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## Disparity between the availability and agricultural counselor need to improve the product of prime commodity in Maluku, Indonesia

<sup>1</sup>Inta Prista Novembriyanty Damanik\* and <sup>1</sup>MeilvisElsworthTahitu

<sup>1</sup>Department of Agribusiness Faculty of Agriculture Pattimura University Ambon, Indonesia

\*Correspondence: [laurensiusl@yahoo.co.id](mailto:laurensiusl@yahoo.co.id) Accepted: 02 Nov.2018 Published online: 25 Feb. 2019

The disparity between the availability with the need of agricultural counselor is one of the obstacles to the agriculture development in Maluku, including the development of Maluku's main commodities, namely cloves, nutmeg and sago. The consequence is that the products produced by farmers, whether in raw or processed products, have no competitiveness, making it difficult to reach a wider market. This study aims to analyze the efforts that can be done to eliminate the disparity. The results show that the disparity between the need and availability of agricultural counselor workers can be eliminated not only by increasing the number of agricultural counselor workers but also by increasing the counselor of agricultural counselor and increasing the availability of transportation and communication facilities and infrastructure.

**Keywords:** Disparities, Availability and Needs, Agricultural Counselor.

### INTRODUCTION

Maluku is one of the archipelago provinces in the eastern part of Indonesia with 559 islands and is divided into nine districts and two cities. Although the area of Maluku is dominated by the oceans, but agriculture in Maluku also plays an important role in the regional economy. The important role of agriculture sector in Maluku is seen from the number of people living from the agricultural sector as well as the contribution of the agricultural sector to the regional income of Maluku. Until 2013, the number of people working in the agricultural sector in Maluku is 48.99 percent of all work force. During the period of 2008 - 2012, the dominant sector contributed to the GDP of Maluku is the agricultural sector with a contribution in 2012 of 28.63%, only slightly adrift with trade, hotels and restaurants sector with 28.71% contribution (BPS Maluku Province, 2013). The main Agricultural commodities (priority) from Maluku are sago, nutmeg, and cloves. Main commodity is intended as the main commodity

and characteristic of the Maluku region as well as increasing demand from year to year, not only domestically but also abroad. This certainly brings a positive impact for the Moluccas as it has the opportunity to increase the income of the people who work on the commodity. Generally, an increase in demand for a commodity is affected by the quality of the commodity, in other words, the quality of a product also determines the demand for a product. In addition, commodity marketing that is only in raw form also affects farmers' income. Increasing the quality of sago, cloves, and nutmeg, cannot be denied is still a problem in Maluku so that the commodity has not been able to reach a wider market. Sago, cloves, and nutmeg are agricultural commodities that become the icon of Maluku region because it has been blended with the life of the people of Maluku. Despite being the icon of Maluku, these three types of plant maintenance are still done minimally and the growth of more plants submitted to nature. This has become a habit of the

community for generations. Similarly, the harvesting and handling of crops is still done simply. Sago is a commodity that is more commonly processed by the community than nutmeg and cloves because sago is directly related to household food fulfillment in sago center areas, while processing of cloves and nutmeg is only done by a small part of society and not yet entrenched among nutmeg and clove farmers. People's desire, especially farmers to manage crops (sago, cloves and nutmeg) are often hampered because lack of motivation to manage plants better. This is due to the assumption that sago, clove, and nutmeg trees are long-lived plants that do not need to be treated as it takes for generations. This proves that farmers' knowledge about crop management, including cultivating crops, is limited. This indicates that farmers need agents of change, in this case agricultural counselor workers who are able to motivate and change the behavior of farmers in managing plants owned (sago, cloves, and nutmeg) although this is not realized by farmers. In other words, efforts are needed to awaken the farmers that the processing of a commodity (sago, cloves, and nutmeg) is needed to increase the added value of the commodity which in turn has an impact on the increase of farmers' income. Awareness efforts will be followed by efforts to strengthen the capacity of farmers in the processing of crops to marketing by not forgetting the capacity of farmers in the management of farms owned. Strengthening this capacity is expected to increase farmers' productivity, both in terms of quantity and quality. This is in line with the opinion of Mangkuprawira and Hubeis (2007) which explains that one's capacity will determine the person's performance.

