
Research Paper

Global-Local Dynamics in Urbanization: The transformation of the desa-kota in Bali and the roles of adat institutions

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Abstract

For so long, urban studies in developing regions such as Indonesia has been trapped into a single view of global value and capital as the main, powerfull forces of the process. The result is therefore, a global, universal form or urbanization and the production of urban spaces. The fact that cities each have different histories, heritage, and resources show that there are local variations in response to global-economic pressures. With a case study of the transformation of the desa-kota in Bali, Indonesia, this paper shows and argues that in the dynamics process of urbanization, local actors and forces have play a significant roles in the production of urban spaces. Further, it argues that the existing centralized-Indonesia 'formal/legal' urban policy and planning system does not fit with the existing dynamics of local-cultural variations of urbanization – the roles of adat institutions and nomrs are significant and therefore should be supported and facilitated.

Keywords

desa-kota, transformation, local-global dynamics, adat institution, Bali

1. Introduction

1.1 Urbanization and Urban Growth in Indonesia: Questioning the Desa-Kota Idea

With the rapid level of urbanization and urban growth, the sustainability and the quality lives of the majority of the Indonesian population will depend on the quality of the urban environment. Based on the data of the Central Bureau of Statistics Indonesia (BPS, 2013), in 2010, the rate of urbanization in Indonesia is 49.8 percent. Recently, more than half the residents of Indonesia (53,3%) reside in urban areas. In 2025, with the total population of around 273 million, approximately 68 percent of them will be living in urban areas. Such rapid urbanization rate which is then manifested in the rapid growth of the city should be

anticipated with good planning and appropriate management in order to guarantee its sustainability.

This current status and future projection of urbanization in Indonesia brings two related aspects. First, urbanization and urban growth will facilitate the improvement of the quality of life and the environment of a large part of Indonesia society – something that we all hope. Second, however, this rapid urbanization phenomenon could increasingly perpetuate many problems that already exist, and even leads to the worsening quality of the urban environment and urban communities – the sustainability of the city and its residents is questioned. There is a crucial need for a better and appropriate planning effort to guide rapid urbanization and urban growth in Indonesia.

The theory and the concept of the kota-desa were firstly promoted by McGee (1991). It was to explain the phenomenon of the development of suburban areas of Asian countries, including Indonesia. The basic argument is that the process and the product of urbanization in Asian countries is not similar to that in Western countries. In particular, this concept refers to the processes, forms and characteristics of the sub-urban settlements. It describes that such area has already some urban characteristics, but at the same time, still retain the characteristics of the rural environment and life. Further, this concept explains the stages of the development of urban areas on the sub-urban or outskirts of the city that are not entirely planned and managed, and tend to be organic. Physically, the concept of desa-kota manifested in the form spatial transformation, a complex and dynamic mix between urban and rural elements. Socially, culturally, and economically, the concept also explains an interesting, complex, and dynamic mixed and interaction between urban and rural activities, between modern and traditional institutions, and between formal and informal mechanisms.

Since its birth, the desa-kota concept tends to be used to describe the phenomenon or development model of Indonesian cities and also Southeast Asian cities – it is a kind of descriptive model. In spite of some criticisms, the concept is increasingly accepted as a relevant concept to understand the processes, forms and characteristics of the development of Indonesian cities. Under the challenges and the need for a more better and appropriate planning approach to guide urban development in Indonesia, it would be very challenging to explore the possibilities of such concept for a more prescriptive ones. A preliminary study done in Yogyakarta in 2014 (Harmen et.al. 2014) shows that the desa-kota in Yogyakarta has a range of distinctive characteristics and contains aspects that in accordance with the principles and indicators of sustainability.

1.2 Urbanization and Urban Growth in Bali: Problems or Challenges

Up to now, various studies and writings have been done on Bali, the paradise island, famous as the largest tourist destination in Indonesia. With the beauty of nature, traditions, culture, and history, Bali is called as the island of the gods, that offers exceptional beauty. Traditional settlements in Bali, for example, has very clear concepts and principles that are a balance and harmonious interactions between man and nature (Budiharjo, 1987). The very rapid development of tourism, however, is increasingly brought pressures and problems to the beauty of Bali. As have been documented by several studies, various environmental, social, and economic problems have appeared in Bali and threatening her sustainability (Martopo and Mitchell, 1995).

