



## Land Conversion Versus Subak : How Bali's Face Gradually Changing Throughout History

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### ABSTRACT

Land conversion occurs globally as a result of population dynamics, infrastructure and agricultural expansions, as occurring in the island of God, Bali. Apparently, the land shifting phenomenon in Bali is not as simple as it sounds. It creates a complicated situation in which detrimental to the environment that subsequently affects the socio-cultural aspect in the long run. albeit Balinese rice field, with its *Subak* System, received UNESCO World Heritage title. The title seems unable to halt the conversion entirely. High demand and limited supply of land in Bali are resulting in skyrocketing price of the estate that slowly pushes the community to liquidate

their essential asset. Every year, the horticultural industry is shrinking bit by bit and transforming into real estate. Once an area is transmuted into a residential property or tourism destination, its neighbourhood would be most likely to experience a similar way. As the land composition is changing, migration would follow and boost the conversion process. Though Government is strictly regulating about land conversion through Law Number 41 of 2009 and Law Number 26 of 2007, yet society consciousness plays a vital role to determine whether Bali ricefield with its Subak would survive in the future.

**Keyword:** Land conversion, Subak, Rice Field, UNESCO

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### BACKGROUND

Land conversion occurs globally as a result of population dynamics, infrastructure and agricultural expansions. In-country where agriculture acts as its leading economic backbone, forests become a dominant area which shifting into farmland. On the other hand, a densely packed area converts both green lush scenery and agriculture into real estate whether to housing or any infrastructure to support the economic growth of the resident, as occurring in the island of God, Bali. Apparently, the land shifting phenomenon in Bali is not as simple as it sounds. It creates a complicated situation in which detrimental to the environment that subsequently affects the socio-cultural aspect in the long run. As tourism industry slowly place its grip upon Balinese society, land conversion rapidly takes place on the island's agricultural area, albeit Balinese rice field, with its *Subak* System, received UNESCO World Heritage title. The title seems unable to halt the conversion entirely. The land is gradually changing the island's face into some new, alien area that no longer matches Covarrubias description of hidden tropical paradise. The phenomenon also threatens the primary foundation of Balinese culture that developed from agricultural custom. Should the rice field no longer exist on the island, Subak might

someday become extinct if no one act to preserve the ancestor precious heritage.

### SUBAK AND ITS SIGNIFICANCE

The Subak is a social organisation, with its primary aim to control and regulate irrigation system for its member. It is an autonomous agricultural society that has been existing long before Rsi Markandeya arrival in Bali. In *Markandeya Purana*, as dated in early of 11 centuries, as well as written on *Prasasti Raja Purana* Klungkung, it described that Balinese society has had to recognise agriculture as well as the irrigation system. Therefore, the subak is believed to exist before the 11<sup>th</sup> century.

In order to achieve its objective, the subak has its regulation, commonly known as *Awig awig*. Four elements influence the awig awig establishment, they are the subak's boundaries or *parimandala*, member of subak or *Karaman*, Head of subak or *datu*, and God's protection or *tuah*. They also highly praise *Tri Hita Karana* concept in their routine, to keep a poise between them, environment and the God almighty.<sup>1</sup>

Thanks to the Subak, Bali is blessed with lush green carpets of rice field that supply the food availability. The breath-taking sceneries attract many foreigners to the island and acquainted with

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**Figure 1.** Four elements influence the *awig awig* establishment, they are the subak's boundaries or *parimandala*, member of subak or *Karaman*, Head of subak or *datu*, and God's protection or *tuah*.<sup>3</sup>

the local custom. It also gave birth to a countless ritual that strongly related to agricultural tradition such as *Ngaben Tikus*, *Nambunang Pulpul*, *Nangkuluk Merana*, and et cetera. Additionally, since 2012, Subak system has been acknowledged by UNESCO as World Heritage.<sup>2</sup>

However, as time passed, with agriculture area shrinking, Subak slowly only becomes a name. Tourism development is commonly treated as the chief reason for the conversion phenomenon. The limited land supply and high demand from tourism sector create a dilemma for the government. However, as it turns out, the Government is not the only one who holds the responsibility.

