

# The Allocation of Women's Working Hours in Beef Cattle Breeding at Deyeng Village, Ringinrejo District, Kediri Regency

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**Abstract**— The increasing number of residents' household needs in Kediri Regency has resulted in an increase in the number of farmer households that have side businesses as beef cattle breeders. This is done to improve household welfare. The purpose of this study is to analyze the allocation of women's working hour in beef cattle breeding business at Deyeng Village, Ringinrejo District, Kediri Regency. Data analysis used descriptive analysis with the tabulation method to answer the characteristics of respondents and allocation of farmer's working hours. Respondents in this study were 27 beef cattle breeders which divided into 3 scales. The results of the study show that in the outpouring of women's household work time (wife) dominates while in beef cattle breeding and other businesses, men (husbands) dominate or provide more outpouring of work time than other family members. This shows that the community still adheres to the traditional role that women work for the household while men work more for family's living.

**Keywords**— Working Hours, household, beef cattle breeding business, women.

## I. INTRODUCTION

The increasing number of population every year has caused in the narrowing of agricultural land, because the land has begun to be used for settlements, offices, and other activities in the non-agricultural sector. This gives an opportunity for the community to work in the non-agricultural sector (Norfahmi et al., 2017). The livestock sector is one of economic development form in Indonesia. This sector provides a role in employment, providing protein sources of food, and to improve people's lives. Apart from being a provider of products and consumers, households also provide their role in providing labor. Workers used in beef cattle farming in rural areas are family members consisting of husband, wife, and children. Some people do not use labor from outside because it caused a highly costs. Hendayana and Togatorop (2006) stated that form of participation provided by family members for beef cattle breeding business, such as by cleaning cages, looking for food, providing food and drink, and controlling livestock health.

People in Deyeng Village, Ringinrejo District, choose beef cattle breeding as a side business that can help the family economy. Families become a resource in managing the livestock sector, both men and women, for this reason, it is necessary to develop optimal potential in the development of human resources, especially in the livestock sector. Scott (2011) explains the role is expectations that are organized with the context of certain interactions that form an individual's

motivational orientation towards others. The inclusion of the role of women in the livestock sector is influenced by low household incomes but high family needs and dependents, filling leisure time, and contributing to husbands in earning a family's living.

The allocation of work time can show differences in work flow within a household (Kim and Zepeda, 2004). Work time allocation can be divided into 3 types namely work time allocation in the labor market, household, and leisure time. Soetrisno (2003) stated that small scale business on livestock is usually only done by family members and does not use labor from outside. The aim of this study was to analyze the allocation of time spent working for beef cattle breeders in Ringinrejo District, Kediri Regency.

## II. RESEARCH MATERIALS AND METHODS

The study was conducted in Ringinrejo District, Kediri Regency, from June 2019 to July 2019. The research location was determined purposively with the consideration that Deyeng Village, Ringinrejo Subdistrict was included in 6 sub districts of beef cattle breeding centers in Kediri Regency. Data was collected through direct interviews with 27 respondents who own beef cattle business. Analysis of the data in this study used descriptive analysis with tabulation methods to answer household characteristics, allocation of work time, and participation in working hours of beef cattle breeders. The work time participation formula is as follows:

$$PCWK = \frac{TCWK}{TCWKAK} \times 100\%$$

Notes :

PCWK : Working hours contribution (husband / wife / children / other family members / other workers)  
TCWK : Total working hours Expenditures (husband / wife / children / other family members / other workers)  
TCWKAK : Total Family Working hours

## III. RESULTS AND DISCUSSION

*Respondent Characteristics:* -

Respondent characteristics are the information or identity that attached to the breeders involved in the research including age, education, occupation (husband and wife), and experience of raising livestock. Respondent characteristics are

used to find out how far the role of women is in beef cattle farming.

#### a. Age of breeders

Age is one of the factors that influence a person's productivity in his ability to do his work, because by increasing age, productivity will decrease. Tjiptoharijanto (2011) stated that the age of the population can be divided into 3, they are: under 15 years of age is called young age; ages 15 to 16 years are called productive ages; and ages over 65 are called old age. The average age of beef cattle breeders in Deyeng Village, Ringinrejo District, is in the age range of 31-40 years. This is due to farmers who already have old age and have obtained or inherited their livestock inheritance to other children or families. Mulyawati, Mardiningsing, and Satmoko (2016) explained that the productive age of farmers is 30-60 years.

