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Ensuring Food Security and Reducing Poverty through Gender on Development: Indonesian Case¹

Angelina Ika Rahutami
Faculty of Economics and Business
Soegijapranata Catholic University, Indonesia
ika.rahutami@gmail.com

Abstract

Poverty, food security and gender inequality have a strong causality relationship and have been a focus of socio-economic development in the world. The World Food Program stated that gender inequality is a major cause and effect of hunger and poverty, but the fact also shows that women play a pivotal role in food security, those are food production, distribution, keeper the indigenous knowledge of biodiversity and utilization. This concern could be seen on the 3 goals of Sustainable Development Goals (SDGs) that represent a continuity of the Millennium Development Goals (MDGs). The Indonesian data show that approximately 60 percent of Indonesian poverty is rural poverty. Most of the poor in rural is farmers who have a big problem with low farmer's exchange rate. This study aimed to describe the conditions of poverty and food security in Indonesia and conduct policy analysis in terms of gender and development. This study used secondary and primary data. The result of study showed that the low farmer's exchange rate cause farmers is more difficult to escape from the poverty trap. In addition, because women hold various roles in food security but also have various limitations in accessing food, women tend to have a bigger burden than men. The case study in Central Sumba showed that the women empowerment to deal with food security and poverty should be accompanied by cultural approach. The cultural approach is important because this research found that the indigenous culture affected the household's decision making. If there is no adjustment and simplification of the tradition, it will cause the poverty trap. On the other hand, indigenous knowledge also needs to be preserved, especially in the agriculture sector. The Indonesian government also needs to develop more specific policies that directly addressed women's empowerment and gender equality to cope the poor condition and ensure the food security in their household.

Key words: poverty, food security, gender equality, indigenous wisdom, sustainable development

Introduction

Profile of poverty in Indonesia (Badan Pusat Statistik, 2016) showed that the number of

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poor people in March 2016 reached 28.01 million or 10.86 percent of the total population of Indonesia. Data also indicates that while the number of rural poverty declined, at a percentage basis, rural poverty increased. In March 2015, the percentage of poor rural areas amounted to 14.21 percent, then dropped in September 2015 to 14.09 percent after rising 0.02 percent in the month of March 2016 to become 14.11 percent. The increase in the poor rural areas, one of them is due to a lower Farmer's terms of trade from 102.55 in January 2016 to become 101.47 in June 2016. The decline in farmer's terms of trade showed that the income of farmers is much smaller than its expenditures. Theoretically and empirically, poverty has a close link with food security. Their relationship is causal. Conditions of food insecurity can be a source of poverty. On the contrary, because of the poor, the people do not have food security. Poor people usually do not have control of and access to natural resources and capital, information and technology. Reviews These conditions could make-poor people do not have food reserve. That means, they are on the food insecurity condition.

Results of previous studies related to food security show that there are families in Indonesia that do not have adequate access to food (Ariani & Handewi, 2013). In 2013, 47.3 percent of the families in Indonesia were vulnerable families with access factors to food as the main cause of this problem. Food vulnerable families can be seen from the level of food expenditure by more than 60% and energy consumption by more than 80 percent of energy consumption that should be sufficient (Ariani & Handewi, 2013).

In the process of development, especially poverty reduction and food security increase, it must be recognized that women play a fundamental role both in rural and urban areas. Women have a vital role in the four pillars connected to food security reviews. Those are availability, accessibility, utilization and stability. But on the other side, women often have a double burden in the daily life. Some previous researches found a gender gap in access to resources, paid employment, trade, land ownership, access to credit, health and education. Gender gap makes poor women have a heavier burden than the poor man, especially if the woman is a widow.

For the welfare of society and to achieve the targets of the Millennium Development Goals, the Indonesian government has been, and continue to strive to reduce poverty and improve food security conditions. The Indonesian government has also paid attention to the gender gap in the development process. The main policy to address the gender gap is conducted through gender mainstreaming. The involvement of women in the development process is

expected to encourage the reduction of poverty and strengthening food security.

This study is aimed to provide an overview of the condition of poverty and food security in Indonesia with a case study in Central Sumba. It also describes best practices that have been made in these areas in addressing poverty and food insecurity, and conducts policy analysis in terms of gender and development.

Literature Review

The Linkage of Food Security and Poverty

Food Security is an integrated system of food economy of the various subsystems, among others, the availability of sufficient and adequate access (Suryana, 2008). The reverse of food security is food insecurity. Food insecurity is a condition of food inadequacy experienced by a region, community or household at a certain time, so it can not meet the needs for growth and public health (Ariningsih and Rahman, 2008). Indicators used to look at the dynamics of food insecurity among other things: (i) the principal food shortages and their causes, (ii) Toddlers weight, and (iii) malnutrition in young children / pregnant women / nursing mothers.

There are various definitions of food security (Nurhemi, Shinta and Suryani, 2014), which are (i) the definition of FAO and WHO: the situation when all people in all times have sufficient amount of food that is safe and nutritious, (ii) the definition of USAID: the condition when all the people at all times physically and economically have access to other sources of consumption in order to live healthy and productive, (iii) the definition of Food security and vulnerability information and mapping system: a condition when all people at all times physically, socially and economically have access to adequate, safe and nutritious food to meet the dietary needs and food preferences for the sake of an active and healthy life, and there are several other definitions with the same keywords.

