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## **Empowerment of Sector Outside Agriculture as One of The World Started Land Resources**

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### **Abstract**

*The purpose of this research is to know how big result of work outside agriculture sector can give guarantee of survival of farmer's household in Cemagi Village, Mengwi Sub-district, Badung Regency, Bali Province. The method used in the research is purposive sampling method is a way of determining the location deliberately on the basis of consideration. The village is one of the villages that most of the farmers use their spare time to do work outside the agricultural sector, and no similar research has ever been done. The data used in this research are primary data and secondary data. Data collection methods used were interviews and questionnaires. The data is analyzed by dividing household income from outside agriculture sector with the total income of farmer household and then suppressed. Data the results of the interview if the respondents data interviewed showed that the work outside the agricultural sector utilized by most of the villagers of Cemagi who worked as farmers to improve the welfare of farm households doing work outside the agricultural sector on the sidelines of time to spare. The results of the analysis of respondents if the data data show work outside the agricultural sector that is utilized by most of the people of Cemagi Village who work as farmers to improve the welfare of household farmers as much; 24.05%, doing work outside the agricultural sector on the sidelines of leisure time. The work done include: as a builder of the house accounted for 31.35%, as sand transport workers as much as 24.75%, and the rest there are as entrepreneurs and others. Looking at the considerable contribution of the carpentry sector, the work can still be undertaken by the farmers of respondents as long as no other work is considered better in helping to increase the income of farm households.*

*Keywords: agricultural sector, revenue, sector outside agriculture*

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### **1. Introduction**

Agricultural land, identical to rural areas whose livelihood patterns move in the agrarian sector. Refinement of agricultural land is a term used to describe a condition where agricultural land in the countryside has been much reduced. In Indonesia alone, the problem has been going on for years. According to data from the Agriculture and Livestock Service, from 2010-2012 is estimated to reach 330,000 ha or equivalent to 110,000 ha/year [2] One of the factors that led to the narrowing of agricultural land, the naturally occurring population growth. We know that the nature of every human being is different. If it is described that most of the villagers are willing to sell their agricultural land, then here the authors suggest that, a small part of farmers are not willing to sell agricultural land. That's because the philosophy of farmers who are happy to collect treasure, to be inherited to his children. The population grows naturally, and this is very difficult to prevent. The presumption of many children a lot of fortune, encouraging some villagers whose minds are still old-fashioned continue to reproduce. Meanwhile, the number of family members is increasing, coupled with the occurrence of marriage in their children. It encourages the need for a new residence, because a house may not be

able to accommodate a family that will continue to grow its members. Therefore, the farms owned by them are inherited to their off spring to be made a place to live. While it is unlikely that all agricultural land is used as a settlement (residence), but at least the land is diminishing, over time, growth occurs naturally so that at some point, the need for new homes for future grandchildren will emerge and certainly only farmland inherited from generation to generation is increasingly narrowed. At least the land is diminishing, over time, growth occurs naturally so that at some point, the need for new homes for future grandchildren will emerge and, of course, farmland inherited from generation to generation is increasingly narrowed. The agricultural sector is an important source of income for almost half of Indonesia's population [3]. Agricultural Census 1993. Also informs that most smallholder farm households rely on farming as the main source of income. It is therefore reasonable that inequality of rural incomes based on agriculture is closely related to inequality of land tenure structures [5].

The existence of such population growth requires housing for the farmers' households so that the land switches the function of agriculture into shelter. This is what causes the informal sector activities to be used as an alternative land for livelihood for the community [7]. Most of this informal sector occurs in urban areas which in fact is an area that has a great opportunity to get a job. Jobs outside the agricultural sector such as work in home industry or small industry have been known in rural areas for a long time. The existence of employment outside the agricultural sector is important for farm households. This relates to the seasonal nature of agricultural activities

The existence of employment outside the agricultural sector is important for farm households. This relates to the seasonal nature of agricultural activities. Generally farmers and family members of farmers need jobs outside the farm to earn extra income [9].

