Incentive Approach Toward Retaining Cultivated Farmland. 
A Case of Badung District, Bali Province

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ABSTRACT
Farmland conversion has permanent impact, means that once it converted there will never be a wetland again. It also has continuous pattern as construction and expansion of settlements development will always followed by development of new accessibility where agricultural land that were originally located in remote area, indirectly enjoy benefit in terms of access and eventually soar of land prices. The increasing phenomena of conflict over land show that land has a massive opportunity especially to the urban area which has the dynamic pattern of spatial and social mobility. In order to addressing farmland conversion, many policies and regulations have been issued by Indonesian Government, including the newest one, Law no 41/2009 on Protection of Sustainable Agricultural Land. How far the relevancy of this approach with current regional development is and to what extent the effectiveness of this incentive approach pushing farmland holder to retain their land are the research questions that will be further elaborated through this research. Observation reveals that incentive system as mandated under Law no 41/2009 is not a new breakthrough and has not relevant with current demand in urban and regional development. This policy is too much rely on local government budget where its affects to the unequal incentive distribution. Moreover this incentive scheme aims to increase productivity whereas in context of Badung, the land productivity tends to decrease as result from narrower land size fragmented by inheritance system.

Keywords: farmland conversion, public policy, incentive

ABSTRAK
Konversi lahan pertanian berdampak permanen dalam artian lahan yang terkonversi cenderung sulit untuk menjadi lahan basah kembali. Konversi juga memiliki pola berantai yaitu alih fungsi lahan akan selalu diikuti dengan berkembangannya infrastruktur setempat sehingga lahan-lahan disekitarnya menikmati keuntungan akses yang dengan sendirinya meningkatkan nilai dan harga lahan. Dalam upaya mengontrol tingkat konversi lahan pertanian, banyak aturan dan regulasi telah dieluarkan Pemerintah Republik Indonesia, termasuk yang terbaru UU No 41 Tahun 2009 tentang Perlindungan Lahan Pertanian Pangan Berkelanjutan. Penelitian ini mengkaji relevansi regulasi ini terhadap dinamika pembangunan perkotaan serta menganalisa pengaruh pendekatan insentif terhadap keinginan petani mempertahankan lahan. Hasil analisa menunjukkan bahwa, model insentif yang dimandatkan dalam Undang-Undang no 41 Tahun 2009 bukanlah sebuah gagasan baru khususnya dalam menjawab dinamika pembangunan perkotaan. Kebijakan insentif ini sangat bergantung pada anggaran pemerintah daerah yang mana hal ini berpengaruh pada distribusi insentif yang tidak merata. Lebih jauh, skema insentif ini bertujuan untuk meningkatkan produktivitas yang mana dalam konteks Kabupaten Badung, nilainya cenderung menurun sebagai akibat dari fragmentasi lahan oleh sistem pewarisan. Hasil analisa regresi menunjukkan bahwa kontribusi lahan bagi ekonomi keluarga, serta tingkat kepuasan terhadap skema insentif tidak berpengaruh pada keputusan mempertahankan lahan, dimana keputusan ini secara umum dipengaruhi oleh faktor harga lahan.

Kata kunci: konversi lahan pertanian, kebijakan publik, insentif

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INTRODUCTION

Land Conversion is one of the most crucial backwash effects of regional development that mostly happens in cultivated farmland and some preservation land. In order to addressing this problem, many policies and regulations are issued by Indonesian Government, including the newest one, Law no 41/2009 on Protection of Sustainable Agricultural Land. Issuance of this policy raises some doubts regarding the approach in controlling land conversion. Firstly, appropriate compensation as delegated in basic agrarian law through this act is translated in the form of incentive. Incentives here are given in the form of relieving property tax, financial assistant to land certification, ease access to information and technology, and providing agricultural facility and infrastructure.

Generally, the incentive form seems very common and economically less appropriate, especially for the farmers who become the object in this regulation. Secondly, the incentive approach seems too much rely on fiscal ability of Local Government whereas Ministry of Finance report in 2012 revealed the fact that nearly 50% of central and local budgets were earmarked for personnel expenditure (Belanja Pegawai), suggesting that the budget allocation for infrastructure development are limited so that the financial budget for preserving agricultural land can be said to be small, or it may be impossible to give.

