# Analysis of Livestock Product Consumption Coastal Household In North Minahasa Regency

by Nancy Santa 19

Submission date: 28-Dec-2020 03:53AM (UTC+0700)

**Submission ID:** 1481535545

File name: duct\_Consumption\_Coastal\_Household\_In\_North\_Minahasa\_Regency.pdf (194.44K)

Word count: 2802

Character count: 15129







# **ScienceDirect**



Procedia Food Science 3 (2015) 364 - 370



The First International Symposium on Food and Agro-biodiversity (ISFA2014)



Analysis of Livestock Product Consumption Coastal Household In North Minahasa Regency

Femi Hadidjah H3y\*, Merry Manese, Nansi Margret Santa and Ingriet Deybie Rinny Lumenta Social Economic Department, Faculty of Animal Husbandry,

The University of Sam Ratulangi Manado 95115



This study aims to analyze the effect of income on consumption of farm products. The research method that has been used is the survey method. Determination of sampled by purposive sampling, namely the coastal areas. Determination of the respondents were done by simple random sampling. Households that consume chicken eggs as much as 96.36 percent, chicken meat 88.18 percent and pork 75.45 percent. Regression analysis showed that consumption of chicken eggs, chicken meat and pork respectively partially influenced by household income. In conclusion, household income significantly affect the consumption of chicken eggs, chicken meat and pork in North Minahasa regency.

© 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the organizing committee of Indonesian Food Technologist Community

Keywords: consumption, eggs, chicken meat, pork

### INTRODUCTION

North Minahasa, is a district in the province of North Sulawesi, with the city center is Airmadidi. The distance between Airmadidi with Manado city (Center City Province), about 35 km. The total area of North Minahasa Regency is 1,059.24 km<sup>2</sup>. The boundaries of the region, North Side, the Sangihe regency, the Celebes Sea and the Molucca Sea. The east, the city of Bitung, and South side with Minahasa regency. West side, bordering the city of Manado.

North Minahasa regency consists of 10 district, and 5 districts (50 percent) of them, located in the coastal areas. This indicates that, work as the main source of income, most of the people are fishermen. Some research indicates that, coastal areas categorized as poor.

\*Corresponding author.

E-mail address: femi elly@yahoo.co.id

2211-601X © 2015 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Peer-review under responsibility of the organizing committee of Indonesian Food Technologist Community

doi:10.1016/j.profoo.2015.01.040

According to other researcher [15], poverty is a serious problem faced by developing countries. The many problems facing today, both in the social and healthcare, rooted in poverty. The purchasing power of the poor is getting smaller with the increasing prices of daily necessities. The ability to provide adequate food, and in accordance with the recommended dietary allowance also decreased [15].

Households as consumers, to meet the consumption, always based on achieving a certain satisfaction. In theory, households are always trying to improve their utility. In achieving satisfaction, a consumer is limited by incomes and the price of commodities, including livestock. According to [1], an increasing population, accompanied by an increase in public knowledge about nutrition, and increase incomes, can encourage people to change consumption patterns, with changes in the nutritional quality better.

The fact is that, people with lower incomes, do not have the ability to purchase farm products as nutritious food. Much research has been done, especially in developed countries, on the pattern of consumption of nutritious foods. Nutrition according to [10], is one of the determinants of disease. Diet and eating habits, is the key to disease prevention. Research [6], shows the middle-class people have a healthy diet than the lower classes. Considerations underlying the selection of groceries, can explain the class differences in eating habits. Research [17] highlighted the importance of socioeconomic factors in relation to eating habits. Research has been conducted [2], is, by looking at differences in socioeconomic position (SEP) low and high, in consuming food. Similar research has been done [3], the quality of the food influenced by socioeconomis status (SES). Community with socioeconomis status (SES) is low, has a limited economy. While [9] stated that, the frequency of consumption of different foods, by country and gender. Similarly [13], examine socio-economic status (SES) in the consumption pattern.

The problem is, the extent to which the consumption of livestock products in North Minahasa, and whether the incomes influence the consumption of livestock products. Based on the above discussion, it has done the research, to analyze the consumption of livestock products, and the effect of incomes on food consumption of livestock products by households in the coastal areas of North Minahasa. The benefits of this research, is as an input for policy makers, in order to develop animal husbandry in North Minahasa Regency, in particular, and North Sulawesi in general..

