

## THE REVIEW OF UTILIZATION EFFICIENCY YARDS SOME ECONOMIC ASPECTS OF THE REVISED

Irine Indrawati Syaifullah<sup>1</sup>

### Abstract

The yard is a piece of land with certain the boundaries existing residential buildings on it that have the functional relations, both economic, biophysical and socio-cultural with its inhabitants. Utilization of their yards need attention are really considering the amount of donation provided by the yard for the welfare of farmers. These benefits include food self-sufficiency to maintain stability, increasing incomes and improving nutritional status, but there are still many who do not effectively utilize the yard. In connection with the development of garden land there are some things that should be asked is whether to use their yards to be successful in increasing revenue, labor productivity, improve cost efficiency and improve the allocation of results of operations of the yard. This research was conducted in villages Dawuhan, Situbondo district, county Situbondo. Data collection began on July 15, 1998 until August 28, 1998, by taking the primary data and secondary data. The study area is based on the consideration that the district Stubondo people already aware of the potential of land owned by the yard to increase revenue and as a source of nutrition, and the village is Dawuhan III championship race TOGA (Family Medicine Plant) in East Java in 1997.

Keywords: *yard, the welfare of farmer's, nutritional, development of Utilization, efficiency, the family of medicinal plants.*

### Introduction

Indonesian's national development aims to improve the prosperity and welfare for all people. (Anonymous, 1985:4). Outlines of State Policy of the Republic of Indonesia confirms that the main target of long-term development is the creation of a strong foundation for Indonesia to grow and develop on their own strength towards a just and prosperous society based on Pancasila. Development in agriculture as one of the emphasis of economic development is seen as a sector that needs serious attention in order to achieve success. (Anonim, 1991:77)

As a means to achieve these objectives, the government's efforts are a staple in the agricultural sector, among others, is to implement the rehabilitation program, extensification and intensification and diversification of investment. (M. Soetomo, 1996:7-8)

Spacious courtyard East Java, 530.300 ha is 17,95% of all farm people, covers 1.173.564 ha and 1.250.705 ha paddy field soil dry. (Soenoadji, et al, 1980:1)

---

<sup>1</sup> Social Economics of Agriculture / Agribusiness, Faculty of Agriculture, Islamic University of Jember, Jember, Indonesia, email: indrawatiirine@yahoo.co.id.

The yard has a function as follows:

1. Preservation of resources;
2. Aesthetic function;
3. Economic function or source of income;
4. Social functioning;
5. Protecting sources of germplasm.

Yard planting effort would improve the health of the environment, either as the lungs and to improve the ecosystem. Function of the garden as an additional source of income shows that activities tend to be oriented to the market management.(M. Soetomo, HA, 1996:2-4)

Targets to be achieved are:

- a. Increase the production of quality.
- b. Provide vegetables with high protein and vitamin content.
- c. Bridging the lean times.
- d. Create a healthy environment and artistic.

### **Identification of Problems**

1. How big is the farmer's income from the farm yard
2. How the allocation of the farm yard utilization
3. How does the use of cost efficiency in farm yard
4. How does the productivity of farm yard work

### **Research Objectives**

1. To know the income from the farm yard
2. To determine the level of utilization of the allocation of farm yard
3. To determine the level of cost efficiency in farm yard
4. To determine the level of labor productivity of farm yard

### **Usability Research**

1. The result of this study is expected to intensify its efforts to help farmers in their yards as a source of income.
2. Expected from the results of this study can also be used as a basis for consideration for future studies.

3. The result of this study is expected to be used by the government as one consideration in determining the policies related to efforts to use natural resources.

## **Basis of Theory and Hypotheses**

### **Reader review**

Utilization of the yard today still displays a wide range of style, it is influenced by the location of the area, social conditions, and other motivational. (SuprionodanBambangPujiAsmanto, 1997: 2)

Given the land is one factor that limited the production, which is due to the increasing number of people, the land becomes increasingly complex problems. (Penny danGinting, 1984:5-25)

The program needs to be grounded by the intensification of the yard at least four principles, namely: (1) Tata cropping, (2) The principle of low cost, (3) The principle of sustainability, (4) Development of highly nutritious crops.