In dynamic urban areas like in the center-southern of Bali Province, the pressure on driving the farmland into built up area increases greatly since the improvement in tourism facilities. Badung District as the capital of tourism in Bali also deals with this problem. The agrarian structure gradually begins to decrease as can be seen from the percentage of people working in the agricultural sector in 1980 reached 28.37%, 24.49% in 1995 and 2009 it reached 21.46% (Badung in the 2010 figure). Decline in the agricultural sector is running simultaneously with a rate of wetland conversion area where there is a downward trend from 1995 to 2010. In 1995, the land area of paddy field reached 11,875 ha while in 2010 decreased into 10,216 hectares. Certainly, the decline in two production factors impacted directly on the amount of agricultural production where in 2006, the number reached 140,780 ton of rice production and in 2009 the number decreased to 126,575 ton. The increasing phenomena of conflict over land show that land has a massive opportunity especially to the urban area which has the dynamic pattern of spatial and social mobility. Failure to accommodate appropriate compensation will lead to social injustice and conflict over land.

RESEARCH METHOD

This research is using a quantitative approach since the research has deducted literatures to observed and verified in the field. Sugiyono (2008) stated that the quantitative research is a research based on scientific principles, concrete, empirical, measurable, rational and systematic. Although qualitative data is used occasionally, the quantitative research still has the literature as basis or guideline in conducted analysis. In regard with this research, quantitative has been chosen since the research establishes some research variables to address the problem formulation.

Based on the calculation, total sample of this research is 91 farmers groups. Distribution of the sample will be divided proportionally according to the percentage of total groups in the each sub district.
FINDING AND DISCUSSION

Farmland Incentive in Badung District

Financial incentive define as monetary benefit offered to consumers, employees and organizations to encourage behavior or actions which otherwise would not take place (Martoyo, 2000). In this research, financial incentive understood as a direct financial compensation given to land owner to compensate their effort in protect and retain their agricultural land. In Badung District, financial incentives are given in the form of Relieving property tax and ease access to land certification.

Based on the direct field observation, for relieving property tax there was only 37 % farmer-land owner who ever taken this incentive system, meanwhile the rest 63 % never had this subsidy even those farmer-landowner living in Kuta and North Kuta Sub Districts. This is surprising, considering Kuta areas have the highest farmland conversion rate in Badung District.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Kuta</th>
<th>Kuta Utara</th>
<th>Mengwi</th>
<th>Abiansemal</th>
<th>Petang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever taken incentive</td>
<td>-</td>
<td>-</td>
<td>56.8 %</td>
<td>37 %</td>
<td>27.3 %</td>
</tr>
<tr>
<td>Never taken incentive</td>
<td>100 %</td>
<td>100 %</td>
<td>43.2 %</td>
<td>63 %</td>
<td>72.7 %</td>
</tr>
<tr>
<td>Total</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
<td>100 %</td>
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</tr>
</tbody>
</table>

Source: Field Observation, 2013

Uncovered by this subsidies scheme definitely increase the burden of the farmer, where land and property value (NJOP) for agricultural land has the same value with the land in which uses for commerce, or other tourism facilities. This seems as an unfair approach where farmer who economically have less income, should carry same burden of land tax with the owner of commerce/trade facilities. By the end, it also unsurprising then when farmer-land owner tend to sell or transform their activity into non-agricultural uses. Move to other areas which have more intensive agricultural activity like in Mengwi, Abiansemal and Petang sub districts, the condition also quite similar. This subsidy also has not been distributed equally to all farmer-land owners. In Mengwi more than 50 % farmer have taken this incentive where in Petang and Abiansemal the number are less than 40 %. Limited, or have not distributed equally to all recipients/land-owner mostly caused by the priority that still focused on the farmland which is under green belt zone, although agricultural land beyond that also rightly deserves incentive. Current approach indicate that government indirectly encourage land-owner (beyond green belt) to release their land and transform into other profession.
TABLE 2

<table>
<thead>
<tr>
<th>Condition</th>
<th>Kuta Utara</th>
<th>Kuta Utara</th>
<th>Mengwi</th>
<th>Abiansemal</th>
<th>Petang</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ever taken incentive</td>
<td>14.3%</td>
<td>51.4%</td>
<td>51.9%</td>
<td>9.1%</td>
<td></td>
</tr>
<tr>
<td>Never taken incentive</td>
<td>85.7%</td>
<td>100%</td>
<td>48.6%</td>
<td>48.1%</td>
<td>90.9%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Field Observation 2013

Financial assistance to land certification is also a form of incentive that is highly appreciated by the farmers due to the very long process to obtain it. In Badung this scheme is popular with the name Prona. Certification then coordinated by the Subak Leader (Pekaseh) and in collaboration with local BPN. Based on the field observations, it appears that a lot of farmers use this activity to certify their land. For Mengwi sub district and Abiansemal even more than 50% of farmers have taken advantage/assistance through this mechanism. This policy also applies generically to all agricultural land, and is not limited to the land included in the green belt zone.