In Indonesia, food security is stated in Regulation No. 18 in 2012, in which food security is fulfilled condition of food for the country up to the individual, that is reflected in the availability of adequate food, both in quantity and quality, safe, diverse, nutritious, equitable, and affordable and does not conflict with religion, beliefs, and culture, to be able to live healthy, active, and productive in a sustainable manner (Dewan Ketahanan Pangan & World Food Programme, 2015). Based on the definition in the Regulation, food security involves three aspects, namely the availability of the number, security, and affordability.

Other terminologies regarding to food security refer to household food security.

Household food security based on the formulation of the International Congress on Nutrition (1992) is the ability of households to meet food sufficiency members from time to time in order to live healthy and able to perform everyday activities. Theoretically, there are two forms of food insecurity of household level: first, the chronic food insecurity that happens and continues over time typically caused by low purchasing power and low quality of resources and often occurs in isolated areas and arid. The second kind of food insecurity, acute food insecurity occurs suddenly due to natural disasters, failures of production and price increases resulted in communities that do not have the ability to reach adequate food (Atmojo, Hidayat, Sukandar, & Latifah, 1995).

As noted in the introduction, food security has a causal relationship with poverty. Up to now, there is no exact definition of poverty that can be accepted by the world. Two big paradigms related to poverty have emerged. They are the individualistic theory of poverty and inequality, and structural perspectives on poverty. The individualistic theory of poverty and inequality poverty portray themselves as an individual issue; on the other hand, the second paradigm portrays poverty as a structural issue. The definition of poverty refers to a condition of indecent life, powerlessness and lack of access to basic daily needs, such as food, clothing, housing, education and health. Poverty is a situation in which someone does not have an income to satisfy his or her basic daily needs, especially food, and does not have the ability to support basic human needs of sustainable living. (UNDP, 2000; Bappenas, 2002). There are several different indicators of poverty. There are five integrated dimensions of poverty: indecent life, powerlessness, state of emergency, dependencies, and alienation, both geographically and sociologically (Suryawati, 2005).

Food security in poor households is closely related to the characteristics of the household itself, namely the lack of ownership of land and other assets, the quality of human resources (formal education), lack of access to capital resources and constrained resources. Most households rely on income from labor (farm and non farm), have an income of unpredictable magnitude. This condition affects the availability of food, both in quantity and quality, as farmers often do not have sufficient food reserves.

Gender Gap and the Role of Women in Strengthening Food Security and Poverty Reduction.

Some previous Researches (Garcia, 2011; SIDA, 2015; UNDP, 2012; Karl, 2009; USAID, 2011) found that women in rural areas play a vital role for the subsistence of their

communities². They do almost all household chores, farm, ranch, even though their work get less acknowledgment and typically are paid less than men. Most rural women bear the double burden, because of the bad conditions in the household economy. Women must participate in the production process and organize household finances.

Garcia study (2011) showed that less than 20 percent of the world's agricultural landowners are women. In Africa and western Asia, the percentage of land ownership by women is under 10 percent. Why is mastery of the productive land an important thing? In the absence of land rights security, women can not enjoy access to credit. As a result, if a woman is a widow, separation, abandonment or divorce, she will become poorer because she does not have any access. The absence of this access would affect the well-being of families and cause of malnutrition for her children.

SIDA (2015) also suggests that social and economic inequalities between men and women result in less food being produced, less income being earned, and higher levels of poverty and food insecurity. If female farmers had the same access to resources as males, the agricultural yield could increase by 20 to 30 percent. This could raise total agricultural output in developing countries by 2.5 percent, then it could reduce the number of hungry people in the world by 12 to 17 percent (UNDP, 2012).

FAO (2013) stated that there are four dimensions or pillars of food security. They are (i) food availability, (ii) food stability, (iii) food access, and (iv) utilization of food or nutritional security. Food availability is associated with food production. Communities need to produce more than enough food to ensure an adequate food intake for everyone. When related to gender, the food availability discusses about inequalities in the ownership of, access to and control of livelihoods assets that affect food production and food security of women.

Food stability indicates that the difference in risk and vulnerability among women and men can affect the stability of their food security. Women are often forced to reduce food intake compared to other family members (mainly related to cultural issues). Meanwhile food access is associated with the ability to access the food itself and also food distribution. Usually, women and children are the ones who have difficulty in food access.

The last pillar is food utilization. Food utilization is associated with nutrients obtain.

² Men also play a crucial role in food production, although they face far fewer constraints than women. Men also are more likely to have access to productive resources (UNDP, 2012)

Utilization is also related to women's role in the preparation of food including nutritional problems, while access to food within the household is determined by cultural practices and power relationships within the family. Although food may be available, adequate amounts to maintain nutritional intake may not necessarily be as accessible to women compared to men. This condition is also determined by childcare, safe water, good sanitation and access to health care.

USAID study (2011) showed that the gender dynamics within households must be taken into account in situations of displacement when food aid and other relief items are distributed. This includes men's and women's ability to access and equitably distribute relief items within households (SIDA, 2015).

Method

This study is the study of literature and field studies on the conditions of poverty, food security and policies related to poverty and food security which have a gender perspective. The data used in this study are primary and secondary data. Primary data were obtained from field studies in Central Sumba Regency. Central Sumba Regency was chosen because it is the poorest districts in Indonesia. In search of primary data in Central Sumba Regency, the authors conducted interviews and indepth interviews with poor families and other decision makers associated with poverty and strengthening food security. The secondary data is used to provide a picture of the conditions in Indonesia. Secondary data was obtained from previous studies and also of Indonesian statistics. The analysis was conducted descriptively.