#### b. Education

Formal education is education that has been taken by respondents at the time of the study including elementary, junior high, senior high, and college. The highest percentage of education level of beef cattle breeders in Deyeng Village, Ringinrejo District on a scale of 1 is elementary school (57.14%) or as many as 8 people from the scale of respondent 1 and the lowest level of education is junior high school and no school (21.43%) or as many as 3 people from the scale of respondents 1. The highest percentage of education of beef cattle breeders on a scale 2 is high school (44.44%) or as many as 4 people from the scale 2 respondents and the lowest level of education is junior high and not school (11.11 %) or as many as 1 person from the number of scale 2 respondents. The highest percentage of beef cattle farmer education level on a scale 3 is junior high (50.00%) or as many as 2 people from the scale 3 respondents and the rest are elementary school and collages (bachelor) graduates. Education is very influential on the progress of beef cattle farms, where the higher education is expected to be easier for farmers to absorb new aspirations and new technologies. The level of education can also influence farmers in terms of better managing and running beef cattle business.

#### c. Work

Most of beef cattle breeders in Deyeng Village, Ringinrejo District were making livestock business as a side business. The main work as a farmer is only done by farmers on a large scale. Generally, livestock are used as savings and will only be sold when farmers need money, such as children were going to school, buying vehicles, repairing houses, to meet the needs of other households. The highest percentage of husband's work in Deyeng Village, Ringinrejo District is that as a farmer this is indicated on a scale of 1, 50% of respondents are farmers, scale 2 is 44.44%, and scale 3 is 50.00%. This work was chosen because the environmental conditions were very supportive, namely the existence of agricultural lands.

#### d. Number of family members

Based on the results of the study, the average number of respondents' family members in Deyeng Village, Ringinrejo Subdistrict consisted of 5 family members with a percentage of 34.62%. The number of family members greatly influences

the number of household needs that must be removed so that the more family members the higher the burden of living.

#### e. Breed experience

Murwanto (2008) stated that experience of breeding has a role in determining the success of breeders in increasing livestock business as well as in raising livestock income. Sufficient farmer experience will make breeders more careful and correct deficiencies in the past. Febrina and Liana (2008) explained breeding experiences are generally obtained from parents for generations. Sufficient farming experience can be indicated that the farmer has the ability to manage maintenance better. The percentage of experience of breeding by beef cattle breeders in Deyeng Village, Ringinrejo District has moderate livestock experience; it was 9-30 years with a percentage of each scale 57.00%, 88.89%, and 75.00%. Because of farmers start this business at a productive age or after marriage. Proactive age is in the range of 24 - 60 years (Mulyawati, Mardiningsih, and Satmoko, 2016).

#### Allocation of Working Hours: -

Allocations for working hours are the amount of work time spent by family members for household activities, livestock business, and non-livestock business. Unu et al (2018) stated that working hours is the amount of time that spent by family members to carry out an activity which is calculated in hours. The resulting work productivity is influenced by the amount of time needed to be devoted. The higher the productivity, the higher the time spent.

#### a. Allocation of household working hours

Contribution of outpoured household work time is calculated by hours with measuring how long the household work done includes cooking and washing kitchen utensils, caring for children, cleaning the house, washing and ironing clothes, shopping for household needs, and repairing household appliances. The total outpouring of household work time is at attachment 1.

Based on the results of the study showed that women take the most household role compared to other family members. This is shown in the amount of outpouring of women's work in Table. The average outpouring of men's work on each scale is a scale of 1 = 1.1 hours / day; scale of 2 = 1.3 hours / day; and scale 3 = 1.24 hours / day. This differs greatly from the average outpouring of household work time for wives or women on a scale 1 = 13.6 hours / day; scale 2 = 10.5 hours / day; and scale 3 = 12.07 hours / day. This strongly supports the community's assumption that women should work at home, while men outside the home. On the other hand shows that women in Deyeng Village, Ringinrejo District, Kediri Regency still adhere to the role of tradition and have not chosen to be modern women like women in big cities who choose to do work outside the home.

Womans are more dominant to devote their time in the household compared to boys; scale 1 = 1.3 hours / day; scale 2 = 1 hour / day; and scale 3 = 0.57 hours / day. But parents choose that children focus more on education and can help parents or household work after school work is finished. Household activities that children usually do are cooking and washing kitchen utensils, cleaning the house, and washing

clothes. Based on the results of interviews, other family members are not required to help with household chores because many other family members consist of respondents' parents (breeders) who are in the elderly category. Other family members will help with homework if there is a desire of yourself and not based on coercion and as an activity to fill in spare time while labor required outside the household is a service to repair broken household appliances such as stoves, electronic equipment, television , etc.

