a cycle, the collaboration continuously develops itself to reach a better and better future. At the end of the project (December 2011), the NGO can leave the Nias society with the belief that they not only built Nias, but also empowered the people there so they could achieve sustainable prosperity.

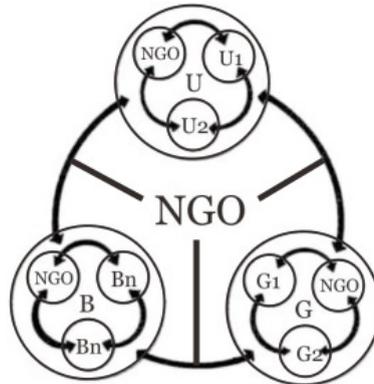


Fig. 2. NGO: The Triple-Helix Axis

## 6. Further Research

This study should be continued through much further research. The new thought about the application of the Triple-Helix model will bring the widening of the Triple-Helix approach in the community empowerment study. In the future, researchers may conduct new research about the counter-productive effect of the Triple-Helix approach in other projects. On the other hand, NGOs may start their projects in community empowerment based on the Triple-Helix approach but on other project purposes or objects. Above all, another genius research project may try to generalize the Triple-Helix model in community empowerment as well as community development projects among developing countries.

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