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**THE STUDY OF GENDER RESPONSIBILITY AMONG SMALL SCALE DAIRY
FARMERS IN WANALE DIVISION, MBALE MUNICIPALITY**

BY

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THE AWARD OF THE DEGREE OF BACHELOR OF ANIMAL PRODUCTION
AND MANAGEMENT OF BUSITEMA UNIVERSITY**

JUNE, 2011

DECLARATION

I, **WANYINA JAMES**, declare that this dissertation is original and has not previously been submitted to another university or any higher institution of learning for the award any degree.

Signature..... WJ

Date..... 18/08/2011

This dissertation has been submitted for examination with the approval of my supervisor


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Date

18/08/2014



DEDICATION

I dedicate this dissertation to my family in their support both financial and spirit of morally May god bless you all.

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LIST OF ABBREVIATIONS

CSA	Central Statistics Authority
DDA	Dairy Development Authority
EADDP	East African Dairy Development Program
FAO	Food and Agricultural Organization
GDP	Gross Domestic Product
ILDPA	Integrated Livestock Development Project
ILRI	International Livestock Research Institute
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MFPED	Ministry of Finance, Planning and Economic Development
NGO	Non-Governmental Organization
SSA	Sub-Saharan Africa
UBOS	Uganda Bureau of Statistics
%	percent
<	Less than
>	Greater than
<i>et al</i>	and others

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ABSTRACT

In Mbale Municipality, dairying, which produces 131,128 liters of milk per day, is practiced in the backyard through zero grazing. Poor management practices, majorly as a result of gender irresponsibility, have not enabled the animals to produce to their optimum capacity. However, the extent to which gender irresponsibility is affecting small scale dairy farming in Mbale Municipality is not well known; hence this study. The results will help establish benchmarks which could be used as a package for profitable urban dairy farming in the country. The study, which was conducted in the months of February to April 2014, targeted small scale urban dairy farmers of Wanale division in Mbale Municipality employing a simple random sampling procedure. Both qualitative and quantitative data was collected. The data collected was analyzed using the Statistical Package for Social Scientists (SPSS) version 16. The results were presented in the form of frequency tables and pie charts. The study revealed that the majority (66%) of small scale dairy farmers were males and the rest (34%) females. The males (88%) also controlled most of the land. This exposed the over domineering role of males in the control of household resources. It was established that family labour was more utilized than hired labour. Within the family, the study revealed that both feeding and herding of the dairy cattle was done by the children, followed by men and women in that order. The men of the family, however, dominated watering, milking and milk processing while the women led in selling milk and cleaning bans. From this study, it was concluded that dairying in Wanale Division, Mbale Municipality, was largely run as a family operation where each member contributed to, and benefited from, the different activities of dairying. Not owning assets, especially land and animals, has greatly affected the women's active participation in the dairy sector. It is, therefore, recommended that gender equality and equity be made the guiding principles in all dairy development strategies. Such strategies should entail providing loans to support small scale dairy farmers in modernizing production and improving post-harvest handling and marketing; facilitating farmers to form co-operatives in order to increase their bargaining power during procurement of inputs and marketing of products; reviewing the delivery of extension services by government to come up with appropriate strategies that will ensure adoption and utilization of appropriate technologies in both rural and urban areas.

CHAPTER ONE: INTRODUCTION

1.1 Background

Livestock systems occupy 45 percent of the global surface area with a value of at least \$1.4 trillion. Livestock industries are a significant source of livelihoods globally. They are organized in both short and long market chains that employ at least 1.3 billion people globally and directly support the livelihoods of 800 million poor smallholder farmers in the developing world (Herrero *et al.*, 2009). With close to one billion of the world's poorest people relying on livestock for their livelihoods (FAO, 2012), it is tempting to assume that livestock-keeping households consume the animal-source foods they produce and that increasing productivity of livestock would impact positively on household nutrition. For both livestock and other agricultural enterprises, such connections are notoriously difficult to prove (Masset *et al.*, 2011). A range of projects aiming to introduce or improve animal production suggest that livestock and their products are more likely to be sold for income than consumed by poor households (Scoons, 1992). Nevertheless, most trade in animal products occurs locally due to their perishable nature, so that the benefits of their consumption are at least distributed in nearby areas.