TABLE 1. Contribution of Outflow of Household Working Hours

	Husband	Wife	AL	AP	AKL.L	AKL.P	TKL.L
Average outflow of time (hours / day)	3,64	36,17	0,14	2,87	0,93	1,26	0,53
Contributions (%)	7,99	79,42	0,31	6,30	2,04	2,77	1,16
HKSP	3,64	28,94	0,07	1,44	0,93	1,01	0,53

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female; TKL.L = Another male worker

Based on calculations, it is shown that the contribution of women's work time to the household is 79.42% of other family members.

*Contribution of Working Hours for Beef Cattle Business :-*

Contribution of Working Hour for beef cattle breeding business is calculated using hours by measuring how long the domestic work done includes processing and giving concentrate, grazing and giving to livestock, giving water, cleaning the cage, washing the cage equipment, bathing the cow, controlling the calf, hauling livestock manure, controlling livestock health, and maintaining calves. The total outpouring of work time for beef cattle farms is at attachment 2.

Activities in the livestock business include processing and providing concentrate; graze and lead to cattle; give a drink; cleaning the cage; washing cage equipment; bathing a cow; control the heat cow; carry cattle dung; controlling livestock health; and maintaining calf. However, in this livestock business activity the outpouring of men's work time is higher than that of women i.e on a scale of 1 = 4.81 hours / day; scale of 2 = 3.98 hours / day; and scale of 3 = 6.28 hours / day while work time spent on women scale 1 = 3.19 hours / day; scale of 2 = 2.57 hours / day; and a scale of 3 = 0.97 hours / day. This is because men are more responsible in earning a family living and women only help in it, so that the outpouring of men's work is higher than that of women.

Based on the research it can also be seen that the time spent working for women on a scale of 1 is greater than the time spent working on women on a scale of 2 and 3. This is because women feel more capable of helping livestock farming with relatively small livestock capacity of 1 to 3 animals besides the livestock business located in the home environment makes it easy for women to monitor and take care of cattle doing household chores. The highest level of

working time of children on a scale of 2 = 1.05 hours / day. On this scale, the average child is classified as adolescent to adult so that he has understood to help the activities of parents. In addition, some parents also think that the participation of children in helping the livestock business is to introduce children to earning a living, especially for boys who will become the head of the household later and pass down the family farm business. The work hours of other family members are dominated by men on a scale of 2, 1.01 hours / day. These other family members are relatives who live in the same house and are of productive age. Other family members will help after working in the fields or working elsewhere. On a scale of 3 the majority of farmers use the services of outside labor to help manage livestock businesses. The husband prefers to work outside the livestock sector as construction laborers and farmers. In addition, men argue that with the large population of livestock owned will require a greater outpouring of livestock business work time, so men choose to provide employment for others. Men on a scale of 3 on average are able to sell their own cattle without going through an intermediary, so that the benefits are far greater than other breeders.

Women will go grazing after the household chores are finished, which is around 1:00 p.m. or 3:00 p.m. Usually women graze 1 to 2 hours a day with a distance of approximately 3 km using a bicycle. The types of grass that are ared are elephant grass and a sukut puzzle. On average a woman can get 2 sacks of grass a day with a capacity of approximately 40kg. But if the results of grazing exceeds capacity or women are exhausted, then the man or child who will take the grazing yields by motorcycle. The reason women want to graze is because grazing is not a hard job but as a hobby, refreshing as well as being able to mitigate the work of men in running a livestock business. For breeders who do not make money, they will buy grass from grass traders around the house at a price of IDR 10,000 / bunch or around 25 kg.

Provision of drinking livestock is not all done adlibitum. Women share their opinion that livestock do not like to consume too much drinking, so the provision of drinking will only be given after giving feed, at 10.00 a.m. and 17.00 p.m.

Cage cleaning is done in the morning before feeding. Cleaning includes cleaning up cattle dung, cleaning feed and drinking areas for livestock, and cleaning the environment of the cage. In this activity predominantly carried out by men, but women also contribute in helping to maintain the cleanliness of the cage. In addition, the equipment for capturing housing such as buckets, shovels, and broomsticks are cleaned and stored.

