

Technical assistance for innovation development from and to developing country

Case study of Indonesia's foreign aid to Timor-Leste

A case study of Indonesia's foreign aid

353

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Abstract

Purpose – Innovation is a fundamental element for developing countries' development. For instance, the innovation process should be integral to a country's development plan for it to achieve high standard socio-economic development. For this reason, the global development agenda in the contemporary era underline innovation as a crucial issue to be addressed within development assistance programs. The Global North as traditional donors predominantly contend that innovation should be supported by high private sector development (PSD), and therefore, emphasizes this agenda to be delivered through their foreign aid schemes. However, this character differs considerably as compared to new emerging donors with insufficient PSD capacity, such as Indonesia. This paper aims to examine Indonesia's technical assistance (TAC) to Timor-Leste and scrutinizes whether or not it supports the innovation development of the receiving country.

Design/methodology/approach – This study used a qualitative method by conducting a literature review, document tracing and depth interview with Indonesia's South-South Cooperation National Coordinating Team.

Findings – Based on this study, it can be proven that Indonesia's TAC has the ability to support innovation development in Timor-Leste as a least developed country. This is because Indonesia's TAC is directed toward knowledge sharing and technology transfer that are needed by Timor-Leste. Other supporting conditions, such as similarity in the process of development, shared principles and solidarity ties among developing countries, have also created a more decent environment for aid delivery. Thus, aid initiatives among developing countries must remain to be supported as key to attain mutual progress and collective self-reliance.

Originality/value – This study shows that Indonesia as an emerging economic has the capability to support innovation development of other developing countries. It was a new area of study but has a lot of potential to be explored such as effectiveness and interests.

Keywords Innovation, Timor-Leste, Indonesia's technical assistance

Paper type Case study

Introduction

In the twenty-first century, innovation is the key principle for achieving a nation's high development that will later lead to its prosperity. Innovation has become the main generator of economic development as it functions to produce more efficient and effective products and services. Innovation disrupts old methods, technology, ideas or devices that can no longer provide high productivity within the production cycle. The astounding effect of innovation



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for socio-economic development across countries in recent years has influenced mechanism in which aid/development assistance is conveyed by donors or development partners, that is now aimed to enhance innovation in developing countries. Traditional donors have been thinking about this issue by conducting several aid-innovation related programs, especially by increasing the private sector development (PSD) engagement in their agenda. (Naude, 2011) This condition is considerably prevalent in the Development Assistance Committee (DAC) aid in developing countries, such as Japan corporation involvement in the Official Development Assistance (ODA) program. In the Global North perspective, the private sector is important in the process of innovation development because they can provide technology, research and development (R&D), highly skilled expertise, etc. While an innovative approach and the capacity to invent novel technology have flourished in developed countries, developing countries find a hard time catching up with similar innovation level. This condition has, in a certain way, undermined the capability of developing countries, such as Indonesia, to help other developing countries in improving their innovation level and capacity. (Bogliacino, 2009)

The Global North questions the capacity of developing countries to assist fellow developing countries in terms of innovation development. This doubt is built upon several reasons: First, due to low innovation development in a developing country that acts as a donor, to begin with. Second, there are insufficient research and development programs in the business and government level. Third, developing countries as development partners are considered as new players and for that reason, their existence in the international development discourse is not established yet. Those critics are somehow not detached from the domination of developed countries within various sectors of global issues.

Developed countries' assistance toward developing countries maintains the principle of North-South relation, reinforces the different level of position between the two with the creation of the vertical relationship of one party against the other. The developed country is indicated as a high/dominant actor and the developing country as a low/passive actor. However, the present international development cooperation is not only limited to the North-South relation but also the South-South relation (Fengler and Kharas, 2011; Brown, 2013). Developing countries in the southern hemisphere are considered to have the potential in generating positive economic growth by optimizing the development cooperation among them (Hosono, 2016). In the case of Indonesia, this country cooperates with Timor-Leste to achieve both countries' interests in the area of economy, political-security and socio-culture by implementing technical assistance (TAC) toward the basic needs fulfilment of the beneficiary country by the principle of demand driven.

