

Rural Capitalization and Agrarian Transformation in the Ciwidey Highlands, West Java, Indonesia

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[Received: 31 December 2021; revision: 11 September 2022; accepted in final version: 10 November 2022]

Abstract. *The objective of this study was to examine the relationship between capitalization and rural transformation. By conducting a study in the Ciwidey Highlands of West Java, this study focused on the development of tourism as a path for capital flow that is directly connected with the existence of agricultural land and the livelihoods of the population as farmers. These two aspects are key elements in reviewing rural transformation. The data for this study were obtained through field observation at fourteen locations of agricultural land and a questionnaire survey distributed among ninety tourism workers. Through map interpretation and descriptive analysis, the results of this study show the impact of capitalization through tourism development in the increasing economic value of land, which results in the desire of farmers to sell their agricultural land. This impact was also seen in the shift in livelihoods. Rural capitalization through tourism investment has a significant impact on livelihoods, land tenure, and land use.*

Keywords. *agro-tourism, capitalization, land-use change, occupational shift, rural transformation*

Abstrak. *Tujuan studi ini adalah untuk menguji hubungan antara kapitalisasi dan transformasi pedesaan. Dengan melakukan kajian di Dataran Tinggi Ciwidey Jawa Barat, studi ini menempatkan pengembangan pariwisata sebagai jalur aliran modal yang bersinggungan langsung dengan keberadaan lahan pertanian dan mata pencaharian penduduk sebagai petani. Kedua aspek ini merupakan elemen kunci dalam mengkaji transformasi pedesaan. Data penelitian diperoleh melalui observasi lapangan di 14 lokasi lahan pertanian dan survei kuesioner terhadap 90 pekerja pariwisata. Melalui interpretasi peta dan analisis deskriptif, hasil penelitian ini menunjukkan dampak kapitalisasi melalui pengembangan pariwisata terhadap peningkatan nilai ekonomi tanah yang mengakibatkan keinginan petani untuk menjual tanah pertaniannya. Dampak ini juga terlihat pada pergeseran mata pencaharian. Kapitalisasi pedesaan melalui investasi pariwisata memiliki dampak yang signifikan terhadap mata pencaharian, penguasaan lahan, dan penggunaan lahan.*

Kata kunci. *agro-wisata, kapitalisasi, perubahan penggunaan lahan, pergeseran mata pencaharian, transformasi pedesaan*

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Introduction

Many scholars have examined agrarian changes as part of rural transformation in relation to capital inflow mainly from urban areas. They mostly regarded rural transformation as a mechanical process and categorized rural areas as subordinate areas of urban centers, as for example in Atharinafi & Wijaya (2021), Darmansyah et al. (2013), and Bah et al. (2003). This exogenous process runs on capital mobilization facilitated by investment, inter-regional trade, and worker mobility. Then, the capital inflow can proceed on a massive scale as a big push for commercial and service sector development, agricultural land occupation, and non-agricultural job opening (Vykhodtsev, 2008). From the viewpoint of regional development, it is understood as a spill-over effect of urbanization (Brockhoff & Brennan, 1998), encompassing various subjects such as occupational shift (Fréguin-Gresh, White & Losch, 2012), land-use conversion (Benu, 2013), and social change (Rauch, 2014).

It is reasonable to assume that such changes have significant economic, social, and environmental impacts on rural livelihoods. Based on a regional economic perspective and modernization theory, these changes are the logical consequence of economic progress, which is also driven by urbanization and industrialization (Berdegué et al., 2014; Chen & Kong, 2021). Meanwhile, critical studies view these as the dark side of urbanization (Jefferson, 2018), class conflict (Escher, 2020), or persistence of rural practices (Chung, 2013). Thus, structural changes in rural life, including the agricultural sector, have ignited scientific debate among scholars from various disciplines.