Bathing cattle is not often done by breeders, some do twice / week or once / month, so they are never bathed at all. When bathing cattle, some farms use water hose, but there are also some who only flush cattle using bucket water. This shows that breeders in Deyeng Village, Ringinrejo District pay less attention to the cleanliness of their livestock. Women in this activity do not give their roles too much, because women are afraid that cattle will kick when they are bathed. Farmers on scale 3 often bathe livestock because this is one of the tasks of outside labor, so beef cattle on scale 3 look cleaner.

Livestock health monitoring is carried out every day by husband and wife breeders. If the livestock looks less active as usual, the farmer will immediately contact the local health official by telephone. The similar thing will be done if the animals show signs of declining health such as decreased appetite, fever, livestock like to be alone, and like rubbing their bodies against the walls of the cage. Lack of availability of livestock health workers, breeders must patiently wait for a queue and cannot bring in workers at the desired time except in very critical conditions. On average, farmers will spend livestock health costs between IDR. 70,000 to IDR. 100,000 per treatment depending on the treatment and medication needed by the livestock.

Control of lust and animal health is done every day farmers. Control is done only by using the vision and experience of farmers. Siagarini, Isnaini, and Wahjuningsing (2015) stated that behavior of cattle heat can be shown by signs of cattle acting restless and uneasy, decreased appetite, mucous, swollen, red, and wet or commonly called 3A (*abang, abuh, anget*). In this condition, the breeder will immediately contact the injecting marital officer with an average cost of Rp. 70,000 to Rp. 100,000.

This sale of livestock is carried out by men, because women feel that it is inappropriate if they have to bargain with inauguration or other buyers who are certainly men. Sales of livestock have been carried out using communication tools to social media such as *Whatsapp*. In this activity women only give consideration to the price offer and men decide the final price.

TABLE 2. Contribution of Time Feed for Beef Cattle Business

	Husband	Wife	AL	AP	AKL.L	AKL.P	TKL.L
Average outflow of time (hours / day)	5,02	2,24	0,95	0	0,48	0,04	0,93
Contributions (%)	52%	23,22%	9,83%	0%	4,93%	0,45%	9,63%
HKSP	5,02	1,79	0,48	0	0,48	0,03	0,93

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female; TKL.L = Another male worker

Based on the calculation above, it shows that the contribution of women's working time to the beef cattle business is 23.22% from other family members.

*Contribution of Other Business Working Hours:-*

Beside running a livestock business, breeders also have other businesses such as becoming farmers, farm laborers, workshops, drivers, construction workers, and trading. The majority of other businesses are the main business of livestock where the income from these businesses is used to meet daily life. The total outpouring of work time for other business working is at attachment 3.

Based on the table above it shows that men have a higher outflow of work time other businesses than women. This is because men are the heads of families in charge of providing a

living. Outflow of working time for men is on a scale of 1 = 5.43 hours / day; scale of 2 = 4.83 hours per day; and scale 3 = 6.36 hours / day. In the outpouring of work time of men on a scale of 3 is higher because besides running a livestock business, breeders also have other businesses such as being farmers and construction workers. The majority of other businesses are breeders' main businesses where the income from these businesses is used to fulfill their daily lives.

Sofwan (2016) stated that women in the village do routine tasks in managing household activities, most women also have to go down to the fields to meet the economic needs of the family. This is because the family's economic conditions are weak and completely lacking so that requires women to participate in looking for additional income. Considering that the majority of the villagers' livelihoods are farming, women eventually help their husbands work in the fields.

Other businesses are able to contribute to the income of the family economy on a scale of 1, average income of Rp. - per month with the majority of farmers having a main occupation as farmers.

TABLE 3. Contribution of Other Business Working Hours

	Husband	Wife	AL	AP	AKL.L	AKL.P
Average of Working hours (hours / day)	5,54	2,33	0,00	0,00	0,92	0,00
Contributions (%)	62,95	26,52	0,00	0,00	10,49	0,00
HKSP	5,54	1,87	0	0	0,92	0

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female

Based on calculations above it is shown that the contribution of women's working time to other businesses as much as 26.52% of other family members.

IV. CONCLUSION

Contribution of female household working hours in Deyeng Village, Ringinrejo District was 79.42% of other members, contribution of female working hours to beef cattle breeding business was 23.22% from other family members, and female contribution to other businesses was 26, 52% of other family members.