Indonesia as a developing country has capabilities and at the same time, is not only a recipient country that receives aid from North donor but also a proactive donor country that assists other least developed countries to advance their innovation development. Contradictory with the empirical notion that shows innovation and development has a strong causal relation, literature or academic studies that discuss the relation between the two aspects are still small in number. Innovation is an up-to-date issue in a variety of scientific studies including on international development issues.

Based on previous explanations, developing countries are often perceived as having no capability to develop innovation because of their limited technology. Innovation seems to be regarded as the sole specialty of developed countries that own cutting-edge technology and educational media. On the other hand, there is also a literature that explains more assistance can support innovation development as long as the private sector is strongly involved in the aid programs. PSD is considered to be the key to successful innovation development in developing countries. However, it is not strongly owned by a developing country such as

Indonesia. Therefore, it becomes important to ask, how Indonesia's assistance supports the innovation development in Timor-Leste as a least developed country? Timor-Leste is chosen as a case as it is the largest recipient for Indonesia's assistance at least from 2010-2016. Indonesian National Coordinating Team for Indonesia South-South Cooperation (NCT for SSTC) estimates that more than US\$5m has been delivered to Timor-Leste since its establishment in 2002 (NCT, 2016).

This research used a qualitative method to collect and analyze the data. In detail, this study used a literature review and document tracing to get secondary data regarding Indonesia's TAC to Timor-Leste. This study found that there are several important document, such as Indonesia's SSTC annual report, Memorandum of Understanding (MoU) between the government of Indonesia and Timor-Leste, ministerial and mass media's news and related scientific paper. Then, in-depth interview used to collect primary data from key person of Indonesia's TAC to Timor-Leste such as chair of NCT for Indonesia SSTC and diplomat from the Ministry of Foreign Affairs. Those data will be analyzed with a certain conceptual framework as below.

Conceptual framework of this study: technical assistance and innovation

To analyze the problem posed in the research question, this study uses two main concepts, foreign aid-TAC and innovation.

There is no single definition about foreign aid; however, we can make a generalization that aid or economic assistance as resources transfer from an international actor such as state, international organization and civil society organization, for less developed countries in a concessional term (Mason, 1965; Bhagwati and Eckaus, 1970). Then, C. Lancaster (2007) added the term 25 per cent of grant element in aid and main contribution for the better human condition. In practice, foreign aid can be provided through many different ways, can be in terms of the grant, soft-loan, goods or TAC. Northern donors dominantly focus on ODA that was over sighted by DAC-OECD in contrast with Southern donors remind on SSC mechanism with high dynamism and new paradigm ~ loose and unconditionally (Puri, 2010). Nevertheless, for this study, TAC will be the dominant sector to be discussed because it provides two basic things for innovation development, namely: knowledge sharing and technology transfer (TOT).

Technical assistance is non-capital assistance provided to increase capacity and development capacity in the form of training, education and others. Related to this condition, Southern foreign assistances are commonly delivered through this form, considered its capacities in SSC mechanism (Trinidad, 2014). This type of assistance, according to Bhagwati and Eckaus, is undoubtedly one of the most important aspects for developing countries, despite of the difficulty to quantify its impact due to such assistance abstraction in action. This point is essential for the study remembering that almost all of Indonesia's assistance is provided in the form of TAC to Timor-Leste. In addition, the United Nations defines TAC as non-financial assistance provided by local or international specialists. TAC can be in form of sharing information and expertise, instruction, skills training, the transmission of working knowledge and consulting services and may also involve the transfer of technical data from a party to other parties (UN, 2005).

Even though there is a wide and diverse literature about TAC, but most of them addressing about knowledge and capacity gaps between lower, middle and high-income countries. A report written by Rao, for instance, identifies new emerging approaches, which appear to move away from the traditional approaches that commonly center on the short-term filling of capacity gaps from donor perspective by the principle of donor-driven (Rao, 2013).