The existence of agricultural counselor workers plays an important role in developing the capacity of farmers, both self-capacity and business capacity. Self-capacity includes the ability to develop business planning, identify and solve problems, seek and take advantage of opportunities, and maintain business sustainability, while business capacity includes the capability of providing business capital, labor, market access and technology indicators (Damanik et al., 2014). Increasing the capacity of farmers in Maluku, both self-capacity and business capacity become important to change the behavior of farmers in developing agricultural products produced, especially Maluku typical commodities such as sago, cloves and nutmeg. This is due to the management of these

commodities ranging from stage on farm to off farm is still dominated by traditional ways so that the products produced, both raw and processed products are less able to compete in the market.

Based on quantity, until 2013, the number of agricultural counselor workers in Maluku is 763 people (Bakorluh Maluku, 2015); While the number of villages in Maluku is 1,169 villages (BPS Maluku Province, 2015). Thus, the quantity of existence of agricultural counselor workers is still very limited. The geographical condition of the marine-dominated Maluku region and the inter-regional transportation facilities in Maluku still limited to the counselor of the accessibility of agriculture counselor workers in performing their duties.

Not only from the quantity aspect, but also from the aspect of the quality of counselor agent is still a constraint in meeting the needs of farmers, especially those who manage sago, nutmeg and clove commodities in Maluku. Culture in the life of farmers as part of the Maluku community and the type of agricultural commodities owned require counselor-counselor with certain competencies. Accordingly, it is interesting to see more about the availability and need of agricultural counselor agents in Maluku in relation to improved agricultural products in Maluku. Is the availability of agricultural counselor workers in Maluku able to answer the needs of farmers, especially farmers with superior commodities and typical Maluku, namely sago, cloves, and nutmeg?

This writing aims to provide an overview of the real condition of the existence of agricultural counselor in Maluku associated with the needs of farmers. In addition, this paper also aims to provide input for the Government of Maluku Province in preparing agricultural counselor programs in Maluku.

## **MATERIALS AND METHODS**

The area of this research is Maluku Province. The consideration of choosing this location is based on the condition of superior commodity of Maluku which is less competitive so it has not been able to increase the income especially the commodity farmer. Central Maluku Regency is chosen to represent Maluku Province because this district is a center of clove and nutmeg producers seen from area and number of farmers according to data of Maluku Province in Figures 2016 (BPS Province Maluku, 2016) and one of sago center and traditional sago processing in Maluku (Damanik, et al., 2014). Primary data were

collected from selected simple randomly selected clove, nutmeg and sago farmers from production centers of nutmeg, cloves and sago in Central Maluku District. The total number of respondents is 90 people. Each commodity farmer (sago, nutmeg, and clove) is represented by 30 peasants. Data collection is done through direct interviews based on questionnaires that have been prepared previously. Primary data include data of farmer needs in managing farming and farmer appraisal to counselor competence related to commodity which cultivated. Secondary data comes from literature review and related sources. Data on the nominative number of agricultural counselor workers and their distribution in Maluku were obtained from the Office of the Coordinating Authority (Bakorluh) of Maluku Province. Data on the Maluku region including the distribution of the Maluku region over the villages was obtained from the Central Bureau of Statistics (BPS) of Maluku Province.

In addition, there were discussions with a number of counselor activists such as the model instructor of Ambon City and some faculty members from the Pattimura University Faculty of Agriculture who have competency in the field of counseling and community empowerment. Data are analyzed descriptively qualitative and discussed by putting forward the scientific approach and still pay attention to aspects of substance, consistency, and systematic in writing.

## RESULTS

### Overview of Sago, Nutmeg and Clove Plants in Maluku

The territory of Maluku Province is divided into 11 districts, two cities, 118 sub-districts, 34 sub-districts and 1,135 villages with a population of approximately 1.5 million more inhabiting an area of 54,185 km<sup>2</sup>. Population density in 2012 is about 30 people per km<sup>2</sup> and labor force participation rate (LFPR) of 63.71%. The absorption of sectorial employment by business sector is still dominated by agriculture sector (48.99%) and the second highest is community service sector (17.19%) (BPS Maluku Province, 2013). Thus, it can be said that the agricultural sector still plays an important role in the economic community and the region of Maluku.

