

The Role of Bantimurung Ecotourism for Community's Livelihood in Maros, Province of South Sulawesi, Indonesia

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ABSTRACT— *Forestry development has significantly contributed to the livelihoods of communities. The principle of sustainable forest management should be used in exploiting the potential of forest resources to be utilized for the welfare of the community. This research conducted in the Subdistrict Bantimurung, Maros from March to July 2014. The study aims to analyze the role of Bantimurung ecotourism on the level of community's livelihood in Maros. Collecting data using a survey methods by selecting respondents who move to make a living in and outside of the ecotourism area with the 35 persons. Bantimurung ecotourism provides real employment for women with the number of workers are 74.29%. The average income from the ecotourism area for six months is 11,746,444 IDR or 1,957,740 IDR per month. The highest income obtained from selling souvenirs are 3,649,333 IDR per month. The type of souvenirs sold are glass butterfly frames with various types and sizes, keychains, broaches, bracelets, necklaces, T-shirts, and other. The average income of the respondents from outside the ecotourism area of 7,204,125 IDR or average 1,200,687 IDR/month. The highest income derived from trade jobs that 2,050,000 IDR/month. Types of merchandise sold are agricultural products such as rice, vegetables, fruits and other. Total household income per six months is 18,950,569 IDR or 3,158,428 IDR/month. The level of contribution to the income from the ecotourism area is 61.98% of the total income. Thus the existence of Bantimurung ecotourism have a positive role on the level of livelihood to the community.*

Keywords -- Role of ecotourism, livelihood at community's, type of work, contribution income.

1. INTRODUCTION

Forestry development has significantly contributed to the livelihood of those who live in and around forests. The holistic approach, as ecosystems unity, is used in the exploitation of forest resources for society's prosperity through the sustainable forest management principle. This management principle must be socially, economically and ecologically sustainable. However, society's dependence on forests harms the natural resources sustainability. Getting greater, the volume of activities in forests by society affects the environmental balance and resources sustainability. Therefore, forests should be managed constantly for both the society's prosperity and their sustainability, from one generation to another, by maintaining forest functions their protective, productive and conservative functions.

A national park, which is a conservation forest, is such a priceless asset for Indonesia. The Bantimurung Bulusaraung National Park (*Babul NP*) in the province of South Sulawesi has some uniqueness and a lot of attractive ecosystem potential in its 43,750-ha wide area, consisting of a natural preserve, a natural tourism park, a preserved forest and a production forest. This zone was officially designated to be a national park on October 18th, 2004. It is the second largest preserve zone after China's. It has various kinds of flora and fauna; 383 flora species, 25 kinds of important forest vegetation, 7 kinds of mammal, 103 kinds of butterfly and 8 kinds of reptile amphibian. Moreover, this area is the resource of water and mining mineral and has a popular tourism object attracting many people (Amran, 2007).