### MATERIALS AND METHODS

This research has been conducted in North Minahasa regency. Districts and villages have been determined by purposive sampling, with consideration of the district and village located on the coast.

Based on the village that has been selected, the respondent determined by simple random sampling. The number of respondents as the sample in this study was determined 110 households. Data collection techniques were conducted using a survey method. The data obtained are primary and secondary data. Primary data was obtained directly from respondents through interviews using questionnaires. Secondary data was obtained from the institutions associated with this study. The analytical method used is multiple regression analysis.

### RESULTS AND DISCUSSION

Pattern of consumption of livestock products, by coastal communities dependent on the characteristics of household members. Household characteristics, including age, education level, family size, and household incomes. In theory, consumption is a function of incomes. Higher incomes, causing household consumption tends to increase. Consumption of livestock products in this study, involves the consumption of meat, eggs and milk. Consumption of meat consists of beef, chicken meat (local and superior), mutton, and pork.

Age, associated with a person's ability to allocate its labor, to get incomes. Earned income of household members, are allocated to consumption expenditures. Age, in this study measured the age of the father and mother. Distribution of household, as respondents, based on the age level of the father and mother in North Minahasa Regency, can be seen in Table 1.

The results of the study (Table 1) showed that both the father and mother households in North Minahasa Regency, as the respondents are in the productive age. Age of father, under 65 years amounted to 83.64 per cent. Age of mother, under 65 years amounted to 86.36 per cent. That is, household members, both father and mother in North Minahasa Regency, still has the ability to allocate labor to productive enterprises. The allocation of labor in productive enterprises causing the father and mother receive incomes, higher.

Level of education, as well as one of the characteristics of the household, which affects the pattern of consumption of livestock products. Formal education of the household, the higher, cause they tend to think rationally. Households will be more rational in determining food of high nutritional value. Distribution of household as respondents based on the level of education of father and mother in North Minahasa Regency, can be seen in Table 2.

The results of the study (Table 2) showed that, the level of formal education mostly fathers and mothers, are at the elementary level. Elementary education levels for fathers as much as 60.91 percent. Formal education level of the respondents were mothers as primary school level as much as 62.73 percent. Based on these data showed that, the state of education, both father and mother, is still

considered low. Low education levels indicate that someone has not been thinking rationally in meeting their needs. The father and the mother, can not decide for the quality of food consumed.

Table 1: Distribution of Number of Father and Mother by Age in North Minahasa Regency

No.	Age (Year)	Father (Person)		Mother (Person)	
		Amount	%	Amount	%
1.	15-24	1	0.91	1	0.91
2.	25-34	11	10.00	20	18.18
3.	35-44	49	44.55	53	48.18
4.	45-54	29	26.36	22	20.00
5.	55-64	13	11.82	10	9.09
6.	> 65	7	6.36	4	3.64
	Total	110	100.00	110	100.00

Table 2. Distribution of Number of Father and Mother, by Level of Education in North Minahasa Regency

No.	Level of Education	Father (Person)		Mother (Person)	
		Amount	%	Amount	%
1.	SD	67	60.91	69	62.73
2.	SMP	27	24.54	31	28.18
3.	SMA	15	13.64	10	9.09
4.	S1	1	0.91	0	0.00
	Total	110	100.00	110	100.00

Table 3. Products of Livestock, and Total Households, as Respondent, The Consume in North Minahasa Regency

No.	Products of Livestock	Number		
		Household	%	
1.	Cattle meat	24	21.82	
2.	Chicken meat	64	58.80	
3.	Local Chicken meat	97	88.18	
4.	Goat meat	6	5.45	
5.	Pork meat	83	75.45	
6.	Chicken egg	106	96.36	

The results of the study [8], indicates that high quality food, more expensive because it has a low energy density and rich in nutrients. According [4], that the low-cost, energy-dense foods, and poor nutrition related to education, and low income. Exploration results from [11] that, the distribution of food costs, and quality for the population strata of the United States, and examine the relationship between the two variables.

The number of family members, is one of the determining factors in the consumption of livestock products. The number of family members, indicating a state of demographic structure affects the ratio c / w [5]. The higher number of family members, the number of livestock product consumption tends to increase. The number of family members of the household, in North Minahasa Regency, ranging from 2-8 members. Households with c / w low, mean number of employees is greater than the load consumption.