Results

Poverty and Food Security in Indonesia

Indonesia has achieved the Millennium Development Goals in reducing the first half of the population living in hunger and extreme poverty. On average, from 2012 to 2014, the number of poor people in Indonesia was 28,416.97 people or 11.4 percent of the total population of Indonesia. Poverty line average is Rp 294.843 / capita / month.

Table 1

The Poverty Condition in Indonesia (Average 2012-2014)

Province	Number of Poor People (000)	% of Poor People	Poverty Line (Rp/Capita/Month)	Provin	Number of Poor People (000)	% of Poor People	Poverty Line (Rp/Capita/Month)
Aceh	871.19	18.12	353,838.00	West Nusa	817.19	17.51	283,250.50

Province	Number of Poor People (000)	% of Poor People	Poverty Line (Rp/Capita/Month)	Provin	Number of Poor People (000)	% of Poor People	Poverty Line (Rp/Capita/Month)
				Tenggara			
North Sumatera	1,338.74	10.06	314,730.50	East Nusa Tenggara	1,001.92	20.16	258,517.50
West Sumatera	385.91	7.66	343,131.00	West Kalimantan	383.79	8.41	276,570.50
R i a u	501.24	8.20	357,152.50	Central Kalimantan	144.53	6.15	312,896.00
J a m b i	174.31	7.11	407,351.50	South Kalimantan	185.12	4.82	304,420.50
South Sumatera	272.69	9.94	313,073.50	East Kalimantan	251.87	6.39	424,731.00
Bengkulu	839.85	15.16	294,941.00	North Sulawesi	195.30	8.30	255,683.00
Lampung	71.27	8.75	435,626.00	Central Sulawesi	268.25	16.80	238,744.50
Bangka Belitung Islands	237.19	13.53	332,144.00	South Sulawesi	532.88	12.69	306,496.50
Riau Islands	802.80	11.83	300,997.50	South East Sulawesi	675.35	11.22	219,775.00
DKI Jakarta	378.83	3.78	441,059.50	Gorontalo	165.26	13.91	231,391.00
West Java	4,354.86	9.65	280,919.00	West Sulawesi	276.52	13.60	228,808.50
Central Java	652.78	8.74	296,684.50	Maluku	325.84	19.72	349,403.50
DI Yogyakarta	3,367.81	14.93	267,468.50	North Maluku	85.59	7.67	293,569.50
East Java	540.03	14.37	308,647.50	West Papua	735.20	29.54	347,238.00
Banten	3,433.64	10.29	278,277.00	P a p u a	480.02	28.31	397,332.50
B a l i	177.58	4.32	289,609.50	Indonesia	28,416.97	11.46	297,843.00

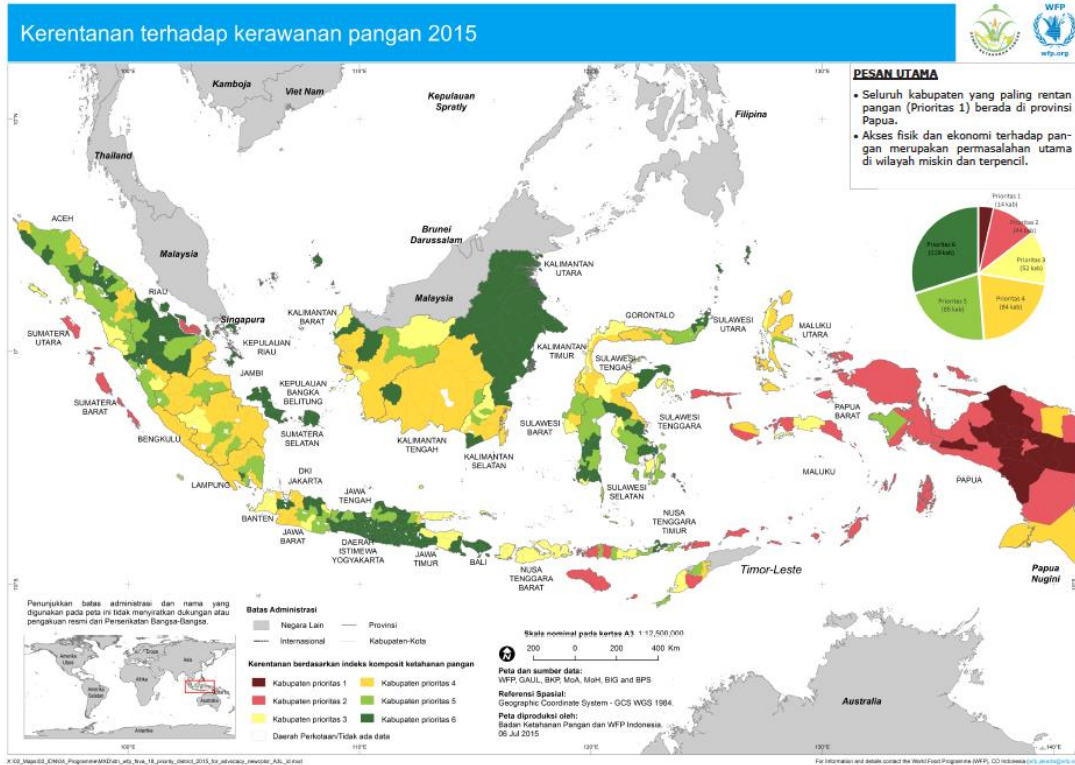
Source: Indonesian Statistics, many editions.