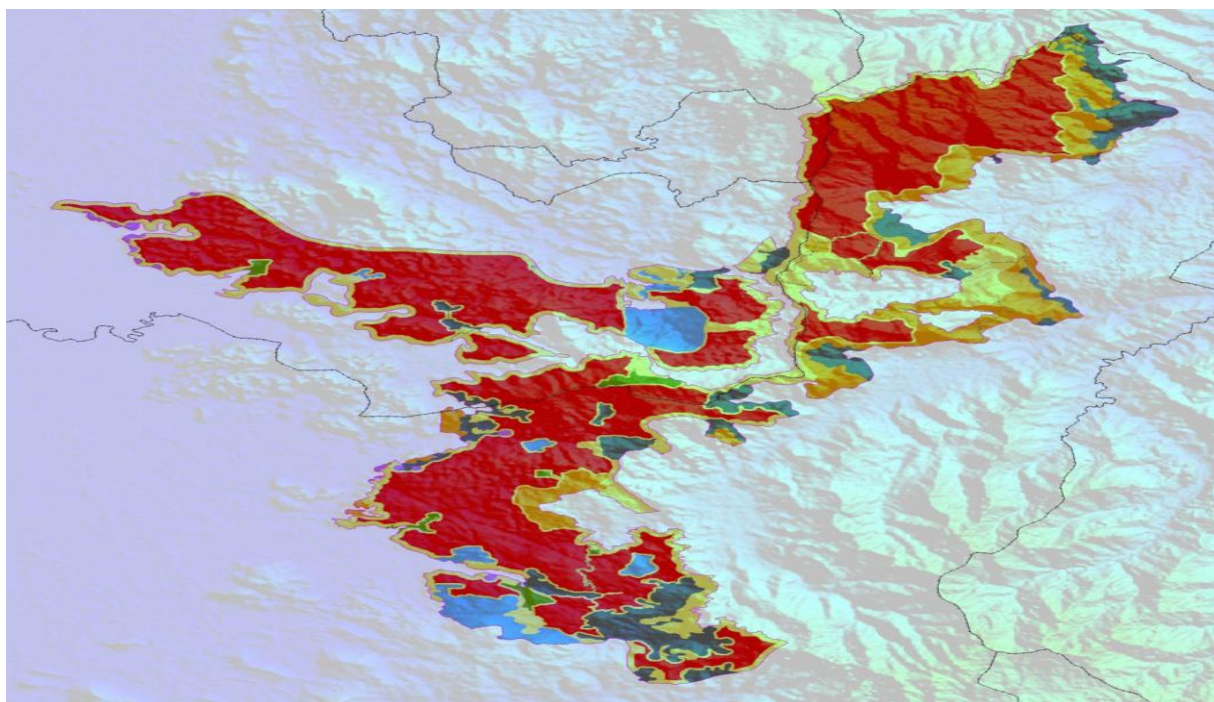


Figure 1 : Map of the National Park Bantimurung Bulusaraung

In the Bantimurung Bulusaraung National Park, especially the utilization zone there is area that very attractive nature of domestic and international community. This area is located in the valley of steep limestone hills with lush tropical vegetation so that it becomes an ideal habitat of various species of butterflies, birds, and insects are scarce besides the waterfall is very beautiful. This tourist attraction is known as the best tourist attraction in the province of South Sulawesi Indonesia, and is a mainstay attractions Maros City. In this national park is an ecotourism which attracts domestic and international tourists. Located in a steep lime hill valley, this spot has fertile tropical vegetation and is an ideal habitat for various rare species of butterfly, bird and insect. This place also has a wonderful waterfall and has been considered the one of best tourism object in the province, especially in the District Maros. During the period of 2009 – 2013, it was visited by 2,780,878 domestic tourists and 15,533 international tourists (Bantimurung Resort Office, 2014).

Bantimurung is the belle of South Sulawesi nature. As the flagship attraction, Bantimurung thrusting a variety of interesting tourist attractions. Waterfall flowing, the river flow with rocky ledges flanked by steep cliffs pharmaceuticals, as well as to treat the air of coolness that invites many visitors. Bantimurung even to foreign countries known as "*The Kingdom of Butterfly*". A nickname given by Alfred Russel Wallace (1857) because of the diversity and abundance of butterflies is precisely what underlies National Park (NP) Bantimurung Bulusaraung develop breeding butterflies that brought in the concept of Butterfly Park. In addition to the conservation of species, Butterfly Park serves as a vehicle for conservation education for the general public.

Since the 1970s the Bantimurung area has been known as a commercial source of butterflies. Collections of butterflies are supplied both to local Indonesian markets as well as international markets as souvenirs in the form of individual specimens, butterfly frames, key chains, and other accessories. In 2010 about 600,000 tourists (mainly domestic visitors) visited the site. Over use and over exploitation of the local resource is now seen as a problem. In response, the management of the national park has moved to change the purpose of the butterfly conservatory from extraction and exploitation into preservation of the natural ecosystem as a tourist attraction. However, local informal trade in butterflies still occurs. Sellers still catch butterflies in the park and sell them to local dealers rather than producing them from breeding or farming production. As an attempt to help preserve the butterflies, a wide variety were listed as a priority in the insect group of the official Indonesian Government's National Species Conservation Strategic Directions 2008–2018 (web; Bantimurung Ecotourism, 2015).

Bantimurung Tourism Region is located in the administrative territory of the Bantimurung Maros Regency. In the management of the national park, this area is a work area Resort Bantimurung - Leangleang. Use Zone covers an area of 48.60 hectares. Geographically, this area is located between 119.678436° to 119.691872° East longitude and between 5.008744 to 5.021357° south latitude. Objects tourist destination nature contained in the Tourism Region Bantimurung is Bantimurung Waterfall, Cave of Dreams, Batu Caves, Lake Kassi Kebo, Telaga Toakala, Wellspring Angel (Jamala), and breeding butterflies. As for the nature tourism activities that can be done in this area include water tourism, banisters caves, wildlife observation, camping, hill walking and rock climbing.