To maintain and sustain the survival and family, the environmental factors surrounding the environment are influential and decisive. The main source in meeting the needs of the farmers is derived from the business proceeds derived from the processed land, but if the main product is not able to meet the minimal needs of life (clothing, food, health, housing, and education), then one of the efforts to reduce Poverty that is by way of exploiting leisure time of farmer on other productive activity, both in agriculture sector and outside agriculture sector. It further said that rural households' households, including poor households or low incomes, narrowness of land and low productivity of processed land and low productivity of land owned by cultivators in a year can only meet their needs for several months. In the case of the results of the main farming efforts not being able to meet their needs (especially minimum living needs), farmers' households will be faced with two choices: to suppress consumption or increase work productivity to increase income [6]. Non-agricultural employment opportunities need to be given attention in the rural employment expansion strategy because it has three functions in rural development [3]. The first non-agricultural employment opportunity can directly stimulate the expansion of employment opportunities for the rural labor force, because it has the potential to create employment opportunities without having to be supported by large capital and able to absorb many workers, meaning non-agricultural employment opportunities can overcome the problem of rural employment that often hit on capital constraints. It is possible for the workforce to enter this work opportunity. Both can serve as an important source of income for rural households, especially poor peasant households that are either landless or landless. With non-agricultural employment opportunities, smallholder farmers can earn other income, by entering non-agricultural employment opportunities. Third, non-agricultural employment opportunities have an associated effect on agricultural and industrial development, often overlooked in rural development strategies.

In addition, non-agricultural employment opportunities can withstand the flow of rural migration to cities and stimulate the growth of small towns. Non-agricultural employment opportunities are not easy to define precisely because rural non-employment term (employment) is often used together -

same. It is therefore important to distinguish both terms. Non-agricultural employment opportunities refer to all non-agricultural activities. Non-agricultural activity categories do not include agricultural employment opportunities such as working in plantations (wage workers in agriculture). Fisheries, labor and livestock. Sometimes job opportunities in plantations are included in terms of off-farm employment opportunities [3] Thus rural non-farm employment covers all economic activities such as domestic industries, trade and all activities undertaken for commercial purposes outside of agricultural activities conducted in rural areas. All activities are carried out by farm households and non-farm households that are temporary and permanent in nature [3]. In a farm household in the village there are several business activities undertaken by household members to earn income. The field of agriculture is the biggest factor affecting the income of farm households [11]. While [12] says a person can earn income by working and he can earn income from his possessions such as land, machinery, home or money. Total farm expenses are defined as the value of all inputs discharged or excluded in production, but excluding family labor of farmers. Farming expenses include cash and non-cash expenditures. Cash expenditure is the value of goods and services for farming purposes paid for by objects or by credit such as expenditure on seeds and fodder. While non-cash expenditures include depreciation of agricultural machinery used. Depreciation is a decrease in inventory value caused by usage during the accounting year [10]. Farmers are narrow, essentially facing two crucial principal things and are related to each other. On the one hand, these communities receive low incomes from narrow land tenure and exploitation, on the other hand face limitations to economic opportunities, especially on the types of activities with high productivity that require skill and capital support. In fact, the labor force of smallholder farm households has engaged in activities outside the agricultural sector as a source of additional income in an effort to meet the needs. However, the types of activities undertaken are limited to the types of activities that rely more on physical labor without adequate skill and capital support. Consequently, low labor productivity and incomes are also low.