However, not all capital flows from urban areas can enter freely into rural regions because of socio-cultural movements in the local community. These movements are manifestations of the struggle of rural actors with development in their territory in resistance against the technocratic approach (Bebbington, Abramovay & Chiriboga, 2008; Loring, 2009). They can be seen in various contradictions, such as land ownership disputes, environmental degradation, and lack of basic services, which reduce the socio-economic benefits for the local communities and thus can interfere with broader processes of local development (Bicalho & Hoefle, 2009). The interactions between local communities and external actors, such as the state and capitalists, often range between 'participation' and 'co-optation', which can prolong social resistance, with all the benefits and risks that come with it. 'Participation' leads to strengthening the resilience of the movement to facilitate the provision of public services while at the same time supporting counter-hegemonic practices. On the other hand, 'co-optation' shows how acts of repression by the state have become a standard rule in rural development, which could ignite a challenge of state interventions (Pahnke, Tarlau & Wolford, 2015).

Based on the above understanding, there is a wide range of scientific arguments to provide alternative analyses of rural transformation based on the symptoms of agrarian change due to capital invasion. Those could open up valuable opportunities for scholars, planners, and decision-makers to question the influence of intangible aspects such as experience, prestige, social status, local tradition, and cultural identity on rural transformation. Therefore, this study assumed a different point of view, considering rural areas as powerful and independent entities, especially in terms of socio-economic aspects that may receive or reject capital inflow from urban areas (Parsons & Lawreniuk, 2022; Gillen, Bunnell & Rigg, 2022) In line with that, this study paid special attention to the role of local actors in rural development. Referring to Bebbington (2001), rural development not only involves intervention in policies and projects to promote socio-economic change and improve quality of life but is also a manifestation of capitalism expanding into rural areas.

According to the significant role of land as the basis of agrarian livelihoods, it is essential to elaborate on the deep relationship between rural capitalization and agricultural land occupation. This depends on the decision-making process used by farmers, individually or collectively (Hayden, Mattimoe & Lisa, 2021). However, the invasion of capital into a piece of land can be seen as the initial stage of a change of land use and ownership (Rauch, 2014). Once the change has occurred, it is reflected in alterations of the spatial setting and place identity in the rural area (Plat, 2004). This means the land is not only regarded as a natural and physical landscape but also as a symbolic landscape. In this sense, the occurrence of land occupation in agrarian livelihoods goes deeper than the issue of land availability (Axinn & Ghimire, 2011), economic rent (Chakrabarti & Kundu, 2009), production sustainability (Quasem, 2011), or environmental degradation (Wang & Liu, 2013). It also involves historical, social, and cultural attachment between people and land.

Both individually and in groups, humans are always bound or surrounded by unique structures called institutions. The term institution does not refer to its physical form but to socio-economic behavior based on humanistic aspects in certain circumstances (North, 1990). For all individuals, institutions are useful to manage all forms of interaction at all scales, such as household, neighborhood, company, and village, where there are choices of action that have consequences for themselves and for others (Ostrom, 2005). All human decisions regarding resources for living cannot be separated from these institutions. Institutions are the main facilitators in human-nature relationships (Buttimer, 2015). In terms of land use, the role of institution can be played by various actors, ranging from individuals, households, social groups, entrepreneurs, landowners, capital owners, and government agents, at multiple levels. Initially, the attention to the role of institutions reflects the increasing awareness to endogenous factors as the basis for economic progress (Domingues, 2015). They are understood not only as a social structure that has various rules and agreements but also as actors or agents who use specific methods in configuring and managing space/territory (Martin, 2003). Institutions contribute to creating spatial mechanisms that allow the spread of ideas or development impacts from the local to the global scale. This important role is in line with the understanding of institutions from a regional perspective, which reflects the existence of a relationship between actors that are spatially intertwined within a certain territorial scope.

This paper examines the results of a study that took place in the Ciwidey Highlands, a center of highland agriculture in the Province of West Java, Indonesia, which is also well known as a major tourism destination. The highland is located about 60 km south of the provincial capital, Bandung City. The study focused on 'where', 'why there', and 'how' rural capitalization is diffused in the region and affects agrarian livelihoods of the local people. Land is the arena for a meeting between local people (the farmers) and capital inflow. The first research question was to identify the underlying relationship between rural capitalization and agrarian land in the local context. The second research question was how local people respond to tourism developments over time as a reflection of capitalization in relation to local conditions and agrarian livelihoods.

Overview of Study Area

The Ciwidey Highlands are part of a series of mountains surrounding the Bandung Basin. This area is located at an altitude of 800 to 2,400 meters above sea level. The highest point is the peak of Mount Patuha (2,434 m), which is part of an old volcanic complex in the south of West Java. Volcanic material has spread fertility over this area, including on hillsides, foothills, and narrow valleys.