1.1. The Problem Formulation

The research was to focus on “how the Bantimurung Ecotourism plays its roles toward the community’s livelihood in the District of Maros.”

1.2. The Objectives

The research aimed to analyze the roles of Bantimurung Ecotourism toward the community’s livelihood in the District of Maros, particularly;

1. To identify the community’s occupations in and around the tourism object.
2. To identify the community’s income in and around the tourism object.
3. To find out the tourism object contribution level to the community’s income in Maros district.

2. METHODOLOGY

The research was conducted in the area of Bantimurung ecotourism in Maros Regency from March to July 2014. The choice of location is based on considerations for nature tourism is one of the favorite tourist attractions in South Sulawesi and the utilization zone in the national park Bantimurung Bulusaraung . Collecting data using the method of survey respondents with a purposive sampling method by selecting respondents who move to make a living in the area of nature Bantimurung and outside the tourist area . The data was collected through the survey method, choosing the respondents whose livelihoods are in and around the area. Each of the 35 respondents was a unit of household, chosen from various jobs.

3. RESULT AND DISCUSSION

3.1 Respondents Identity

The respondents in the area are 9 (25.71%) men and 26 (74.29%) women. Most of them, 32 (91.43%) respondents, are at productive age (15 – 60). 15 (42.86%) respondents are elementary school graduates. Most of them, 17 (48.57%) respondents, have to earn money for approximately 4 family members.

3.2 Jobs Identification

The respondents are food/drink sellers, food stall keepers, corn sellers, boiled nut sellers, souvenir sellers, butterfly hunters, tourist guides, parkers, photographers and cottage keepers. Those whose livelihoods are outside the area are farmers (rice, rice and corn, corn, vegetable, as well as corn and peanuts), motorcycle mechanics, daily needs stall keepers, public transportation drivers, employees, sellers and retired civil servants.

3.2.1 Type of Jobs in the Ecotourism Area

The distribution of types of respondent jobs in the area of *Bantimurung* ecotourism available in Table 1.

Table 1: Type of Respondents Jobs In Bantimurung Ecotourism Area in Maros District

No.	Type of work	Number (person)	Percentage (%)
1	Snack / drinks Seller	4	11.43
2	Boiled Corn and/or Beans Sellers	5	14.29
3	Restaurant	7	20.00
4	Souvenir Sellers	9	25.72
5	Butterfly Catcher	2	5.71
6	Tourist guide	2	5.71
7	Plumbers Parking	2	5.71
8	Photographer	2	5.71
9	Cottage Keeper	2	5.71
Total		35	100,00

The table shows that the biggest numbers belong to souvenir sellers (9 persons / 25.72%) and restaurant (7 persons / 20.00%).

3.2.2 Jobs Outside the Ecotourism Area

Those who conduct their activities inside the *Bantimurung* Ecotourism have different livelihoods outside. Most of them are farmers (rice; rice and corn; rice, corn and vegetable; corn and peanut), motorcycle mechanics, daily needs stall keepers, public transportation drivers, employees, merchants and retired civil servants. As farmers, they can survive by

cultivating certain commodities based on their capacity. The list of jobs in the *Bantimurung* Subdistrict is available in Table 2.

Table 2: Type of Respondents' Jobs *Bantimurung* Ecotourism Area, District of Maros

No.	Type of work	Amount (person)	Percentage (%)
1	Farmer	15	42.86
2	Motorcycle Service	1	2.86
3	Mixed Food Seller	4	11.42
4	Public Transport Driver	3	8.57
5	Employee	3	8.57
6	Merchant	7	20.00
7	Retired Civil Servant	1	2.86
8	Builder	1	2.86
Total		35	100.00

Most of the respondents 15 (42.86%) are farmers (ie. types of cultivated plants: rice; rice and maize; rice, corn, vegetables; corn and beans). 8 persons (53.00%) of them grow rice, 3 persons (20.00%) grow rice and corn, 2 persons (13.33%) grow spinach, and 2 persons (13.33%) grow corn and peanut.