Livestock products supply around 12.9 percent of calories consumed worldwide (FAO, 2009) and 20.3 percent in developed countries. Even more important, perhaps, is their contribution to protein consumption, estimated at 27.9 percent worldwide and 47.8 percent in developed countries.

Dairy production is vital in the livelihoods of most crops - livestock farmers in terms of providing nutrition, manure for crop production and generating income and employment in Uganda (Mugerwa *et al.*, 2012). Smallholder dairies are concentrated in the small - scale dairy production systems producing about 60% of milk and contributing over 80% of the marketed output. Mbale produces 131,128 liters of milk per day (UBOS, 2008); livestock in Mbale municipality is mainly practiced in the backyard on zero grazing-basis.

REFERENCES

- Abay Tedla, Tefera G/Meskel, Alemu G/Wold, Beruk Yemane, Philip Chicarus, (1989). Status of Dairying in Ethiopia and Strategies for Future Development Proceedings of the Third National Livestock Improvement Conference 24-26 May 1998, Addis Ababa.
- Aboud, A. O., Biwi, K. O. and Juma, Kh. A. (1995), Abstract: Some aspects of Milk production and reproductive performance of cows under smallholder systems in Pemba. In: Proceedings of the 22 nd Scientific Conference of the Tanzania Society of Animal Production (TSAP) 22:pp224
- Alganesh, T., (2002). Traditional milk and milk products handling practices and raw milk quality in eastern Wollega, MSc Thesis, Alemaya University, Ethiopia
- Almaw G, Molla W and Melaku A (2009) Prevalence of bovine sub-clinical mastitis in Gondar town and surrounding areas, Ethiopia; Livestock Research for Rural Development, Volume 21, Article #106.at ILCA, Addis Ababa, Ethiopia, 26-30 November 1990.ILCA (International Livestock Centre for Africa), addis Ababa, Ethiopia, pp: 123-130
- Aras, F .and Izmili, R. (1996), Economic Analysis of Dairy farms in Izmir province in Turkish. *Journal of animal Science*.51 (1) pp 18-23.
- Ayeneu Y A, Wurzinger M, Tegegne A and Zollitsch W (2009) Handling, processing and marketing of milk in the North western Ethiopian highlands; Livestock Research for Rural Development, Volume 21, Article # 97
- Azage, T., Berhanu, G., Dirk, H., Berhanu, B., and Yoseph, M., (2013) Smallholder dairy production and marketing systems in Ethiopia: IPMS experiences and opportunities for market-oriented development, Working Paper No. 31, International Livestock Research Institute (ILRI) Addis Ababa, Ethiopia
- Biwi, K. M. (1993).Development of smallholder dairying in Zanzibar. In: Future of livestock industries in East and Southern Africa. In: Proceedings of a Workshop held at Kadoma Ranch
- Bravo-Baumann, H., (2000): Livestock and Gender: a winning pair: Capitalisation of Experiences on the contribution of Livestock projects to gender issues. SADC, Bern
- Brokken, R.F. and S. Senait, (1992) Dairy marketing in Sub-Saharan Africa In: Proceedings of a symposium held

Bunofi C.W., (1996). Uganda Dairy Sector Development, In Regional Exchange Network for Market Oriented Dairy Development. Proceedings of the Workshop held in Bronte Hotel, Harare, Zimbabwe. FAO Animal production and health division.173pp.

CSA, (2005). Federal Democratic Republic of Ethiopia Agricultural Sample Survey. Livestock and Livestock Characteristics Bulletin, Volume II, Central Statistical Authority, Addis Ababa, Ethiopia

Dairy Development Authority (2002), Annual Performance Report 2001/2002

Dairy Production in Uganda: Production Efficiency and Soil Management Strategies under Different Farming Systems. ILRI Research Report 1. International Livestock Research Institute, Nairobi, Kenya.