Based on the previous explanation, TAC can support knowledge sharing and TOT. Knowledge sharing is an activity through which knowledge (namely, information, skills or expertise) is exchanged among people, friends, families, communities or organizations (Bukowitz and William, 1999). Then, TOT itself is a process of disseminating technology from certain places or groups to other wider distribution places and people. It occurs along various axes: among academia in universities, from universities to businesses, from large businesses to smaller ones, from governments to businesses, across borders, both formally and informally and both openly and surreptitiously (Grosse, 1996). It often occurs by concerted effort to share skills, knowledge, technologies, methods and samples of manufacturing and facilities among governments or universities and other institutions to ensure that scientific and technological developments are accessible to a wider range of users. This process can develop and exploit further technology into new products, processes, applications, materials or services. (Grosse, 1996). In other words, this process of innovation development cycle needs to be supported by the government to encourage further knowledge and technology development.

Innovation rooted in the reinforcement of knowledge and technology development. Based on the theoretical/conceptual framework above, innovation, better education and research (or the so-called R&D) program help society to produce new ideas, method or device that serve as driving fuel for the creation of more efficient product and services. However, for many countries in the world, especially developing countries, innovation is still in progress. Therefore, in alignment with previous explanations, TAC has become a core prerequisite to elevate innovation development in developing countries. As knowledge and technology create basic infrastructures for the foundation of innovation, these two sectors have become the prominent targets for contemporary foreign aid programs. [Benarroch and Gaisford \(2004\)](#) explained that aid direct or indirect will expedite the TOT and knowledge sharing in developing countries. The beneficiaries itself tends to positively accept these innovation-targeted programs compared to funding packages, such as loan through the ODA scheme. Counterintuitive to the common held belief, developing countries have the capability to convey this specific type of assistance and overcome the issue of Global North reluctance in sharing knowledge and transferring technology to developing countries.

Based on the previous explanation about foreign aid and innovation, this study tries to synthesize the concepts become a crafted framework. Foreign aid started as economic assistance only of North/developed country for war reconstruction funding was transformed into a wider scope of action that implicated Southern/developing countries TAC in to it. In detail, development assistance could expedite innovation because containing two important ingredients, which knowledge and technology. Besides, other additional aspect found in Southern donor's assistance that attributed social condition and capacities duly the similar experiences in the short past ([Figure 1](#)).

Indonesia's foreign aid: technical assistance for capacity development based on previous explanations about the foreign aid concept, it can be understood that foreign aid is not only limited to grant or soft-loan but also in terms of TAC. Indonesia's foreign aid provision mostly comes in the form of TAC, which notably differs with developed countries (under DAC-OECD) that typically offers soft-loan and grant with ODA scheme. Why is TAC dominant among donors from developing countries? In the context of Indonesia, the underlying cause lies by the fact that so far there is no clear and strong legal framework to provide grant/soft-loan to other countries.

Despite these constraints, they do not hinder Indonesia to take part in other types of assistance, such as humanitarian and disaster aid, though they are highly dependent with

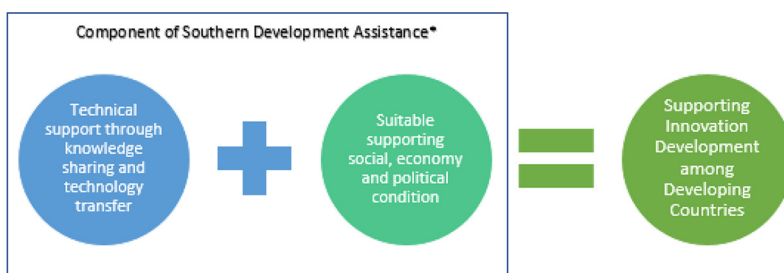
the situational condition (force majeure). TAC, in contrast, runs annually within the basis of the MoU.

Specific in the case of this study, Timor-Leste is chosen because the country is the biggest Indonesia's aid beneficiary, not only limited to the value of its funding but also the diversity of the programs provided (NCT SSTC, 20016). Based on data from the annual report of Indonesia's SSTC, Timor-Leste is the most frequent country to receive Indonesia's TAC and the number has grown in a positive trend during that period. It can be shown in [Table I](#).

The assistance that Indonesia provides to Timor-Leste is almost entirely given in the form of TAC under the SSC scheme. Technical assistance, as described in the framework of the concept section, is the transfer of resources in the form of skills training, technology and practical matters for the development of the institution and human resources of an actor, especially the state. Those actions are committed in various Indonesia MoU with Timor-Leste, as one of this following example:

[...] may be implemented through: a) visit and exchange of scientists, technicians, and other experts: b) meeting of working-level experts: c) exchange of views, scientific information and documentation [...], c) joint research and training, e) development and exchange of technical know-how; f) research and development of technology; [...] [...]" (MoU on Agriculture, Indonesia-Timor-Leste, 2015).