3.3 Income

3.3.1 Income The Ecotourism Area

Income list from the *Bantimurung* ecotourism area received respondents by type of work performed are presented in Table 3.

Table 3: Respondents' Income (6 Months) in the Ecotourism Area

No.	Type of Work	Income (IDR)	Percentage (%)
1	Mixed Food / Beverage Seller	12,877,000	12.18
2	Restaurant	19,968,000	18.89
3	Corn and/or Beans Boiled Seller	9,556,000	9.04
4	Souvenir Seller	21,896,000	20.71
5	Butterfly Catcher	12,896,000	12.20
6	Tourist Guide	5,556,000	5.26
7	Plumbers Parker	10,873,000	10.28
8	Photographer	3,600,000	3.41
9	Cottage Keeper	8,496,000	8.04
Total		105,718,000	100.00
Average		11,746,444	

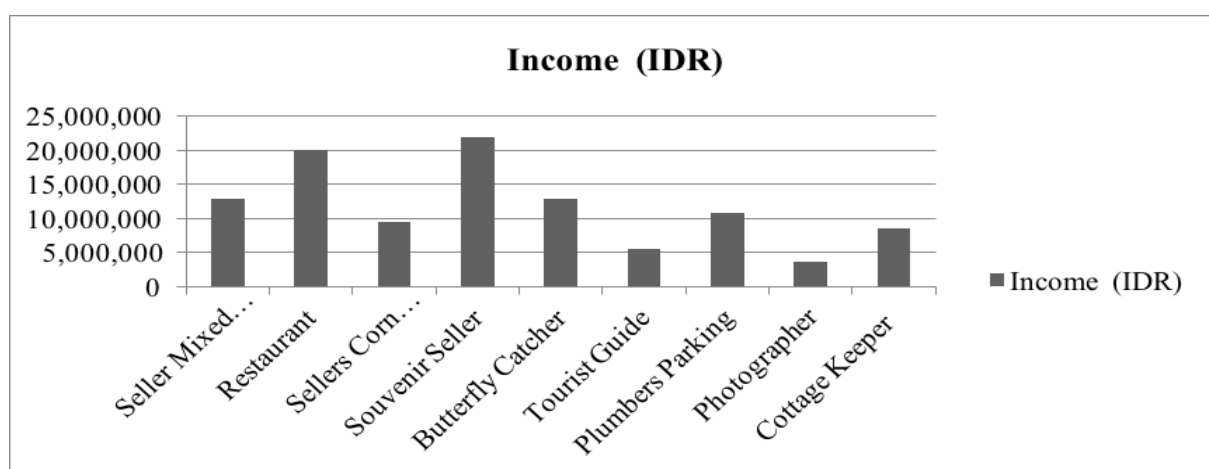


Figure 2: Income of Respondents from Bantimurung Ecotourism

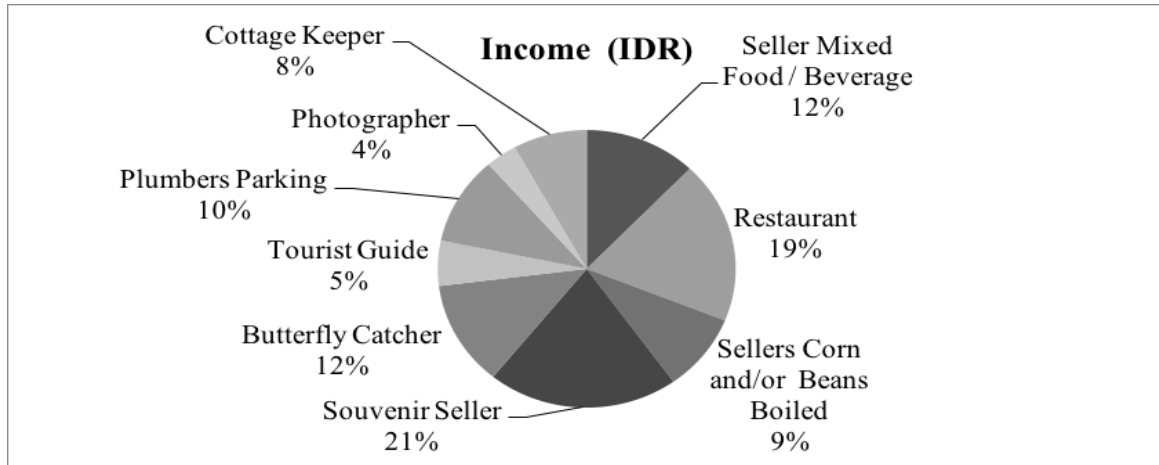


Figure 3: Percentage of Respondents Income From Bantimurung Ecotourism

Table 3, Figure 2 and 3, shows the respondents average income in the Bantimurung ecotourism area in 6 months which is IDR 11,746,444 or IDR 1,957,740 per month. The highest income comes from the souvenir sellers in the amount IDR 3,649,333 per month (21% of total income). Type souvenirs available are butterflies glass frame with various types and sizes, keychains, broaches, bracelets, necklaces, T-shirts, and others.

3.3.2 Income From Outside the Ecotourism Area

The income list from outside the ecotourism area is available in Table 4.

Table 4: Respondents Income (for 6 months) From Outside Bantimurung Ecotourism Area, Maros.

No.	Type of work	Income (IDR)	Percentage (%)
1	Farmer	4,400,000	7.63
2	Motorcycle Repair	5,300,000	9.20
3	Shops Mix	6,383,000	11.07
4	Public Transport driver	4,800,000	8.33
5	Employees	9,750,000	16.92
6	Traders	12,300,000	21.34
7	Retired Civil Servant	9,000,000	15.62
8	Building Workers	5,700,000	9.89
Total		57,633,000	100.00
Average		7,204,125	