Dayanandan R (2011) Production and marketing efficiency of dairy farms in highland of Ethiopia- an economic analysis International Journal of Enterprise Computing and Business Systems Volume 1 Issue 2

De Leeuw, P.N, Omere, A, Staal, S and Thorpe, W (1999); Dairy production systems in the tropics In: Smallholder Dairying in the Tropics Falvey, L. and Chantalakhana, C. (Eds). ILRI (International Livestock Research Institute), Nairobi, Kenya.

Demircan, T. Binici, H. Koknarwoglu, A.R and Aktas, E (2006).Economic Analysis of different Dairy Farm sizes in Burdur province in Turkey. *Journal of Animal Science.* 51 (1) pp 8-17.

Duguma B, Kechero Yand Janssens G P J (2011) Analysis of Constraints Facing Urban Dairy Farmers and Gender Responsibility in Animal Management in Jimma Town Jimma, Ethiopia. Libyan Agriculture Research Center Journal International 2 (4): 155-160

EADD, (2010). *EADD Operational Plan and Budget 2010*, Nairobi, February 2010.

EADD, (2010). *EADD Project Annual Progress Report (January – December 2009)*. Kenya, Rwanda, Uganda. March 2010, Nairobi

FAO, IFAD, ILO. (2010). *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty-Status, trends and gaps.* Rome, Italy

FAOSTAT, (2006) <http://faostat.fao.org>. Accessed on 20th Nov. 2013

Foeken D.W.J and Owuor S.O (2000) Urban farmers in Nakuru, Kenya; Working Paper 45/2000 ASC, Leiden, The Netherlands pp.117

Fontch F A, Mubiru S, Tibayungwa F and Lammers W (2005): System analysis of peri-urban smallholder dairy farming in the Lake Crescent Region of Uganda. *Livestock Research for Rural Development. Volume 17, Article #79.*

Food and Agriculture Organization of the United Nations (FAO).(2004).FAOSTAT data Food and Agriculture Organization of the United Nations.

Gillah K A, Kifaro G C and Madsen J (2012): Urban and peri urban dairy farming in East Africa: A review on production levels, constraints and opportunities. *Livestock Research for Rural Development. Volume 24, Article #198*

Greenbelt Consult (2006) An Analysis of the Implications of Uganda's Livestock Policies for the competitiveness of its livestock and livestock products in the local and International markets, Uganda Programme for Trade Opportunities and Policy pp 70

Guendel S (2006) a synthesis of urban and peri-urban agriculture research commissioned by the Renewable Natural Resources Research Strategy programme, 1995–2006 Final report pp. 31

Halderman, M.N (2004).The political economy of pro-poor livestock policy making in Ethiopia FAO working paper No. 19. Rome: FAO

Hossain et. Al (2005), Dairy Farming Practice in a Selective Area of Bangladesh, Pakistan Journal of Nutrition 4 (4): 215-221.

IFAD, (2006) Small holder Dairy Commercialization Program Report, IFAD and G.O.K report.

ILDPA, (2004). Draft report on dairy marketing and mini-dairy in Gonder. Integrated Livestock Development Project, North Gonder, Ethiopia.

K2-Consult and Land 'O' Lakes (2000) Report on: Dairy Sector Supply, Demand and Competitiveness Study.

Kagira I J M, Kanyari P W N (2010) Questionnaire survey on urban and peri-urban livestock farming practices and disease control in Kisumu Municipality, Journal of the South African Veterinary Association Volume 81 no.2 Pretoria.

Kasirye. F. N. M., (2003), the Small Scale Dairy Sector – Uganda, FAO

Kavana P Y and Msangi B S J (2005) On farm dairy cattle feeding experience in eastern zone of Tanzania Livestock Research for Rural Development Volume 17 Article # 6

Kinambuga, D., (2010) Evaluation of the constraints to profitable smallholder dairying: a case of Nakuru county, Kenya, A Research Thesis Submitted to the Graduate School in Partial Fulfillment for the requirements of the Master of Science degree in agricultural and applied economics of Egerton University.