### **Framework of Thinking**

Agricultural development is essentially an integral part of national development in realizing a just and prosperous society. Form a major contribution to the development of the agricultural sector is generally realized in producing food for its people, creating employment and opportunities beruasha, provides a factor of production in labor and investment capital formation. (Rudi Wibowo, 1991: 6-10)

According to Mubyarto (1993:6) the majority of farmers farming with determining how to produce an issue of production costs and affects the amount of income. In effect the farmer as an agricultural enterprise pedestrian has the objective to obtain economic benefits as high. However, farmers need to make calculations and compare the costs and expected revenues. (Mosher, 1965:65 and Ida Harijanto, 1977:7)

Availability of facilities or businesses not mean productivity factor obtained a high farmer. But how farmers conduct their business efficiently is a very important effort. To assess the efficiency of the production cost of the approach used R / C ratio (Revenue Cost Ratio). If the value of R / C ratio > 1 (one) then said to be efficient and if indigo R / C ratio < 1 (one), it is said to be inefficient.

### **Hypothesis**

Based on the background and framework hypotheses can be proposed as follows:

1. Farm income benefit grounds.
2. Allocation of the farm yard level is commercialized, consumed and distributed different neighbors.
3. Costs used in the farm yard efficiently.
4. Labor described in productive farm yard.

### **Research Methods**

Research areas defined in the Village Dawuhan, Situbondo district, East Java, based on intentional sampling (purposive methods). The basic consideration is that the municipal elections in the Village Dawuhan people already aware of the potential of the land owned by the yard to supplement the family income and as a source of nutrition.

### **Sampling Methods**

Sampling method "Cluster Sampling" of farmers who have a yard area in August 1997 to August 1998 and was observed only 3 percent of total households.

Dawuhan village consists of four hamlets, each hamlet consisting of 13-14 RT and RT each consisting of 60-70 households, so in this study used "Three Stage Cluster Sampling". (M. Nasir, 1988: 371)

### **Collection Methods**

1. Primary data were obtained directly from the farmer with the interview method.
2. Secondary data obtained from the relevant agencies in this study.

### **Analysis Methods**

Analysis in this research using descriptive method with type research of case studies using the following formula:

$$\pi = TR - TC$$

$$TR = p \cdot q$$

$$TC = TFC + TVC$$

Where:

- $\pi$  = Income
- TR = Total Revenue
- TC = Total Cost
- q = Total Production
- p = Harga Output per Satuan
- TVC = Total Variable Cost
- TFC = Total Fixed Cost

This analysis is used for commodities that have economic value in the farm yard, as for decision making as follows:

$\pi > TC$  : Then received favorable revenue.

$\pi < TC$  : Then the income received unfavorable.

To test the second hypothesis used simple tabulation analysis. The formulation used is (PenyandGinting, 1984: 158)

$$\text{subsistence index} = \frac{\text{consumption of the yard}}{\text{value of the product}} \times 100$$

Furthermore, to know the difference between the results of commercialized, consumed and shared neighbors, use the following test formulations (M. Nasir, 1988:459):

$$t = \frac{|\bar{X}_1 - \bar{X}_2|}{S_{X_1-X_2}}$$

in the t-test to distinguish the two needs to be calculated the mean standard error of difference, the formula is:

$$S_{X_1-X_2} = \sqrt{\frac{SS_1 + SS_2}{n_1 + n_2 - 2} + \left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

Where:

- SS<sub>1</sub> = Sum of the squares of the sample 1
- SS<sub>2</sub> = Sum of the squares of the sample 2
- n<sub>1</sub> = Large sample 1
- n<sub>2</sub> = Large sample 2
- S<sub>X<sub>1</sub>-X<sub>2</sub></sub> = Standard error of difference