The agriculture, especially plantation, cloves and nutmeg including the main plantation of the people and is also as an icon for the Maluku region together with sago. Clove plant area over the last five years (2011 - 2015) is always

increasing, except in 2015; whereas nutmeg plants increased planting area is always interspersed with a decrease (Figure 1).

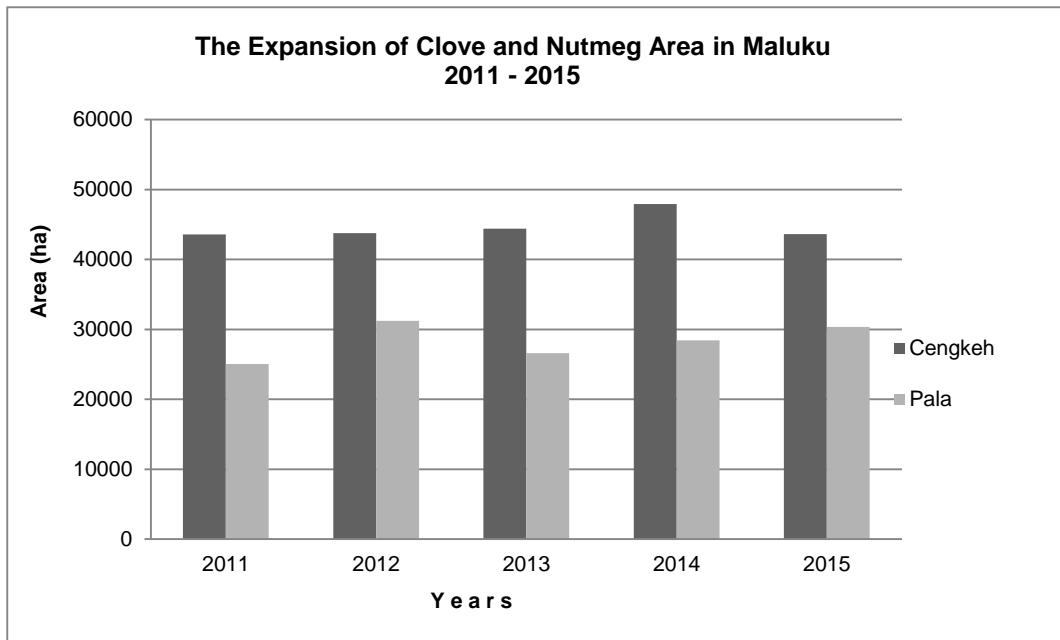
Related to the number of farmers and crop production, the last data for 2015, the number of clove farmers is 72,603 people with a total production of 13,264 tons, while nutmeg growers 27,782 people with a total production of 4,406 tons (BPS Maluku Province, 2016). Thus, each farming family has an average area of 0.60 ha of cloves and 1.09 ha of nutmeg. Ownership of this area is classified according to category Hernanto (1990), which is included in the interval 0.5 - 2.00 ha. Especially for sago, data from the Maluku Provincial Food Agency, cited by BPS of Maluku Province (2013) shows that the area of sago in Maluku Province reaches 53,866 ha with wet productivity 1,088,887 tons / ha / year and the consumption of wet sago flour is 73,726 tons/year.

In terms of exports, the agricultural commodity of Maluku has not penetrated the export market. The export market from Maluku Province is filled by fishery commodities (BPS of Maluku Province, 2013). This situation is both a challenge and an opportunity for the development of the plant.

### Identify the Needs of Clove, Nutmeg and Sago Farmers in Maluku

Development of production of clove, nutmeg, and sago Maluku not be separated from the ability of farmers to maintain their crops so as to produce production that can compete in quantity and quality. In addition, the ability to process raw products into semi-finished products or finished products to increase added value. Matters to the needs of clove, nutmeg and sago farmers in Maluku are presented in Table 1.

The main actors in the farm as well as farming manager, a farmer is also expected to have the ability to manage farming and develop it into a commercial farm. Some of the managerial skills that farmers need to possess include arranging farming plans, access to capital resources, access to information, and willingness to cooperate with other farmers. The managerial capabilities of clove, nutmeg and sago farmers in Maluku are presented in Table 2.



Table

1.

