Analysis Of Farmers Income Level White Wood Oil (Oil Cajuput)

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Abstract: This study aims to determine the level of farmers' income eucalyptus oil to see the variables of the area and the level of education. The research was conducted in the District Waelata Buru in Maluku Province. The choice of location research using purposive. According to Antara (2009) it is a technique of purposive Determining the location of the study deliberately based on Certain considerations. The research was conducted within the scope of the District Waelata Buru in Maluku Province. Farmers who make-respondents are farmers who work as eucalyptus oil refiners and as private land ownership. This study analyzes the level of farmers' income eucalyptus oil.

Keywords: Revenue, Kayu Putih, Buru, Farmer, Maluku

1 INTRODUCTION

Eucalyptus plantation area in Indonesia is estimated to 248 756 hectares. Eucalyptus plants can grow well, including the less fertile land for food crops. Eucalyptus oil is produced from the essential oil of eucalyptus plants (Melaleuca cajuputi), which grow naturally in the Maluku islands and northern Australia. This type widespread in Indonesia, especially on the island of Maluku and Java by using leaves and branches to traditional distilled by the public and commercially into the essential oil of high economic value. This plant has a long biological, fast-growing, can grow well in soil that is well-drained and not with high salinity and acid tolerant and open place[1]. Eucalyptus leaves contain chemical compounds[2]. Melaleuca cajuputi known as White Wood area is one of the plants that have a significant role in the essential oil industry. Type can be grown on marginal lands Generally roommates are around the area inhabited by people with poor socio-economic conditions. White Wood Plant is one of the Considerable potentials for land rehabilitation, both from the ecological and economical aspects. There is a double advantage gained in the development of eucalyptus crops on degraded land, among others for the success of land conservation and utilization of marginal land into productive land and provide employment opportunities so that implications for increasing the income of farmers.

Maluku has the potential for very large eucalyptus trees that grow in areas Several items, namely; Buru ± 120,000 ha, West Seram regency ± 50,000 ha, West Southeast Maluku District ± 20,000 ha and 60,000 ha of Central Maluku District (Central Bureau of Statistics, 2015). Eucalyptus planted area in Indonesia has Reached more than 248 756 hectares, mostly in the area of Perum Perhutani Reached with an annual output of 500 tons. This figure is estimated as half of the total worldwide production. Maluku Islands Reached 21.98 tons annual production in the year of 2014 and Increased to 26.65 tons in 2015 (CBS, 2016) with the raw material of natural stands. Eucalyptus oil needs in the country until the estimated deficit so that the pharmaceutical industry is required complementary products such as eucalyptus oil imported from China in the amount not less[3]. Viewed not yet fulfilled rooms eucalyptus oil production need, so there's more opportunity to increase the production of eucalyptus oil in Indonesia with more intensive community involvement. Eucalyptus oil in the international trade known as cajuput oil. The main market for essential oils cajuput oil covers the United States, Japan, Singapore, France, and the Netherlands[4]. Viewed eucalyptus oil production the which do not meet the need, so there's more opportunity to increase the production of eucalyptus oil in Indonesia with more intensive community involvement[5]. Eucalyptus oil in the international trade known as cajuput oil. The main market for essential oils cajuput oil covers the United States, Japan, Singapore, France, and the Netherlands[6]. Viewed eucalyptus oil production the which do not meet the need, so there's more opportunity to increase the production of eucalyptus oil in Indonesia with more intensive community involvement[7]. Eucalyptus oil in the international trade known as cajuput oil. The main market for oil cajuput essential oils include the United States, Japan, Singapore, France, and the Netherlands[8]. In difficult, economic conditions, as now, Efforts to improve the productivity of eucalyptus oil Becomes even more important, Because The needs of eucalyptus oil in the country can not be met by supplies from refineries in Java and Maluku Islands. Essential oils (White Wood Oil) has a strategic role as an export commodity, a contributor to the local government budget (APBD) and employment in the area. It shows that eucalyptus oil is an integral part of the corporate world have accrued, potential and strategic role in Realizing the goal of economic development Buru[9]. Eucalyptus oil agro-industry as one of the forms of small household industries that manage eucalyptus leaves into eucalyptus oil has a role in the Increased added value and increase of revenues and create...
employment. Therefore, until now, Agroindustry eucalyptus oil is growing rapidly in several regions in Indonesia, one of Buru. With the improved market opportunities and expanding, not all companies are able to deal with eucalyptus oil. When viewed from the aspect of potential market demand and production aspects, should commodity eucalyptus oil can be used as a resource of accelerated growth in agriculture/ forestry, and simultaneously solve two fundamental problems faced by the Indonesian people today is the problem of unemployment and poverty, especially in Buru[10]. As a contributor to the budget and labour, the role of eucalyptus oil is expected to be the welfare of the communities in the region, especially Buru and certainly improve the national economy in the future. Thus Spake the non-timber forest products, oil of eucalyptus have a strategic opportunity to increase of incomes the which of course has implications for economic development[11]. The income level of farmers, in general, is influenced by several components: the amount of production, the selling price and the costs incurred farmer on his farm. This means that the government's attention to the agricultural sector is an effort to improve living standards of most of the population classified as poor[12].