According to data from BPS (2013), the level of urbanization in Bali is currently around 56 percent. This means that about 1.7 million inhabitants of Bali resided in urban areas. It is also already projected that by 2025, the urban population will increase to about 2 millions.

Such significant increase should be appropriately respond to make sure the sustainability of Bali.

Geographically, the urbanization in Bali is concentrated in the city of Denpasar, which has more access to various economic centers and tourism attractions in Bali. In 2013, the city of Denpasar has only 789,000, population, and it is projected that it will become 1.2 million in the year 2020. This figure includes the whole urbanized areas of Denpasar, known as metropolitan of Sarbagita, consists of Denpasar, some parts of Badung and Gianyar. This rapid development has penetrated the villages on the outskirts of Denpasar which some are traditional Balinese villages. The expansions of urban areas in the traditional Balinese villages are crucially important phenomena which should be explored and documented. It is with the assumptions that such case may constitute best practices of rural-urban settlements, which can be learned and then further develop as a descriptive model of rural-urban settlements in the future.

1.3 The Objectives of the Paper

Based on the background presented above, this goal of this research is to explore and document the desa-kota phenomena in Bali, which is believed to be a unique and may contains some important elements and principles of sustainable urban settlement. Such general goal could then be elaborated into three objectives, which are: 1) To document the best practices of three types of rural-urban settlements in Bali; 2) To examine their sustainability as well as the factors that determine the sustainability; and 3) to develop a planning model to guide the future development of the desa-kota settlement in Bali.

This research was conducted with deskriptif analytical approach, whereby the three cases studied were explored and analyzed with a set of indicators. The indicator used is determined through a review of the literature and discussed with stakeholders in the three cases examined. From here, the level of sustainability can be measured in three cases. Further, it then analyzed factors that determine the sustainability of the three cases. From such process then, lessons learned could be then generated. In order to achieve such objectives several methods were used in the research which included: field surveys, interviews, as well as FGD with stakeholders in three villages. Further, secondary data were also collected, particularly related to aspects of sustainability in three cases.

2.Revisiting The Desa-Kota Ideas

The concepts and terminology of the desa-kota, firstly promoted by Terry Mc. Gee, an expert on urbanization and urban areas in Asia, in the mid 1980s (McGee, 1987). McGee used the term kotadesasi, to explain the phenomenon of the development of the city in the Asian country, particularly the Southeast Asia countries, which shows difference process and products compare to that of cities in Western countries. This concept specifically describes the process, form, and character development in the suburb area which was originally a rural area. The developmental process of the city that are not fully planned and managed resulted in a mixture of between urban and rural environments. Such unique spatial formation is complicated with a dynamic mix between urban and rural activities. Such processes then produces a distinctive settlement characteristic.

Although Gottman already explained the unique phenomena of a megalopolis city in 1960s, McGee argues that the concept of kotadesasi is not the same as a Megalopolis concept. He stated that: "The megalopolis is a region dominated by the activities of the central urban system. In many Asian countries, the process of Kotadesasi is somewhat different, for it is occurring in many different locations often in areas adjacent to fairy-giants of the urban cities and sometimes in the form of corridor development adjacent to main roads or railways that link reasonably close, large cities."

Further, he explained that the growth of megalopolis will form special elements namely: 1) a big city; 2) suburban areas; 3) rural-urban; 4) high population density village; 5) low population density village; and 6) small town. This process is characterized by the change of the village became a city, which was accompanied by a shift in economic activity into the formal informal. Example of a megalopolis in Indonesia, among others, is Jabodetabekjur (Jakarta, Bogor, Depok, Bekasi, Cianjur). He, however, also explained how the entire Java island can also be referred to as a series of large megalopolis. The idea of kotadesasi is then used to explain the development of metropolitan cities like Jabodetabekjur, referred to as the Extended Metropolitan Region – EMR. Some characteristics of EMR are: 1) high population density; 2) most of the population depends on agriculture; 3) undergoes transformation activities from agriculture to non farm activities (trade, transport and industry); 4) the intensity of a high population mobility possible availability of transportation is cheap; 5) high interaction between rural and urban activity; and 6) mixing of intensive land use between settlements and economic activities, such as agricultural, industrial, household and industrial areas.

