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AFFECTING FACTORSTRANS LAND FUNCTION IN BALI

ABSTRACT

Agricultural land conversion is one of the phenomena of changing agricultural land become non-agricultural as a result of development carried out by the government, private and public that alone. Destination in study this is identify factors that influence land use change in Province Bali. This study uses a quantitative approach using analytical tools panel data regression which is a combination of time series or *time series* data and *cross section* data. The results showed that The occurrence of conversion of paddy fields in regencies/cities in Bali Province is influenced by by total population, GDP per Capita and share Agriculture to GRDP. It turns out development total population whose influence *significant* with level real 95% (α = 5%), moderate which other *non-significant* .

Keywords : Quantity Population, GDP per capita, *Share* Agriculture, Switch FunctionLand

ABSTRACT

Conversion of agricultural land is one of the phenomena of the change of agricultural land to non-agricultural as a result of development carried out by the government, self-sufficiency and the community itself. The aim of this study was to identify factors that affect land transfer in Bali Province. This research uses a quantitative approach using panel data regression analysis tools that are a combination of time series or time series data and latitude or cross section data. The results showed that the transfer of rice field functions in districts / cities in Bali Province was influenced by the number of residents, PDRB per Capita and agricultural share to PDRB. It turns out that the development of the population whose influence is significant with a real level of 95% (α = 5%), while others are non-significant.

Keywords: Population, PDRB Per capita, Share of Agriculture, Land Transfer

PENDAHULUAN

Development is something process change to direction which more good in environment public, with existence process change here will have an impact on changes in the related sectors, because every time there is change will certainly bring positive effects and negative effects, even though the purpose from development that alone attempted avoid effect negative, because with process source power which limited. Enter era globalization necessary facilities and infrastructure to support the implementation of development, one of

them is land. Land plays an important role as land for realize development in Thing this is development physical. Like known, soil no could separated with man because soilis one of the important factors in human life. Land isthe place settlement, the place do activity man, even after even die still need land. Land which meant is soil.

In development of course will need source power, like for example land, because land is resource natural strategic for development. Almost all physical development requires land, in the field of In agriculture, land is a very important resource, both for farmers as well as for agricultural development. This is based on the fact that in Indonesia activity Agriculture still focus on land (*land based agriculture Are activities*). Rapid development recently implemented by government, very big the effect to sector Agriculture specifically Agriculture which irrigated (ricefield), sector Agriculture have role which very urgent in growth economy. Because sector this many absorb workers, especially workers who do not have *the skills* or labor that is not absorbed in other sectors, because the agricultural sector does not need *skill* (skills) high. the size potency agriculture can seen from historical experience, it turns out that the monetary crisis and economic crisis in Indonesia can be handled by a group of small businesses, both in the field of processing industry and in field Agriculture (Suparmoko, 2002).

The agricultural sector is a strategic sector and plays an important role in economy national and continuity life public, especially in the contribution to GDP, provider field work, and provider food domestic. Rice fields have an important meaning, namely as a medium of activity farming in order to produce staple food (especially rice) for need people man. However with development era and dynamics motion step development as well as growth total population, existence land start disturbed. Wrong one problem which

enough related with existence plant Paddy is more and more widespread over function land Agriculture usage other like development settlement population, industry, shops, and tourism and that other.

The conversion of land functions, especially rice fields or often called as conversion land is change function part or whole area land from function beginning for example Agriculture irrigated (ricefield) Becomes function non Agriculture. Switch function land also could interpreted as changes for other uses are caused by factors that are linearly big covers necessity for fulfil need population which more increase amount and increase demands will quality life which more good. Switch function land usually related with process development territory, it can even be said that land conversion is a consequence from development region, like for example with development total population. Growth population which so fast, as well as intensity development which develop in various field of course just will lead to an increase in the demand for land. Where is the farm productive will be used for housing construction, supporting facilities tourism such as hotels, *villas* , *home stays* , and others. This is what then push transfer occurs function land agriculture to non Agriculture or industry.

Growth wide area Becomes problem which very are you serious because compete with high population growth, industrialization and development infrastructure public. Thing this which has push happening conversion land Agriculture to non Agriculture. factors which determine land conversion is grouped into three, namely economic factors, social factors, and regulation which issued good by government area in skeleton regional autonomy, as well as by the central government, especially those related to land. The research of Syafa'at *et al* . (2001), in the main rice production centers in Java and outside Java, show that Besides factor technical and institutional, economic factors that determine the conversion of paddy fields to agriculture and non-agricultural agriculture, are (1) the competitive value of

rice against other commodities decreases; (2) response farmer to dynamics market, environment, and power farming competitivenessincrease.

Temporary study Sumaryanto, Hermanto, and Passport (in Witjaksono, 1996), in Java showed that the conversion of paddy fields to non- Agriculture (63 percent) more tall compared to to Agriculture non ricefield (37 percent). Of the 63 percent, 33 percent are for settlements, 6 percent are for industry, 11 percent for infrastructure and 13 percent for others. Apart from factors economic, social factors also affect land conversion. According to Witjaksono (1996), there is five factor social which influence over function land, that is change behavior, connection owner with land, solving land, decision-making, and the government's appreciation of the aspirations of the people. With fast development development which implemented by government and society bring impacts on land, in particular irrigated agricultural land (rice fields). If this condition continues without there are efforts to save and protect productive agricultural land then productive agricultural lands will continue to be converted and increasingly reduced . As is known, Indonesia is an agricultural country, most of population Indonesia domiciled in area rural and have eye livelihood sector Agriculture. Until moment this, sector Agriculture is sector strategic and play a role important in economy national and continuity life public, especially in donation to GDP, provider field work, and provision food in country. Awareness to role the causing part big public still permanent maintain their agricultural activities. “Various data show that in some developing countries over 75 percent of the population is in the agricultural sector and more than 50 percent of national income is generated from sector Agriculture as well as almost whole the export is ingredient Agriculture" (Ario, 2010 in Adhi Yudha Bhaskara, et al).

Government policies regarding

agriculture are mostly not in favor of the agricultural sector itself. This can be seen with more a lot over function land Agriculture Becomes land non Agriculture. Land Agriculture Becomes victim for fulfil need will settlement and irresponsible industry. The conversion of agricultural land is consequence from consequence increase activity and total population as well as other development. Land conversion is essentially a matter of which is normal in the modern era like today, but land conversion on reality bring many problem because occur on land Agriculture which still productive. Land Agriculture could give many benefits in terms of economic, social, and environmental. However, if the function switch productive agricultural land is left alone and not controlled, of course will have a negative impact on the community itself, considering it is so important and useful agricultural land for the community itself.