Commitment to those kind of assistances is actually more needed by developing countries than simply grant or loans that can be vulnerable to corruption and mismanagement by developing countries (Masson, 1970). Indonesian TAC program varies depending on the needs of recipient countries and the resources of partner/donor countries. More clearly, in the case of assistance provided by Indonesia, there are three flagship programs or the flagship of the Indonesian government, namely, development issues, good governance and economic issues.



Source: Analyses from the conceptual literatures above

Figure 1. Innovation development through southern development assistance

Information	2010	2011	2012	2013	2014	2015	2016
Single country beneficiary program	1	2	5	5	3	6	6
Multi country beneficiary program	3	4	5	6	6	7	8
Total TAC for Timor-Leste	4	6	10	11	9	13	14
Identifiable Indonesia's TAC	9	10	32	36	26	45	51

Notes: Single – Timor-Leste is the only participant in the program; Multi – Timor-Leste is not the only participant in the program, however, receives the benefits

Sources: Annual report of Indonesia's STTC 2014-2016, email and press-release/report from MOFA

Table I. Tabulation of Indonesia TACs to Timor-Leste, 2010-2016

All of the three excellent programs are almost all obtained by the government of Timor-Leste, especially in the area of development issues and good governance. This is based on the study identification in the following tabulation of Indonesia's aid program to Timor-Leste according to the classification of excellent programs as shown in [Table II](#).

Based on the previous table, it is clear that the TAC programs from Indonesia to Timor-Leste are directed to development issues by more than 75 per cent. These programs are also in line with the main concern of the Timor-Leste government to build a country that can support the welfare of the people, and therefore, seeks to achieve the amelioration of its people's welfare from Indonesia's assistance.

More details of the assistance provided by Indonesia to Timor-Leste can be categorized in areas such as agriculture, forestry, health, disaster, human rights, economic issues and others. Agriculture remains as a key focus because its necessity for Timor-Leste people who depend on the agricultural sector in daily traditional life ([Costa, 2003](#)). That is why almost 33 per cent of Indonesia's aid programs are targeted to the development of the agricultural sector. These programs include training provision, such as improving livestock productivity, using of cutting-edge agricultural technology, packaging of agricultural products and up to marketing training. Furthermore, the communication media aid program becomes the second most frequently developed field with 12 per cent of the total programs. This assistance focuses on strengthening the effectiveness of communication media in government and society, such as reporting training, digital media utilization and ICT literacy for the community. The next areas that are widely delivered are health, governance, human rights, infrastructure, disaster and others. It can be shown in detail by [Figure 2](#).

From the data above, it can be observed that there are diverse needs of Timor-Leste that has been addressed and supported by Indonesia. It can be proven that Indonesian development assistance programs are not only sizeable in terms of quantity but also diverse in terms of type varieties. This situation is a big opportunity for Indonesia exercises its capabilities to provide assistance in Timor-Leste in sense to promote innovation development.

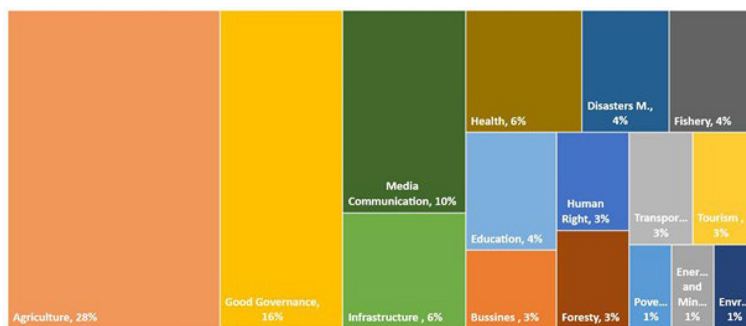
Knowledge sharing and technology transfer mechanism on Indonesia's technical assistance to Timor-Leste