None other than the sum of the squares:

$$SS = \sum Xi^2 - \frac{(\sum Xi)^2}{n}$$

where

$X_i$  = Observations of variables to  $i$

$n$  = Large sample

$SS$  = sum of squares

The hypothesis is used:

$$H_0 : u_1 = u_2$$

$$H_1 : u_1 \neq u_2$$

Test criteria:

- If  $t$ -calculated  $<$   $t$ -table (0,05;  $N-K$ ): then  $H_0$  accepted, it means there is no difference between  $u_1$  and  $u_2$ .
- If  $t$ -calculated  $>$   $t$ -table (0,05;  $N-K$ ): then  $H_1$  accepted, it means there is a difference between  $u_1$  and  $u_2$

To understand the cost efficiency of farm yard, then use the formula  $R / C$  ratio, with the following formulation (FadholiHernanto, 1989:212)

$$R/C \text{ ratio} = \frac{\text{total gross receipts}}{\text{total cost}}$$

The decision is as follows:

$R / C \text{ ratio} > 1$ : the cost of which is used on the farm

## Results and Discussion

### 1. Income, Farm Yard

The amount of income earned from production for a year multiplied by the price of corporate output is then reduced by the amount of expenses incurred.

Table 1. Average Income in the Village Farm Yard DawuhanSitubondo District, Situbondo Year 1997/1998

Description	Hamlet Sample		Village
	Parse	Krajan	
1. Average Production Value (Rp)	150.230	275.013	219.208
2. Average Cost of Farming (Rp)	33.200	33.253	66.425
3. Average Income (Rp)	117.047	242.350	359.397
4. Average Production Value (Rp/ 510,6 m <sup>2</sup> )	294.222	538.607	429.471
5. Average Cost (Rp/510,6 m <sup>2</sup> )	65.021	65.125	130.145
6. Average Income (Rp/510,6 m <sup>2</sup> )	229.234	476.596	703.872

Sources: Primary Data Processed 1998.

From the table it can be seen that the Village Dawuhan earn an average income of the farm yard of Rp. 359.397,- after corrected with the average area of the yard around the respondent obtained an average income of Rp. 703.872,-. If the average income compared to the costs incurred in the amount of Rp. 66.452,-and corrected for Rp. 130.145,-it seems clear that the income received is much greater than the costs already incurred on business grounds. So it can be concluded that the hypothesis which states the yard profitable farm income can be received.

In this study the average income of farm yard to get two samples, namely Hamlet Parse which earned revenues of Rp. 117.047,-andRp. 33.200,-costs incurred as well as Hamlet Krajan that earned revenues of Rp. 242.350,- andRp. 33.350,-costs incurred. Apparently Hamlet Krajan able to generate greater revenue than farm yard Parse Hamlet, with spending that does not vary much with Hamlet Parse.

The amount of income levels in comparison to Hamlet HamletKrajan Parse caused by several things including:

- In the hamlet of intensification Krajan more intensive processing, so that the resulting production will be higher when compared with Hamlet Krajan.
- Based by a factor of technical knowledge and higher skills, especially farmers in the hamlet Krajan, more people to plant crops that have high economic value and use of manure without paying extra, so that the resulting increased production.
- Existence of Competition and Competition TOGA Planting Fruit of high economic value held in each village, thus encouraging farmers to use land on pekarangannya.

## 2. The Allocation of Farming

Table 2. Averages the yard sold, consumed, and distributed in the Village Dawuhan neighbors, District Situbondo, Situbondo Year 1997/1998

Description	Hamlet Sample		Village
	Parse	Krajan	
1. Average Production Value (Rp)	150.230	275.013	219.208
2. Selling The percentage (%)	69,0	83,58	78,50
3. The percentage consumed (%)	25,63	15,11	19,20
4. Neighbors Divided The percentage (%)	4,77	1,35	2,60
Presentase	100	100	100

Source: Primary Data Processed 1998.

The average results of the yard in the Village of consumed Dawuhan fewer than were sold, where the percentage of the farm yard is consumed by 19,20% and sale of 78,50%, and given to neighbors for 2,60%. So also with the results obtained in both samples, the percentage of results that are consumed in the hamlet of Krajan 15,11% of the reception, where these values are much less than the percentage of the sale results 83,53%, Parse Hamlet while consuming as much as the farm yard 25,63% and sold by the yard 69,60%.