King, Alan. (2002). Joint donor agencies study on the performance of and growth prospects for strategic exports in Uganda: Annex to case study on livestock and livestock products.

Kivaria F M, Noordhuizen J P T M and Msami H M (2006) Risk factors associated with the incidence rate of clinical mastitis in smallholder dairy cows in Dar el Salaam region of Tanzania. The Veterinary Journal 173 (3):623-629

MAAIF/ ILRI (1996) the Uganda Dairy Sub-Sector. A Rapid Appraisal. By International Livestock Research Institute (ILRI) Nairobi, Kenya, Ministry of Agriculture, Animal Industry and Fisheries, Entebbe and National Agricultural Research Organization, Entebbe and Makerere University, Kampala.

Mdegela R H, Karimuribo E, Kusiluka L J M, Kabula B, Manjurano A, Kapaga A M and Kambarage D M (2005) Mastitis in smallholder dairy and pastoral cattle herds in the urban and peri-urban areas of the Dodoma municipality in Central Tanzania. Livestock Research for Rural Development, Volume 17, Article # 123

Mlambol, B.T. Ozen, N and Olug H.H., (1998). Problems of the dairy cattle production in Burdur and some suggestions to solve them in Turkish., Antalya publisher Tanzania pp 309-321.

Mlay P.S and Mgumia Y.O (2008) Levels of lead and copper in plasma of dairy cows, pastures, soil and water from selected areas of Morogoro suburbs, Tanzania. Livestock Research for Rural Development, Volume 20, Article # 60

Mlozi M R S (2005) Urban animal agriculture: its palliativity and reasons for persistence in Tanzanian towns. RICS Foundation pp. 26

Mollel, E.L Lekule, F.P., Kurwijila, R.L. Turuka, F.M and Petersen, P.H.(1999) Socio-economic study on the role of gender in small scale crop-livestock o farming in morogoro.

Proceedings of the 26th Scientific Conference of LITI –TENGERU held at Arush, Tanzania pp 27-34.

Mugerwa, S, Kabirizi J.M., Njarui, D, Mpairwe, D (2012) Utilization of introduced forages by smallholder dairy farmers in Uganda *International Journal of Biosciences (IJB)* ISSN: 2220-6655, Vol. 2, No. 1, p. 36-45, 2012

Mulangila, R. C.T. (1997).A study on Dairy Cattle Productivity in Tanga Region.MSc. Dissertation Sokoine University of Agriculture.Pp 13

Njarui D M G, Kabirizi J M, Itabari J K, Gatheru M, Nakiganda A and Mugerwa S (2012): Production characteristics and gender roles in dairy farming in peri-urban areas of Eastern and Central Africa. *Livestock Research for Rural Development, Volume 24, Article #122*

Nkya R, Kessy B M, Lyimo Z C, Msangi B S J, Turuka F and Mtenga K (2007) Constraints on smallholder market oriented dairy systems in the north eastern coastal region of Tanzania *Tropical Animal Health and Production* 39:627–636.

Nwude D.O, Okoye P.A.C and Babayemi J.O (2011) Assessment of heavy metal concentrations in the liver of cattle at slaughter during three different seasons. *Research Journal of Environmental Science* 5: 288-294. of the natural resources in the northern Ethiopian highlands: In proceedings of Conference

Oghaiki, A., Ndambi, T.H., and Uwe, L., (2007) Dairying in Africa – Status and recent developments, *Livestock Research for Rural Development* Vol. 19, No. 8 – August

Oghaiki, A.N., Otto, G., Balikowa, D., Kiconco, D., Torsten, H., and Uwe, L., (2008) Milk production systems in Central Uganda: a farm economic analysis *Tropical Animal Health and Production* Vol. 40, No. 4

Ogundipe, R.I., and Adeoye, A.A., (2013) Evaluation of dairy potential of Friesian, wadara and their crossbreeds in Bauchi state, *Scholarly Journal of Agriculture Science* vol.3(6),pp. 223-225,201. ISSN 2276-7118, Nigeria on *International Agricultural Research for development*