Bali is wrong one province which there is in Indonesia which also experience over function land which enough dramatic. Almost all area touched and land Agriculture productive switch function Thing this caused by rapid development, especially tourism development and the increasing level well-being people Bali, because development tourismThat's why we need accommodation supporting Bali tourism. Land conversion in Bali is unavoidable in the midst of the huge demand for houses, facilities tourism, economic development and others. Good investors Domestic and foreign investors have penetrated to remote areas of Bali, elsewhere party Agriculture by natural still very needed for support the life and sustainability of the Balinese ecosystem. It seems not only applies to the past, but also to the present and the future come. As a sector of life, agriculture is almost said to be absolutely necessary by the whole of Balinese life and society, because agriculture is a one of the components that support Balinese culture, it means something will be lost Balinese culture.

Subak in Bali usually has a temple called *Pura Uluncarik* , or *Bedugul Temple* , which was specially built by the landowners

and farmers which destined for goddess prosperity and fertility goddess *Sri* . Because Balinese culture is closely related to agriculture. This can be seen from the more a lot land Agriculture transferred enable Becomes housing area, shops, industry and development tourist which causing land Agriculture neglected and even sacrificed for fulfil need community, so that productive agricultural land is decreasing and even finished in time upcoming, if over function land Agriculture the not controlled. Agriculture for Bali no only as source food and absorber of labor, but also a source of culture. In addition, subak as part of From Balinese agriculture, it has been made into a world cultural heritage, which is appropriate we take care and preserve its existence in the midst of rampant land use change occur.

Based on data from the BPS (Central Bureau of Statistics) Bali Province in 2013, wide land province Bali which used for land ricefield reach 81.165 Ha (14.40 percent). Compared to the area of rice fields in 2012 which reached 81,625 Ha, which means a decrease of 460 Ha (0.56 percent). In another The non-rice field area reaches 274,402 Ha (48.68 percent) or more 98 Ha (0.04 percent), which previously reached 274,305 Ha (48.66 percent), this means that the land in Bali is still dominant (48.68 percent) is land not rice fields and a small part (14.68 percent) is rice fields, the occurrence of the conversion of rice fields in the province of Bali. *Share* from the agricultural sector in a broad sense from year to year continues to decline in 2013 share agriculture sector by 15.22 percent decreased to 14.64 percent in 2014, This decline is caused by one of them is the conversion of agricultural land to agricultural land non Agriculture. Happening over function land also caused fast developments in Bali, especially the development of the tourism sector which require infrastructure to support tourism. Besides that The development of the

population in Bali also greatly affects the occu rrence of transfers function land, growth population in Bali like seen on Table 1.1 following.

Table. 1.1
Bali Province Population Growth RateYear 2014

districts	Quantity Population Estimation			r
	2013	2014	2015	
(1)	(2)	(3)	(5)	(4)
Jembrana	301.806	304,207	306,641	0.008
Tabanan	447,314	450,875	454.482	0.008
Badung	455,037	460.275	465,338	0.011
Gianyar	457,994	462,064	466.223	0.009
Klungkung	206.739	209.395	212.117	0.013
Bangli	256,846	258,390	259,940	0.006
Karangasem	532,903	539.022	544,951	0.011
Buleleng	796.168	802,726	809.148	0.008
Denpasar	607,324	612.803	618,318	0.009
Amount	**4,062.131**	**4,099,757**	**4,136,655**	**0.009**

Source : Ministry of Home Affairs SIAK data Year 2014

Based on the data in Table 1.1 the population growth rate in the Province Bali from 2013 to 2014 was 0.9 percent, if observed per Regency/City, growth population highest year 2013-2014 occur in Klungkung Regency is 1.3 percent, followed by Karangasem district and Badung by 1.1 percent. With growth estimated at 0.9 percent contest so total population Bali year 2015 estimated amount 4,136,655 inhabitants. Rapid development tourism in Bali is very much felt by the Balinese, this can be seen from community welfare level Bali from year to year has increased, as reflected by GDP per capita. In 2013 Bali's GRDP per capita was Rp. 33.13 million dan year 2014 as big as 38.11 million (On Base Price applicable), whereas based on price constant year 2010 as big as Rp. 28,13 million on year 2013, in year 2014 increased to Rp. 29.67 million (Statistics Official News, No. 13/02/51/Th. IX, 5 February 2015). Although occur over function land Agriculture to non Agriculture, growth economy Bali permanent positive. Bali's economic growth

in 2014 grew 6.72 percent higher than in 2013 by 6.69 percent. From the production side, the highest growth was achieved by the Health Services and Social Activities Business Field by 12.43 percent. From side expenditure growth highest achieved by Component Export Goods and services which experience growth of 19.49 percent.

OVERVIEW LIBRARY

Source Power Land

Resource land is resource natural which very urgent for continuity life man because required in every activity humans, such as for agriculture, industrial areas, residential areas, roads for transportation, recreation area. Every human being does an activity, the source Natural resources are very important, without natural resources humans cannot biased activity. Land resources (*land resources*) as the environment Physical features consist of climate, relief, soil, water and vegetation as well as objects that exist in the area on it as long as it has an effect on land use. Therefore land resources can be said to be an ecosystem because of the relationship between which dynamic Among organism which there is in on land the with environment (Mather, 1986).

Land has a special place in the resource group. because land is needed in all aspects of human life and land too become a major factor in influencing other natural resources. As resources, land has special characteristics in its allocation. Lots factor which influence Mark plot land like topography, fertility, location, method processing (source power man), and etc. From corner From an economic point of view, land can be interpreted as a whole good resource which character experience nor artificial which related with plot Earth surface. Knowledge economy too often refer land together with power work, capital and management as four factor production base. In In this sense, land is defined as a natural resource used in process production in produce food, fiber, ingredient building, ingredient mine or ingredient raw which required in life modern

(Didi Rukmana, http://repository.unhas.ac.id/bitstream/handle/ 123456789 /4009/ Babpercent 208percent20Source percent20Powerpercent20Land.pdf ?sequence=1, accessed 16-9-2015).