**Identify Needs of Clove, Nutmeg and Sago Farmers**

Main Needs	Farmer		
	Clove (n)	Nutmeg (n)	Sago (n)
Plant Maintenance	18 (60,00)	19 (63,33)	12 (40,00)
Processing of crops	25 (83,33)	21 (70,00)	19 (63,33)
Marketing	18 (60,00)	19 (63,33)	20 (66,67)

Remarks: The number in parentheses indicates the percentage n for each commodity group is 30

**Table 2. Managerial Capabilities of Clove Farmers, Nutmeg, and Sago**

Managerial Capability	Category (score)	Farmer		
		Clove(n)	Nutmeg (n)	Sago (n)
Develop a farming plan	Low	26 (86,67)	28 (93,33)	27 (90,00)
	Medium	4 (13,33)	2 (6,67)	2 (6,67)
	high	0 (0,00)	0 (0,00)	1 (3,33)
Access capital resources	Low	27 (90,00)	25 (83,33)	24 (80,00)
	Medium	2 (6,67)	5 (16,67)	6 (20,00)
	high	1 (3,33)	0 (0,00)	0 (0,00)
Access farming information	Low	28 (93,33)	27 (90,00)	25 (83,33)
	Medium	2 (6,67)	3 (10,00)	5 (16,67)
	high	0 (0,00)	0 (0,00)	0 (0,00)
Willingness to cooperate with other farmers	Low	22 (73,33)	19 (63,33)	16 (53,33)
	Medium	8 (26,67)	11 (36,67)	12 (40,00)
	high	0 (0,00)	0 (0,00)	2 (6,67)

Remarks: The number in parentheses indicates the percentage n for each commodity group is 30

## DISCUSSION

### Farmers' Needs and Availability of Agricultural Counselor Officers in Maluku

If each village is required to have an agricultural counselor agent, it can be Farmers' Needs and Availability of Agricultural Counselor Officers in Maluku roughly mentioned that Maluku requires 1,169 agricultural counselor workers. Until 2015, the availability of agricultural counselor workers in Maluku is still limited, i.e. 362 civil servants. This means the ratio of counselor agents to villages is 1: 3,23 which means a counselor should serve farmers in more than three villages. This certainly has an impact on the performance of counselor workers because not all villages in Maluku can be reached by land transportation and sea transportation facilities are also still far from sufficient. The shortage of civil servant counselor workers is fulfilled from non-civil servant counselor workers (LPS) and non-governmental counselor workers (401 people) with distribution per district as shown in Table 3.

Efforts to spread agricultural counselor are evenly constrained by the number of counselor workers, so in some districts / cities the number of counselor workers is very minimal, namely in South Buru District, Tual City, Southwest Maluku,

and West Southeast Maluku. As many as 52.56 percent of agricultural counselor workers filled by non-civil servant counselor workers. This is done to increase the availability of counselor workers due to the limited number of civil servant counselor as mandated by Regulation of the Minister of Agriculture No. 61/Permentan/OT.140/11/2008 on Guidance of Development of Agricultural Counselor Farmers and Private Agricultural Counselors.

In addition to the limited number of counselor agents, the geographical condition of the Maluku region, which is dominated by the oceans, is also a constraint factor in the deployment of agricultural counselor workers. Some areas that can only be reached by sea transportation are considered for the provision of sea transportation facilities for counselor workers to accelerate accessibility from and to farmers.

Based on the area of expertise, of all civil servant officers in Maluku Province, most (57.18%) have expertise in the field of food crops, while the field of plantation is only 6.32 percent. Distribution of counselor workers by area of expertise in Maluku Province is presented in Table 4.