Non-financial Incentive

Non-financial compensation exists when a government compensates a person or company with an interest in land for the loss of one or more of the property rights (Spaans, 2008). It also exists when a planning authority provides an incentive for developers to realize certain planning goals either in their land or on the others. In this research, non-financial incentives understood as indirect compensation given by the government in an effort to protect and enhance agricultural production. Incentive model is given in the form of providing agricultural facilities, provision of agricultural infrastructure, facilitating research and development of prominent seeds and technology, easy access to new information and technology and awards for productive farmer.

Public Perception Analysis

Importance Performance analysis on the incentive model shows that financial incentive in the form of property tax relief and financial assistance for land certification occupy quadrant I or stated as high priority while the other non-financial form distributed into other quadrants. Those conditions directly show that the form of financial incentive is more expected by the farmer-landowner. This form considered has a direct impact to the economic condition and psychologically will raise sense of helped especially to the effort to meet the household needs. Deeper exploration shows that both models tend to rule personal relationship between government and farmers-landowner. Through this approach, land owners can directly enjoy economic-financial benefit from the incentives. Psychologically, this direct financial assistance will raise the sense of helped, especially with regard to the severity of the fulfillment of the basic needs. Meanwhile, the other non-financial schemes considered less important due to the farming system that run communally under arrangement of the Subak, so farmers felt less or more information has been obtained through their fellow farmers.

Influence of Several Factors Influencing Willingness in Retain Farmland

1. Influence of Land Economic Contribution
The analysis showed a probability value $0.004 < 0.05$, which means that there is influence between the contribution of land on household need to maintain the business of agricultural land, but the effect of independent variables is only $7.8\%$ ($R = 0.078$), whereas $92.2\%$ of it is influenced by other variables.

Looking at the existing field condition, it appears that land contribution to the household need, did not have significant impact to the decision of maintaining farmland. In subak that located in central growth area such as Banjarsari and Perancak, even its land has high contribution ($76-100\%$) to the household, the landowner prefer to convert their land. Land owner in BanjarsariSubak, said that the desire to convert their land is come from the land price in Kuta Area which is very high, meanwhile the increasing percentage of household need are likely inversely with result from farmland that tend to stagnant so predictably will not meet their needs in the future.

In areas far from city center, local values still helded firmly. Keeping inherited land as the local belief is come from the perspective of *Pitra Puja* (worship to ancestor) so those inherited land must be preserved and passed down to future generations. In addition, land owner in AyunanSubak, added that farmer under Subak system, is bounded ritually and materially. Material aspect is defined as contribution of individual farmer for example in an attempt to repair the irrigation system, meanwhile the ritual aspect is more in the relation between farmers and the Creator who gave prosperity through harvest. Releasing the land ownership, farmers will also be exempt from the obligation of ritual and material, which is in some communities in Bali, especially in rural areas, are considered have bad impact to the economic condition in the future.

2. Influence of the Financial Incentives Satisfaction Level
Regression analysis showed a probability value $0.005 < 0.05$ indicates there is a significant influence between the level of satisfaction on the financial incentive with the decision to maintain agricultural land, but the impact of this independent variables only $7.85\%$ ($R = 0.0785$), where $91.5\%$ of it is influenced by other variables.

As explained in public perception analysis, this model in preferable due to the economic benefit that can be felt immediately. This economic benefit become important aspect because farmer-landowner whose land under green belt zone are not allowed to transform their land into off-farm activities. So these lands automatically lose the opportunity to gain added value even they have location benefit. The economic benefit obtained through a series of financial incentives is expected to be a fair compensation for farmer-landowner for the loss of development right.

3. Influence of Non-Financial Incentives Satisfaction Level
Regression analysis showed that probability value $0.328 > 0.05$ means that no significant influence between the satisfaction level of non-financial incentive with farmer-landowner willingness in retaining their land.