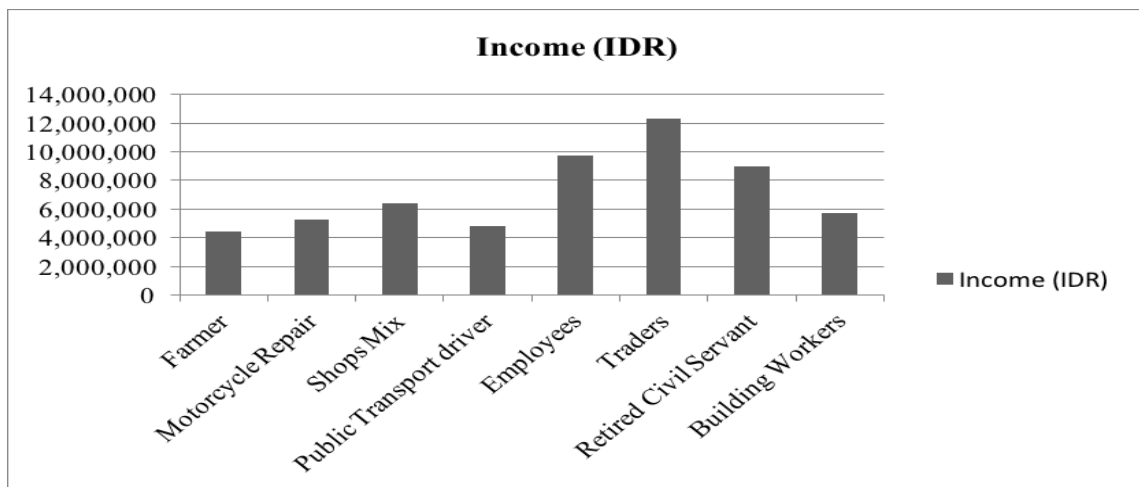


Figure 4: Respondents Income From Outside The Bantimurung Ecotourism

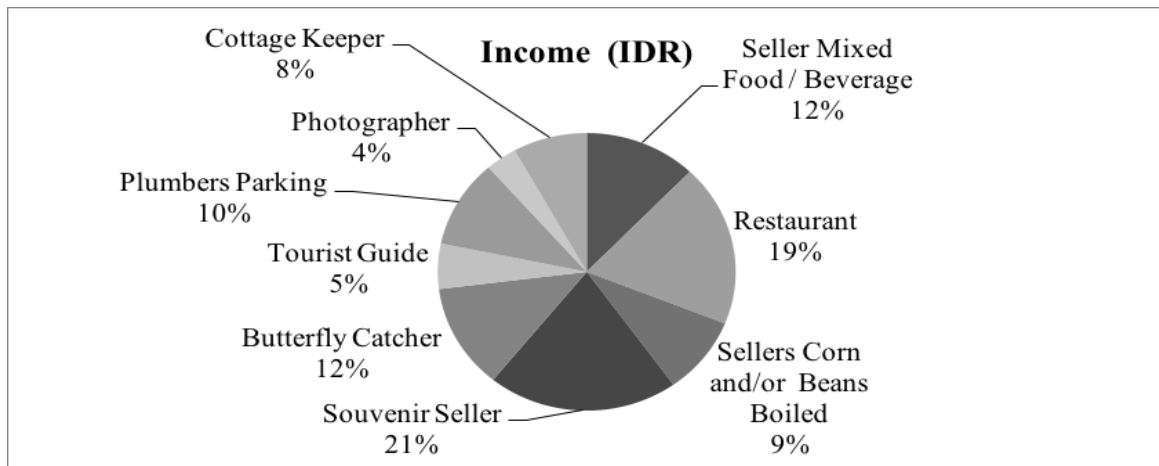


Figure 5: Percentage of Respondents Income From Outside The Bantimurung Ecotourism

Table 4 and Figure 4 and 5, shows the average income of the respondents outside of the Bantimurung ecotourism area for 6 months at an average 7,204,125 IDR or 1,200,687 IDR per month. The highest income derived from employment trades is 2,050,000 IDR per month (21% of total income). Type of merchandise sold is trading agricultural products such as rice, vegetables, fruits and others.

3.3.3 Household's Total Income