2 LITERATURE REVIEW
Eucalyptus oil distilled from the fresh leaves and Twigs (terminal branchlet) some kind of Melaleuca, is a kind of shrubs and trees that grow abundantly in the islands of the East Indies (Indonesia), Malay Peninsula, and Several other places. Identity of the right species that produce commercial eucalyptus oil still unclear in a few years, and some species of the which are leucadendrom Linn Melaleuca, Melaleuca cajuputi Roxb, and Melaleuca viridiflora Gartn (Guenther, 2003). Plant eucalyptus oil (Melaleuca leucadendrom Linn) grows wild in temperate areas of heat[13]. There are deliberately cultivated as a medicinal plant. Elliptic leaf shape, like the tip of the spear. The bark is white, box-shaped fruit, delicate seeds such as chaff[14]. The main deployment White tree is in Central Java and East Java, Maluku, South Kalimantan, Irian Jaya and Bali. In Java, this tree is found in swamp forests along the coast of Karawang and Indramayu and in Bawean. This tree is found in many Buru island except the south rocky. This tree can grow, especially in nutrient-poor soil, dry and overgrown reeds. Reviews These plants can be grown in lowland and highland (mountain) with the condition of critical land and water temperatures are hot. Plants growing White Wood mountainous areas usually have sineol levels in leaves and produce more oil than the eucalyptus plants located in low-lying areas and Swampy[15]. Reviews These plants will put out leaves after the fires were caused by high temperatures. Within a year harvesting, eucalyptus leaves twice for the continuity of production. Masi young or too old leaves will produce a yield slightly with low-quality[16]. Dump the leaves before distilled should be made in the form of shelves or spread the dry leaves on the floor with a height of approximately 20 cm, with room temperature conditions and limited circulation. This is done to Prevent fermentation of the leaves the which can reduce levels of seneol in the leaves. Morphologically According to the Core (2005) in Susanto (2003)[17], eucalyptus leaves can be Described as follows: The leaves are an important part of the plant. Plant eucalyptus is a species of plant kormus Because real body shows the differentiation in three key areas items, namely the root (radix), stem (caulis), and leaf (Folium). The leaves of eucalyptus leaves are said to be incomplete as it only consists of two parts, the leaf stalks (petiolo) and the leaf blade (lamina).

a. Leaf stalks (Petiolum)
Part of leaf stalk that supports the leaf blade leaf and served to put the leaf blade at a position such that it can get as much sunlight as possible. Leaf stalk small round and there are hairs (hairs) on the smooth surface. Petiole long and varied.

b. Helai leaf (Lamina)
A plant eucalyptus has a lot of leaves. Eucalyptus leaf blade pale green on the young leaves and dark green leaves on older. Because they Contain the colour green (chlorophyll). The leaves have a bone leaves in varying amounts between 3-5 pieces, leaf edges flat (integer), and the leaf surface covered by fine hairs, especially on the young leaves[18].

Eucalyptus leaves wide size range between 0.66 cm - 4:30 cm and a length of 5:40 cm - 10:15 cm. The leaves grow on the branches of plants alternately, at the petiole there is more than one leaf. This type includes the type of compound leaves. Eucalyptus leaves contain a fluid called seneol. If the leaves are crushed, the liquid will remove the smell (aroma) are typical. This fluid that is later processed into oil of eucalyptus. Besides seneol, eucalyptus leaves Also Contain other components, such as terpineol and pinene. Eucalyptus plants do not require specific growing requirements. From a height of between 5-450 m above sea level, it is evident that the plant this one has a pretty good tolerance to develop. Eucalyptus trees that existed at the moment of planting the results of the Forestry Division. Eucalyptus plant is propagated through seeds that have been sown beforehand[19]. The most valuable part of the plant eucalyptus for the production of essential oils is the leaves. Eucalyptus leaves will begin to bias trimmed its oil distilled or collected after the age of five years. Onwards to do trimming every six months until the plant is 30 years. In some areas of lush, plant eucalyptus leaves has been biased levied at the age of two years. Each eucalyptus tree that has been aged five years or more can produce about 50-100 kg of leaf following Twigs.