Later, the concept of kotadesasi was then used by many researchers to investigate the phenomenon of urbanization and urban growth in various Asian countries. These studies confirm this concept (Guldin, 1997; The Desakota Study Team, 2008; Moench and Gyawali, 2008). One among studies concerning the desa-kota idea has resulted in nine parameters of to be used to assess the desa-kota, as can be seen in the Table below.

Table 1. The Desa-Kota Parameter

No	Parameter	General Condition of Three Cases
1.	Access to the city	This network enables connectivity between villages and cities, either to support the activities of the economic and social
2.	Job opportunities in second and tertiary sector	Allow the villagers, including woman to access job and income, without having to leave her village/family
3.	Access to outside world	The network of communication that allow villagers associated with the outside society actively, both national and global
4.	Most household engage in both farming and non-farming activities/labour	The villagers have a double income from farming activities and non-agriculture
5.	There is still local/traditional group	Provide opportunities to maintain traditional norms, including a spirit of social works and togetherness; strong social capital

6.	Access to Modern technology	Enable local communities to respond global/modern opportunities; Start available modern technologies for processing agricultural and non-agricultural products
7.	Contractual works is exist	Direct wages/cash economy quite dominant, though still tend to be informal sector
8.	Mixed on rural and urban institution	Enable local communities to maintain both traditional and modern activities
9.	Link to global market	Getting connected with the global economy

Source: Adopted from The Desakota Study Team (2008)

3.Description Of Research Area

Bali represents the most important tourist destination of Indonesia (Cole, 2012). Located eight degree of equator, Bali has warm temperatures which draws more than 3.5 million tourists in 2014 Tourism in Bali has been relying on the cultural activities and beaches (Rajendra and Nicholls, 2014). Hindu is the main religion in Bali. Its culture is strongly embodied in ceremonies, everyday rites, and temple festivals (Tang, 2004). Natural resources have been very important for this 5,636.66 km² island, for example coastal resources, agriculture, mining, and forest (Rajendra and Nicholls, 2014). Bali's main concept of development in 1970s was culture-based tourism development supported by agricultural activities (Sudaratmaja, 2010). Having relatively small area combined with high number of population, for about 4 million people in 2015, land conversions have been unbearable to occur. Land conversion has been a high demand for tourism development, mainly at Badung Regency, Gianyar Regency, and Denpasar City.

Land conversion in Bali has been occurred in average 380-400 ha per year in the last 12 years (Bali Environmental Agency, 2015). The highest record was set during 1987-2003. In average 1,000 ha open land per year was converted into built-up land. The number has actually declined in 2010-2014 that was 338 ha per year land conversion. Paddy field is relatively more in favor for investor than dry land because its equipped infrastructure, for example irrigation canal, street, bridge, market, and information system (Sudaratmaja, 2010).

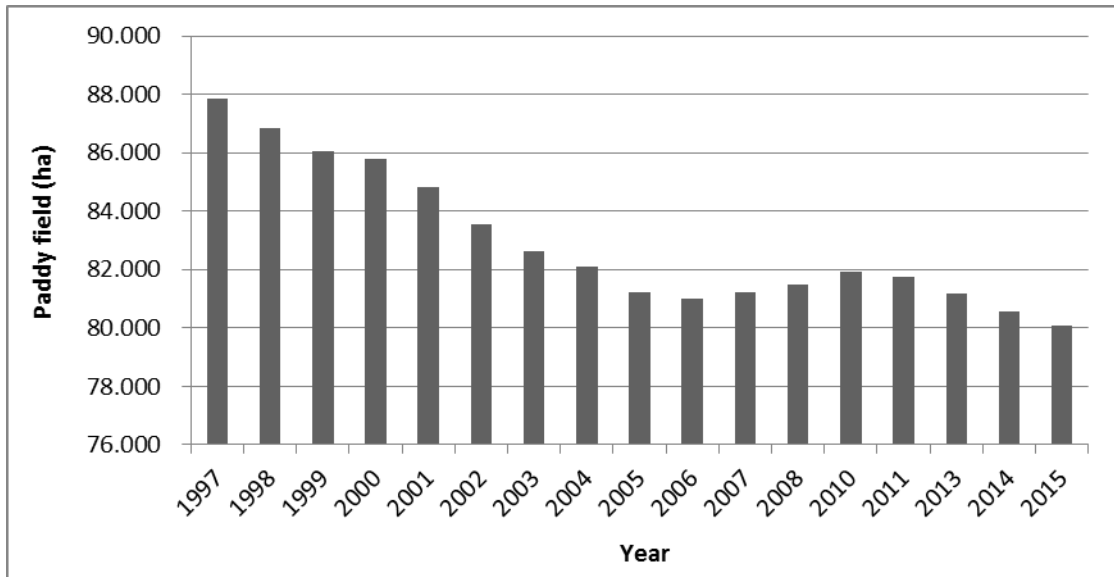


Figure 1. Land Conversion in Bali 1997-2015

Source: Bali Environmental Agency (2015) and Sudaratmaja (2010)