Land have meaning urgent for para *stakeholders* which make use of it. Function land for public as the place stay and source of livelihood. For farmers, land is a source of production food and survival. For the private sector, land is an asset for accumulate capital. For the government, land is the sovereignty of a country and for well-being his people. Existence many interest which interrelated in land use, this results in overlapping overlapping interests between actors, namely farmers, the private sector, and the government in make use of the land. Agricultural land is land designated for agricultural activities. Agricultural land resources have many benefits for man. according to Sumaryanto and tahlim 2005 (in Puspasari, 2012), mentions that the benefits of agricultural land can be divided into two categories. First, *use values* can also be referred to as *personal use values.* These benefits are generated from the results of exploitation or farming activities that conducted on source power land Agriculture. Second, *non use values* could also known as *intrinsic values* or innate benefits. The various benefits created with alone although no is destination from activity exploitation of agricultural land owners fall into this category.

Move Function Land

Utomo et al. (1992, in Hidayat et al., 2012), defines function transfer land or usually called as conversion land is change function part or whole area land from function beginning (like which planned) Becomes function other which Becomes impact negative (problem) to the environment and the potential of the land itself. Land conversion in the sense of changes/adjustments allotment use, caused by factors which broadly includes the need to meet the needs of the population which more increase amount and increase demands

will quality better life. The occurrence of land use change, especially land that is productive in the sense of land that is still in the future earning or producing, although result more small compared to with after transferred enable if seen from aspect economy. If something location occur conversion land Agriculture, quick land in surrounding will converted and nature tend progressive. in line with change structure economy which is characteristic development of a country or region, the need for land for non-profit activities agriculture is increasing from year to year. Trend This causes the conversion (conversion) of agricultural land to be difficult to avoided with say other every year certain occur conversion land. Wide the land conversion every year will be greater because of land conversion agriculture is generally contagious. In other words, once land conversion occurs in a location, the area of land to be converted at that location will increase large due to the associated land conversion that occurred in the surrounding location, in additionalso power man (farmer) already very seldom process the land by professionals, because land which relative a little (farmer dirty), so that more many cost which issued when compared to with results which they get it in the agricultural sector and many young people are no longer working in the sector Agriculture. Change use land is increase something land use from one side of use to another is followed with the reduction of other types of land use over time the next, or the change in the function of a land at a different time (Wahyunto *et al* ., 2001, in Siswanto, 2006).

Development and Growth Economy

Wrong one indicator which very urgent in analyze Economic development that occurs in a country is economic growth. Basically, economic development and economic growth contain mean which different. Development economy on generally defined as something process which causing increase income real per capita population

something country in period long which accompanied by system institutional. As for economic growth interpreted as GDP increase or GNP regardless of whether the increase is greater or less than the rate of population growth, or whether changes in economic structure occur or no (Arsyad, 1999). Growth economy more pointing to change which is quantitative (*quantitative change*) and usually be measured with use data Product Domestic Gross (GDP or GDP) or income or final market value (*total market value*) of the final goods and services (*final goods and services*) resulting from an economy During period certain (one year).

Between economic growth and and economic development the two terms the meaning of change, growth is always used as a expression general which describes the level development something country, which be measured through percentage increase income national real. Term development economy usually linked with development economy in countries develop. With other words, in mean term development economy, expert economy no just interested to the problem of the development of real national income , but also to the modernization of activities economy, for example to efforts to overhaul the traditional agricultural sector, the problem of accelerating economic growth and the problem of equalizing the distribution income (Sukirno, 2006).

Growth Economy

The theories of economic growth that have developed, among others, are as follows: following (Sukirno, 2006). This theory was pioneered by Adam Smith, David Ricardo, Malthus, and John Stuart Mills. according to theory this growth economy influenced by four factors, namely the population, the amount of capital goods, land and natural resources as well as the technology used. They put more his attention on influence increase population to growth economy. They assume that land area and natural resources and technology do not experience change. Theory which explain linkages Among income per capita with total

population called with theory population optimal. according to theory this, on at first increase population will causing increase in per capita income. But if the population continues to grow so law results more which less and less influence function production, i.e. marginal production will decrease, and will bring on state income per capita same with production marginal. On state this income per capita reach Mark which maximum. Amount population on time that named population optimal. If the population continues to increase beyond the optimal point, the population growth will cause a decrease in value economic growth.

Growth Population

The high rate of population growth in some parts of the world causes the population to increase rapidly, especially in developing countries. third world (developing) countries, the high population growth is very close relation with poverty. In a number of cleavage in world has occur poverty and food shortages. This phenomenon unsettled the experts, and each of them trying to find the factors that cause the poverty. Generally, experts are grouped into three groups. The first group consists of adherents of the Malthusian school. Malthusian pioneered by Thomas Robert Malthus, and the Neo Malthusian school of by Garreth Hardin and Paul Ehrlich. Thomas Robert Malthus, a priest England, lived from 1766 to 1834. At the beginning of 1798 through his essay entitled *Essai on Principle of Populations as it Affects the Future Improvement of society, with Remarks on the Speculation of Mr. godwin,*

M. Condorcet, and Other Writers , states that residents (as well as plants and animals) if there are no restrictions, will grow multiply rapidly and fill quickly some parts of the surface Earth this (Mantra, 2003).

height growth population this caused because connection sex between men and women cannot be stopped. In beside that Malthus believed that humans needed food to live. whereas rate growth ingredient food

far more slow compared to with rate growth population. If no held restrictions to growth population, so man will experience deficiency ingredient food. This is the source of human poverty and poverty. It is clear described by Malthus, as follows … *Human species would increase as the number* 1, 2, 4, 8, 16, 32, 64, 128, 256, *and the substance as* 1,2,3,4,5,6,7,8,9. *in two centuries the population would be to the means of subsistence as* 236 *to* 9; *in three centuries as* 4096 *to* 13 *and in two thousand years the difference would be almost incalculable* . To get out of the problem of food shortages the, growth population must be limited. according to Malthus restrictions the, could implemented with two method, that is *preventive checks* , and *positive checks* . *Preventive checks* , is subtraction population through birth suppression. *Preventive checks* can be divided into two, namely moral *restraint* and *vice* . Moral *restraint* (self-restraint), namely all efforts to curb sexual desire, and *vice* is the reduction of births, like abortion content, use tools contraception, homosexual, *promiscuity* , *adultery* . For Malthus, moral *restraint* is restrictions the most important births, while the use of contraceptives has not could received (Mantra, 2003).