## **2. Material and Methods**

This research was conducted in Cemagi Village, Mengwi Sub-district, Badung Regency. This research is done by purposive sampling method, that is a way of determining the location intentionally with certain consideration basis. The considerations are: Cemagi Village is one of the villages that most of the farmers use their spare time in non-agricultural sector. The data used in this study include primary data and secondary data. Primary data collected by interview technique, that is collecting data by asking questions that have been arranged in a questionnaire orally and answered orally also by respondent. In operational, occur direct contact with face to face between researchers with the source of information. Primary data collected include data on demographic, social and economic characteristics of respondents, livelihoods principal and sideline, household income data of farmers include income from agriculture and non-agricultural sector, data about hourly working hours of farmers to work in non-agricultural sector, the reason farmers work as workers. Non agriculture, secondary data were obtained from several sources such as the office of Cemagi Village Head, and other relevant agencies. Secondary data sought include geographical location and area, land use and agriculture condition, population and livelihoods, education level, public service facilities and prasara. Variabel, Indikator, Parameters and Measures observed variables: 1) Reasons farmers to do work outside the agricultural sector: Indicators a) economic reasons b) non-economic reasons, parameters: additional income households include: a) Crops. B) children's school fees, c) .containing spare time, d) Distance of home to workplace. Variable 2). Contribution of farmers' income outside the agricultural sector to total household income of farmers, Indicators: a). Income from the agricultural sector, b). Income from the non-agricultural sector and 3) income from farm households. The parameters are: Fee fee, Wage Receipts per day, Employment Intensification, Wage per day, Labor

outage. Data obtained in the study were analyzed by using qualitative analysis, while the quantitative data were first tabulated according to the research objectives and rationally interpreted according to descriptive method [4].

The quantitative and qualitative data that have been gathered then analyzed further by qualitative descriptive method to describe accurately the condition of the research object. In this research, descriptive method is used to find out the reasons farmers work outside the agricultural sector and to know what constraints they face during work outside the agricultural sector. Population, Sample and Respondent. In the village of Cemagi there are 12 banjars, and the responder is scattered in 5 banjar, namely: Banjar Balai Agung, Banjar Batantanjung, Banjar Sengguan, Banjar Petapan, and Banjar Mengening. By direct survey to the palm fiber craft which is then continued with suvey in respective banjar residence of respoden with census method. The population size and sample in each banjar can be seen in Table 1.

Table 1  
Number of Population and Sample on Each Banjar Respondents.

| Banjar               | Population | Sample |
|----------------------|------------|--------|
| Banjar Batan tanjung | 12         | 12     |
| Banjar Balai Agung   | 8          | 8      |
| Banjar Sengguan      | 8          | 8      |
| Banjar Petapan       | 5          | 5      |
| Banjar Mengening     | 7          | 7      |
| Amount               | 50         | 50     |

Source of the preliminary survey data of 2017

According to [4], the percentage of revenues from sector x activities to total household incomes is measured by dividing income from non-agricultural income with total household income which is then suppressed using the following formula:

$$P = \frac{PX}{Pt} \times 100 \% \text{ among others} \tag{1}$$

P = Percentage of income from agriculture x activities (outside agriculture sector) of household to household incomeoffarmer. PX = Household income derived from sector X (output outside the agriculture sector), Pt = Total income of farm households. So the formula can be used to calculate the contribution of income outside the agricultural sector to the total income of farm households.

### 3. Results and Discussion

Administratively, Cemagi Village is one of the villages located in Mengwi Sub-district, Badung District Level II, Province of Bali. Based on Cemagi Village 2017, the administrative boundary of Cemagi Village is: on the north is bordered by Munggu Village east of Pererenan Village, south of Cemagi Village and west of Nyanyi Village, Topography and Climate Cemagi Village is located at an altitude of approximately 400 meters above sea level. Viewed from the natural condition of Cemagi Village including tropical climates, the area is close to seseh beach and the beach where the distance of the beach with approximately 2 km, the temperature ranges between 24-30 ° C degrees Celsius. Rainfall year 3650 mm per year and daily rainfall data Bali BMKG 2015. Daily average humidity 75-78%, type of soil Sandy clay Land Use and Land Ownership In accordance with the monographic data of Cemagi village in 2002, the area of this region most of the basic livelihood is from the agricultural sector where the total area of rice fields owned by Cemagi Village is average: rice field: 170.25 Ha, the rest is land Moor: 8.51 Ha of building 85.75 Ha, 95.92 Ha yard. From the existing paddy fields each year is planted with rice crops 2 times and once the crops of palawija especially beans. Bilamana compared in terms of income economically paddy land owned by the family of farm-

ers the results are relatively small when compared with the expenditure. Moorlands planted many fruits such as: papaya, banana, and coconut trees. On the ground more dominant yard planted with ornamental plants, especially frangipani plants and there are some also grown by mango trees. Based on Table 2 it can be seen that with the number of families 1598 kk compared to the existing land area, the average land ownership of each family in the village of Cemagi is 0.23 hectares, which consists of 0.11 hectares of paddy fields, 0.005 hectare, building land area of 0.05 hectares and yard area of 0.06 hectares.