## THE REASON OF LAND CONVERSION

Chairman of the Subak Council of the City of Denpasar, I Wayan Jelantik, revealed that there were 42 subaks experiencing problems with the swift conversion of land functions. As one of the assets preserving cultural heritage, Subak in Denpasar City has experienced quite severe problems. The problems faced are mostly similar, namely the shrinking of agricultural land each year, which starts from rice fields into residential areas. Likewise, irrigation channels that flow through the water into rice fields are often blocked by rubbish thus water cannot flow smoothly to rice fields. From the area of Denpasar City which reached 12,778 hectares, only 2,693 hectares as part of rice fields. Settlement

expansion becomes the reason for land conversion continues.

The subak in Denpasar City compromises the land conversion by publishing *awig-awig* (rules). In their territory, the *krama* is being allowed to sell their land yet it must be still to be functioned as agricultural land. Furthermore, Several Subak in Denpasar such as Subak Uma Layu, Uma Dwi and Uma Desa are establishing a breakthrough innovation by combining jogging tracks and farms. The innovation is expected to become a tourist destination as well as to raise the economy of the farming community itself.<sup>4</sup>

A similar situation is also occurring in Gianyar regency. As a part of National Tourism Area Development as regulated in Presidential Regulation No. 51 of 2014, it was reported that in 2014, 800 Ha of its area transformed into tourism infrastructure. It is believed since development in non-agricultural interests flourishes each year, such as city infrastructure, residential and tourist destination. Therefore, land conversion is entirely inevitable.<sup>5</sup>

Conversion in agricultural land is a potential threat for the rice field in Bali, including the UNESCO-conserved subak rice field. Being titled as UNESCO World Heritage does not completely guarantee that the land would be less likely fell prey to exploitation. In April 2019, the local Government of Tabanan was receiving a sharp critique from various parties. Regarding their plan to build a helipad, as supporting facility to carry VVIP guest directly to Jatiluwih.<sup>6</sup> Faculty of Agriculture's Dean of Udayana University, Nyoman Rai, in one of his interviews stated not only the local government should take the blame. He argued that the community also puts economic benefits above all. Thus, it does not take much time till they decide to trade their land to the investors even though the area is within the area of the world heritage. Rai argued such an attitude must be stopped at once. He expected the local government to issue a ban on the land conversion since The Subak system is part of the traditional farming system. Subak landscape that has survived since centuries ago is a form of cultural heritage that continues to live on the island of Bali.

The stipulation of subak as a world heritage indeed gives tremendous benefits to the local. Nevertheless, Nyoman Rai realised that there is a significant economic gap between the world heritage subak and its surrounding rice field. The distinct instance is in Jatiluwih, Tabanan Regency. Jatiluwih rice terrace is well known for its lush paddy field. It is supported by nineteen Subak organisations to maintain its extravagant. However, the supporter





**Figure 2.** Jatiluwih Rice Terrace<sup>7</sup>



**Figure 3.** Bali Not For Sale, an Environment Campaign in 2013 to ignite the society awareness about land conversion in Bali<sup>10</sup>

subak organisations did not experience any significant prosperity if compared to the Jatiluwih Subak, that regularly received media publications, as well as tourists and government attention. Furthermore, plastic waste as a result from visitor often blocks the irrigation system and sometimes

being carried away to the rice field when the rainy season comes. Rather than taking great care on their land, selling it would be a wise choice. It is simple and does generate a large sum of money.<sup>8</sup>

Meanwhile, In the past five years, 700 hectares of rice fields in Bangli have converted into a residential area. Based on data, in 2013, the area of rice fields reached 2,735 hectares. Moreover, in 2018, according to the results from the National Land Agency, the area of paddy fields in Bangli fell to 2,036 hectares. Head of Spatial Planning Section, Bangli Public Works Department, Dewa Raka, explained that the economic value of agricultural land has dramatically increased. Therefore, with high market prices, farmers are willing to release their land.