The respondents' household total income is an accumulation of the two income sources, that are the total income of the respondents in the tourist area and from outside the tourist area. Household's total income as served in Table 5.

Table 5: The Respondents' Household Total Income (6 Months).

No.	Income Type	Amount (IDR)
1	Income from in ecotourism area	11,746,444
2	Income from outside ecotourism area	7,204,125
Total Income		18,950,569
Average Income / month		3,158,428

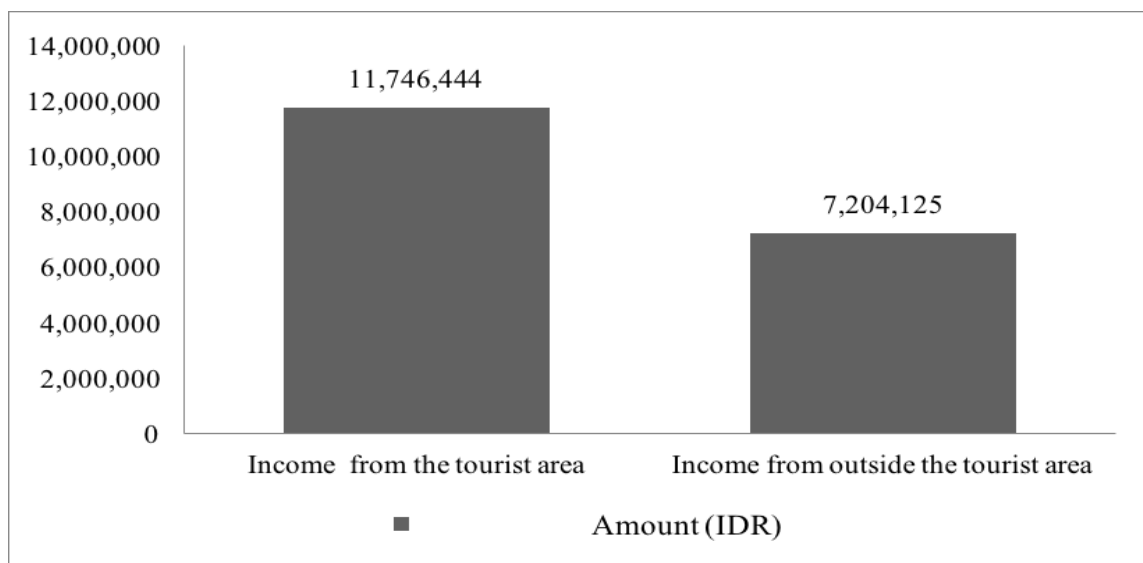


Figure 6: Income from in and Outside Bantimurung Ecotourism

Table 5 and Figure 6 show that the respondents' household total income per 6 month is 18,950,569 IDR or on average 3,158,428 IDR per month. The income from the ecotourism area is higher (11,746,444 IDR) than the income from outside (7,204,125 IDR).