Table 2  
Land Use in Cemagi Village 2017

| No     | Type of use | Large Hectare | Percent |
|--------|-------------|---------------|---------|
| 1      | Rice fields | 170.25        | 47.03   |
| 2      | Building    | 85.75         | 23.69   |
| 3      | Moor        | 8.51          | 2.35    |
| 4      | Yard        | 95.92         | 26.50   |
| 5      | Another     | 1.56          | 0.43    |
| Amount |             | 361.99        | 100.00  |

Source of village monograph Cemagi 2017

One of the most important variables to know the difference in the proportion of jobs by age group is the age group. Age is very influential on labor productivity Age level affects the level of physical ability to work from workers. Within certain limits it increases. Age of a person then the power to be owned more productive. After the achievement of a certain age the productivity will decrease [4] Generally a person who is at the age of work will be able to produce more than those outside the working age.

Table 3  
Distribution of Respondents by Age and Level Education

| Respondents (age) | Amount (person) | %    | Level of education             | Amount (person) | %   |
|-------------------|-----------------|------|--------------------------------|-----------------|-----|
| 32-39             | 2               | 5    | No school                      | 2               | 5   |
| 40-44             | 5               | 12.5 | Not completed inprimary school | 3               | 7.5 |
| 45-49             | 8               | 20   | Finished primary school        | 8               | 20  |
| 50-54             | 10              | 25   | Finished junior high school    | 10              | 25  |
| 55-59             | 12              | 30   | Finished high school           | 14              | 35  |
| 60- 64            | 3               | 7.5  | Lecture                        | 3               | 7.5 |
| Amount            | 40              | 100  |                                | 40              | 100 |

Processed from primary data source 2017

Results of age tabulation of respondents showed that the age of the youngest farmers was 33 years old and the oldest age was age 62 years with an average age of 5% years. Table 3 shows the number of workers by age level. Table 3 shows that 86.67% and unproductive respondent are 7.5%. The level of education is one factor to get a job with high rewards, this is because education or high skills is one of the important general aspects of employment, because educational factors can be used as a measure of the quality of labor, where various types of work Requires certain educational requirements.

Education is not the only factor determining the amount of compensation received by workers, because in their efforts is still determined by other factors such as the number of dependents of household members of farmers. One factor that can influence a person deciding to work is the large number of household members who are covered. The more the number of household members, the dependents of the household will also be greater. The number of households' dependents on the sample households can be seen in Table 4.

Table 4  
Number of household dependents by amount Farmers by gender

| Number of household members of farmers | Farm households | gender         |                | Amount         |
|--|-----------------|----------------|----------------|----------------|
|  |                 | Man            | Women          |                |
| 1-5                                    | 25<br>(80.65%)  | 43<br>(71.67%) | 45<br>(67.16%) | 92<br>(80.70%) |
| >5                                     | 6<br>(19.35%)   | 17<br>(28.33%) | 22<br>(36.67%) | 42<br>(36.84%) |
| Amount                                 | 31<br>100 %     | 60<br>100 %    | 67<br>100 %    | 114<br>100%    |

Source from primary data 2017

Table 4 shows that the number of households with dependents 1-5 people is 80.65 percent, and those with dependents of more than 5 people are 19.35 percent. When viewed from the age group, sex, and workforce then the distribution of the number of household members of respondents can be seen on Table 4 shows that the number of households with dependents 1-5 people is 80.65 percent, and those with dependents of more than 5 people are 19.35 percent. When viewed from the age group, sex, and workforce, the distribution of the number of household members of respondents can be seen in Table 5 below:

The livelihoods of the respondents recorded in the Cemagi Village monograph of 2014 relate to the livelihoods of the population, it can be argued that data can be found in Table 6. From Table 6. It is seen that the percentage of the agricultural sector is lower than in the off-farm sector is seen from Respondent's job done by respoden in agriculture sector are: 24.05%, while those who work outside agriculture sector are: 54.43%, among others as hotel employee 13.78%, villa employee 14.30%, 31.35 as carpentry of house construction, as a sand-carrier, as a carving artisans and as a 1.82 as a civil servant.