3 METHODS
The choice of location is based on the consideration of the study (1) the District Waelata is one District of eucalyptus oil production centers; (2) the commodity is cultivated eucalyptus, Because it is a local commodity; and (3) has not been done research regarding the level of farmers' income eucalyptus oil refiners. The choice of location is quite representative and easier to Obtain the data and information to support research, so as to illustrate Agri eucalyptus oil in District Waelata. The population in this study were farmers eucalyptus oil refiners in the District of Buru Waelata numbered 44 people. The study used a survey method. The research method is survey research of data was collected from a sample on the population to represent the entire population[20]. According to Slovin[21] to describe the 44 respondents farmers eucalyptus oil refiners, sampling using probabilities proportional to size with an error rate of 10%.Methods of Data Analysis using cost analysis, analysis of farmers' income, and analysis of R / C ratio. Total costs are variable costs are summed at a fixed cost.

TC = TFC + TVC

information:
TC = Total Cost / Cost Total (USD)
TFC = Total Fixed Cost / Total Fixed Cost (Rp)
TVC = Total Variable Cost / Total Costs Variable (USD)

An analysis of revenue is total revenue minus total expenses. Multiplied by the total revenue is the price of commodity production. Total expenditure is the overall total costs incurred by farmers.

4 RESULT

Residents of four villages consisted of natives of the island of hunting, searching eyes Waelata Buru people in the district of the North East apart as eucalyptus oil refineries, in general farming, fishing, mining, carpentry and traders. Agricultural products from the North East sub-district Buru Generally eucalyptus oil, chocolate coconut and cashew nuts. In the Subdistrict of East North Buru Buru regency in particular and in general, eucalyptus and wild plants grow naturally, in groups, sometimes - sometimes spread and rarely evenly. Plants are grown in the lowlands, plains, plateaus, swamps and mountains are heterogeneous eucalyptus forests. Small industries eucalyptus oil refinery is one of the small industries in the sub Waelata has done for generations by the people residing In These districts. Eucalyptus oil refining process is usually done with two cooking systems. that is

- **cooking system**
  
  the cooking system of labour used is composed of Several families, where they live in forests or village white wood will be processed eucalyptus leaves to leaf out in the process. Each family working on their own and how to cook set in rotation. Each family taking or sort the leaves and collect them in a place that has been prepared (balumbur) the which is sufficient for production processes.
  
- **A bulk cooking system consisting of wholesale death and wholesale life**
  
  The bulk cooking system is cooked According to the contract labour contract. Total Consist of 6-12 people. Of the 12 workers, there are two people who have a role or duties as refiners (masnail) and sequencer (captain).
  
  The task of refiners is
  
  1) Filling materials eucalyptus leaves into a container boiler; 2) cooking or Distill; 3) Keep the leaves that are refined; 4) Maintain a flame; 5) Remove the leaves of distillates. While the task sequencer is 1) Sorts raw material eucalyptus leaves on the land; 2) Finding and transporting wood for fuel, and 3) Transporting the production of eucalyptus oil in the form of home. Cooking wholesale death is processing eucalyptus oil-based on raw materials of eucalyptus leaves are on land (village) of eucalyptus till the leaves are habits, sharing the captain handed eucalyptus oil to the owner hamlet (land) in accordance with the provisions that have been Agreed that 3: 2 and the overall distillate Obtained, 3 parts for the equipment owner at the same village, and the two parts of the workforce. The system would have positive and negative sides, plus the owner of the land (village) gets white wood in accordance with the desired result. While the downside when the land eucalyptus leaves that are not yet old enough to be cooked, then stopped Because The distillation process Often waits quite old leaves after it had Carried out the distillery back. Cooking wholesale Often life is Also called cooking vessel, means adapted to route the cruise ship Pelni Surabaya Ambon and Namlea duration is 15 days every 15 days 4 cans worker must submit, to the landowner eucalyptus roommates per tin weight is 70 kg.