Data in table 1 describes that almost fifty percent of provinces in Indonesia have a higher percentage of poverty than the average (11.46 percent) of Indonesia itself. This condition shows that many regions still have a high rate of poverty; in addition, there is a gap of welfare among regions. One of the provinces with the worst poverty is East Nusa Tenggara (NTT).

In 2005, Indonesia has launched Food Insecurity Atlas (FIA) which describes the rating food security situation in 265 districts in 30 provinces. Subsequently, in 2009, Indonesia relaunched Food Security and Vulnerability Atlas (FSVA). FIA's name is changed to become FSVA. It is conducted with a consideration to clarify the understanding of the concept of food security that is based on three dimensions of food security (availability, access and utilization of food) in all conditions, not just in a situation of food insecurity alone (Food Security Council, 2009).

From the comparison of the results in 2005 with FSVA 2009, FIA sets of 100 districts of the 265 districts in 30 provinces that are included in the category of vulnerable of food as a priority of 1 (one) or risk of vulnerability to food is so high that most prioritized to be addressed. When seen from the spatial distribution of 100 districts, mostly located in the province of Papua, West Papua, Maluku, eastern part of the island of Java, NTB, NTT, northern and western parts of Borneo, central and southeast Sulawesi, and the western and eastern parts of Sumatra. Of the 100

districts at risk of food insecurity, the first priority is the district with the percentage of poor people higher than 25 percent. So, it is clear that food insecurity is related to poverty.



Source : Dewan Ketahanan Pangan and World Food Programme (2015)

Figure 1. Vulnerability to Food Insecurity in 2015

Since 2005, a decline in the number of districts most vulnerable to food is classified as Priority 1 and 2. In general, the food security of most Indonesian people has increased between 2009 and 2015. This, mainly as a result of improvements in several indicators of resilience food and nutrition (Badan Ketahanan Pangan and the World Food Programme, 2015).

Poverty and food security in Central Sumba Regency

The poorest province in Indonesia is East Nusa Tenggara and it turns out that the Central Sumba is the poorest region in East Nusa Tenggara. All sub-districts in Central Sumba are classified as sub-districts which are under the poverty line. The Central Sumba sub-district consists of 5 Sub-Districts, namely, Mamboro, Katikutana, West Uumbu Ratu Nggay, Uumbu Ratu Nggay, and South Katikutana.

The poverty indicators in Central Sumba can be seen in the following table.

Table 2

Number and Percentage of Poor People, P1, P2 and Poverty Line in Central Sumba Province and East Nusa Tenggara (2008 – 2013)

No	Region	Number of Poor People	Percentage of Poor People	P1	P2	Poverty Line (IDR/Cap/Month)
1	Central Sumba					
	2008	21.5	38.65	7.88	2.21	144,672
	2009	20.8	35.83	8.34	3.00	145,321
	2010	21.3	34.05	4.92	1.07	164,489
	2011	20.6	32.1	5.22	1.17	184,100
	2012	20.9	32.1	5.35	1.24	206,049
2	East Nusa Tenggara					
	2008	1,105.80	25.68	8.27	1.34	161,639
	2009	1,021.80	23.41	4.47	3.08	167,492
	2010	1,020.60	21.77	4.04	1.51	193,298
	2011	986.5	20.48	3.53	0.91	203,607
	2012	1,000.30	20.41	3.47	0.91	222,507

Source: Badan Pusat Statistik, NTT statistics

The highest number of poor households is in West Umbu Ratu Nggay (2,890 households); then, it is followed by Umbu Ratu Nggay and South Katikutana (2,434 and 2,322 households).

Table 3

Number of Villages by Poverty Status per sub-district in detail in 2013

No	Sub- District	Number of Village	Village Status	
			Below the Poverty Line	Above the Poverty Line
1	Mamboro	13	13	-
2	Katikutana	7	7	-
3	U. R. Nggay Barat	18	18	-
4	Umbu Ratu Nggay	18	18	-
5	Katikutana Selatan	9	9	-
	Central of Sumba	65	65	-
	2012	65	65	-
	2011	65	65	-
	2010	65	65	-
	2009	43	43	-
	2008	43	43	-

Source: Social Affair, Man Power and Transmigration Service of Central of Sumba Regency (2015)

Another indicator used to measure the people’s life quality is the human development Index (HDI). Life expectancy in Central Sumba is relatively good, reaching 63.14 years. However, the literacy rate is 77.6 percent of the population, which means that the rest of the people (22.4 percent) are illiterate. This percentage is largely indicating that a quarter of the population in Central Sumba is illiterate. Nowadays, Indonesia has a policy of free education for 9 years including elementary schools (6 years) and junior high schools (3 years). Viewed from the average of the Central Sumba population school duration, 5.39 years, it can be said that many people in Central Sumba do not finish their elementary school education. That negative condition leads to high illiteracy rates and fosters the vicious circle of poverty.

