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Food Sovereignty and Natural Resources in Archipelago Region











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DIVERSIFICATION PATTERN CONSUME OF LOCAL FOOD IN SUBDISTRICT KAIRATU WEST SERAM

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Abstract

One the strategy Overcome the problem of food resilience susceptance base on rice consumption to lessen rice (paddy rice field) at the same time conduct acceleration and diversification revitalization food base on culture and resources of local in Indonesia. This research aim to to know the pattern of local food consume Subdistrict of Kairatu. This research aim to to know the pattern of local consume food in District of Kairatu. Election of Subdistrict of Kairatu as research area Caused by this area have food farm potency of local as well as wide area producer of rice in the province of Moluccas and Horrible Part of West. Resilience food size measure can know from Number Sufficiency of Nutrition (RDA) and Pattern Food Expectation. Result of research at countrysides Subdistrict Number of Kairatu indicate that sufficiency of nutrient value below the national mean (2200 calorie per capita per day) and food pattern score expectation reside at unfavorable category of ideal score (100) expectation food pattern. Pursuant to result of the research can be concluded that change of food pattern Quickly gain strength and where society start to leave of local food though potency of resources of local food is still wide of copious.

Keyword: diversification, local Food.

INTRODUCTION

Food is a basic human need that can determine the quality of human resources both from the aspect of nutrition, health, productivity and intelligence. In this era of globalization, industrialization and information as well as due to the level of advancement of social, economic and cultural impact on the livelihoods and broad human life regardless of the aspects of food and nutrition. At this time the demand and consumption is increasing both from the aspect of quality, quantity and diversity of food. Food development goals is to establish food security which is characterized by increasing food availability and increased diversification of food consumption. To achieve these goals are pursued policies that enhance food security through improving the production,

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purchasing power, marketing and distribution, food supply capabilities and pricing.

One of the problems of food security in Indonesia is high rice consumption rate of 139.15 kg / capita / year. This figure is quite high and is above the average world rice consumption rate of 60 kg / capita / year. The consumption of wheat has reached 10.32 kg / capita / year. It shows the diversity of the food consumption pattern has not materialized, and the consumption is still dominated by grains. (Siregar and Yulia, 2006) The development of Indonesia's population consume the tubers was running very slow so there must be a concerted effort to be close to the ideal number. Central Statistics Agency (BPS), grain consumption per household in 2009 sebanyak314, 4 grams, while the tubers only 48 grams. Though ideally, for grain consumption as much as 27.8 grams and 100 grams of tubers. Indonesian Government to address issues of food security by making the target of reducing consumption beras1, 5% per year and issued Presidential Decree number 22/2009 which stresses the importance of local food acceleration (Girsang, 2011).

Province is a province of Maluku archipelago of seven islands provinces in Indonesia. Provinces covering 712,480 km ² is composed of a broad perariran reaches 658,295 km ² (92.4%) and land area reaches 54,185 km ² (7.6%). As per the analysis of Landsat 7 imagery, there are number of islands owned 1412 fruit, with a long coastline 10 662 km ² (Maluku Provincial Strategic Plan, 2007). Province of Maluku province also known as having a thousand islands archipelago. This resulted vulnerable to global climate change, the range of the remote control and marine transportation infrastructure and limited land. Maluku faces many development challenges are very complex, especially with regard to poverty and food security.

For a long time people in rural small islands in the Moluccas known non-rice food consumed as a staple food. Food staples (staple food) is one of the primary needs of man. Many variants of the basic food that can be consumed by humans. Each area has its own staple food. Determining the type of food consumed depends on several factors, including the type of staple food crops commonly grown in the area as well as local cultural traditions diwariskanoleh. People's food consumption behavior based on the eating habits (food habits) that grow and develop within the family through the process of socialization. Eating habits can be influenced by the ecological environment (characteristic of crops, livestock and fish is available and can be cultivated local), the cultural and economic systems.

West Seram regency is one of regencies in the province of Maluku. Which had me land area (land) area of 5176 km ² with a population density 31 people / km ² characterizes this region has the potential for the development of local agriculture, especially food commodities such as tubers, sago, nuts, livestock and fisheries. (BPS SBB District, 2010). The

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role of each of the autonomous regions to immediately increase local food production especially in food and avoid dependence on rice is believed to make the District of West Seram (SBB) sufficient food supply independently.