Indonesia TAC focuses on how the beneficiary countries can develop the capacity to sustain their own national development plans. This situation has become the main drive for Indonesia to actively provide aid to least developed countries that is specifically tailored

Table II.
Tabulation of
Indonesia's TAC to
Timor-Leste based
on the type of
flagship programs

Flagship program	Total program	Year distribution	Type of activities
Development issues	52 (77%)	2010, 2011, 2012, 2013, 2014, 2015 and 2016	Training for agriculture officers, farmers and agribusiness actors. Training for forestry officer and conservationist, Teacher dispatch, Training and expert dispatch on infrastructure issues. Training for a medical worker in Timor-Leste
Good governance	13 (20%)	2011, 2012, 2013, 2014, 2015 and 2016	Developing national human rights institution, support for bureaucracy reformation, and training for diplomats
Economic issues	2 (3%)	2010, 2015 and 2016	Training for public accounting, and workshop for business development

Source: Annual report of Indonesia's STTC 2014-2016, reporting email and official website from MOFA



Source: Annual report of Indonesia's STTC 2014-2016, reporting email and official website from MOFA

Figure 2.
Percentage of
Indonesia's technical
assistance based on
the sector

based on their needs or requests. In the practice, TAC from Indonesia mandates two main ideas: first, knowledge sharing by emphasizing the lessons learned from each country experiencing the conduct technical programs. Second, transfer data and technology for future targeted countries' innovation/technological advancement. This can be traced from the MoU that has been made by Indonesia and Timor-Leste as its partner. There are more than 17 MoU that have been signed by both countries in provision toward technical cooperation. (MOFA/Kementerian Luar Negeri Republik Indonesia, 2018). For instance, in the MoU of the agriculture area, Indonesia agreed to support Timor-Leste agriculture sector by sending experts/scientists, promoting joint research, research and development of technology and other training programs.

Remembering that there are extensive areas of the programs, this study will particularly focus on the agriculture sector because it constitutes the most dominant sector on Indonesia's TAC to Timor-Leste. Not only that this sector has strong deliverables regarding the focal point of this study but also innovation and TAC in developing countries.

In 2008, the Ministry of State Secretariat and Ministry of Agriculture come to an agreement (MoU) to cooperate in implementing Training Program on Artificial Insemination for Timor-Leste to increase cattle productivity. This program is believed to be an effective method to increase the rapidity of cattle products output. Timor-Leste as an agricultural producing country lists cattle production as a one of five important component of the state's economy on agriculture sector (Costa, 2003). On the other hand, Indonesia as a middle-income country also has the expertise in this field and for this reason, required to be more active in providing assistance to developing countries.

In this case, to develop Timor-Leste's capacity in bringing artificial insemination for cattle into real action, Government of Indonesia, through one of its center of excellence, Center for Artificial Insemination (BBIB) Singosari to implements knowledge sharing through training in both Indonesia and Timor-Leste.

Previously, Indonesia conducted a Program on Artificial Insemination for Dairy Cattle, not only limited to Timor-Leste as the beneficiary country but also to other ASEAN, Pacific and Africa countries. The program itself has been conducted since 2007-2012, by Indonesia with the Government of Japan through JICA as a co-development partner under a triangular scheme. However, since 2012, the Government of Indonesia has provided a specific program for Timor-Leste. Henceforth, the benefits delivered are increasing and the program keeps on

expanding (interview with the head of bilateral technical cooperation of [MoSS/Kementerian Sekretariat Negara, 2018](#)).

The main aim of this program is to strengthen artificial insemination on cattle to achieve food security in the Timor-Leste. BBIB Singosari as a center of excellence has trained 29 participants from Timor-Leste since 2007-2015. Timor-Leste also has received four expertise, tools and frozen semen for 200 cows until 2016 (ISSTC-Ministry of State Secretariat Republic of Indonesia/MoSS, 2016). It is proven that the Government of Indonesia, through TAC, has transferred their knowledge and technology to support agricultural innovation in Timor-Leste.

Furthermore, Indonesia and Timor-Leste have been implementing the center of artificial insemination operation in two districts in Timor-Leste, Bobonaro and Covalima. There are 350 cows that have been selected in Bobonaro and 118 cows in Covalima. Those cows have been selected by the recommendation of experts from the cow's owner, livestock farmers (ISSC-MoSS, 2016).