**Table 3. Distribution of Agricultural Counselor at the Regency / City Level of Maluku Province**

No.	District/City	Total of counselor (prs)		Total (prs)
		Gov. Staff	Non Gov.	
1.	Southwestern maluku	17	6	23
2.	Southeast Maluku	31	45	76
3.	Central Maluku	125	91	216
6.	Buru island	58	29	87
7.	Aru Islands	8	69	77
8.	West Seram	59	59	118
9.	East Seram	17	34	51
10.	Southwestern Maluku	2	19	21
11.	South Buru	9	7	16
12.	Ambon City	35	25	60
13.	Tual City	1	17	18
	Total	362	401	763

Source: Counselor Coordinating Board Maluku Province (2015)



**Tabel 4. Agricultural Counselor by Field of Expertise Distribution in Maluku Province Detailed per Regency/City**

No.	District/City	Expertise area (prs)					Total
		Farms	Horticulture	Crops	Plantation	Others	
1.	Southwestern maluku	1	0	4	0	12	17
2.	Southeast Maluku	3	1	26	1	0	31
3.	Central Maluku	11	1	90	10	13	125
6.	Buru island	11	3	28	6	7	55
7.	Aru Islands	1	3	4	0	0	8
8.	West Seram	7	0	36	4	1	48
9.	East Seram	0	0	5	0	12	17
10.	Southwestern Maluku	0	0	0	0	2	2
11.	South Buru	3	0	5	1	0	9
12.	Ambon City	1	3	1	0	30	35
13.	Tual City	1	0	0	0	0	1
	Total	39	11	199	22	77	348

Source: Counselor Coordinating Board Maluku Province, 2015

The limited number of counselor officers with plantation expertise causes obstacles to reach all plantation cultivators, including nutmeg, cloves, and sago (indeed, until now, sago commodities are still not clearly grouped into forestry or plantation). This has an impact on meeting the main needs of clove, nutmeg and sago farmers, which include crop maintenance, crop processing, and yield marketing (Table 1).

Maintenance of crops and cultivation of cultivation has not been entrenched among clove, nutmeg and sago farmers, if anyone does it is still constrained in terms of knowledge, skill, and capital so as to impact on the quality of the results. This condition causes farmers prefer to keep the plants and cultivate the harvest according to the habits passed down from generation to generation. If this situation continues to be tolerated, Maluku nutmeg, clove and sago products will still be difficult to reach the wider market and also affect the income and welfare of farmers and their families. In addition to improving the quality of processed products, farmers also need to be equipped with the ability to access markets that can provide satisfaction to farmers in selling crops or processed crops. So far in the process of selling crops or processed crops, farmers are always in a weak position, in other words have no power in bargaining. Another thing related to the marketing of results is the ability of farmers to promote product as implied by Falguera et al., (2012), that a manufacturer not only need to develop new products, but also need to promote it to consumers.

Counselor workers role is also needed to help farmers have managerial capabilities that include

the ability to develop farming plans, access capital resources, access farming information, and foster willingness to cooperate. The overall managerial capability is still relatively low for most farmers (Table 2), which means that most (> 50%) farmers have never developed a farming plan, have not been linked with capital resources despite the need, difficult access to farming practices and crop processing, and less willing to cooperate with other farmers. Some of the underlying reasons are the lack of knowledge and skills of farming plans, accessing capital resources and accessing information, and lack of trust to other farmers in terms of cooperation and therefore more comfortable if working individually. Farming planning is not made because farmers only continue the tradition passed down from generation to generation about the management of clove, nutmeg and sago. Farmers who are categorized as farming planning are farmers who have prepared farming plans but have not recorded and only rely on the ability to remember) so vulnerable to changes in the situation that occurred. Farmers who are high in farming planning are farmers who already have farming plans for the following year by evaluating farming conditions in the current year. This plan has been recorded even in a makeshift form.

In general it can be said that the availability of agricultural counselor workers in Maluku has not been able to meet the needs of farmers, not only the number and counselor of counselor workers, but also from the counselor's competence and capacity. The counselor competencies required by farmers are in the field of crop maintenance, processing and marketing of clove, nutmeg and

sago yields; the counselor capacity expected is a capacity that can support the counselor worker's role counselor to develop managerial capacity and managerial capability of farmers. Several efforts can be made to develop farmers' managerial capacity and capability according to Republic of Indonesia Law no. (3) marketing development system and means of agricultural product, (4) consolidation and assurance of agricultural land area, (5) provision of financing and capital facilities, (1) education and training, (2) counseling and assistance, (6) ease of access of science, technology, and information, and (7) strengthening of farmer institution. These efforts require the presence of reliable and competent agricultural counselor agents and willing to partner with farmers.