Food Security in Government Regulation 2002 stated that one way to diversify the food is to increase public awareness to consume a variety of foods with balanced nutrition principles. It is therefore very important to socialize the importance of diversification campaign or non-rice food. Rules formal (written) already exist, such as Government Regulation Government Regulation No. 68/2002 dated December 30, 2002 on Food Security and Law No. 07/1996 about Food. We have been prepared in Diversification Food General Guidelines (Agency for Food security of Maluku Province, 2010)

Indeed campaign efforts have been started, for example, through local governments, the mass media, the internet, and so on, but it is assumed that not all communities have to understand the campaign and ready for diversification. In order to achieve the target socialization, to do initial assessments of the readiness of people to accept the further diversification of staple food and non food made of rice as part of the *food* habit. Readiness here include knowledge and attitudes towards diversification of staple food, as well as the propensity to consume food non-rice staple. Increased local food production in the district of West Seram regency Kairatu can be done through the development and optimal use of local plants such as sago and tubers as well as carbohydrate source rice and legumes, fish and livestock as a source of protein. This should be carried out as if seen from the map of resilience and vulnerability of food prepared by the Food Security Agency Maluku province, district Kairatu in West Seram district includes areas classified as 'highly vulnerable' food than Kisar island, parts of West Southeast Maluku, some Tual great area of town. (National Food Katahanan Maluku Province, 2010)

Under these conditions, this study aims to determine the diversification of consumption patterns based on non-rice staple foods (sago) Hatusua village and sub-village Kairatu Uraur in West Seram regency recall food consumption tended sago decreased significantly and continuously. Changes in consumption patterns of non sago starch to make the villagers in the district of West Seram Maluku province will lose security and food sovereignty over their own natural resources.

METHODS

What research is Hatusua Village, which includes sub Desa Uraur Kairatu. The reason for choosing these villages because of the general pattern of the region has a history almost as a staple food that is sago, fish, rice, maize and tubers, and also has extensive forest still sago. This research survey data collected from respondents using the instrument in

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the form of a questionnaire. The data in this study is qualitative data and quantitative data. That quantitative data as a supporting qualitative data. The data in this study comes from two sources, namely from the literature and the subject field. Data collection techniques include *participant* in the qualitative *approach*, *observation*, *indepth inertview*, triangulation by multiple methods. (Moleong (2009). Penelitiian sample number 40 households, each household sampled 20 households in each village. Qualitative data were analyzed and presented in descriptive form.

RESULTS AND DISCUSSION

General Conditions of Production and Availability of Food in West Seram regency and district Kairatu.

Based on available data, in general, there are 42 types of food produced by the community of West Seram. Consisting of agricultural crops 9 species, 12 types of vegetable horticulture, horticulture fruits 13 kinds, one kind of plantation, animal husbandry and fisheries 6 type 1 type. Total crop commodity production is 52 388 tons / year; wherein cassava, sago and rice gives the largest contribution (47 680 tonnes / year; 91%), while other food crops (rice lading, corn, sweet potatoes, peanuts, green beans and soybeans) contributed 4708 tons / year; 9%). While the plant banana trees, Landsat, and durian duku contributed 70% (5532 tons / year) of the total production of fruits for a year, that is 7916 tons / year. Production of meat and eggs were obtained from a farm during the year amounted to 636 tons. When compared to the production of a commodity per group with a total food production of 81 362 tonnes SBB district / year, the food commodity groups tananman the largest contribution to the area, which is 52 388 tons / year. (BPS, SBB District, 2010)

To get the value of the availability of every kind of food, then the value of production to be reduced by the depreciation value and the result is multiplied by the value per cent of food that can be eaten. The calculations show that the total availability of food at this time of the SBB district agriculture (in the broad sense) of 64 181 tonnes / year. In most (84.2%) is derived from food crops and fisheries, ie crops t0n 42 551 (66.3%) and fisheries (fish) 11 506 (17.9%). The remaining 15.8% came from the commodity/food science. (SBB BPS, and Louhanapessy Maluku Provincial Office (2009) *in* Girsang (2011).

Based on the total food supply of any commodity, it can be calculated availability of food/capita/day by dividing the value of total food availability territories with a total population of that territory, and then divided by 365 days. Of the 42 types of food produced in each district in the district SBB, then ketersediaaan food, energy and protein per capita per day in the district has reached the standard of adequacy Kairatu energy 2200 kcal/capita/day of protein and 58 grams/capita/day. The high

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availability of energy in the district Kairatu primarily from food groups of cereals, potatoes and sago which accounts for about 3081 kcal or 84, 2% of the total availability of energy in this district. (Girsang, 2011).

Diversification of the local food

Based on the definition of food security FAO (1996), and Act No.7-1996, which adopted the definition of the FAO, there are four components that must be met in order to achieve food security condition of each is adequate availability of food, stability of food supply without fluctuation of the season to season or from year to year, accessibility/affordability of food and the quality or food safety. The fourth indicator is the main indicator to get the index of food security. Measure of food security at the household level gradually calculated by combining the four components of food security indicators, in order to obtain a food security index (Journal, PPK LIPI, 2004)

Patterns of food consumption is food composition that includes the type and amount of food on average per person per day were commonly consumed or eaten by the population in a certain period. One of the factors that influence food consumption patterns are habits or lifestyle. Research on starch-based food consumption is important because of the potential for local food is still abundant and also to provide information on the importance of local food security and sovereignty. If villagers who have forests producing sago or sago in taking it very rarely the potential of sago groves will be neglected.