Based on the monitoring and evaluation conducted by NCT through Ministry of State Secretariat and Ministry of Agriculture in 2016, it has been reported that there were more than 30 per cent positive pregnant cows that would be predicted to give birth in late December 2016 or early January 2017. This fact indicates a good result of Indonesia's TAC in supporting the agriculture sector to produce more cattle for farmers. Despite this success, it is important to put into consideration the sustainability aspect of this program. According to expert's review on January 2017 in case of handling the birth of new cattle, there are still many problems encountered, such as lack of experts, medical workers and facilities to carry the job in question. Accordingly, the Government of Indonesia needs to ensure that the program runs fully into the cycle of production so it can provide comprehensive lessons learned for Timor-Leste. (ISSC-MoSS, 2016).

However, this program was developed within the context of low-level agricultural technology and science development in Timor-Leste. For instance, with a minimum understanding of livestock farmers to the benefit of artificial intelligence, rearing cattle are still extensively done traditionally, limited means of transportation and access to open road remains inadequate; are typical problems faced by the Timorese. Nevertheless, these hindrances can be addressed along the process.

This program has shown that Indonesia TAC to support cattle insemination in the Timor-Leste leads to the enhancement of cattle productivity in Timor-Leste. Artificial insemination is novel for Timor-Leste, and therefore, is considered an innovative approach toward Timor-Leste's agriculture sector. One the one hand, new technology and knowledge are used to change the current socio-economic landscape in Timor-Leste. On the other hand, this TAC will give lessons learned for Timor-Leste to be able to innovate independently for other agriculture sector in the future.

Besides the BBIB Project in the sector of agriculture, Indonesia TAC lately also focus on supporting small- and medium-sized enterprise – home industry in Timor-Leste to increase the productivity. Garment and food-processing industry such as cassava, coffee, furniture and weaving in Timor-Leste are the potential sector to be invested. Timor-Leste requested Indonesia to support this agenda by asking training of trainer, workshop, expert dispatch and internship program (interview with Chair of NCT for SSC, 2018). The usage of Indonesian small industry technology has supported the productivity of Timorese craftman and merchant (interview with Indonesian ambassador to Timor-Leste, 2018). Similar with the infrastructure program, Indonesia assisted Timor-Leste to do road maintenance and management by establishing standard operational and plan-do-check-action technique. Timorese participants appreciate this assistance because providing relevant knowledge and

technology usage for Timor-Leste on solving a similar problem in the home country. It innovated Timorese system/mechanism in executing the job.

Indonesia's TAC in Timor-Leste has augmented the innovation and technology usage in Timor-Leste's social-economic development. Technical assistance provides transfer technology and knowledge from Indonesia to Timor-Leste. These activities were supported by the lessons learned Indonesia has received from traditional development partners, such as Japan (JICA), the USA (USAID), Australia (AusAID) and others. It is essential to note that innovation is not only about the invention of new ways or tools to produce goods and services but also more to improve the destiny and change the structure of society within a country.

Based on the previous explanation, technical supports are a necessity for innovation development in Timor-Leste as a least developed country. Indonesia condition as an emerging economy with a long history of development has the capacity to provide relevant technical supports that requested by Timor-Leste. This technicality is clearly mentioned in each MoU related to Indonesia's development assistance to other Southern countries, including Timor-Leste. Nevertheless, in the Indonesian context, support for innovation development to Timor-Leste is also backed by other non-technicality aspects, which become important modality on doing cooperation with a neighboring, developing country. The implementation of innovation development from Indonesia's TAC to Timor-Leste does not only rely on the program's technical substance but also influenced by other supporting condition such as socio-political-economy relations of both countries.