Table 5  
Distribution of household members including head of household according to age, sex and labor force in Cemagi Village 2017

| Age group | Gender         |                | Labor     |                     |
|-----------|----------------|----------------|-----------|---------------------|
|           | Women          | Man            | workforce | Not the labor force |
| 0-14      | 7<br>(10.45%)  | 11<br>(15.07%) | -         | -                   |
| 15-64     | 55<br>(82.10%) | 59<br>(80.82%) | 82        | 32                  |
| 64        | 5<br>(7.46 %)  | 3<br>(4.11 %)  | -         | -                   |
| Amount    | 67<br>(47.86%) | 73<br>(52.14%) | 82        | 32                  |

Overall the total number of household members of respondents in Cemagi Village Overall 140 people consisting of 73 men and 67 women. Table 6 illustrates the number of house members

(Age group 15 - 64 year) were 114 people (71.93%) and those who were outside working age (age group, 15 dam 64 as many as 26 people (22.81%) , then the Dependency Ratio (ratio Dependency Ratio) which is the ratio between the number of population outside working age and the working age population is 22.81 people. This means that every 100 productive people must bear as many as 22.81 household members who are outside productive age.

According to [7], the high dependency rate is an impediment to economic development because part of the actual income that can be saved is forced to be spent to finance household members who are not or have not yet earned income. It further explained that the range of dependency numbers for the State. The country has advanced between 30 to 59. When compared with the dependence rate in the area penelitian hence the dependence rate in the research area is still below the number of dependence. This means that the rate of dependence in the study area is still relatively low. This is be-

cause the amount of productive age is much greater than the number of people outside of productive age. However this can not describe the level of welfare of respondent's household, because not all household members of working age have a good enough livelihood.

When linked between farmers' reasons for working outside the agricultural sector with the number of household members, the greater the number of household members let alone who are beyond the productive age (children and parents) will further increase the tendency of farmers to work in other sectors. This is because the greater the number of household members, the greater the household burden and this means a large cost, if the crop is not sufficient to meet the needs of households, the tendency of farmers to work outside other sectors will increasingly Great because it is based on a high sense of responsibility for the survival of the household.

Table 6  
Number and Type of Livelihoods of Working Age Population Working in Cemagi Village 2014

| No     | Livelihood     | Amount | %     |
|--------|----------------|--------|-------|
| 1      | Farmers        | 228    | 14.82 |
| 2      | Farm laborers  | 142    | 9.23  |
| 3      | Carpentry      | 485    | 31.35 |
| 4      | Entrepreneur   | 115    | 7.48  |
| 5      | Civilservants  | 28     | 1.82  |
| 6      | Hotelemmployee | 212    | 13.78 |
| 7      | Villaemployee  | 220    | 14.30 |
| 8      | Services       | 105    | 6.83  |
| 9      | ABRI           | 3      | 0.39  |
| Amount |                | 1.538  | 100   |

The monograph source of Cemagi Village 2014

#### 4. Conclusion

Work done by the villagers cemagi as farmers as much as 24.05%, while outside the agricultural sector sebanyak 31.35%, work related to the world of tourism as much 28.08% as villa and hotel employees and the remaining 16.52 %. There are those who work as civil servants, wirasuasta, services and as ABRI.

The main reason for farmers engaging in activities outside the agricultural sector is to supplement farm household income, where the level of income earned outside the agricultural sector is greater than the income received as farm workers. As well as the farmers are doing the work outside the agricultural sector because the harvest from their farming system is not sufficient to meet the needs of the farmer's household aside from being a side job that does not disturb the main job as a farmer. The large role of the non-agricultural sector as a source of additional income of small-scale households varies according to the type of by-product taken by the responder.

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