In terms of food security, as stated in FSVA, NTT is an area with high levels of food insecurity. Central Sumba is the poorest districts in NTT - most of the land consists of fields and experiencing persistent drought. With the dry conditions, food insecurity automatically will become greater. Central Sumba faces not only the dry savanna areas but also issues related to transport infrastructure and storage facilities. All food supply chain requires infrastructure, seaports and roads that are good for transporting foodstuffs timely with effective cost. Based on data of PODES 2014, BPS shows Central Sumba district is included into three districts with a percentage of villages without adequate access, that is equal to 18.46 percent.

Other indicators that mark food insecurity in the province was that in 2014, the average daily energy intake of the province is 1941.6 kcal / capita / day, and it increased from the year 2013 to 1833.37 kcal / capita / day. Despite the increase, the rate is still lower than the recommendation of National Nutrition Adequacy Score (AKG) that is 2,000 kcal / capita / day. NTT province also increased Adequacy Score Energy (AKE) of 91.7 percent in 2013 to 97.1 percent in 2014, and compared with the limit of food consumption problems, then AKG NTT percentage accomplishment is ranged from 90-119 percent or in normal category.

Table 4

Nutrition Adequacy Number Fulfillment (AKG) and the number of residents per district in NTT, 2013

No	Regency	< 70% AKG	70%-<90% AKG	>= 90% AKG
		%	%	%

1	West Sumba	33.69	33.17	33.14
2	East Sumba	12.73	22.16	65.12
3	Kupang	18.09	30.53	51.38
4	South Middle East	27.17	39.84	32.99
5	North Middle East	22.75	51.33	25.92
6	Belu	35.30	37.31	27.38
7	Alor	49.18	31.38	19.44
8	Lembata	45.33	27.35	27.32
9	East Flores	12.66	35.24	52.10
10	Sikka	31.70	35.23	33.07
11	Ende	18.13	31.05	50.82
12	Ngada	18.97	29.87	51.16
13	Manggarai	23.30	39.02	37.68
14	Rote Ndao	37.15	30.28	32.57
15	West Manggarai	15.59	23.53	60.88
16	Central Sumba	46.36	30.59	23.05
17	Southwest Sumba	25.52	27.89	46.59
18	Nagekeo	18.09	26.25	55.66
19	East Manggarai	41.92	37.12	20.96
20	Sabu Raijua	47.27	32.68	20.04
21	Kota Kupang	30.15	30.73	39.12
	East Nusa Tenggara	27.44	33.36	39.20
	INDONESIA	18.68	33.85	47.48

Source : Dewan Ketahanan Pangan NTT, 2014

The female literacy, especially mothers and caregivers of children under five is also a very important determinant in the utilization of food and very influential on the health and nutritional status of each family member. Studies in many countries show that the mother's level of education and knowledge about nutrition correlated with the nutritional status of children. Central Sumba Regency, based on NTT Data statistics (2015), including three of the districts with the highest number of illiterate women in the province of East Nusa Tenggara by percentage (20.82 percent).

Other indicators are related to food security as one of the aspects that affects the health and nutritional status. Children's nutritional status is determined by the intake of food and disease patterns. The nutritional status of children under five is measured by three indicators, namely (i) Malnutrition / underweight; (ii) Short / stunting; and (iii) Thin / wasting. Here is the percentage of malnourished children under five in Central Sumba in 2013.

Table 5

The Percentage of Malnutrition in Toddlers in 2013

Region	Underweight Children (<5 years)	Stunting Children (<5 tahun) (<i>Stunting</i>)	Weight in Accordance Children's Height <5
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			years old (<i>Wasting</i>)
Central Sumba	34.06	63.61	10.86
Total NTT	33.07	51.73	15.44
Total Indonesia	19.60	37.20	12.10

Source : Riskesdas 2013, Health Ministry

The data above shows that Central Sumba Regency has a prevalence of stunting (Height in Children Under Standard) with the second highest percentage of 63.61 percent. In addition to a high rate of stunting, in terms of life expectancy, Central Sumba Regency is also classified as a district that has a lower life expectancy in the range of 64.20 years. This figure is much lower than the average life expectancy in the province in the year 2013, that is 68.05 years, and the national average of 70.07 years (Indonesian Statistics, 2014).

Food security, food availability and food utilization in the literature review as indicators that are needed to pay attention of. Based on data from the NTT provincial government in collaboration with the World Food Programme in 2015, it showed that food and nutrition security conditions have improved compared to 2010. In the NTT FSVA 2015, it is found districts with priority handling 1, whereas in 2010 the NTT FSVA found 38 districts Priority that is at FSVA NTT handling 1. In 2015, there were 81 districts that have a vulnerable condition (Priority 1-3), which describes 27 percent of the 300 districts in NTT. This decreases from 2010 conditions where there are 135 districts (47 percent) in these priority groups.

For areas that are categorized into two priority areas, Central Sumba Regency decreased, from 4 regions in 2010 to only one region (Umbu Ratu Nggay) in 2015. As for areas that are categorized into priority 3, increasing to 3 regions (District of South Katikutana, Umbu Ratu Nggay West, Mamboro) in 2015. This shows that the policies implemented in Central Sumba to overcome poverty and food insecurity is successful.