From the results obtained indicate that the Village Dawuhan have started to leave the subsistence nature of the farm yard and started toward the commercial properties. And can be seen that the joy of farm yard in the hamlet Krajan was more commercial than Hamlet Parse.

The existence of the percentage difference between the results of which are sold, consumed and shared in the neighboring hamlet Parse and Krajan caused by:

- For the percentage of the sale results in a greater Hamlet Krajan caused:
  - a. level of education
  - b. Farmer's menyadar yards that can help increase revenue.
  - c. Krajan many farmers in the village who cultivate crops of high economic value.
- For the percentage of results that are consumed in greater Parse Hamlet, this is because farmers Parse Hamlet still has subsistence nature, whereas farmers in hamlet Krajan has begun to shift towards the commercial, so the level of consumption of small.



- For the percentage of shared neighbors, Parse Hamlet was greater than that of Hamlet Krajan, it demonstrates the social nature of the hamlet high Parse. based on the hypothesis can be tested with the t-test statistic is obtained the following results:

Tabel 3. t-test results of the allocation of farm yard in the village Dawuhan, District Situbondo, Situbondo

Description	t-count	t-table (0,05 : 110)
1. Sold-consumed	3,09*	2,617
2. Consumed-for neighbor	8,00*	
3. Sale-given neighbor	3,96*	

Sources: Primary Data Processed 1998

Note: \*) a real difference in the level of confidence 95%

From the results of the t-test is known that there is a difference between the allocation of the consumption-yard neighbors shared, sold, consumed, distributed and sold-neighbors. Thus to the fourth hypothesis which states that the allocation of the farm yard is commercialized, consumed, and distributed neighbors differ statistically acceptable, the real difference is the 95% confidence level (t-count is greater than t-table) causes  $H_0$  rejected and  $H_1$  accepted.

### 3. Cost Efficiency of Farming Yard

Efficiency of production costs can be assessed from the ratio of revenue (gross revenue) the production costs incurred during the production process. To find out how much gross income received from any costs incurred then used R / C ratio with the results shown in Table 4.

Table 4. Cost efficiency of farm yard in the village Dawuhan Year 1997/1998

Description	Hamlet Sample		Village
	Parse	Krajan	
1. Income (Rp)	4.906.900	8.250.400	13.157.300
2. Total Cost (Rp)	996.000	998.100	1.994.100
3. R/C ratio	4,93	8,27	6,60

Sources: Primary Data Processed 1998

From Table 4 it can be seen that the R / C ratio Dawuhan Village, is 6,60. This value indicates that the cost of farm yard in the village Dawuhan efficiently, at a cost of Rp. 1,-farmers get results worth Rp. 6,60,-. If carried out further calculations on each

sample village, it seems that Hamlet Krajan R / C ratio 8,27it is more cost effective than Hamlet Parse with R / C ratio 4,93.

The size of R / C ratio in the District Dawuhan the farm yard is caused by several things, among others: the desire for fast-growing farmers so that farmers planted his garden with various kinds of commodities which have more economic value. Another reason is the limitation of time where there are few farmers research respondents who received the results of the commodity planted.

The cause of the size of the R / C ratio in the Village Dawuhan the farm yard is:

- The level of technical knowledge and skills of farmers in the hamlet Krajan have this level of knowledge and technical skills are higher when compared to farmers in the hamlet of Parse.
- Application of intensification and diversification.
- Implementation inpek (Intensification yard) and extremely helpful support diversification of investment income keluarha, UPGK (Family Nutrition Improvement Effort) and improve the quality and quantity of the environment.
- To Hamlet Parse R / C ratio is still below normal when compared to the R / C ratio in the village and hamlet Krajan for R / C ratio above the normal which indicates that the cost of farm yard in the hamlet Krajan efficient.