Opió, F. (2003) Gender mainstreaming in agriculture with special reference to Uganda: Challenges and prospects, *African Crop Science Society, African Crop Science Conference Proceedings, Vol. 6. 699-703.*

Otto, G., Balikowa, D., Kiconco, D., Ndambi, A., and Torsten, H., (2006) Milk Production in Uganda: Dairy Farming Economics and Development Policy Impacts, IGAD Livestock Policy Initiative. IGAD LPI Working Paper No. 09 – 08

Prain G, Karanja N and Lee-Smith D (2010) African Urban Harvest: Agriculture in the Cities of Cameroon, Kenya and Uganda. International Development Research Centre pp. 335

Richards J I and Godfrey S H (2003) urban livestock keeping in sub-Saharan Africa: Report of a workshop held on 3-5 March 2003 in Nairobi, Kenya. Natural Resources International Ltd, Aylesford, Kent, UK. pp. 118

Sarwatt, S.V. and Njau, F.B.C (1990).Feeding systems for smallholder dairy farmers in Morogoro urban: The role and prospects of smallholder livestock production in Tanzania; TSAP conference series Vol. 17 (pp 98).

Shiferaw Y, Tenhagn B A, Bekana M and Kassa T (2003) Reproductive performance of crossbred dairy cows in different production systems in the central Highlands of Ethiopia, *Tropical Animal Health and Production* 25:551-61

Sintayehu Y, Fekadu B, Azage T and Berhanu G (2008) Dairy production, processing and marketing systems of Shashemene–Dilla area, South Ethiopia. Project Working Paper 9. ILRI Nairobi, Kenya

Staal J. & Kaguongo W.N. (2003), the Uganda sub sector, International Livestock Research Institute (ILRI)

Swai, F. S., Bryant, M. J., Karimuribo, E. D., French, N. P., Ogden, N. H., Fitzpatrick, J. L., et al. (2005) A cross-sectional study of reproductive performance of smallholder dairy cows in coastal Tanzania *Tropical Animal Health and Production*, 37(6), 513-525

The Budget 2007/08 FA

Thea, H. (2000) “Women’s Land Rights: Current Development In Sub- Saharan African” in *Evolving Land rights, Policy and tenure in Africa* (eds) by Cammilla Toulmin and Julian Quan

Uganda bureau of statistics (2010) Uganda national household survey report 2009/2010.plot 9 Colville Street

Uganda Bureau of Statistics (2011) Statistical abstract pp 265

Uganda Bureau of Statistics, Statistical Abstract (June 2002).

Ugandan Bureau of Statistics, Annual Report, (2008)

Ugandan Ministry of Finance, Planning and Economic Development, Background to

Urassa, J.K. and Raphael, E. (1999) Contribution of small scale dairy farming to community welfare in Morogoro municipality of Tanzania.

Van Veenhuizen R and Danso G (2007) Profitability and sustainability of urban and peri-urban agriculture. Agricultural Management, Marketing and Finance, FAO, Rome, Italy; Occasional Paper 19 pp. 95

Vorgelegt, V., (2008) Perspectives for dairy farming systems in Africa, Dissertation zur Erlangung des Doktorgrades der Agrar- und Ernährungswissenschaftlichen Fakultät der Christian-Albrechts-Universität zu Kiel.

Winrock International. (1992). Assessment of animal agriculture in sub-Saharan Africa. Morrilton, Arkansas, USA: Winrock International Institute for Animal Agriculture

World Bank, Uganda at a glance (2008)

Wozemba. D and Nsanja. R. (2008), Dairy Investment Opportunities in Uganda, FAO

Yitaye A., M. Würziger, T. Azage and W. Zollitsch (2007). Urban and peri-urban farming system and utilization

Zelalem, Y. and L. Inger, (2001), Milk production, processing, marketing and the role of milk and milk products on smallholder farmers' income in the central highlands of Ethiopia. In Proceedings of the Annual Conference of the Ethiopian Society of Animal Production (ESAP), 24-26 August 2000, Addis Ababa, Ethiopia, pp: 139-154.