The fertility of the highland makes this area suitable for agricultural development. Ciwidey (and the rest of the Bandung Basin) has a reputation as a major agricultural producer. Unfortunately, there are not many historical records regarding agriculture in Ciwidey. One of the only available important documents describes the opening of the Rancabali tea plantation by the Dutch Colonial Government in 1870 for export purposes. In the context of Java, the 1870s marked the beginning of the era of agricultural capitalization in the form of large plantations (Boomgard, 2004). In the early 1970s, while under the Government of Indonesia, Ciwidey (and other areas in the Bandung Basin) was among the successful areas of the Indonesian Green Revolution program (Svensson, 1991; Hidayat, Iskandar, Gunawan, & Partasasmita, 2020). Prior to this time, the life of people in Ciwidey did not seem much different from other mountainous areas of West Java, which were mostly characterized by swidden agriculture (Iskandar & Iskandar, 2011; Setiadi, Yunus & Purwanto, 2017).

Later, in 2007, the Bandung Regency Government intervened in agricultural activities in this area through the Ciwidey Agropolitan Masterplan (CAM), which designated Ciwidey as an agrotourism area consisting of seven villages in three sub-districts, namely Ciwidey, Pasirjambu and Rancabali, and as an agropolitan area, named the Ciwidey Agropolitan Area (Agustina & Artiningsih, 2016). This policy was part of the rural development concept of increasing rural welfare by accelerating regional development and increasing rural-urban interrelationships (Friedmann & Douglass 1978; Friedmann, 1985). With the CAM, the foundation for agricultural economic development was established.

There was significant development of transportation hubs linking the Ciwidey area as a vegetable producer with modern markets in the cities of Bandung and Jakarta. Several studies have been done on farmer livelihoods. Budiman & Kurniasari (2016) found that farmers' incomes increased along with the improvement of these transportation hubs. Farmers could more easily distribute their commodities and develop a marketing network. This agropolitan development had several impacts in the Ciwidey area, particularly on agricultural land and farmers' livelihoods (Agustina & Artiningsih, 2016).

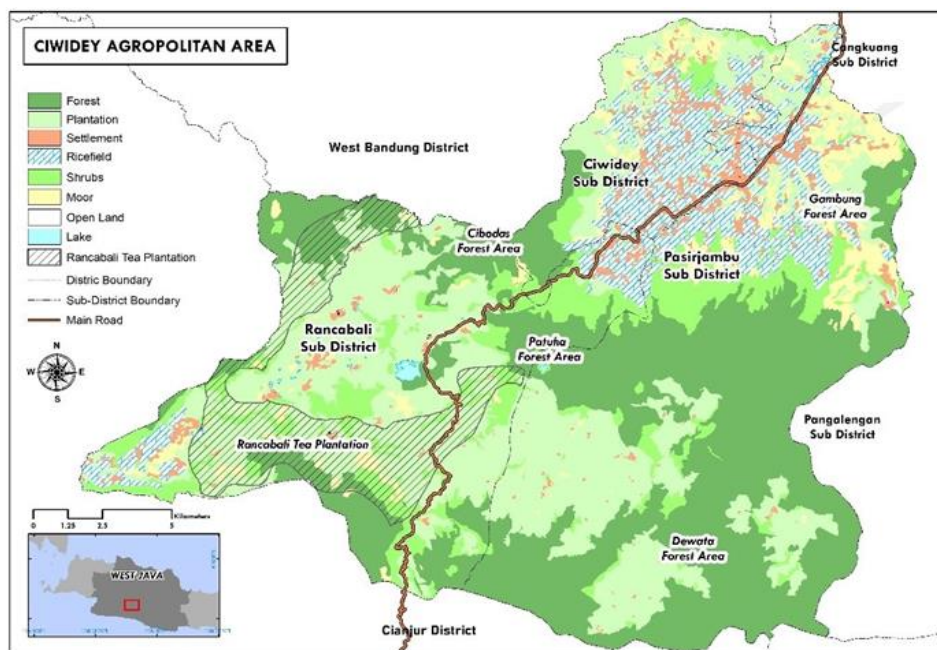


Figure 1. Ciwidey Agropolitan Area.