Bali Employment Statistic (2016) stated that in 2015, 56.12% employee in Bali works in service sector, and followed by 24.43% and 24.02% of agricultural sector and manufacture. In Denpasar City, tertiary sector has absorbed major employment, that are trading-hotel-restaurant (39.55%), service sector (24.02%), and industry (13.29%). Work opportunities in Denpasar City have drawn people from other regions, particularly rural area. The good quality of road infrastructures has made Denpasar accessible and relatively close to commute every day. Three cases of desa-kota, that are Lebih Village, Jagapati Village, and Pejaten Village, have different distances and traveling times.

Table 1. Distance from Three Villages to Denpasar City

Village	Distance to Denpasar	Traveling time to Denpasar
1. Lebih	20 km	45 minutes
2. Jagapati	15 km	33 minutes
3. Pejaten	30 km	1 hour and 4 minutes

Source: village book profile (2016)



Figure 2. The study area

Source: Google map and analysis (2016)



Figure 2. The study area

Source: Google map and analysis (2016)

Descriptions of Three Case Studies/Villages

The reserach has been able to identify several characteristics of the three villages that distinguishes one with the other. This characteristic is important to be understood and documented because it will be the basis of the development of three villages in the future. The following table summarizes the characteristics of the three villages that were examined.

Table 2. Description of Three Villages

DIMENSION	Village: Lebih, Gianyar	Village: Jagapati, Badung	Village: Pejaten, Tabanan
Physic/ environmental dimensions	<ul style="list-style-type: none"> • Unique landscape, a combination of hilly areas and coastal areas • Under pressures of new regional road/bypass: land conversion; • Traditional settlements and housing is still preserve, including agricultural lands 	<ul style="list-style-type: none"> • Environmentally sensitive, yet fertile areas in between two rivers; • Paddy fields still dominant and preserved; • Divided by regional road, but not significantly give pressures; • Traditional settlement is still preserved 	<ul style="list-style-type: none"> • A fertile geographical unit • Paddy fields, which are spacious and dominant, mixed with clay industry are tourism potential.
Socio-cultural	<ul style="list-style-type: none"> • Traditional practices are still strong; • New urban/tourism activities 	<ul style="list-style-type: none"> • Traditional practices are still strong; • New/modern activities exist in limited ways 	<ul style="list-style-type: none"> • Traditional practices are still strong; • Some villagers engage in tourism sectors/activities; • Start to become small tourism destination
Economy	<ul style="list-style-type: none"> • Mostly still depends on agricultural and fishery sectors; • Local economy is still dominant; • Tourism sector is increasing 	<ul style="list-style-type: none"> • Mostly still depends on agricultural sector; • Increasing number of villagers work in modern sectors (public and private) 	<ul style="list-style-type: none"> • Mostly depends on SMEs; • Increasing number of villagers engage in modern sectors.

Source: analysis (2016)

It can be summarized from the study that the three villages have characteristics that are fairly typical, although not too special. From physical point of views, for example, each village has its own unique which could be developed into a beautiful and unique residential and landscape. It particularly has an interesting blend of natural and human-made environment. It could then appreciated as a unique and interesting cultural landscape.

However, despite their uniqueness, the study also documented transformation processes that happen slowly. Such transformations, if not guided, could slowly erode and undermine the values landscape of the villages. As will be further expalin in this paper, the changing landscape of these villages have caused by some modern/government projests, including, bypass, embankment of the beach along the waterfront, as well as the construction of a variety of commercial and tourist facilities. In the case of the village of Jagapati, the existing

landscape has not occurred in large scales, except for the case of the construction of a new residential complex by developer which then adding elements of the urban landscape in the village setting. In the case of Pejaten, the changes happened due to the exploitation of clay for the raw material of tile and pottery which is quite massive. This process is even triggered some landslides in several areas, caused some casualties.