## 2. Farm Yard Work Productivity

Farming is a farm yard which is more labor intensive than capital intensive, and therefore use of farm yard more manpower for labor distinguished men, women and children. In the following Table 5 can be seen the productivity of farm labor in the village yard Dawuhan.

Table 5. Productivity of farm yard in the Village District DawuhanSitubondo, Situbondo, year 1997/1998

Description	HamletSampel		Village
	Parse	Krajan	
1. Total Income (Rp)	3.511.400,00	7.270.500,00	10.781.900,00
2. Total Cost of Labor (Rp)	1.728.180,00	1.540.020,00	3.268.200,00
3. Amount of outpouring of Labor (HKP)			
4. Work productivity (Rp/HKP)	576,06	513,34	1.189,40
5. Wage (Rp/HKP)	6.095,55	14.163,13	9.897,10
	3.000,00	3.000,00	3.000,00

Sources: Primary Data Processed 1998

From the above table that shed labor in the farm yard Dawuhan Village is for 1.089,40 Men's Daily Work (HKP) which is divided into 576,06 HKP Parse of Hamlet and 573,34 of Hamlet Krajan. With a total labor costs for Rp. 3.268.100,00 was obtained revenues of Rp. 10.781.900,00. The value of farm labor productivity of the yard is 9.987,10. If we compare this value primarily to large wage / HKP it seems the value is much greater labor productivity, this means that the third hypothesis which states that the labor expended on the farm yard in the village acceptable productive Dawuhan.

The things that cause labor productivity in the hamlet Krajan higher, among other:

- The area of cultivated area, especially the cultivated garden.
- In the hamlet Krajan, pretty good way of cultivation.
- Education and skill in Hamlet Krajan pretty good.

In general, factors that affect the productivity of farmers in the village Dawuhan, including:

- Natural Factors
- Extent of farm yard
- A cultivated type of commodity
- Education and skills
- Menu for daily meals

## **Conclusions and Recommendations**

### **Conclusions**

Based on the research farm yard in the village Dawuhan, Situbondo District, the following conclusions drawn:

1. Average annual income of the farm yard in the village Dawuhan profitable.
2. Allocation of the farm yard level is commercialized, consumed, and distributed differently neighbors.
3. Costs used in the farm yard in the village Dawuhan profitable year.
4. Labor used on farm productive garden.
5. People of low coffee quality can be improved with the implementation of education programs, so farmers are able and have a response to the outreach activities conducted by penyuluh so coffee production and increased income.

6. There are certain factors such as age, education, the implementation of intensive agricultural extension program with the production and income levels have a close enough relationship.
7. With the education program provided by the instructor led farmers to adopt the recommended extension.

### **Recommendations**

Based on the results of research and study local conditions it may be advisable:

1. Development efforts to increase farm income yard yard can still be done by:
  - a) Intensification of the plant that stands still need to be improved. Procurement and distribution of seeds or seedlings of self-reliance. Entrepreneurs a standstill when the crops failed to obtain seeds for the next crop of it by educating farmers to produce their own seed, the problem will be solved so that the management of the yard will continue, it can even spread to its neighbors. The existence of further guidance, the relationship between society and the continuous extension to the principle Lumintu be maintained in the application of cutting edge technology and all the problems that arise can be resolved.
  - b) Diversification of horticulture crops and needs to be improved, corn orchids, plants of economic value which has a low to a higher economic value, such as sapodilla beludri (kenitu) is replaced with a brown manila or avocado fruit is much more expensive price. To improve nutrition may be advisable to plant vegetables that contain nutrients, for example in the form of live fences as beluntas, valve and others. For terrestrial plants such as kale, collards, spinach, marigolds, which sebaian cultivated eggplant. Given the extensive grounds of the limited diversification of the business should be limited to the banya plant crops that have high economic value.
2. Need to increase outreach activities of the farm yard, including the types of plants in accordance with the environmental conditions in the Village Dawuhan and have high economic value, as well as ways of farming techniques so that results obtained can be further improved.
3. The existence of refining the program so that the next extension of production and increasing farmers' income kopo people.
4. The existence of certain factors (age, education, agriculture penyluhan program implementation level) significant influence in increasing production and incomes of coffee farmers in the future people.