In the late 19th and early 20th centuries, Malthus' theory began debated again. Group which support Genre Malthus but more radical called with group Neo-Malthusianism. according to group this (spearheaded by Garrett Hardin and Paul Ehrlich), in the 20th century (in the 1950s), the new world that at Malthus' time was empty is nowstart full with man. world new already no capable for accommodate quantity population which always increase. Paul Ehrlich in the book *The Population Bomb* in 1971, depicting the population and the environment in the world today as follows. Firstly, this world is already too many humans; second, the state of food ingredients is very limited; third, because there are too many people in this world, the environment has been polluted and damaged.

METHOD STUDY

Data and Method Election Sample

This study uses secondary data or time series data (*time series*). Data obtained from BPS Regency/City and BPS Province of Bali for the last 5 years. All data obtained are annual data from each Regency/City in the Province of Bali. During that time selected with consideration of limited data sources and time constraints which is available. The sample in this study is Regency/City which exist in province Bali.

Technique Analysis Data

This research uses panel data analysis or *pooled* data. Analysis using panel data is a combination of time series or *time series* data and crust latitude or *cross section* data. according to Gujarati (2003), for describe data panel by short, suppose on data *cross section* , the value of one or more variables is collected for several units sample at a time. Advantages of using panel data according to Hsiao (2003) compared to with time series and *cross sections* , is as following.

1) Panel data estimates can show heterogeneity in each individual

2) Data panel more informative, more varied, reduce collinearity between variable, increase degrees of freedom and more efficient.

3) Studies with data panel satisfying for determine change dynamic compared to with repeated studies from *cross section* .

4) Data panel more detect and measure effect which by simple nocould measured by data *time series* or *cross section* .

5) Data panel help studies for analyze behavior which more complex.

6) Panel data can minimize bias generated by individual aggregations or company because data unit more many

Approach/Method Estimate Regression Data Panel

There are three kinds of approaches in panel data model analysis, namely *common effect* approach , *fixed effect* or random effect

approach or *random effects* .

1) The *common effect approach* , which combines *cross-section data* with *time series* and estimation using the OLS (*Ordinary Least squares*).

Yit = o + i Xit + eit

Information:
i = 1,2. ..n
t = 1,2. ..t
n = Number of *cross section*
t = Amount time period

2) Approach effect permanent (*fixed effects*)

The panel data procedure has several difficulties, among which are that the assumption of a consistent intercept and *slope* is difficult to fulfill. To overcome things the, which is conducted is to enter variable doll dan *dummy variable* so that different parameter values are good *cross section* nor *time series* could occur. Approach with using this *dummy* is known as the effect model or *fixed effect* or *Least Square Dummy Variable* (LSDV).

Yit = .i + Di Dit + Xi Xit + uit

Keterangan:
i = 1,2. ..n
t = 1,2. ..t
n = Amount *cross section* t
= Amount period timee
= Variable bully

3) Approach effect random (*random effects*)

Variable doll which entered in model effect permanent will could cause consequence. Addition variable doll the could reduce a lot degrees freedom which on finally will reduce the efficiency of the estimated parameters. The panel data model involve correlation between *error term* because change time which caused by differences in observations can be overcome with a model approach error component or also known as the *error component model approach* or also called with model random effect or *random effect*

Yit = i + i Dit + i Xit + itit = ui + vi + wit

Information:
ui = *cross* component *section*
*error*vi = *time series error*
component Wit = component combination
error

Test Hausman

Test this conducted for test method which Very good used, whether *fixed effect* or *random effect* . Test using indicators

statistics *Chi square* count which for next compared to with *chi square* table to find out whether the null hypothesis is rejected or not . Where the *null hypothesis* of this test is that there is no relationship between the *error* is in a model with an independent variable, or Test statistic This *Hausman* following the *Chi Square* statistical distribution with k *degrees of freedom* , where k is the number of independent variables. If Hausman's stats value is more is greater than the critical value, then H0 is rejected and the right model is the model *Fixed Effect* On the other hand, if the Hausman statistic is less than Mark critical then the model right is the model *Random Effect*

Test Assumption Classic

Advantages study use data panel, is data which used to be more informative, the variability is greater, the collinearity lower among variables and many degrees *of freedom (degrees of freedom)* and more efficient (Hariyanto, 2005). Panel data could detect and measuring impact with more good where Thing this no can conducted with *cross* method *section* and *time series* . Data panels allow for more complex learning about behaviorwhich there is in model so that testing data panel no need test classic assumption. With the advantages of panel data regression, the implications are not it is necessary to test the classical assumptions in the panel data model (Verbeek, 2000; Aulia, 2004; Wibisono, 2005; Gujarati, 2006; in Shochrul R, Ajija, et al.

2011).

Statistic test

Test this used for testing significance variable independent to variable dependent by Partial (test t) and Test F is used for test significance from all variable free as something unity, or measure the effect of independent variables together. Criteria used in this study is a two-way test in the level of significance = and degrees *of freedom (* df) = nk, where n represents the number of

observation and k shows number of parameters including constants.

Definition Operational Variable

Variables which used in study this is variable independent (free) and variable dependent (bound **).**

1) The independent variable (free), is the variable that causes the emergence of or change variable dependent (bound variable). Independent variable which used in study this, is as follows.

a) Total Population (X_1), is population is the number of people who resides/domiciled in an area or area within study district/city in province Bali, have eye livelihood remain in the area, as well as legally registered under the applicable regulations apply in the area (in soul).

b) *Share* Agriculture To GDP ($X2_)$, is ratio production sector Agriculture with total GDP district/city in province Bali (in percent).

c) GRDP Per capita (X_3), is Gross Regional Domestic Product (GRDP) shared with total population mid year which stay in regencies/cities in Bali Province.

2) Variable dependent, is variable which influenced or which Becomes result, because of the independent variable. The dependent variable in this study is the area of agricultural land (Y). Agricultural land is land intended for or suitable to be used as agricultural land to produce crops Agriculture especially rice in districts/cities in province Bali.

RESULTS AND DISCUSSION

Development Land Ricefield in Bali

In 2013 from the total land area of Bali Province used for landricefield reach 81.165 Ha (14.40 percent). Compared to with wide land ricefield year 2012 which reach 81.625 Ha, means experience drop wide

460 Ha (0.56 percent). Part big wide land ricefield in Bali there is in Tabanan Regency which is Bali's "rice granary". Rice field area in Tabanan Regency reached 27.33 percent (22,184 ha) of the total paddy field covering an area of 81,165 ha. Then followed successively the next widest rice field are Gianyar Regency reaching 18.12

percent, Buleleng Regency 13.43 percent, districts Badung 12.50 percent and district/city other only has a rice field area of less than 10 percent, seen from the portion of land according to use in each region Regency/City, so districts Gianyar is the district with the largest percentage of rice field area which reached 39.96 percent, Tabanan Regency 26.43 percent of rice fields, Badung Regency 24.24 percent of paddy fields, Denpasar City 19.61 percent of land ricefield and districts other not enough from 15 percent the territory used as land rice field.District with region dominant land no ricefield is districts Bangli, Karangasem, Klungkung and Buleleng. Whereas districts with the territory dominant land no Agriculture is City Denpasar and District Jembrana (http://bali.bps.go.id/).