Income, in this study was calculated based on the income earned father, mother and child. Income per day was obtained households of coastal communities in the study area is Rp 108,254.55, although this income, still higher than the results of research [15]. Research results of [15] showed that, the sample family, a poor family with an average expenditure per capita per day to Rp 25,134. According [14], the amount of family income will determine the amount of consumption of livestock products. Data livestock products, and the number of households, as respondent, which consume in North Minahasa Regency, can be seen in Table 3.

Results of research conducted (Table 3), showed that 96.36 per cent of households consume chicken eggs. Households that consume chicken meat locally, as much as 88.18 percent. Local chicken meat consumed, obtained from chickens belonging to himself, and partly acquired by way of purchase. Households that consume pork around 75.45 percent. This is because, a sample of household respondents most (83 households) are Christians. Households consume livestock products other than by way of purchase, they also consume during the party.

The analysis showed that, in partial consumption of chicken eggs is influenced by household incomes. Chicken eggs are consumed at the time of the household are not caught any fish, and fish prices expensive. Chicken eggs are available in the study area, but it is costly, of Rp 2000-3000 per egg. The indication, local chickens can be developed, so that eggs and meat, can be consumed by households on the coast. Local chickens easy to maintain, and does not require a large area.

The analysis showed that, local chicken meat consumption is influenced by household incomes, the 95 percent confidence level. Households consume local chicken meat, farmed themselves. Local poultry meat, better known, and favored household. This is a result, most households consume local chicken meat, even though they have to buy it at higher prices.

The analysis showed that consumption of pork is influenced by household incomes, the 95 percent confidence level. This is because, the majority of households in the study area are Christians. Pork, a major livestock products are always prepared by households, both during religious days, and in thanksgiving. Households in the study area that have earned higher incomes at a certain time, will buy and consume pork. According [12], to achieve food security, food availability is required in sufficient

quantity and quality. Food availability can be distributed with reasonable prices, and is safe for consumption by any person to support the daily activities all the time. Evaluation study of the relationship of food costs, and adherence to a different diet, has been carried out by [7]. Furthermore, according to [16], need government intervention, for low income families, to improve the quality of food due to their budget constraints.

## CONCLUSION

Based on the results, it can be concluded, that the household incomes significantly affect the consumption of chicken eggs, local chicken, and pork, in North Minahasa regency. Advice, need government intervention for the development of livestock in North Minahasa.

### Acknowledgements

My thanks go to DP2M DIKTI, which has provided the opportunity for the author to obtain funds through research (Hibah Bersaing, 2014).

### REFERENCES

- [1] Amir, A., Sri-Widodo and S. Hardyastuti. Analysis of beef consumption at household level in Central Sular si. Agrosains, 19 (4). October. 2006. P435-449.
- [2] Ball, K., A. MacFarlane, D. Crawford, G. Savige, N. Andrianopoulos and A. Worsley. Can social cognitive theory constructs explain socio-economic variations in adolescent eating behaviours? A mediation analy 16. Health Educ. Res. 2009, 24 (3): 496-506.
- [3] Darmon, N and A. Drewnowski. Does social class predict diet quality? Am J of Clin Nutr. Vol. 87, 15 (May). 2008. p: 1107-1117.
- [4] Drewnowski, A. The cost of US foods as related to their nutritive value. Am J Clin Nutr. Vol. 92 no. 5 (Nov). 2010. p: 1181-1188.
- [5] Elly, F.H. Impact of transaction costs to household economic behavior farmer of cattle-crops in Noi Sulawesi. Doctoral Dissertation. Graduate Program, Bogor Agricultural University, Bogor. 2008.
- [6] Hupkens, C.L.H, R.A. Knibbe and M.J. Drop. Social class differences in food consumption. The explanatory value of permissiveness and health and cost considerations. Eur J Public Health. 2000. 10 (2): 108-11.2
- [7] Lopez, C.N., M.A. Martinez-Gonzalez, A. Sanchez-Villegas, A. Alonso, A.M. Pimenta and M. Bes-Rastrollo. Costs of Mediterranean and western dietary patterns in a Spanish cohort and their relationship with prospective weight change. J Epidemiol Community Health. 2009 (63). 2009. p:920-927.
- [8] Maillot, M., N. Darmon, F. Vieux and A. Drewnowski. Low energy density and high nutritional quality are each associated with higher diet costs in French adults. Am J of Clin Nutr. Vol. 86, No. 3 (Se 10 2007. p: 690-696.
- [9] Mikolajczyk, R.T., W. El Ansari and A.E Maxwell. Food consumption frequency and perceived stress and depressive symptoms among students in three European countries. Nutr J. 2009, 8:31.