5. The existence of a more intensive penyuluhan need to proceed as well as the facilities and other infrastructure closer farmers and gatherings and events in addition to regular weekly meetings. Especially in agricultural issues

## References

- Anonymous. 1979. *Survey reports and the Role of Farmers Group Development in the Framework of intensification in West Java*. Faculty of Agriculture, University of Padjadjaran, Bandung.
- Anonymous. 1991. *UUD 1945, P-4, GBHN, TAP-TAP MPR 1988*. Directorate General of Higher Education Department of Education and Culture.
- Bunador. 1978. *Review of Farming and development efforts*. Field of Education and Training Project Assistance Program Greening and Reforestation, Bogor.
- D. H Penny, MenethGinting. 1984. *PekaranganPetanidanKemiskinan*. GadjahMada University Press, Yogyakarta. Provincial Agriculture Office in Yogyakarta.
- Fadholi Hernanto. 1996. *Science Farming*. Governmental spreader, Jakarta.
- HadiPrayitno, LincohArsyad. 1986. *The village farmers and Poverty*. BPFE, Yogyakarta.
- HadiSutrisno. 1980. *People's views about Coffee Processing*. Training Hall Plantation, Bogor.
- Kaslan, A. Tohir. 1983. *Knowledge of Farming strand of Indonesia*. Literacy Development, Jakarta.
- KemalaSjafril. 1977. *Analysis of factors influencing Increased Rice Production in Bogor Regency*. Graduate School of IP.
- Kertosastro, DharyonodanMudrikYahmadi. 1975. *The role of the Progress Coffee Plantation the people*. GPP, East Java.
- Mardikanto, Totokdan Sri Sutarni. 1982. *PengantarPenyuluhanPertanian*. Hapsara, Jakarta.
- Moh.Nasir. 1988. *Research Methods*. Ghalia, Jakarta.
- Moh.Soetomo H.A. 1996. *Managing Prosperity yard*. New Light Algensindo, Bandung.
- Mubyarto. 1986. *Introduction to Agricultural Economics*. LP3ES, Jakarta.
- Muhadjir, Noeng. 1982. *Adoption of Innovation Leadership for Community Development*. University of GadjahMada University, Yogyakarta.
- Nasir, Mochamad. 1985. *The research method*. YasaGuna, Jakarta.

- Pasaribu, Amudi. 1975. *Introduction to Statistics*. Ghalia, Jakarta.
- Paul Leages. 1961. *Extension Education for Community Development*. In Kamat, M.G. editor. *Extension Education in Community Development*. New Delhi: Directorate of Food and Agriculture.
- Rudi Wibowo. 1979. *Microeconomics theory*. Social Sciences Department of Agricultural Economics, Faculty of Agriculture, University of Jember, Jember.
- Sadyadharma. 1983. *Non Parametric Statistics*. Satya Discourse, Semarang.
- Saturi. 1982. *Need to Change Direction of Food Strategies*. Institute for Research and Application of Economic and Social Affairs, Jakarta.
- Sayogyo. 1981. *Horticulture Production and consumption patterns*. Papers of the National Horticultural Congress in Malang I.
- Siswopurwanto. 1978. *Coffee People, The problem in the trade*. Technical Commission for Plantations, Jakarta.
- Slamet, Margono. 1978. *Lecture Material Planning Extension Program. Department of Educational Development*. Graduate Faculty of IPB, Bogor.
- Soekartawi. 1989. *Basic Principles of Agricultural Economics Theory and Applications*. Eagle Press, New York.
- SoenartiHernanto. 1980. *Family Welfare Education*. Development Studies, London.
- Soenoedji. 1983. *Model Pattern yard*. Papers Technology Transfer Conference, Graduate IPB, Bogor.
- Susanto, Astrid S. 1977. *Communication in Theory and Practice*. Bina copyright, Bandung.
- Wiriaatmadja, Soekandar. 1983. *Principles of Agricultural Extension*. Yasaguna, Jakarta.