4. Research Finding And Discussions

4.1 Three cases based on Desa-kota Parameters

As has been stated in the previous section, McGee has stated that desa-kota settlement could be evaluated through at least nine parameters, consists of physical, social, and economic dimensions. An assessment of the three cases studied in this research reveals that these three cases meeting the parameters and criteria stated in the literature. As can be seen in the Table 3 below, with a slightly different conditions, all three cases meeting the criterias as desa-kota settlements according to Mc.Gee.

From spatial points of views, these three cases have relatively good and efficient access to the at least two cities. All three cases have access to the main/major city in the region, Denpasar. Case 1, Lebih also has access to the nearby city of Gianyar, Jagapati also has access to a famous town of Ubud, while Pejaten has also access to a growing city of Tabanan. Such good and efficient access to these three cities, open local communities in three villages to commute daily from their village for many economic, social, and even cultural activities.

Table 3. The Three Case According to the Desa-Kota Parameters

No	Parameter	General Condition of Three Cases
1.	Access to the city	All three villages have good access to the city and other urban/economic centers
2.	Job opportunities in second and tertiary sector	All three villages offer job opportunities in primary, secondary, and tertiary sector – mixed of job opportunities open for village residents;
3.	Access to outside world	All three villages have a good access to outside world, through many kinds of IT
4.	Most household engage in both farming and non-farming activities/labour	Most of village residents in three cases have a mixed-income/jobs, farming and non-farming
5.	There is still local/traditional group	Traditional institution (Adat) is still exist and strong/effective in three villages
6.	Access to Modern technology	Tend to uses traditional technology (in farming, industry, and trading
7.	Contractual works is exist	cash economy tends to be dominant, sector informal is still important
8.	Mixed on rural and urban institution	Balance mixed between traditional and modern institution (desa dinas and desa adat; bank etc.)

9.	Link to global market	More connected to global market, particularly Lebih village
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Source: analysis (2016)

4.2 Sustainability Assessment

A qualitative assessment based on FGD and various other informations has revealed that in general, the three villages could be categorized as those which shows some elements of sustainability. As can be seen in the Table 4 below, the sustainability prospect of the three villages is quite good. This general conclusion is very important because it can be used as the basis for further efforts to enhance the prospect of sustainability of the three villages.

Table 4. The Sustainability of Three Villages

Main Indicators	Lebih	Jagapati	Pejaten
1. Food Security And Sovereignty	+++	+++	+
2. Poverty/Vulnerability	+	+	+
3. Welfare/Happiness	+++	++	+++
4. The Role of Traditional Institutions	++++	++++	++++
5. Identity/Proudness	+++	+++	+++
6. Quality of Landscape	++	++	+++

Source: qualitatif assessment from FGD, interviews, and secondary information (2016)

The above table indicates that there are quite a lot of positive factors that play a role in ensuring sustainability of the three villages. Of the three pillars of sustainable development that are physical/environmental, social, and economic, all three villages have generally had a positive factors to maintain the condition and prospects of sustainability in three villages.

4.3 Factors Contributed to Sustainability of Three Villages

The study also identify factors that affect the condition and prospects of sustainability. Through a qualitatif assessment based on FGD, interviews with stakeholders, as well as the data collected, it can be summarised in the following table. The following table summarizes the various factors according to three pillars of sustainable concepts that are physical aspect/environment, social, and economic issues.

Table 5. Factors Contributed to Sustainability of Three Villages

DIMENSION	Village: Lebih, Gianyar	Village: Jagapati, Badung	Village: Pejaten, Tabanan
Physical/ Environment	<ul style="list-style-type: none"> Fertile land; Water availability; Open access to sea; Topography/steep slope. 	<ul style="list-style-type: none"> Clear settlement pattern; Fertile land; Good water supply; Paddy field still preserved; Housing density still 	<ul style="list-style-type: none"> . Clear settlement pattern; Unique settlement pattern (SMEs village) Good water supply; Housing density still fine/ok.

		fine/oke.	
Social	<ul style="list-style-type: none"> • Strong traditional institutions; • Good local leadership; • Good social capital; • Relatively small number of poor/vulnerable villagers. • Community's tolerance. 	<ul style="list-style-type: none"> • Strong traditional institutions; • Good local leadership; • Good social capital; • Community's tolerance. 	<ul style="list-style-type: none"> • Strong traditional institutions; • Good local leadership; • Good social capital; • Community's tolerance; • Relatively small number of poor/vulnerable villagers.
Economy	<ul style="list-style-type: none"> • Strong local economy/agriculture and fishery; • Mixed economy; Tourism opportunities 	<ul style="list-style-type: none"> • Job Opportunities from urban sectors; • Mixed economy. 	<ul style="list-style-type: none"> • Sustainability of traditional roof tile industry – its comparativeness; • Mixed economy.