Equipment used in the refining process of eucalyptus oil is 1. Frying Pan. 2. Boiler leaf (continued) 3. Cover the kettle (bam), 4. Closing multiple (bam double), 5. Head boilers, cooking 6. Pipe ( binoculars), 7. Boiler cooling (cooling bath), 8. Boiler reservoir (tank), 9. Bottle oil separator (minci), 10. The water-conducting pipes (pandasan) Leaf kettle, kettle and the kettle cooling the container and wood made, the which outweigh kettle kettle kettle leaves refrigeration and container. While the kettle is greater than the kettle cooling container. Usually, the wood used is wood Because of The wood miranti resistant and durable. While increments - increments are united to form slider with rattan or iron wire as well as a gap - the gap kettle is closed or corked with kapurnas leaf midrib. Based on observations in the field, eucalyptus oil refining process takes place every six months in a year, in other words, there are twice as eucalyptus oil refining process is done. The daily production process takes place as much as one to two times and the average - average yield or output as much as 4-5 litres for one production. Inputs used in the refining process consists of raw materials, labour, technology (equipment) and fuel. The raw materials required in the refining process is eucalyptus leaves, eucalyptus leaves roommates are not DibeI by most small industries for eucalyptus land is a land inheritance parents. But there are also some who contracted land. Price eucalyptus leaves vary between Rp 500 - Rp 1000 / kgFor business groups that do not have land or hamlet eucalyptus. But there are also some who contracted land with 1 year of Rp 3,000,000 - Rp 5,000,000. Average - Average number of input raw materials Necessary eucalyptus leaves to the refining process as much as 340.91 kg per year, the labour employed is the labour of a family environment, with probable cause, stated that before everyone else enjoyed the better revenues families who first enjoyed The equipment used is uniform and traditional as well as weaknesses. The building is used as a distillery is a traditional building, the building were no walls, posts, sago leaf midrib (gaba gaba-), thatching of sago leaves. The fuel used is wood, there are many eucalypti. Such as meranti wood, cherry wood, mango trees and other timber. For Reviews those who do not have a village or of course they buy timberland. Further to process eucalyptus leaves 340.19 kg da small manufacturing businesses eucalyptus oil refinery is one of the small industries in the sub Waelata has done for generations by people who are In These districts. Eucalyptus oil refining process is usually done with two cooking systems. that is;

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2) Fill out the raw material into a container of eucalyptus leaves the boiler; 2) Cooking or distilling; 3) Keep the leaves that are refined; 4) Maintain a flame; 5) Remove the leaves of distillates. While the task sequencer is 1) Sorts raw material eucalyptus leaves on the land; 2) Finding and transporting wood for fuel, and 3) Transporting the production of eucalyptus oil in the form of home. Cooking wholesale death is processing eucalyptus oil-based on raw materials of eucalyptus leaves are on land (village) of eucalyptus till the leaves are habits, sharing the captain handed eucalyptus oil to the owner hamlet (land) in accordance with the provisions that have been Agreed that 3: 2 and the overall distillate Obtained, 3 parts for the equipment owner at the same village, and the two parts of the workforce. The system would have positive and negative sides, plus the owner of the land (village) gets white wood in accordance with the desired result. While the downside when the land eucalyptus leaves that are not yet old enough to be cooked, then stopped Because The distillation process Often waits for quite old leaves after it had Carried out the distillery back. Cooking wholesale Often life is Also called cooking vessel, means adapted to route the cruise ship Pelni Surabaya Ambon and Namlea duration are 15 days every 15 days 4 cans worker must submit, to the landowner eucalyptus roommates per tin weight is 70 kg. The results (output) in the form of eucalyptus oil Obtained on average in 31 respondents is as much as 3.34848 litres per year with a different price - there is a difference of Rp 120,000, Rp 150,000, Rp 170,000 and Rp 180,000 per litre. Thus Spake the sum of the average value was IDR 151 515 per year. In the production process of a company must not be separated from the costs, both variable costs and fixed costs. Variable costs such as raw materials, labour, and fuel (wood). While the fixed costs in the form of land lease equipment and land tax. Raw material costs eucalyptus leaves an average of IDR 806 000 per 31 respondents, labour costs Rp 135 758 per day. While the fixed costs such as equipment, land rent and land taxes.