Progress Speed Residents at Bali

Based on the data in Table 4.1, information is obtained that the density population in province Bali on year 2014 reach 727.63 people/km ^{2} . This means that in every square kilometer of territory in the Province Bali is inhabited with population not enough more as much 728 person. If seen based on Regency/City, it turns out City Denpasar have ratio density population the highest, which was 4,942.76 people/km2, followed by districts Badung and Gianyar each 1,095.66 and 1255.61 people/km ^{2} , while the lowest is Jembrana Regency of 361.38 people/km ^{2} , high population density in Denpasar, Badung and Gianyar is inseparable from economic activities in three regencies and citiesIn addition to being the city center and tourism sector activities, so that trigger happening population urbanization

Table 4.1
Amount Population, Wide Region and Density
province Bali Year 2014

districts	Wide	Population	Ratio Density
(1)	(2)	(3)	(4)
Jembrana	842	304,207	361.38
Tabanan	839	450,875	537.20
Badung	420	460.275	1,095.66
Gianyar	368	462,064	1,255.61
Klungkung	315	209.395	664.75
Bangli	521	258,390	496.13
Karangasem	840	539.022	642.04
Buleleng	1,366	802,726	587.70
Denpasar	124	612,803	4,942.76
Total Wide	**5,634**	**4,099,757**	**727.63**

Source : Ministry of Home Affairs SIAK data Year 2014

The population growth rate in Bali Province from 2013 to in 2014 of 0.9 percent, if observed per district/city, growth population highest year 2013-2014 occur in districts Klungkung, that is by 1.3 percent, followed by Karangasem and Badung districts at 1.1 percent. With an estimated growth of 0.9 percent per year, the total population Bali 2015 estimated to be 4,136,655 soul.

Growth Economy Bali

In 2014, the Bali economy was able to grow by 6.18 percent, compared to the previous year, growth this time it was recorded faster because on year previously economy Bali capable grow as big as 6.05 percent. Although growth Bali no reach target which as big as 6.71 percentHowever, Bali's economic growth is far above the national level which only capable grew 5.02 percent during Year 2014.

Growth economy Bali year 2014 pushed by all sector economy except Mining and Quarrying which recorded a contraction of 0.61 percent. The sectors that experienced the highest growth were the Finance at 8.85 percent, followed by the Services sector which grew by 8.30 percent. Whereas sector other like Sector Agriculture grow 2.22 percent; the manufacturing sector grew 6.20 percent; electricity, gas and water sector clean grow 5.49 percent; sector building grow 2.98 percent; sector trading, hotel and restaurant grow 7.32 percent; sector

transport and communication grow 6.37 percent. Total Mark plus which created (GDP nominal/at current prices) in Bali in 2014 has reached Rp 106.25 trillion or up 12.37 percent from the previous year which is worth Rp 94.56 trillion.

As is known, nominal GDP is still an added value affected by price changes. So to see the added value in real terms (the development of production of goods and services in real terms) is determined by value added or real GDP/at constant price basis, which in 2014 value has reach Rp 36.94 trillion or go on 6.18 percent from year previously valued at Rp 34.79 trillion.

If you look at the economic structure of Bali, it is still dominated by the tertiary sector, because the service sector gives the largest role in the formation of the total added value the biggest. In detail, in 2014 the contribution of the agricultural sector was 16.45 percent; mining and quarrying sector 0.75 percent; industrial sector processing 8.68 percent; electricity, gas and sector water net 2.18 percent; sector building 4.85 percent; trade, hotel and restaurant sector 30.14 percent; sector transportation and communication 14.28 percent; financial, leasing and service sectors company 6.86 percent; as well as sector services 15,80 percent. Or if grouped, donation sector primary reach 17,20 percent, sector secondary reach 15.72 percent and sector tertiary of 67.08 percent.

With achievements aggregate GDP nominal Bali in year 2014 worth Rp . 106.25 trillion, with the total population of Bali as a result of projections for the year 2014 which reach 4 million person more, so GDP per capita population Bali reaches Rp 25.9 million per capita/year or increase 11.04 percent if compared to 2013 which reached Rp.23.31 million per capita/year. Enhancement GDP per capita population Bali in a year final this at least reflects that the average productivity per person in creating added value has increased significantly. Growth GDP per capita

indicates how productivity achieved with utilization of technology, capital and labor, so that it becomes more effective and economic value.

Analysis Statistics Descriptive Variable Study

Descriptive statistics are used to see an overview of the variables study. This study uses secondary data in the form of *time series data* and cross section data of Regency/City in Bali Province in the form of Rice Field Area(Y), Amount Population (X1) , GDP per Capita (X2) , and *Share* Agriculture To GDP (X_3) years 2010-2013

Table 4.2

Mean, Median, Mode, Std. Deviaton, Minimum, Maximum Jarque-Bera* and *Probability

criteria	Wide Land Ricefield (Y) (Ha)	Amount Population (X_1) (000) soul	GDP Per Capita (X_2) Rp.	Share Farm Against GDP(X_3) percent
mean	9,053.944	44,2634,2	17,172,150	22.27722
median	7,155,500	42.6450.0	15,629,180	26.73000
Maximum	2,2455,00	84.6200.0	35,633,410	33.67000
Minimum	2,506,000	17.100.0	10,431,597	6.110000
Std. Dev.	6,148.017	20,0654,1	5,954,641.	9.597106
Jarque-Bera	5.306696	1,730118	23,49273	4.946520
Probability	0.070415	0.421027	0.000008	0.084310
Observations	36	36	36	36
Cross sections	9	9	9	9

Source : Data processed

.

Based on Table 4.2, it gives an illustration that for the total data population is not normally distributed as seen from the value of *probability Jarque-Bera* of 0.421 is greater than the value of = 10 percent (95 percent confidence level), This means that there is a discrepancy very large (standard deviation) is relatively large when compared to with variable other, so that could concluded deployment population in Regency/City in province Bali is no equally.