3.3.3 Contribution Level of Income from the Ecotourism Area

The contribution level of income from the *Bantimurung* Ecotourism area is available in Table 6.

Table 6: The contribution level of income from the *Bantimurung* Ecotourism area

No.	Income Type	Amount (IDR)
1	Income From Nature Tourist Area	11,746,444
2	Total Household Income	18,950,569
Contributions tourist area (1/2 x 100%)		61.98 %

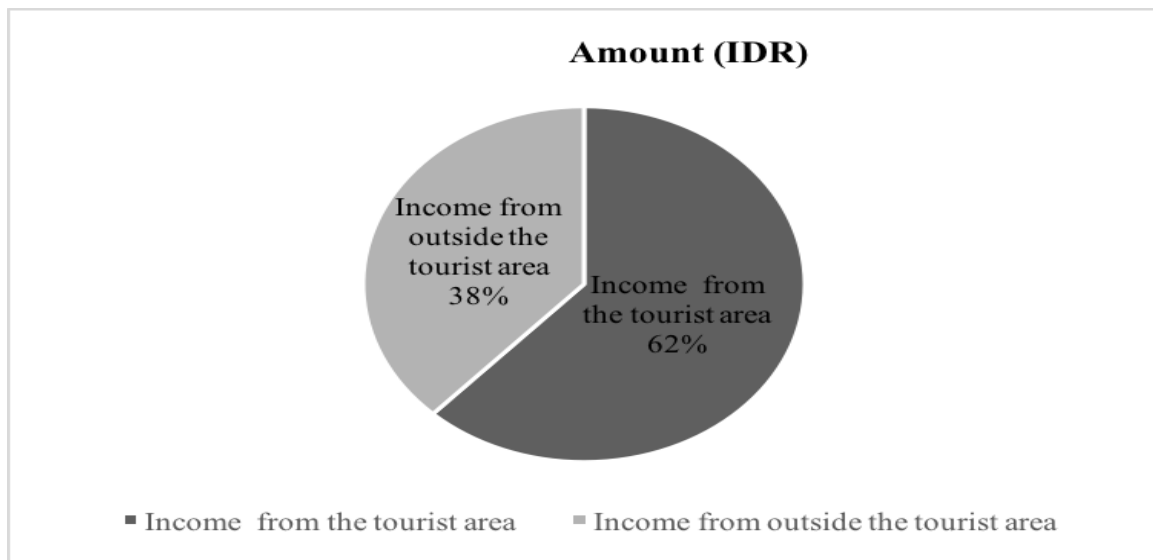


Figure 7: Level of Income Contributions Ecotourism Area and Income from Outside the Tourist Area

Table 6 and Figure 7, shows income contribution level in *Bantimurung* ecotourism area. Level of income contribution in the ecotourism area, which is 61.98% of the total income of 18,950,569 IDR.

4. CONCLUSION

The *Bantimurung* Ecotourism area has significantly given the female local citizens job opportunities. Of those who conduct their jobs in the area, 74.29% are female. The jobs in this tourism area are snack/drink seller, food stall keeper, boiled corn and peanut seller, souvenir seller, butterfly hunter, toursit guide, parker, photographer and cottage keeper. Outside the area, they are farmers, motorcycle mechanics, daily needs stall keepers, drivers, employees and retired civil servants. In the ecotourism area, most of the respondents are food stall keepers (7 persons / 20.00%) and souvenir sellers (9 persons / 25.72%). Meanwhile, outside the area, most household respondents are farmers (15 persons / 42.86%).

The respondents' average income in the ecotourism area in 6 months is 11,746,444 IDR or 1,957,740 IDR per month. The highest income comes from the souvenir sellers, 3,649,333 IDR per month (21.00% of total income). The respondents' average income from outside the area in 6 months is 7,204,125 IDR or 1,200,687 IDR per month. The highest income comes from the merchants, 2,050,000 IDR per month (21.00% of total income). The respondents' household total income per 6 months is 18,950,569 IDR or 3,158,428 IDR per month. The income from the area, which is 11,746,444 IDR is higher than the income from outside, which is 7,204,125 IDR. The contribution level of income from the area is 61.98% of the total income.

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