### **Efforts to Address the Disparity between the Availability and Needs of Agricultural Counselor Workers in Maluku**

The number disparity and the dispersal of agricultural counselor workers can be overcome by using more self-help and private counselor agents. During this time the shortage of civil servant counselor has been tried to be met from non-civil servant counselor workers (THL-TBPP and self-help trainers) as in Table 3, but still not meet the need to serve all farmers in Maluku. In relation to that, sago, nutmeg and clove farmers who are classified as more advanced can be involved to be self-supporting counselor agents.

Given the geographical condition of the Maluku region, which is dominated by the oceans and the unevenness of development throughout the Maluku region, the availability of facilities and infrastructure for counselor workers in performing their duties becomes another important part in overcoming the disparity between the need and availability of agricultural counselor in Maluku. Facilities and infrastructure needed, especially transportation and communication. Smooth transportation will increase the accessibility of counselor workers, while smooth communication can help counselor workers access various developments related to their main tasks and functions and other matters related to the farmers of their clients from various regions in Maluku to Indonesia and the world. Access to difficult information leads to low adoption rates due to limited knowledge of information including technology (Lapple&Rensburg 2011).

The provision of transportation means adapted to the geographical conditions of the area so it does not need to be equated with means of

transportation in other areas that are dominated by the mainland. Speedboat can be an alternative means of transportation for counselor workers who have a dominant working area of the ocean. In terms of communication, some areas of Maluku cannot be reached by phone. The function of the mobile phone is often disrupted because of the unstable signal condition has not even reached all areas in Maluku. The development of the current cyber era that allows for cyber counselor can be an alternative to help counselor workers reach the farmers as target audiences, but it is necessary to prepare various matters related to cyber counselor can take place in Maluku, starting from the preparation of counselor as human resources counselor, facilities and infrastructure, cooperation of various related agencies.

Increasing the role of counselor workers became an important part in the development of superior products in Maluku. Tjitropranoto (2003) explains that a professional agricultural counselor agent is not enough to be a provider or messenger of technology and information (technology and information dissemination), but must act as a motivator, dynamicator, facilitator and consultant for farmers. Broadly speaking, counselor roles are grouped into three, namely (Lionberger and Gwin 1991): (1) as motivators, (2) as facilitators, and (3) as catalysts. In carrying out its role, the counselor worker needs to balance the three roles / functions in order to support each other to achieve the purpose of counseling (Tjitropranoto 2003; Yunasaf 2008).

Motivator, counselor is expected to encourage clove, nutmeg and sago farmers to manage the plant properly, ranging from maintaining the crop to harvest and post-harvest. The common condition is that the farmers only do the cleansing of the soybean plant area which in local terms is called *pameri*. No fertilizing, rejuvenation, and other maintenance. Plants are seen only at certain times, such as during the time of fruiting and before harvesting cloves and nutmeg, while for sago, farmers only come to cut the sago that is ready to cut down.

Motivation also needs to be given to farmers to keep abreast of commodity market developments. Farmers as well as producers of goods or services need to constantly adapt products that are produced with the wishes of consumers / customers so as to seize the market (Tenner and Detoro, 1994) and accelerate the development of new products (Tribes and Helen, 2009). The development of new products requires promotional efforts to inform the product and its

superiority to the community (Kotler, 2000). This ability is very limited to farmers because it is similar to small producers with limited knowledge, information, and resources making it difficult to meet formal market quality standards and specifications (Bienabe and Sautier, 2005).

During this time, farmers generally sell the harvest (cloves, nutmeg, and sago) in raw form. Only sago that has been processed into various food products, especially snacks, but generally still produced by small-scale home industries. Generally, the product has not been tested by the Food and Drug Research Institute (BPOM) because the sago processing is constrained by cost, whereas the consumer generally insert the presence of BPOM permit as a consideration in buying a product beside other terms such as halal certificate, product expiration date, . As a result, Maluku sago products produced by farmers have not been able to reach a wider market (market outside the province) because it has not met the standards demanded by the buyer. Similarly, nutmeg and clove farmers can only reach out to collecting traders to sell their crops, whereas Maluku nutmeg and clove products are well known in the world. This is certainly more beneficial to the collecting traders, while the farmer only gets the smallest part of the profits. Responding to this situation, the motivation to strengthen the bargaining position of farmers through the formation and strengthening of farmer groups into the needs that need to be grown by agricultural counselor workers as a motivator.