Analysis Data Panel

Before conducting an overall panel data analysis, first carried out statistical testing for determine method what approach which will be used. Of the three existing approaches, the *Pooled approach is used Least Square* is felt to be inappropriate for the purpose of using panel data. By because that in study this only consider use approach effect permanent and effect random just. For deciding is will use fixed effect or random effect then use test Haussman.

Setiawan and Endah (2010), suggest that panel data is a a combination of periodic data (*time series*) and individual data (*cross section*). Modeling with use technique regression data panel could conducted with use three approach alternative method processing. Approaches the that is, method *Common Effect* (*pooled least squares*), method *Fixed Effect* (FE), and method *Random Effect* (RE).

Metode *Common/Pooled Least Square*

The *Common Effect* method is a method that only combines data regardless of time and individual differences, it is assumed that behavior The data between Regencies/Cities in Bali Province is the same in various time periods. Results calculation with use program eviews 6, so *output* from regression use method *Common Effect* (*pooled least squares*), is as following.

Tabel. 4.3
Hasil Analisis Dengan Metode *Pooled Least Squares*

Dependent Variable: Y?
Method: Pooled Least Squares
Date: 09/30/15 Time: 06:19
Sample: 2010 2013
Included observations: 4
Cross-sections included: 9
Total pool (balanced) observations: 36

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	-21.82507	4.729008	-4.615149	0.0001
X1?	1.473662	0.257996	5.711956	0.0000
X2?	2.113110	0.485289	4.354333	0.0001
X3?	1.701096	0.302973	5.614675	0.0000

R-squared	0.538392	*Mean dependent var*	3.856324
Adjusted R-squared	0.495117	*S.D. dependent var*	0.307416
S.E. of regression	0.218435	*Akaike info criterion*	-0.100221
Sum squared resid	1.526838	*Schwarz criterion*	0.075726
Log likelihood	5.803976	*Hannan-Quinn criter.*	-0.038811
F-statistic	12.44098	*Durbin-Watson stat*	0.131705
Prob(F-statistic)	0.000015		

Sumber : Hasil Analisis (2015)

Based on the results of the regression using the method *Common Effect* above it can be concluded, the independent variable (t-test *probability*) which looks significant i.e. Total Population (X_1), GRDP Per Capita (X_2), and the *share* of Agriculture to GRDP (X_3). Results R2 – (*Adjusted R-squared*) as big as 0.4951 or 49.51 percent which means Total Population (X_1), GRDP Per Capita (X_2), and *share* of Agriculture to GRDP (X_3) is able to explain Y (Area Rice Fields), while remaining 40.49 percent explained by another factor.

Metode *Fixed Effect*

The *Fixed Effect* method is a method that estimates panel data with

use variable *dummy* for capture existence difference intercept. Method this assume that coefficient regression (*slope*) permanent between County/City in province Bali and between time. Results calculation with using the program eviews 6, then the *output* of the regression using the method *Fixed Effect* (FE), is as follows.

Tabel 4.4
Hasil Analisis Dengan *Fixed Effect*

Dependent Variable: Y?
Method: Pooled Least Squares
Date: 09/30/15 Time: 06:28
Sample: 2010 2013
Included observations: 4
Cross-sections included: 9
Total pool (balanced) observations: 36

Variable	***Coefficient***	***Std. Error***	***t-Statistic***	***Prob.***
C	7.881739	1.710448	4.607998	0.0001
X1?	-0.623051	0.296948	-2.098183	0.0466
X2?	-0.040400	0.045272	-0.892393	0.3810
X3?	-0.191330	0.127918	-1.495728	0.1478
Fixed Effects (Cross)				
_JEMBRANA--C	-0.120746			
_TABANAN--C	0.546771			
_BADUNG--C	0.172499			
_GIANYAR--C	0.348828			
_KLUNGKUNG--C	-0.458592			
_BANGLI--C	-0.516817			
_KARANGASEM--C	0.023364			
_BULELENG--C	0.341989			
_DENPASAR--C	-0.337295			

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.999739	*Mean dependent var*	3.856324
Adjusted R-squared	0.999620	*S.D. dependent var*	0.307416
S.E. of regression	0.005996	*Akaike info criterion*	-7.134229
Sum squared resid	0.000863	*Schwarz criterion*	-6.606390
Log likelihood	140.4161	*Hannan-Quinn criter.*	-6.949999
F-statistic	8361.478	*Durbin-Watson stat*	3.362146
Prob(F-statistic)	0.000000		

Sumber : Hasil Analisis (2015)

Based on the regression results using the *Fixed Effect method* above, it can be concluded that the independent variable (t-test *probability*) which looks significant is Total Population (X_1), while GRDP Per Capita (X_2) and *share* of Agriculture to GDP (X_3) is *non significant* . Results R2 – (*Adjusted R-squared*) of 0.9996 or 99.96 percent which means the Total Population (X_1), GRDP Per Capita ($X2_)$, and *share* Agriculture against GRDP (X_3) capable explain Y (Wide Land Ricefield), whereas the rest 0.04 percent explained by factor other.

Method *Random Effect*

The Random Effect method is a method that will estimate panel data where the disturbance variables may be interrelated over time and between individual. The results of the calculation using the program eviews 6, then the *output* from regression use method *Random Effects* (RE), is as following.

Table 4.5
Hasil Analisis Denngan Metode *Random Effect*

Dependent Variable: Y?
Method: Pooled EGLS (Cross-section random effects)
Date: 09/30/15 Time: 06:51
Sample: 2010 2013
Included observations: 4
Cross-sections included: 9
Total pool (balanced) observations: 36
Swamy and Arora estimator of component variances

Variable	*CoefficientStd. Error*	*t-Statistic*	*Prob.*
C	5.7415001.477821	3.885111	0.0005
X1?	-0.2493730.247652	-1.006947	0.3215
X2?	-0.0495520.042709	-1.160232	0.2545
X3?	-0.1024010.122872	-0.833397	0.4108
Random Effects (Cross)			
_JEMBRANA--C	-0.064393		
_TABANAN--C	0.516809		
_BADUNG--C	0.157855		
_GIANYAR--C	0.326066		
_KLUNGKUNG--C	-0.339546		
_BANGLI--C	-0.440283		
_KARANGASEM--C	0.007708		
_BULELENG--C	0.249726		
_DENPASAR--C	-0.413943		

Effects Specification	S.D.	Rho
Cross-section random	0.242286	0.9994
Idiosyncratic random	0.005996	0.0006