In terms of food security in the province, based on indicators Ratio Normative Consumption per Capita (NCPR), 16.7 percent districts are currently in a deficit in the supply of cereals and tubers. This is in contrast with FSVA NTT 2010 where there is 15.7 percent deficit. Districts that have a high cereal deficit are generally a center district with characteristics area of low cereal cropping area and high population.

In terms of food utilization, it appears that adequate access to sanitation facilities, clean drinking water and safety is one of the main problems in NTT that can cause low nutritional outcomes in the population. At the provincial level, as much as 44.20 percent of households do

not have access to clean drinking water and safety in 2013, while only 30.50 percent have access to adequate sanitation facilities.

Based on the RPJMD documents (NTT government, 2014), the NTT government and Central Sumba in particular determine that there are five challenges (factors) that require serious attention, namely (i) increase access to economic or financial access to adequate food through poverty program reduction and increasing investment and infrastructure; (ii) accelerate interventions for the prevention of malnutrition through the monitoring of chronic malnutrition or stunting; (iii) increase the local staple food production; (iv) improving access to clean water and adequate sanitation facilities where the latter will be able to improve nutritional outcomes; and (v) address the vulnerability to increasing climate change risk, especially focusing on improving the resilience to drought. Nutritional Aspects of resilience requires special attention, but also needs to put the nutritional aspects of the central theme that intersect closely with the other three.

In order to overcome poverty, Central Sumba district government launched a program to anticipate Three Moral Movement of poverty through the motions of life-saving (reducing wasteful culture), back to the garden and the safe village. In addition, the NTT provincial government also played a role in reducing poverty in Central Sumba district, namely the Program Desa Mandiri ANGGUR MERAH (DMAM). Anggur Merah is the budget for the People's Welfare as a slogan to the NTT Development until 2018, which began in 2011.

DMAM program focus is on improving the productive economic activities, namely livestocks, agricultures and fisheries and other sectors according to the potential of specific local villages with provision of social assistance for the strengthening of public capital of Rp. 250 million (USD 18,519) per village with a pattern of grants rolling in villages conducted in stages. Until 2015, this program has reached more than 63 percent of the total 3,270 villages in the province.

Table 6

Distribution of The Number of Village Practitioners of DMAM Program 2011-2015

Region	Number of Villages / Districts					Total
	2011	2012	2013	2014	2015	
Central Sumba	5	5	5	13	13	41
Total NTT	287	298	306	589	587	2,067

Source : Secretariat of DMAM, BAPPEDA NTT 2015

Poverty Reduction Policies and Food Security Strengthening with Gender Perspective

The Indonesian government is serious in its poverty alleviation efforts. In poverty alleviation, the existing policy should be comprehensive and requires the involvement of various central and local stakeholders, private sector, and the community itself. The Indonesian government defines four main strategies in order to accelerate poverty alleviation, as follows:

1. Improving social protection programs. The protection system is intended to help people in facing the problems in life, such as illness, family death, job loss, natural disasters and others.
2. Improving access to basic services. Access to basic services will help poor people in reducing their expenditures and encouraging the increase of investment in human capital.
3. Empowering poor people. This empowerment regards poor people as subjects (not objects) so that they are able to take initiatives in getting themselves out of the poverty cycle.
4. Creating inclusive development. An inclusive development is a one that involves the whole community and provides benefits for the whole community itself. An inclusive development is expected to engage agricultural and rural areas because most of the poor people in Indonesia are found there.

Indonesia has a wide range of policies and programs related to poverty reduction in the form of:

1. Assistance for Social Protection of Poor Households. This consists of: (i) Direct Cash Assistance, (ii) Keluarga Harapan program, (iii) Rice for Poor Families, (iv) School Operational Assistance, (v) Community Health Insurance, and (vi) Social Assistance for Disaster Victims, Disabled people and Elderly
2. Community empowerment. Community empowerment is done through the National Community Empowerment Program.
3. Strengthening the Micro and Small Enterprises (MSEs). Strengthening MSEs is conducted through People's Business Credit (KUR)

When you are associated with the inclusion of women in the development process, then Indonesia has several policies related to gender. Some of the policies include :

1. Indonesian Presidential Instruction No. 9 / 2000 has a goal that is Improvement of women's position, role, and quality as well as efforts to achieve gender equality and

justice in family life, community, nation, and state into the whole process of national development; elimination of gender discrimination.

2. Regulation of State Minister on Women Empowerment of Indonesia No. 1 / 2008 that stated about Guidelines for the implementation of women's life quality improvement. Efforts to improve the physical and mental state of women in the fulfillment of their rights and needs as a part of the human rights in the various areas of development, especially education, health, economics, science and technology, socio-cultural, politics, law, and environment which is implemented by the province, county and city government.
3. Regulation of State Minister on Women Empowerment of Indonesia No. 4 / 2008 that stated about guidelines for Community Organization Empowerment in the Field of Women Empowerment and Child Protection. Guidelines on Community Organization Empowerment in the Field of Women Empowerment and Child Protection for the province, county, and city government in the implementation of the community organization empowerment in order to contribute and implement policies, programs and activities which can improve the life quality and the women protection, and children protection in an integrated manner.

Policies related to gender equality have not already had direct statement on how to reduce poverty and improve food security by involving women.

Some of the best practices in food security, poverty and women in Indonesia

To reduce poverty and strengthen food security, Indonesian government has had some best practices. In this article, three best practices will be described. The first two are the result of the study of literature, whereas the last one is the result of a survey conducted by researchers at the Central Sumba.