5 DISCUSSION

Distribution of respondents from the table above shows that the most dominant age of the respondents are aged 30-39 years with the percentage as much as 41.9% Average - Average many who work only refiners and the many experiences that the make them not want to sit at home, whereas the requirement that they must satisfy very much[22]. Then the age group 50 years and over with a percentage figure of 22.6%. Furthermore, the age group of 40-49 years with a percentage figure of 22.6%. Most of at that age prefer another job that is not too burdensome even though the oil tree wood that is their own. While the Lowest age group is aged 20-29 years with a percentage rate of 12.12%. Age so many who no longer wanted to distill but they chose an alternative to being a temporary employee at the agency - the agency in the county hunting Because hunting district itself is a blooming hunting district. And They also prefer mined in the mountain bald (Gb). Cost of production is the accumulation of all costs required in the production process, which includes variable costs and fixed costs. Variable costs are costs that constantly change with, labour, raw materials and fuel. While the cost of fixed costs roommates amount does not change is the cost of equipment and buildings, land lease and land tax. Please note that for the value of income of eucalyptus distillery is summed up by hectarage owned by the distiller. For the area of 0.1 ha area of fixed costs incurred as much as Rp 461 105 the number of respondents 2. Farmers with a total area of 0.3 ha with a flat fee of IDR 46578.7 by the number of respondent 5 people, Farmers respondents with an area of 0.15 hectares of fixed costs amounted to IDR 54258.2 by the number of respondents to 6 people. And the latter for respondents with a land area of 0.25 ha fixed costs IDR 5907,389 with the number of respondents 18 people. Variable costs incurred by refiners eucalyptus, for a total area of 0.1 ha at Rp 1,195 million from the number of respondents 2. For the area of 0.3 ha, extensive variable costs incurred as much as the US $ 650,000 with the number of respondents to 5 people. 0.15 ha for the area with the number of respondents 6 variable costs incurred IDR 833,333.3. And then the variable costs incurred by refiners eucalyptus with a land area of 0.25 ha variable costs IDR 768,055.6. Keep in mind that the extent of the area which was written by the author are not refiners eucalyptus overall land area, but the land area for the first time the production (one cook) eucalyptus oil. Because in a land of the dense amount of white wood or eucalyptus leaves vary there are crowded and there is no[23]. If a solid white wood leaf land the land area is not so great for one production. As for the land that is rarely leaving or not densely populated area would be great for one production (one cook). Wages are paid based on the results obtained[24]. Its work system in use by refiners eucalyptus namely teamwork system contained 2- 8 refiners and divided for each job, the two tasks to cook the leaves and 6 0rang to take a leaf or a massage. Results Obtained from the distillation process of eucalyptus will be shared equally in the group. Wages are paid based on the results obtained[25]. Work system in use by refiners eucalyptus namely teamwork system contained 2- 8 refiners and divided for each job, the two tasks to cook the leaves and 6 0rang to take a leaf or a massage. Results Obtained from the distillation process of eucalyptus will be shared equally in the group. Wages are paid based on the results obtained. Its work system in use by refiners eucalyptus namely teamwork system contained 2- 8 refiners and divided for each job, the two tasks to cook the leaves and 6 0rang to take a leaf or a massage. Results Obtained from the distillation process of eucalyptus will be shared equally in the group.

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1,185,443.5 with an average of IDR 296,360.9. Respondents' reception is affected by the production. Respondents will add additional production results when each will increase the number of acceptances of the results to be obtained. Recipients revenue is revenue from the sale of its output[28]. Acceptance is the number of total production Multiplied by the price or cost of production or the number of input price Multiplied[29]. Acceptance is the total income from farming gained during the period is calculated from the sales of (US). According Mubyarto revenue is the result of farming, the gross proceeds (gross) with production being valued in money. Then reduced with production and marketing costs that obtained net farm income.

6 CONCLUSION

Total revenues respondents from four areal extents of eucalyptus in the district Waelata IDR 2,484,277.8 with an average of US $ 621,069.5 and the total revenue of Rp 1,185,443.5 with an average of IDR 296,360.8. Total overall total cost areal extents of eucalyptus in District Waelata is IDR 3,553,590.1 with an average of IDR 888,397.6. The total average of four levels of education costs Rp 3,675,639.5 with an average of IDR 918,908.8. Total revenues of the four levels of education of Rp 1,518,277.5 with is Rp 14,598,726. And the total revenue received from four areal extents of eucalyptus in District Waelata is IDR 470,253.2 with an average of IDR 117,563.3. Revenues are acceptable respondents in District Waelata above average so that respondents in getting eucalyptus oil refining business experience advantage.

7 REFERENCES