Weighted Statistics

R-squared	0.106130	*Mean dependent var*	0.047714
Adjusted R-squared	0.022330	*S.D. dependent var*	0.006924
S.E. of regression	0.006846	*Sum squared resid*	0.001500
F-statistic	1.266465	*Durbin-Watson stat*	1.937526
Prob(F-statistic)	0.302425		

Unweighted Statistics

R-squared	-0.143900	Mean dependent var	3.856324
Sum squared resid	3.783625	*Durbin-Watson stat*	0.000768

Source : Results Analysis (2015)

Based on the results of the regression using the method *Random Effect* on could concluded variable independent (t-test *probability*). Amount Population (X_1), GRDP Per Capita (X_2) and *share* of Agriculture to GRDP (X_3) all non-significant. The result of R2 (Adjusted R-squared) is 0.0223 or 2.23percent which means Total Population (X_1), GRDP Per Capita (X_2), and *share* of Agriculture to ~~GRDP (X_3) is able to~~ explain Y (Area ~~Rice Fields),~~ while the remaining 97.77percent explained by factor other.

Test Model Estimate

There are three panel data regression estimation methods, namely the *Common Effect method* (*pooled least square*), method *Fixed Effect* (FE), or method *Random Effect* (RE). Determining the panel method to be used in this study, then must conducted a number of testing. *Test Chow* and *Test Hausman* is testing which can be used in determining whether the panel data model can be regressed by the *Common Effect* method, the *Fixed Effect* method, or the method *Random Effects* . The *Chow test* is used to determine whether the panel data model regressed by the *Common Effect* method or by the *Fixed Effect method,* if From the test results it was determined that the *Common Effect method* used, then it does not need to be retested with the Hausman test, but if the results of the test Chow the determined that method *Fixed Effect* which used, sothere must be a follow-up test with *Hausman Test to choose between Fixed* . method *Effect* or method *Random Effect* which will used for estimate panel data regression. The following is Table 4.6 which shows the results of the Test Chow.

Tabel 4.6
Uji Chow

Redundant Fixed Effects Tests
Pool: DATA_P
Test cross-section fixed effects

Effects Test	*Statistic*	*d.f.*	*Prob.*
Cross-section F	5305.502503	(8,24)	0.0000
Cross-section Chi-square	269.224300	8	0.0000

Cross-section fixed effects test equation:
Dependent Variable: Y?
Method: Panel Least Squares
Date: 09/30/15 Time: 06:34
Sample: 2010 2013
Included observations: 4
Cross-sections included: 9
Total pool (balanced) observations: 36

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	-21.82507	4.729008	-4.615149	0.0001
X1?	1.473662	0.257996	5.711956	0.0000
X2?	2.113110	0.485289	4.354333	0.0001
X3?	1.701096	0.302973	5.614675	0.0000

R-squared	0.538392	*Mean dependent var*	3.856324
Adjusted R-squared	0.495117	*S.D. dependent var*	0.307416
S.E. of regression	0.218435	*Akaike info criterion*	-0.100221
Sum squared resid	1.526838	*Schwarz criterion*	0.075726
Log likelihood	5.803976	*Hannan-Quinn criter.*	-0.038811
F-statistic	12.44098	*Durbin-Watson stat*	0.131705
Prob(F-statistic)	0.000015		

Sumber : Hasil Analisis (2015)

Based on Table 4.6 the results of the Chow test, it shows that F-count > F-table or 5305.502503 > 2.35 then $H_{0\ is}$ rejected and $H_{1\ is}$ accepted and *the p-value (Prob.)* significant, i.e. 0.0000 (less than 5 percent), so the method that used is method *Fixed Effects* . By because that, must conducted test advanced for determine method where which Very right to use between methods *Fixed Effect* or method *Random effects* , that is with do Test *Hausman* . Following is Table 4.7, which show results Test Hausman.

Table 4.7
Test
Hausman

Correlated Random Effects - Hausman Test
Pools: DATA_P
Test cross-section random effects

Test Summary	*Chi-Sq. Statistic*	*Chi-Sq. d.f.*	*Prob.*
Cross-section random	12.712841	3	0.0053

Cross-section random effects test comparisons:

Variable	*Fixed*	*Random*	*Var(Diff.)*	*Prob.*
X1?	-0.623051	-0.249373	0.026847	0.0226
X2?	-0.040400	-0.049552	0.000226	0.5422
X3?	-0.191330	-0.102401	0.001265	0.0124

Cross-section random effects test equation:
Dependent Variable: Y?
Method: Panel Least Squares
Date: 09/30/15 Time: 06:56
Sample: 2010 2013
Included observations: 4
Cross-sections included: 9
Total pool (balanced) observations: 36

Variable	*Coefficient*	*Std. Error*	*t-Statistic*	*Prob.*
C	7.881739	1.710448	4.607998	0.0001
X1?	-0.623051	0.296948	-2.098183	0.0466
X2?	-0.040400	0.045272	-0.892393	0.3810
X3?	-0.191330	0.127918	-1.495728	0.1478

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.999739	*Mean dependent var*	3.856324
Adjusted R-squared	0.999620	*S.D. dependent var*	0.307416
S.E. of regression	0.005996	*Akaike info criterion*	-7.134229
Sum squared resid	0.000863	*Schwarz criterion*	-6.606390
Log likelihood	140.4161	*Hannan-Quinn criter.*	-6.949999
F-statistic	8361.478	*Durbin-Watson stat*	3.362146
Prob(F-statistic)	0.000000		

Sumber : Hasil Analisis (2015)

Based on Table 4.7 the Hausman test results show that the Chi-squarecount < Chi-square table 12.712841 > 7.814728 then $H_{0\,is}$ accepted and $H_{1\,is}$ rejected,as well as *p-value* (Prob.) significant, that is 0.0053 (less than 5 percent), so that The method that will be used to estimate the model is the method *Fixed Effects* .

Results Estimate Model

$$LY = f(LX1, LX2, LX3,)$$

In this study, to determine the effect of population (X_1), GRDP Per

Capita (X_2) and *share* of Agriculture to GRDP (X_3), then the model study which will be estimated, is as following.