One program of poverty reduction and food security alleviation is DESA MAPAN. The DESA MAPAN is an independent village food program implemented since 2006 (Darwis, Supriyati, & Rusastra, 2014). Rural food security program has been implemented since 2006 and the number of villages has selfhelp Achieved 825 villages. Because poverty has a close connection with food needs (Sudiman, 2008) and most of the income of poor households is for food (Rusastra and Napitupulu, 2008), then one of the main goals of DESA MAPAN is to alleviate or reduce poverty in rural food insecurity. There are important elements in

empowerment, which are individuals, communities and organizations. In DESA MAPAN program, individual is included in a member of the group, the community is a group / community and the organization is Food Team Village, the Village Financial Institutions. One of the goals of DESA MAPAN program is to achieve food security and reduce poverty.

During the implementation of DESA MAPAN program, a decline in staple food shortages from 39.77 percent to 29.02 percent, and decrease in infants weight below the standard of 2.35 percent to 1.03 percent. Households with very poor category decreased very significant of 15.54 percent to 4.99 percent and the category of poor decreased from 57.49 percent to 42.24 percent. Another effect is the increase in the frequency of meals, consumption of animal food, economic access improvement of clothing, and access to health services. DESA MAPAN program indicates that the empowerment of poor households has a positive impact on confidence, aspects of gender and entrepreneurship, which in turn contribute positively to the use of capital in families productive bussiness of adopted technology development. Impact of an established village against food shortage occurs more quickly outside Java than Java, as well as in terms of poverty reduction.

Another best practice is demonstrated using a model of social capital utilization for the food security of poor households in the province of DIY (Mustofa, 2012). The province of DIY used two models namely the model-farm rural and urban models. Farm rural model shows that increasing food security can be started from a group that plays a role in social life, such as prayer groups, farmer groups and local villagers. Model of social capital utilization for food security in rural areas-agriculture (including mountains) is aimed to develop the internal capacity of the community to be able to define their needs and discuss alternative compliance by using the existing potential. The local government facilitates training for community leaders in order to carry out the role of advocacy or assistance to surrounding communities.

In urban models, policy interventions can be done through intervention at the level of micro-community (family, neighbors, religious groups), especially for the poor. The intervention does not merely involve them in the policy process ("reach out" or inclusive), but mainly are confounded them in communities that have more established economic strata ("scaled up"), that will form new networks between strata (cross cutting ties). Other strategies that are done to increase food availability are: Development of Local Food, Utilization Yard, Community Development in Dryland especially for areas that are dry, empowerment of Institutional Food

Barn Society for anticipation in certain circumstances such as crop failure, bad season, and so forth in order to maintain food stability, especially for poor households.

Both models are compiled based on characteristics of social capital, social capital utilization in food security, as well as the design of policy interventions and / or programs that can be done to optimize the social capital in food security in areas with these characteristics (Mustofa, 2012).

The third best practice is obtained based on interviews and field study in Central Sumba. Reducing poverty and strengthening food security in Central Sumba was conducted through a cultural approach. The local government has applied some national policies. There is a unique case in giving social protection in the form of rice for poor people. The village head plays an important role in giving this form of social protection to the poor people. Actually, although social protection in the form of rice is intended only for poor people, the village head collects all the rice into a single accumulation and distributes it equally to the village people.

Due to the poverty in Central Sumba which is reinforced by some local cultural features, the local government has generated three moral movements aimed at overcoming poverty. These are:

1. going back to the garden. Going back to the garden is considered as a strategy in reducing the numbers of the poor and increasing food security because Sumba people are no longer interested in doing gardening. Most of them have transformed their gardens into rainfed lowland farms, which has changed the Sumba people's main diet. People in Sumba used to have cassava and corn as their staple food. With the development in Indonesia of the rice self-sufficiency program, some areas in Sumba have also shifted into rainfed lowland plots. Agronomically, since the soil in Sumba is not suitable for rainfed lowland cultivation, the rice harvest output is very low. It causes the poor family to experience hunger when the dry season comes. Going back to the garden movement with its more diverse elements may change the Sumba people's mind so that they recreate the garden as a food source, thereby increasing food security. By encouraging this movement, the government expects the the number of poor in Sumba to decline,
2. Living simply. This movement relates to the traditional ceremonies held by people in Sumba. The government of Sumba now limits the traditional rituals to not longer than

- 3 days. The aim of the limitation itself is to reduce the number of livestock which will be sacrificed in the traditional ritual. Most Sumba people are apparently willing to sacrifice their livestock as part of traditional ceremonial requirements. Livestock can be more beneficial in the economic field, for example, as savings for children's education. However, they are unwilling to use their livestock as a saving for children's education. Thus, it is common for the children in Sumba to go to school less than 6 years or even not finish their elementary education,
3. Secure village. The secure village movement is a policy response to the increasing number of thefts in the area. Thefts may stem from the poverty afflicting their lives. The target of the theft itself is not only rich families but poor families as well. By initiating this movement, it is expected that the security of the village will improve, leading to a decreasing number of people in poverty. Both the head of the poverty alleviation and the head of women empowerment groups admit that the main victims of poverty are women.

Discussion and Conclusion

The results of the policy have shown that Indonesia has a lot of policies related to poverty reduction, food security and women empowerment. But there is no policy that is directly related to three issues. Yet empowerment of women is critical for food security and poverty alleviation. In addition, gender equality is even more important as the basis of human rights.