Source: Qualitative assessment from FGD, interviews, and secondary information

4.4 Problems and Challenges faced by Three Villages

As mentioned earlier, the three villages also face some pressures that threaten their sustainability. The following table summaries the pressures and challenges faced by the three villages. Such pressures and challenges, for sure, should be understood and appropriately respond as they would guarantee the future sustainability of the three villages.

Table 6. Problems and Challenges faced by Three Villages

DIMENSION	Village: Lebih	Village: Jagapati	Village: Pejaten
Physical/ environmental	<ul style="list-style-type: none"> • Urban development: road and tourism facilities, • Seawall construction; • New housing development by developer; • Agricultural land conversion; • Increasing housing density; • Changing of traditional pattern of housing; • Air and water pollution. 	<ul style="list-style-type: none"> • New housing development by developers; • Agricultural land conversion • More uses of pestisida; • Increasing housing density; • Changing of traditional pattern of housing; 	<ul style="list-style-type: none"> • New housing development by developers; • Increasing housing density; • Changing of traditional pattern of housing; • Soil degradation; • Agricultural land conversion.

Socio-cultural	<ul style="list-style-type: none"> • Social changes; • New migrants; • New job opportunities; • Social inequality; • HRD. 	<ul style="list-style-type: none"> • Job opportunities; • HRD; • New consumerism 	<ul style="list-style-type: none"> • Job opportunities; • HRD.
Economy	<ul style="list-style-type: none"> • Economy gap • Tourism opportunities; • More cash economy. 	<ul style="list-style-type: none"> • Local economy; • Access to credit; • Economic value of agricultural sectors. 	<ul style="list-style-type: none"> • Competition with modern roof tile industry; • Market fluctuation

Source: qualitatif assessment from FGD, Interviews, and secondary information

5. Conclusion: Desa-kota: An Alternatif for Sustainable Settlement?

This research concludes four main findings. The first is that, as assumed in this research, the idea of desa-kota, firstly promoted by McGee in the early 1990s, is also existed in Bali. In this paradise island, the urban and rural tissue are strongly intertwined in a dynamic and complex system. Two settlement typologies exist in a very close proximity, the Desa (village) and the Kota (city) – The Desa-Kota. It is a mixture of agricultural and urban landscapes/fabrics which then can be appreciated as an interesting and unique cultural landscape. The Desa-Kota has urban densities, but a highly green quality. Functionally, urban settlement and rural landscape are intertwined in a dynamic and synergetic cooperation.

The second conclusion could be drawn from this research is that the Desa-Kota in Bali has some positive aspects in terms of its sustainability. There are at least six aspects of sustainability explored in this research, which includes: 1) food security; 2) poverty/vulnerability; 3) welfare and happiness; 4) identity/pride; 5) quality of landscape; and 6) the role of traditional institution. Although each village has different level of quality among these six aspects, in general, however, all have some kind of quality. In other words, this research has founded that those three cases have a relatively sustainability condition and prospects.

Further, the research also found several positive factors which significantly contribute for the sustainability of cultural landscape of the desa-kota in Bali which are: 1) strong adat/traditional institution; 2) government policies; and 3) local/community leadership. These three factors are dynamically play together. Efforts to guarantee future sustainability would depend very much on how we could support such three important factors. The fact that the role of traditional institutions is very strong and significant in three cases is actually not surprising as many studies have already argued that such aspect is crucial for the whole of Balinese culture.

In addition to such positive findings, however, the research also recognize several problems and challenges faced by the desa-kota in Bali. Among three dimensions of sustainability, economic dimension is the most challenges and problematic aspect. As far as these three villages able to appropriately respond such problematic and challenging aspect, their sustainability would be more guaranteed. This, in particular, relates to the idea of whether they could develop an alternative local economic resources, managed by local communities,

and tapping the growing global market opportunities. If that condition could be achieved, the desa-kota settlement in Bali could be further develop into an alternative model for resilient and sustainable settlement.

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