As the result from previous public perception analysis, generally farmer-landowner are satisfied with this kind of incentive, but this satisfaction does not necessarily bind the people to keep their land. In other words, in this context it appears that incentives and
effort to retain land are two different things. Non-financial incentives provided to each Subak, indicates government assistance to maintain and increase agricultural productivity while land cultivation rightfully is a personal matter. Communally this aid is certainly useful, but does its benefit felt equally by all Subak members could raise another question. Therefore it becomes reasonable when farmer-landowner preferring financial incentives model which is perceived better personal benefits.

4. Influence of the Land Price to the Willingness to Retain Farmland
Regression analysis showed a probability value \(0.00<0.05\), which means there is a significant influence between land price and farmer-landowner decision to retain their land, where \(71.8\%\) of decision to release land can be explained by these variable and the remaining \(28.2\%\) is explained by other variables.

High impact of land prices in this context is not a surprising thing. Practically the willingness to convert into off-farm activity is entirely took place in Kuta Region which has the highest land price in Badung and one of the highest in Bali Province. For comparison, based on the data from BPN, for the land that categorized as grade 1, Kuta Region has six times higher than the average price of Petang, two times higher than Mengwi and four times higher than Abiansemal. The progression of land value also surprising where Kuta Region has an increase of land price around \(35\%\) per year, while Mengwi has \(6\%\), Abiansemal \(5.4\%\) and Sub District of Petang in around \(4.7\%\) per year.

This raises a clear implication, farmer-landowner are forced by high land taxes, while added value obtained is not comparable with income of trading and tourism service facilities around those farmland. Land owner in BasangkasaSubak in Kuta, said explicitly that he choose to convert his farmland into boarding house and a car rental. Field observation showed that all landowner who intend to convert their farmland are depend their basic needs only from those land. It means when the land as the primary economic sources has productivity bellow the progressivity of household need, it is natural then if landowner tends to release or converting their land into a more profitable uses.

5. Policy Implication on Regional Planning
Added value is the forgotten element in the current incentive model particularly for land classified as greenbelt zone. Restriction and prohibition of development in that zone will be a time bomb for social conflict between public and government especially when land productivity cannot meet the household need.

Zoning regulation and incentive-disincentive policy should not only count on the juridical aspect but need by bring a solid economic instrument. Strengthening economic instrument emphasize in the aspect of added value in which equally could be felt by personal landowner. In the short term, this approach can be given through maximizing the size and recipient of the current financial incentives. Maximizing current financial incentive could be the answer, but in the long term this policy continuously burdening government’s budget.

That requires new schemes and approaches to deliver maximum added value without burdening local budget. In some developed countries like USA, Netherlands, Japan, Italy and South Korea, farmland protection system, already abandon the financial incentives approach (burdening local budgets) and shifted into non-financial schemes. Non-financial compensation in spatial planning here means that the government does not directly subsidize landowners for the loss of development right after the enactment of
government's development plan, but creates new property right that can be sold or used elsewhere. For illustration, when a piece of land that in the beginning can be used for everything should be the subject of development restriction, planning authorities (local government) that does not have financial resources, may not compensate directly, but rather give the landowner permission to sell the development right or use it in other places (Spaans, 2008). Imagine the implementation of non-financial compensation is certainly not as easy as the conceptual illustration above. However, at least, at the level of concepts, that scheme is able to answer the weakness that are cannot be addressed by our current policy approach. Further studied and exploration on the non-financial compensation scheme should be intensified to create a more sustain, fair and appropriate policy.

CONCLUSION

Social justice is the main weakness of the current incentive system particularly to lands classified as greenbelt zone. Observation reveals that incentive system as mandated under Law no 41/2009 is not a new breakthrough and has not relevant with current demand in urban and regional development. This policy is too much rely on local government budget where its affects to the unequal incentive distribution. Moreover this incentive scheme aims to increase productivity whereas in context of Badung, the land productivity tends to decrease as result from narrower land size fragmented by inheritance system.

Moreover, there is lowinfluence/significance of the satisfaction to the incentive model to the decision in retain farmland. Almost 72 % decision to release farmland is driven by land price factor. High land prices stimulate landowners to obtain more added values that could not be obtained if they force to utilize agricultural sector.

REFERENCES


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