Other supporting condition of Indonesia's assistance to Timor-Leste on amplifying innovation development

First, considering the adjacency of development stage between Indonesia and Timor-Leste. Although both countries has a different level of development, developing and least developed, however, Indonesia's development stage and experience is more compatible for the Timor-Leste on invigorating innovation, compared to developed countries. Too high socio-economic development gap from donor/development partners can somehow hinder the innovation development in the least developed countries. This gap causes unfamiliarity and incompatibility of assistance structure and system when implemented in the grass root level. For example, in the case of Timor-Leste, this country could not catch up with Japan's heavy industry development approach that has been promoted by Japan's ODA to Dili in several infrastructure program, came as a result from Timor-Leste's insufficiency in understanding and capability about the particular technology (interview with chairman of NCT, 2018). Then, the technology transferred did not meet the government's need for current development. Unfortunately, the lessons learned given from developed countries' aid for innovation program are too far from the maximum capacity of least developed countries to absorb and perform (Richardson, 2011).

In contrary, Indonesia as an emerging developing country still has a good understanding about what they did in the past to solve problems that currently loom in the Timor-Leste. Indonesia during the Soeharto Regime (Orde Baru) had high dependency toward mineral resources such as oil and gas to be exported. This was problematic because even though Indonesia is gifted with abundant natural resources to begin with, mineral such as oil and gas could not be renewed. This dependency had finally led to the economic crisis and social destruction. Similarly, this problem is one of the important issues in today's Timor-Leste due to their high dependency toward oil exploration in Timor Gap, while Timor-Leste could not develop their non-oil gas sector. Then, the conflictual Timor Gap's production on oil is gradually decreasing. This puts Timor-Leste's economy as one of the most at risk in the

world. Those economic problem could lead into a political-security crisis that can harm Indonesia directly.

To solve this condition, Indonesia has conducted technical cooperation by providing training, internship, seminar and workshop for Timor-Leste's government officials, society and businesses. These programs are the result of Indonesia's innovation or remodeling toward assistance from developed donors to Indonesia during the Orde Baru. These lessons learned are transferred to Timor-Leste so that the creation of innovation can take place in Timor-Leste and solve their similar problems with Indonesia.

Second, suitable aid's principles – SSC: solidarity, demand driven and mutual benefits. Indonesia's assistance to Timor-Leste emphasizes SSC principles such as solidarity, demand driven, equality, non-interference, cost sharing and mutual benefit. Even though the Government of Indonesia reported that there are several differentiations between Indonesia's SSC principles with common SSC principles, but in general, the principles that Indonesia hold still share the same main core with the common SSC principles (NCT, 2017a, 2017b; Tobing, 2018). The aspect of solidarity is underlined on Indonesia's TAC to Timor-Leste. This is due to Indonesia and Timor-Leste equal footing as developing countries that are proceeding to make progress. This condition is supported by both countries' presence and membership in sharing platforms, such as the Non-Aligned Movement (GNB) and G-77 institutions residing in the UN.

According to Sri Mulyani, Indonesia's Finance Minister, developing countries have the same stages of development so as to have a greater sense of acceptance towards one another. She revealed this view in an interview with NCT with the following quote:

South-South cooperation is important because usually the Southern countries feel that they are close to the stage of growth, development and most importantly they have solidarity as fellow developing countries. Therefore, the acceptance and sense of belonging (among Southern countries) becomes greater. (SSTC Indonesia, 2016).

Indonesia's assistance using the SSC framework, of course, is very much concerned with this particular principle, as it becomes one of the distinguishing factors of Indonesia's aid to those coming from the North to the South scheme. There is an imbalance in the stages of social, economic and political development that ultimately encourages less sense of acceptance towards the assistance provided by the North.

Then, there is another important principle, demand driven. This principle is one of the main principles in the provision of Indonesia's assistance to Timor-Leste. Almost, all of the aid programs provided by Indonesia to Timor-Leste are driven by Timor-Leste's demand itself, taking into account the availability of resources from Indonesia. This is in line with what Mrs. Etty, from SSTC-MOFA, said that almost all of Indonesia's assistance to Timor-Leste is based on requests for the needs of Timor-Leste, although it does not limit the possibility of emerging new ideas along with the meetings between the two state officials. In the context of East Timor, this is run by the ministries/agencies concerned with the development priorities of Timor-Leste as contained in the Strategic Development Plan 2011-2030.

Third, the existence of strong historical, socio-cultural and physical relations between Indonesia and Timor-Leste. Innovation-based programs from Indonesia's TAC are supported by shared past memories between these two countries as a consequence of their geographical position proximity. This condition has made Timor-Leste to understand Indonesia better than other countries, in terms of language, policy system, customs, etc. Timor-Leste can learn faster from Indonesia's TAC because those similarity and past relation.