Model on study the will estimated use 4 year time observation, that is from year 2010 until with year 2013. Model The estimation used is panel data with using the *fixed method Effects (FE)* . The use of the *fixed effect approach is based on the results of the Chow* test and Test *Hausman* which show that method *fixed Effect* more appropriate used in this study. Estimation results using the device *EViews* software *6.0* obtained equality results

regression as following:

$$\mathbf{Y_{it}} = 7{,}882_{it} - 0{,}6231\mathbf{X1_{it}} - 0{,}0404\ \mathbf{X2_{it}} - 0{,}1913\mathbf{X3_{it}}$$

t	(-2.09)	(-0.89)	(-1.49)
Sig.(prob.)	(0.04)	(0.38)	(0.15)
Fh =	8361,478		
Adj R2 – =	0.999620		

From these equations it can be explained that if each variable (Amount Population (X1) , GDP Per Capita (X_2) and *share* agriculture to GDP (X_3) experience change each as big as 1 percent so

1) An increase in population (X_1) by 1 percent will reduce the area rice fields (Y) of 0.6231percent if the value of the independent variable others are considered constant
2) An increase in GRDP Per Capita (X_2) by 1 percent will reduce the area rice fields (Y) of 0.0404percent if the value of the independent variable others are considered constant
3) Enhancement *share* agriculture to GDP (X_3) as big as 1percent will reduce the area of rice fields (Y) by 0.1913percent if the value of variable independent other considered constant

Mark coefficient determination (Adjusted R-squared) as big as 0.9996 it means that 99.96 percent of the total population (X_1), GRDP per Capita (X_2), and *share* agriculture to GDP (X_3) capable explain Wide Land Ricefield (Y), while the remaining 0.04 percent is explained by other factors. To prove Do the three independent variables really have a *significant effect* or not? *non significant* could proved with test statistics that is with test F (test simultaneous) and t-test (partial test). From the results of the analysis, it turns out that simultaneously Amount Population (X1) , GDP Per Capita (X2) , and *share* agriculture to GDP (X_3) significant capable explain land rice fields (Y), while in Partial only Amount Population (X_1) which *significant* and GDP PerCapita (X_2), and *share* Agriculture against GDP (X_3) *non-significant* .

Discussion

Switch function land is the switch function use land of sector Agriculture to sector non agriculture.Switch function

land the by live reduce total land Agriculture which there is County/City in province Bali. Especially in Bali development tourist which the more develop will push population from various area even world heading to Bali to work either to work in the tourism sector or sectors that are related to the tourism sector, so it is necessary to support facilities and infrastructure, especially settlements. Area of Bali Province is 5,636.66 km2 or 0.29 percent of the total area of the Republic of Indonesia Indonesia. by administrative province Bali divided on 8 (eight) districts,

1 (one) city, 55 districts, and 701 village / village, whereas total population in 2014 based on registration data from the Ministry of Home Affairs' SIAK of 4,099,757 soul with rate growth as big as 0.9 percent per year, although rate growth population relative small However if seen from breadth and level population density in Bali 2015 was 736.7 people per Km ^{2} (http://bali.bps.go.id).

according to http://www.kompasiana.com Bali is wrong one province

in Indonesia which is a tourism area. Many foreign tourists nor in country which visit for holiday or do activity business so that happen density population. When reviewed from population density data Total population of Bali Province according to the population census in 2000 was 3,146,999 spread over 9 districts and cities. Four census previously recorded the population of Bali in a row as follows: the 1995 census was 2,904,828 people, in the 1971 census it fell to 2,120,091 person, census 1980 notes 2,469,930 people and census 1990 increase Becomes

2,777,356 righteous- correct could said to have experienced enhancement. when our From a review, it turns out that the increase was caused by domestic immigrants who settled in Bali for business, many even came from abroad the permanent one in Bali because feel comfortable. Para immigrant the partMost of them have changed their ID cards to ID

cards in Denpasar or other districts they occupy. No only immigrant in country which doing Thing In this case, even foreign immigrants also helped make Denpasar ID cards or ID cards the district they occupy temporarily and renew their passports. Thing This becomes a problem regarding population density caused by uncontrolled migration. The Balinese people and government also tend to Be vigilant about catching the problem, so that later it doesn't interfere with security province Bali.

Increase GDP per capita is wrong one indicator increasing people's welfare. With increasing prosperity humans, they tend to improve the quality of their often need addition land for housing area. Beside that enhancement well-being also will push development facilities/infrastructure other office and shops which also need land. Need land the tend in take from land which still productive, although in analysis results study the effect still non significant, but there are indications towards the reduction of paddy fields, ifseen from the sign of the coefficient which shows negative, there is a possibility in times coming Thing the can Becomes significant, like case population with a significant influence, the same thing also happened to variable share Agriculture to GDP which showing coefficient the direction negative, but not significant. The existence of land use change is indeed on a micro basis reduce the amount of rice production of farmers but overall instead land functions that have not caused food insecurity in Bali, such as other areas in Indonesia, but in the future it can be occur. With existence over function land on moment recently give impact which not yet are you serious to vulnerability food, However if the more a lot of land conversion to the non-agricultural sector will result in low food security.

Switch function land could causing unemployed new in the

agricultural sector, this is because at the time of land conversion to non-agricultural sector then some people will lose a new livelihood. While other sectors may not necessarily accept it due to lack of expertise which exists. Total poverty rate of the population working in the agricultural sector may increase due to land use change. This happened because part from they will lost eye her livelihood, so that their income by automatic also will is lost. Vulnerability food region is a condition where in the area most of the household residents do not could fulfil 70 percent energy sufficiency and protein for growth normal physiology. Food-sufficient areas have potential for housing the household is food insecure. The term food insecurity does not mean that it occurs deficiency food in the area.

CONCLUSION DAN SUGGESTIONS

Uncontrolled and excessive land use change is already happening of course will impact negative for time front Agriculture, specifically land Agriculture ricefield. Wide land Agriculture productive which switch function keep going increase and not controlled, which will result in occur drop production food and threaten endurance food and sovereignty food, whereas need food population the more big because existence population growth is also getting bigger. Then there will be inequality between the means of satisfying needs and increasing needs, this is evidenced by the very significant influence of the population on the area paddy fields, although the per capita GRDP which is a reflection of level well-being public by general and share Agriculture to GDP, not yet have influence which significant, but already there is signsin a significant direction seen from the *slope* and from the negative coefficient, which means an increase in GRDP per capita will lead to a decrease in the potential of the area agricultural land.

As for suggestion which could

given from writing paper this, is as following.

1) Government to be more serious in responding to problems related to over function land, special land Agriculture (ricefield) main in establish a policy and legislation in the context of maintain food security and sovereignty food.

2) Public should realize importance land Agriculture specifically agriculture (rice fields) to meet the food needs of the current population andin times future.

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