Facilitators, counselor workers can facilitate farmers in utilizing the resources and energy necessary to achieve the goals of the target community (Lionberger and Gwin 1991), in this case developing commodities that are cultivated to be more competitive. One of the resources that farmers already have is farmers' groups, but these groups are inactive and thus have no role in the development of farmers. The process of group formation is important because the group formed not from the wishes of its members can cause a sense of togetherness among members and a sense of belonging and the importance of less powerful groups (ILO, 2003). Clove, nutmeg and sago farming groups in Maluku are generally just a formality for the sake of a program. When the program finished, the group also disbanded although not officially dissolved, but the group did not have any activity anymore. In other words, the sustainability of group life is not paid attention to farmers. Farmers prefer to work alone rather than in groups so over time the farmer groups live just

a name only. This situation indicates that farmers' willingness to group is still low as in Uganda's farmer group which is only interested by about 16 percent of farmers (Mwaura, 2014) because farmer groups do not bring benefits to their members.

Processing group of sago in some production centers of sago, many found sago processing machine that is not exploited because of lack of sense of togetherness among group members. Not infrequently the formation of groups cause jealousy to farmers who are not members of the group because of the limited number of groups needed for a program that will take place. Based on these conditions, clove, nutmeg and sago farmers actually need counselors who can become facilitators to grow and develop willingness to cooperate among farmers in the farmer group and develop the function of farmer groups to become a vehicle for learning and cooperation among farmers. Implementation of the functions of farmer groups as appropriate may provide benefits to their members, such as increasing access to agricultural technology and tangible achievement of farmer group goals (Adong, et al., 2013) and increasing farmer income such as potato farmers in Middle Guinea (Tolno et al., 2015) which is the pull factor of farmers to become members of farmer groups.

The catalyst, counselor agent, opens or strengthens the relationship between farmers and other related parties such as government, financial institutions, product marketing, production and other providers (Lionberger and Gwin 1991). This has not happened to sago, nutmeg and clove farmers in Maluku. Farmers rely solely on their own strengths to manage crops to harvest and produce yields. Lack of owned, especially capital for financing the processing of crops and transportation of marketing causes farmers resignedly sell crops at low prices as the habit that occurred hereditary. The desire to have relationships with related parties such as financial institutions do exist, but never materialized because farmers do not know how, the farmers only know that the process of realizing it is not easy. As a result farmers survive with existing habits and this has an impact on the development of these commodities. Accordingly, farmers need counselors who can help to open farmers' access to various agencies or parties related to the development of commodities that farmers are cultivating. In addition, cooperation with the providers of transportation and communication services is also required given the limited facilities



and infrastructure of transportation and communication in most areas of Maluku

This condition requires the presence of counselor workers with competence that qualified so that it can perform the role as a motivator, facilitator, and catalyst for farmers. If farmers are able to manage crops and process crops into processed products will increase the productivity of land and value-added products which in turn can further increase revenue.

One way that can be done to improve farmers' ability to manage crops and cultivate crops is through training. According to Hickerson and Middleton (1975) training is not just demonstrating something in front of trainees, but to change the performance of trainees. During this time, training on the processing of the harvest (cloves, nutmeg and sago) is generally done by certain parties, such as universities (lecturers) in the framework of community service, the church through the empowerment program of the congregation, the private sector through the program Cooperation with government and/or college. These activities are enough to help farmers and their families in improving knowledge about cultivating crops, but have not been able to change farmers' behavior to make crop processing a further effort on the harvested crops.

The desire to apply the knowledge gained in training does exist, but short training and no coaching cause the desire to recede and the farmer returns to old habits. This situation causes the farmer's response to follow the subsequent trainings to be reduced because there is no continuation and the farmers feel made object by the owner of the training program.

When linked to farmer performance, improved farmer performance will be seen through the productivity of the farm. No internalization of changes in farmers after the training, among others, due to lack of mentoring activities conducted so that the training activities undertaken tend to be only to run a program. When the program is completed, the impact of the program does not exist on the farmers, the farmer returns with the original routine. In these conditions, the mentoring function can be done by agricultural counselor workers if the agricultural counselor also has competence in the field of processing of the results. In other words, it takes cooperation between agricultural counselor agents and other parties as a new innovator so that the innovation adoption process by farmers can run smoothly.