Another factor that pushes farmers to sell their fields is that they see the water flows through the irrigation system continue to shrink. Many lands do not receive adequate water throughout the year that sometimes leads to crop failure. They consider it as a sign that agriculture would be no longer as profitable as it used to. Rather than to suffer from future uncertainty, they decide to obtain quick hard cash as a way to start a new life, a new way of living.<sup>9</sup>

To protect the land from conversion, The Indonesian government has issued Law Number 41 of 2009 concerning Protection of Sustainable Agricultural Land in order to preserve agricultural land for food security and to control land conversion. These objectives are explicitly mentioned in Article 3 Law Number 41 the Year 2009 concerning the Law for the Protection of Sustainable Agricultural Land. The objectives are:

1. to protect agricultural land continuously,
2. to guarantee the availability of agricultural land continuously,
3. to realise food security and prosperity, to protect farmers' ownership upon agricultural land,
4. to improve the welfare of the community and farmers,
5. to Increase farmer protection and development, to Increase employment opportunities for a prosperous life, to maintain ecological balance,
6. to realise agricultural revitalisation.

Besides, controlling land conversion from agriculture to non-agricultural land is one of the functions of land use policy. The policy stipulates that land use must comply with the Land Use Planning made according to Regulation Number 26 of 2007, concerning spatial planning. The law is an integrated system process of land use planning. National, Provincial and Regency / City spatial planning is carried out in stages and complementary. Also, spatial planning in the village is more directed

to maintain agricultural land for food security.

Law No. 41/2009 stipulates that land claimed as sustainable agricultural land is protected and prohibited from changing functions. Protected land can only be converted for public use where its function is determined by regulations. Conversion of protected land can be done with several requirements such as:

1. conducting a strategic feasibility study
2. manage land planning conversions
3. Free ownership of the owner, and
4. provide replacement land for converted land.
5. After fulfilling the requirements, the party who converted the land must provide replacement land by the suitability of the land by meeting criteria such as at least three times the land area if the converted land is irrigated land;
6. at least twice the area of land if the land being converted is an area for reclamation of tidal and tidal swamps (lowlands);
7. at least the same land area if the converted land is not irrigated the land.<sup>11</sup>

A highly bustling urban life tends to urge urban society to find a getaway, a tranquil sanctuary, surrounded with nature to escape from a stressful lifestyle. Bali's geographic condition fulfil the requirement to become a suitable place to develop rural tourism. The trend is escalating year by year. Forests, hill, valley, as well as ricefield that located in suburbs area, are relentlessly targeted by Tourism and Hospitality investor to erect a high-profit property to offer to the high market demand.

Once a brand new, prospectus property is being established, it leads to migration. Should the migration spread uncontrollably, it would force significant changes in landscapes and transforming them to urban amenities. The surrounding areas are experiencing 'post-productivity' condition; changing into places that more profitable from economic sides, such as restaurant, cafe, villa or rental property.<sup>12</sup>

Perceptions and acceptance of the local community, nevertheless have a significant influence on the decision speed whether the land will still serve its purpose sooner or later. Emotional attachment to a place that grows on individuals or groups in an environment becomes a critical factor in this phenomenon. Should the attachment has been manifested in the sense of fond, and possessive bond, then the emotional impetus would shape and push the public perception that they must protect and preserve the environment at any cost. It explains why some areas are significantly changing while the other part, seems trapped in between Bali's modern lifestyle.

## CONCLUSION

Rapid land conversion is threatening Multiple agricultural areas in Bali, including UNESCO world heritage Jatiluwih. High demand and limited supply of land in Bali are resulting in skyrocketing price of the estate that slowly pushes the community to liquidate their essential asset. Every year, the horticultural industry is shrinking bit by bit and transforming into real estate. Once an area is transmuted into a residential property or tourism destination, its neighbourhood would be most likely to experience a similar way. As the land composition is changing, migration would follow and boost the conversion process. Though Government is strictly regulating about land conversion through Law Number 41 of 2009 and Law Number 26 of 2007, yet society consciousness plays a vital role to determine whether Bali ricefield with its Subak would survive in the future.

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