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Attachment 1. Allocation of outflow of household work time

Type of activity	Outflow of Household Work Time (hour/day)																				
	Husband			Wife			AL			AP			AKL.L			AKL.P			TKL.L		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cooking and washing kitchen sets	0,13	0,2	0	4,39	3,17	2,5	0	0	0	0,3	0	0,1	0,29	0,11	0	0,14	0,22	0,14	0	0	0
Parenting	0,64	0,9	0,9	4,3	4,6	6,57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cleaning the house	0	0	0,1	0,8	1,4	1,1	0	0	0	0,3	0,22	0,43	0,07	0,17	0	0,11	0	0,28	0	0	0
Washing and ironing clothes	0	0,02	0	2,5	0,7	1,08	0	0	0,1	0,8	0,67	0,1	0,07	0,15	0	0	0	0	0	0	0
Shopping for household needs	0	0,03	0	1,6	0,53	0,8	0	0	0,1	0	0	0	0	0	0	0	0	0,14	0	0	0
Repairing household appliances	0,3	0,2	0,3	0	0,1	0,1	0	0	0	0	0,1	0	0	0	0	0	0	0,14	0,1	0	0,43
<b>Total</b>	<b>1,1</b>	<b>1,3</b>	<b>1,24</b>	<b>13,6</b>	<b>10,5</b>	<b>12,07</b>	<b>0</b>	<b>0</b>	<b>0,14</b>	<b>1,3</b>	<b>1</b>	<b>0,57</b>	<b>0,5</b>	<b>0,43</b>	<b>0</b>	<b>0,33</b>	<b>0,22</b>	<b>0,71</b>	<b>0,1</b>	<b>0</b>	<b>0,43</b>

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female; TKL.L = Another male worker

Attachment 2. Table of Work Flow of Beef Cattle Business

Type of activity	Outflow of Household Work Time (hour/day)																				
	Husband			Wife			AL			AP			AKL.L			AKL.P			TKL.L		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Cultivate and provide concentrate	0,00	0,06	0,64	0,1	0,39	0	0	0,06	0	0	0	0	0	0,06	0	0	0	0	0	0	0,43
Grazing and giving to livestock	1,21	1,44	2,4	1,5	1,06	0,4	0,1	0,22	0,6	0	0	0	0	0,22	0	0	0,03	0	0	0	0,4
Give a drink	0,05	0,06	0,6	0,21	0,27	0	0	0,02	0,1	0	0	0	0	0	0	0	0	0	0	0	0,1
Clean the cage	0,71	0,61	0,86	0,3	0,26	0,3	0,1	0,1	0,14	0	0	0	0	0,11	0,14	0	0	0	0	0,1	0,6
Wash the cage equipment	0,12	0,13	0,4	0,12	0,04	0	0	0,02	0,1	0	0	0	0	0	0,14	0	0	0	0	0	0,07
Bathing the cow	0,82	0,22	0,3	0,1	0,1	0	0,1	0,06	0,01	0	0	0	0	0,22	0,07	0	0	0	0	0	0,29
Control the heat cow	0,17	0,11	0,1	0,2	0,07	0,19	0	0,03	0,01	0	0	0	0	0	0	0	0	0	0	0	0,08
Transporting cattle dung	1,53	1,17	0,51	0,2	0,22	0	0,1	0,44	0,01	0	0	0	0	0,22	0,06	0,1	0	0	0,14	0,03	0
Control livestock health	0,16	0,11	0,1	0,2	0,09	0,4	0	0,03	0	0	0	0	0	0	0	0	0	0	0	0	0,04
Maintain calf	0,04	0,06	0,4	0,3	0,11	0	0,3	0,06	0,07	0	0	0	0	0,11	0	0	0	0	0	0	0,5
<b>Total</b>	<b>4,81</b>	<b>3,98</b>	<b>6,28</b>	<b>3,19</b>	<b>2,57</b>	<b>0,97</b>	<b>0,78</b>	<b>1,05</b>	<b>1,02</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,01</b>	<b>0,42</b>	<b>0,1</b>	<b>0,03</b>	<b>0</b>	<b>0,14</b>	<b>0,11</b>	<b>2,54</b>

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female; TKL.L = Another male worker

Attachment 3. Table of Other Business Working Hours

	Outflow of Domestic Work Time (hour/day)																	
	Husband			Wife			AL			AP			AKL.L			AKL.P		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
	5,43	4,83	6,36	1,4	3,4	2,20	0	0	0	0	0	0	1,1	1,67	0	0	0	0

Source: Primary data processed (2019)

Note: AL = Boys; AP = Woman; AKL.L = Other family member male; AKL.P = Other family member female; TKL.L = Another male worker