The selected villages are the villages that historically have natural resources such as sago forests as local food, as well as tubers and bananas. And also the surrounding villages are dikecamatan Kairatu transimgrasi area that is producing rice for the District of West Seram and Maluku. Local food security and sovereignty related to nutrition and food patterns of expectation in each village.

Figures Nutrition Adequacy (AKG)

Figures Nutrition Adequacy (RDA) is the result obtained by dividing the calculation of the Actual Weight with Weight Loss Prompts multiplied by the number Sufficiency Energy (AKE) is recommended. In summary RDA can be formulated as follows: RDA = $_{\text{(Actual BB / BB Prompts)}}$ AKE. RDA values for adult individuals determined under the national standard is an average of 2200 calories per capita per day. If an adult individual consumes less nutritional standards then categorized as malnourished.

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The results of the villages show that each country varies from one village to another village. Highest RDA value exists in the village Uraur (2169 calories per capita per day), while the village has Hatusua low RDA values (2081 calories per capita per day. But overall both villages have values below the RDA national average. Both villages are already open and has good transport access to central districts and provinces, but people tend to leave local food and increasingly dependent on the consumption of rice.

Food Patterns Hope (PPH)

Food Patterns Hope (PPH) or *desireable diatery pattern* was introduced in 1988 by the FAO and in Indonesia began to be developed in 1996. PPH is defined as the arrangement of a variety of foods based on the energy contribution of major food groups of a pattern of availability and or food consumption. PPH is the ideal concept of balanced nutrition (energy substances, builders, regulators) that is expressed in skorpangan (maksimim score = 100). The higher the score *(dietary score)*, the more variety and better quality and nutritional composition. PPH is useful to know the availability and consumption, as well as the diversity and quality of nutrition is the foundation pangan.PPH planning preparation and consumption of food availability in the region.

The availability and consumption of food is sourced from 8 types of food groups. The first three groups of food grains (rice, corn, wheat and processed products) and tubers (cassava, sweet potato, potato, taro, sago and processed products) and sugar (white sugar, brown sugar, syrup) said dapata as the main source of food carbohydrates or energy. The second two food groups, animal food (fish, meat, eggs, milk and processed products) and legumes (soy, peanuts, green beans, red beans, peas, cowpea and other legumes) are the main source of protein. Furthermore, two of the three food groups, fruits and seeds of fat (coconut, pecans, cashews, walnuts and chocolate) and oils and fats (palm oil, palm cooking oil / palm oil and margarine) is the main source of fat, while the last one food group are vegetables and fruits (all kinds of vegetables and fruits) as a major source of vitamins and minerals. If someone has a score of PPH to 100 then the pattern of food so it can be said that the ideal energy consumption rate equivalent 2200 kcal / capita / day.

Score PPH can be made in four categories: (a) very good with a score of 90-100 (b) is quite good with a score of 80-89, (c) less well with a score of 70 -79, and bad with PPH score below 70 . Score PPH describe the status of diversification of food consumption PPH where the higher the score the higher the diversification pattern. Based on the results of the study covered two villages in the district Kairatu, showed an average score of PPH was 73.26 and there is little difference in scores between one village to another village the village Uraur Hatusua 70.99 and

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79.47. Based on these categories so the villages are all research areas classified as less baik.karena score two villages under ideal score of 100 PPH.

The results showed that PPH score less well in both villages. This is because access to transport and relatively better communication to the market district and provincial capital. The trend of availability, consumption and weaken local diversification in the villages was caused Kairatu district is one of the district is prepared to produce paddy (rice) because there are some villages that produce rice transmigration. So the propensity to consume rice and dependence is very high because of the ease it.

In relation to the issue of food diversification it is known that in general the three villages of the study area whole grains with a score of 20 out of 25 diharapkan.artinya grain consumption 27% lower than the standards expected. While the consumption of tubers almost three times more than the standard ideal diharapkan.sedangkan consumption of animal food with a score of 34 or 41% higher than the ideal standard. so the people in the villages of the study is not only a problem in terms of food consumption of carbohydrates from whole grains are still lacking, but also the consumption of tubers and excessive animal food.

CONCLUSION

Changes in the pattern of food in sub Kairatu getting stronger and faster because the area is more open and have easier access to capital and economic infrastructure so that the process of substitution of non-rice food (sago-tubers) to food rice is underway among rural households dikecamatan this. Rice has been a pattern of local food in the villages are actually known as the village of sago sago forest potential a lot. As a result of Nutrient Adequacy Score (RDA) and the score pattern of Food Hopes (PPH) in rural decline.

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