- 11
- [10] Nilsen, S.M., S. Krokstad, T.L. Holmen, and S. Westin. Adolescents' health-related dietary patterns by parental socio-economic position, The Nord-Trøndelag Health Study (HUNT). Eur J Public Healt 1220 (3). 2010. p: 299-305.
- [11] Rehm, C.D., P. Monsivais, and A. Drewnowski. The quality and monetary value of diets consumated by adults in the United States. Am J Clin Nutr. Vol. 94 no. 5 (Nov). 2011. p: 1333-1339.
- [12] Saliem, H.P., M. Ariani, Y. Marisa and T.B. Purwantini. Analysis of a regional food insecurity, Decentralization Development In Perspective. Research Report. Center for Research and Socio-Economic Development. Bogor. 2002.
- [13] Sandvik, C., R. Gjestad, O. Samdal, J. Brug, and K.I. Klepp. Does socio-economic status moderate the associations between psychosocial predictors and fruit intake in schoolchildren? The Pro Children study. Health Educ. Res. 2010. 25 (1). 2010. p: 121-134.
- [14] Soedjana, T.D. The development of eggs and chicken meat consumption in Indonesia. Media Communication & Information Food, Agribusiness of Poultry. No. 29 (VIII). 1996. p: 35-44.
- [15] Tanziha, I. *Goal Programming*: optimization of food consumption of a toddler on a family of fishermen. J Nutral on and Food. 2009. 4(1) (March). 2009. p: 1 7.
- [16] Townsend, M.S., G.J. Aaron, P. Monsivais, N.L. Keim and A.Drewnowski. Less-energy-dense diets of low-income women in California are associated with higher energy-adjusted diet costs. Am J Clin Nutr. Vol. 89 no. 4 (April). 2009. p: 1220-1226.
- [17] Vereecken, C.A., J. Inchley, S.V. Subramanian, A. Hublet and L. Maes. The relative influence of individual and contextual socio-economic status on consumption of fruit and soft drinks among adolescents in Europe. Eur J Public Health. 15 (3) (June). 2005. p: 224-232.

Presented at ISFA (September 16-17, 2014-Semarang, Indonesia) as paper #94, "Managing Biosafety and Biodiversity of Food from Local to Global Industries"

# Analysis of Livestock Product Consumption Coastal Household In North Minahasa Regency

ORIGIN	ALITY REPORT	
SIMILA	8% 17% 15% ARITY INDEX INTERNET SOURCES PUBLICATIONS	% STUDENT PAPERS
PRIMAF	RY SOURCES	
1	repositorio.unesc.net Internet Source	1%
2	healthyeatingatschool.ca Internet Source	1%
3	zombiedoc.com Internet Source	1%
4	intl.ajcn.org Internet Source	1%
5	academicfora.com Internet Source	1%
6	her.oxfordjournals.org Internet Source	1%
7	eprints.qut.edu.au Internet Source	1%
8	www.hindawi.com Internet Source	1%
9	pediatrics.aappublications.org Internet Source	1%

10	www.pakinsight.com Internet Source	1%
11	ije.oxfordjournals.org Internet Source	1%
12	digitalassets.lib.berkeley.edu Internet Source	1%
13	www.ajas.info Internet Source	1%
14	mafiadoc.com Internet Source	1%
15	bmjopen.bmj.com Internet Source	1%
16	tel.archives-ouvertes.fr Internet Source	1%
17	"Contents List", Procedia Food Science, 2015 Publication	1%
18	123dok.com Internet Source	<1%
19	ajcn.nutrition.org Internet Source	<1%
20	M. S Townsend. "Less-energy-dense diets of low-income women in California are associated with higher energy-adjusted diet costs", American Journal of Clinical Nutrition, 02/25/2009  Publication	<1%

21

C N Lopez, M A Martinez-Gonzalez, A Sanchez-Villegas, A Alonso, A M Pimenta, M Bes-Rastrollo. "Costs of Mediterranean and western dietary patterns in a Spanish cohort and their relationship with prospective weight change", Journal of Epidemiology & Community Health, 2009

<1%

Publication

Exclude quotes

Off Off Exclude matches

Off

Exclude bibliography