Referring to the existence of agricultural

counselor workers in Maluku, it appears that for the Province of Maluku, the disparity between farmers' need for agricultural counselor and the availability of agricultural counselor can not only be overcome by increasing the number of counselor workers, but also by increasing the counselor's competence and capacity. The counselor competence is intended not only in the technical field, but also in the non-technical field.

Competence of counselor workers in non-technical areas is often overlooked. This is evident from many farmer development programs that put forward technical aspects, such as the aid of equipment and various types of demonstrations without preparing the previous farmers, which in the end the equipment is not used and the demonstration does not bring about change. Non-technical competence requires counselor workers to be able to approach and recognize farmers as target audiences, generate confidence in farmers against counselor workers, and prepare farmers to really ready to make changes. Increasing the counselor of technical and non-technical counselor of trainers aims to extend the role of trainers well, both as a motivator and facilitator, as well as a catalyst that can meet the needs of farmers based on a new paradigm of counseling.

The new paradigm of counseling placing counselor is not merely transfer of technology, but counseling should be able to fulfill the information needs of farmers, referring to localities but oriented agribusiness, focusing on the interests of farmers by using group approach that prioritizes egalitarian, accountable and professionalism ultimately can satisfy farmers as target audiences (Slamet, 2003). In this regard, one of the options for improving the counselor ability in carrying out duties and responsibilities is by strengthening the capacity of counselor workers. Strengthening the capacity aims to improve the quality of human resources so that know, willing, and able to give the right reaction to stimuli received, both internal and external stimuli (Susanto, 2008). The ability to respond appropriately to the expectations of sources of stimulation will provide an opportunity for individuals to improve the quality of their businesses and lives and according to Ife and Tesoriero (2008) will be able to support the realization of a self-sustaining society. Capacity building forms that can be done for agricultural counselor workers in Maluku include trainings, internships, and comparative studies to more advanced areas of farming and farming.

## CONCLUSION

There are three forms of disparity between the availability and the need of agricultural counselor workers in Maluku, namely: (1) the disparity between the number of counselor workers and the number of farmers who expect the presence of extension workers; (2) Distribution counselor disparity causing areas or villages that do not have extension agents but there are areas or villages that have more extension workers than expected, and (3) the disparity between the counselors competence and the type of innovation required by farmers. Innovations required by sago, nutmeg and clove farmers in Maluku are innovations on sago, clove and nutmeg plant maintenance and processing of the crops including marketing strategies to reach wider markets. In addition, the managerial capabilities of clove, nutmeg and sago farmers covering the ability to develop farming plans, access capital resources, access farming information, and foster willingness to work together are still low and need to be improved.

The availability of facilities and infrastructure, especially transportation and communications can support efforts to eliminate the disparity between the need and availability of agricultural extension workers in Maluku. Cooperation of all parties in view of the importance of the existence of agricultural extension agent as a change agent to change the behavior of farmers, especially farmers with superior commodities (cloves, nutmeg, and sago) becomes an absolute thing done. This cooperation refers to Law no. Law No. 16 of 2006 (UUSP3K) will support farmers to produce superior Maluku products in order to be competitive, not only in local and national markets, but also internationally; Increase the income of farmers and their families; and increase local revenue.

## CONFLICT OF INTEREST

The authors declared that present study was performed in absence of any conflict of interest".

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1. There are three forms of disparity between the availability and the need of agricultural counselor workers in Maluku, namely: (a) the disparity between the number of counselor workers and the number of farmers who expect the presence of extension workers; (b) Distribution counselor disparity causing areas or villages that do not have extension agents but there are areas or villages that have more extension workers than

expected, and (c) the disparity between the counselors competence and the type of innovation required by farmers.

2. Cooperation of all parties in view of the importance of the existence of agricultural extension agent as a change agent to change the behavior of farmers, especially farmers with superior commodities (cloves, nutmeg, and sago).

## AUTHOR CONTRIBUTIONS

IPND design and conduct research, data collection, data analysis and also manuscript writing. MET designs and conducts research, reviewing manuscripts and submit manuscripts.

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