Furthermore, the closeness of the two countries has also been studied by Pujayanti (2008), which explains that Indonesia and Timor-Leste are two countries with long historical links. Both regions had been united before European colonization came to the archipelago of the eighteenth century, and from 1976 to 1999 when Indonesia integrated Portuguese Timor post-colonial period. In real condition, this situation can be shown by the usage of Bahasa Indonesia during training and workshop (interview with head of ASEAN Affairs, MOFA, May 14, 2018).

Fourth, the shared interests of both countries to implement TAC for innovation development for the benefits of both countries. In general, the dominant Timor-Leste's interest in Indonesia's TAC is economic benefits to ensure the prosperity of its society. Poverty and unemployment are still some of the biggest problems in Timor-Leste. These two problems can be managed through TAC from the development partner by providing skills and knowledge on how to create and use technological innovation to increase productivity. For example, Indonesia has strong TAC in agriculture sectors such as insemination technology for cattle in Timor-Leste and aquaculture by using a simple hydroponic system. This program can generate new methods to tackle further technical problems that arise against agriculture productivity, fishery or any other areas of work. High productivity is the key point for increasing the prosperity of the people.

On the other side, the economic interest of Timor-Leste from Indonesia's TAC also meets Indonesia's main interest to secure the political-security stability in Timor-Leste to make sure it does not pose an adverse effect on Indonesian security and stability as well. This is also related to the promotion of Indonesia's image as a strong and capable development partner in the region (Apresian, 2016). Stable political-security in Timor-Leste is not only depending on the military capacity but also the prosperity of their society. Therefore, Indonesia has a strong interest to support the prosperity of Timor-Leste's society to make Indonesia safe and keeps on growing. (Pujayanti, 2015).

Considering the significance of the TAC, the study emphasizes the sustainability of this type of assistance. This assistance is very important to support innovations in developing countries that are still slow and limited due to the existing gap in a technological and scientific field from the Global North as a major innovation center. Thus, the importance of Indonesia as a developing country lies in its mediation function to promote innovation through knowledge co-creation scheme.

In conclusion, Indonesia's TAC to Timor-Leste can support innovation development through the provision of knowledge sharing and TOT mechanism that act as core ingredients for innovation development. This type of assistance can be an alternative to the innovation-related program from the Global North's aid (Collins, 2015), which generally makes PSD as the main generator and pedestal for innovation advancement in developing countries. The private sector in developing countries is not very well-developed because of the knowledge-technology limitations and administrative obstacles. However, as a provider of public goods, the government can overcome these problems by opening opportunities for TAC that targets skills development, and community knowledge competence amelioration as ways to continue growth in the future. In turn, this growth can also be a leverage to strengthen PSD as an effort to sharpen the development of innovation in developing countries that will gradually serve as a substitution of ineffective methods in producing goods and services, promote economic growth and attain sustainable development.

On the other hand, innovation for development in Southern development assistance is affirmed by the existence of other supporting conditions, which socio-political-economy. This condition become the one of the vital component that was neglected by the Northern donor. Innovation as a key component for a country economic development should not be defined by high corporation relations with development assistance, but more in touch with

the needs and capacity of the recipient country to exercise it. Because of that, relevant development experience from developing country, SSC principles such as demand-driven, local context and mutual interest are more important to sustain and ensure the innovation nursery in a developing country. Northern donor at this position can still be involved through the mechanism of triangular cooperation, by mean that everyone is contributed toward innovation development in the developing country based on their most relevant capacities to assist.

At the end, this article has emphasized the different approaches of old donor and new emerging donor to tackle the similar problem, which stimulation of innovation development in a developing country. Divers actors, issues and pre-conditions create a different result. However, on clear line, as the finding of this study, everyone could contribute for innovation by any means. Indonesia as a developing country could assist the others on its ways. Indonesia's TAC to Timor-Leste in the sector of agriculture is one of a success story. Then, as a final remark, this study recommends further research to ensure more explanation about future international development cooperation, especially that provided by developing country with goals to more equal relation based on relevant needs and expertise.

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