The Indonesian government needs to think about making a more comprehensive policy that uses a gender approach to improve food security. This is because a gender approach to food security can enable shifts in gender power relations and assure that all people, regardless of gender, benefit from, and are empowered by development policies and practices to improve food security and nutrition. Increasing opportunities for women can have a powerful impact on productivity and agriculture-led growth. When women's productivity and income increase, the benefits are amplified across families and generations. Women tend to devote a larger fraction of their income reviews to their children's health and nutrition reviews, laying the foundation for Reviews their children's lifelong cognitive and physical development.

Another thing that needs to be considered by the government is a Women's right to food. It is important to ensure women's human rights, including the rights to education, knowledge and employment and women's equal rights to land, water and other resources that are necessary for

raising the productivity of reviews of their agricultural activity, food and nutrition security. If this assurance is realized then there will be policies that would encourage an increase in the productivity of women through training, credit, and access to improve and appropriate technology to reduce reviews their work load.

The next thing that also needs attention is gender mainstreaming in humanitarian assistance. During this time, in Indonesia, it is not easy to get the data that reflects the gender condition. It is necessary to collect sex-disaggregated data for planning, implementation and evaluation of food aid. This will ensure that women and men take part in the same decision making, planning, implementation and management of the food aid program. The implementation of best practices that exist in areas with similar characters will also be able to accelerate poverty reduction and food security alleviation.

References

- Ariani, M., & Handewi, P.S.R. (2013). Analysis of household food security. *Media Gizi dan Keluarga*. 27(2). 1-6.
- Ariningsih, E., and Rahman, H.P.S. (2008). The strategy for improving food security at the food insecure households. *Analisis Kebijakan Pertanian*. 6(3). 239-255
- Atmojo, S.M., Hidayat, S., Sukandar, D., & Latifah, M. (1995). The report of identifying study of food-insecure areas. Proyek pengembangan diversifikasi pangan dan gizi Departemen Pertanian, IPB. Bogor
- Badan Ketahanan Pangan Kementrian Pertanian. (2015). *Food security statistics 2014*.
- Badan Pusat Statistik. (2015). *NTT Data statistics*
- Badan Pusat Statistik. *Indonesian Statistics*, many editions.
- Bappeda NTT. (2015). *Secretariat of DMAM*
- Bappenas. (2002). Indonesian 2020 long-term issues & priorities. *Bappenas/Unsfir Discussion Paper*. July.
- Darwis, V., Supriyati., Rusastra, I.W. (2014).The impact of rural food self-suficiency program on food security and poverty status. *Informatika Pertanian Vol.23. No. 1*. Juni. 47-58
- Dewan Ketahanan Pangan & World Food Programme (2015). Indonesia food secure and vulnerability Atlas. 1-13

- FAO. (2013). Training guide: Gender and climate change research in agriculture and food security. Rome
- Garcia, M.M.H. (2008). The role of women in food security. *Women 2000 and Beyond*. Chapter 3. 83-96
- Health Ministry. (2013). *Riskesdas*.
- Karl, M. (2009). Inseparable: The crucial role of women in food security revisited. *Women in Action No.1*. 9-19.
- Mustofa. (2012). Analysis of household food security and sociocapital in DIY province. *Geomedia. Vol. 10 No. 1 Mei*. ISSN 1412-5285
- NTT government. (2014). *Rencana Pembangunan Jangka Menengah*.
- Nurhemi, Shinta, R.I.S., and Suryani. G.R. (2014). Mapping of Indonesia food security: TFP and food security index approach. *Bank Indonesia Working Paper. WP/4*. 1-70
- Rusastra, I.W., and Napitupulu. T.A. (2008). Area characteristic and poor family in rural area. Prosiding Seminar nasional meningkatkan peran pertanian dalam penanggulangan kemiskinan. Bogor. 9-22
- SIDA (2015). Women and food security. Gender tool box (brief). March
- Social Affair, Man Power and Transmigration Service of Central of Sumba Regency. (2015). Man Power Statistics.
- Sudiman, H. 2008. Interdisciplinary research challenges in combating poverty, hunger and nutrition lacking in Indonesia. Orasi Pengukuhan Profesor Riset Bidang Gizi Masyarakat. Departemen Kesehatan, Badan Penelitian dan Pengembangan Kesehatan. Jakarta, 15 Januari 2008. 1-59.
- Suhartini, S.H., & Rusastra, I.W. (2013). The dynamics of farmers exchange rate: 2003-2013. Paper for Panel Petani Nasional: Rekonstruksi Agenda peningkatan kesejahteraan Petani. p. 208-219
- Suryana, A. (2008). Probing for food security, food policy and rice self sufficiency. *Pengembangan Inovasi Pertanian 1(1)*. p. 1-16
- Suryawati, C. (2005). Understanding the multidimensional of poverty. *Jurnal Manajemen Pelayanan Kesehatan*, 8(03, September), 121-129.
- United Nation Development Programme. (2000). Human Development Report 2000. Human Rights and Human Development

United Nation Development Programme. (2012). Gender, climate change and food security.
Policy Brief 4. P.1-6.www.undp.org/gender

USAID. (2011). Women and agriculture: Improving global food security. September. P. 1-9.
www.usaid.gov.