According to Figure 1, almost 30% of the total area of 20,000 hectares is used for agriculture, both wet and dry land, including the large-scale tea plantations of Rancabali. Currently, the plantation area of more than 3,500 hectares, which is a colonial heritage, is managed by a state-owned company (SOC), PT Perkebunan XII. Meanwhile, another SOC, namely PT Perhutani, is responsible for managing a protected forest area of 14,300 ha and a production forest area of 4,800 hectares, which is divided into four management units: Gambung, Patuha, Cibodas, and Dewata. These two companies represent the interests of the central government. They exclusively control a territory of approximately one-fifth of the total highland area. Almost no commercial buildings are in their territory, except for some tourist facilities that are managed by the companies. Most settlements developed on community-owned lands in the southern part of the study area. Along the main road, these settlements are mixed with various commercial activities, including hotels, villas, restaurants, and shops. The entire built-up area covers only 4.04% of the total area.

However, for urban people, especially from Bandung, the main attraction of Ciwidey lies not in its vegetable production but in the beauty of the mountainous scenery with various natural attractions, such as hot springs, volcanic craters, lakes, and plantation landscapes. A major tourism investment, Sindangreret Hotel, was built in 1978. Two years later, PT Perhutani opened the active crater Kawah Putih as a tourist attraction and PT Perkebunan XII opened their tea plantation area in Rancabali Area to the public. The two attractions have become tourism icons in the Ciwidey Highlands. Along with the Agropolitan Policy implementation in 2007, the Provincial Government of West Java intervened in agri-based tourism activities through the Regional Tourism Development Master Plan for the Bandung District to Ciwidey Area. This agri-based tourism has attracted a massive capital inflow that also affected local people's livelihoods.

Study method

Although the agropolitan concept is aimed at strategic rural development, it has a strong relationship with tourism activity. Based on this premise, one Ciwidey tourism icon, the gate of Kawah Putih at Patuha Forest Area, was appointed as the epicenter of the Ciwidey rural transformation, based on its popularity. Along the main road, the research area was divided into three parts with a buffer of 4 km as the analytical frame. All the economic-tourism activities were plotted based on the type of tourism facilities, mapped based on the year of establishment by asking each operator, and categorized into two timeframes, namely before (1999) and after (2019) the agropolitan policy designation in 2007.

A mixed method survey was used in this research. Firstly, a quantitative method was applied, for which a questionnaire was developed to see the livelihood transformation over the two time periods. Ninety respondents were selected according to specific criteria, such as working in tourism activities, being older than twenty years, then being born and raised in the Ciwidey area, and having parents who are still living in the Ciwidey area. These respondents were selected by quota sampling in each buffered area. The questionnaire was designed to gather information about the livelihood activities in their two-generation households, particularly in the years of 1999 and 2019. Secondly, a qualitative method was applied. There were two reasons to use this approach. Firstly, to validate specific information gained from quantitative measurements (land-use changes and agricultural institutions) by triangulating with secondary data from heads of villages on agricultural extension. Secondly, to conduct in-depth interviews with targeted households that had experienced specific agrarian changes. These in-dept interviews were held with fourteen households that had experienced land transactions and land tenure changes to explore the impact

of capital inflow on their agricultural land and household livelihoods. Each land transaction that had occurred within the study period was mapped to describe the land-use changes.

Literature review

Rural transformation is a process that allows a blurring of the distinction between rural and urban areas in terms of economic, social, and cultural aspects (Berdegué, Rosada & Bebbington, 2014). Spatial connectivity improvement is the main driving factor for rural transformation, as reflected in the interaction between rural and urban livelihoods in a mobility continuum (Steel & van Lindert, 2017). This results in various changes in production systems that are expected to encourage socio-economic progress in interconnected areas. Changes in the agricultural production system in rural areas pave the way for structural transformation in the form of simultaneous economic and demographic transitions (Losch, 2011). Essentially, this transformation reflects how the forces of production and social relations respond to the presence of external factors.

In social relations, the economic and demographic transition in rural areas has shifted the traditional-communal system to a more capitalist system (Hanani & Purnomo, 2010). In this case, there are two interrelated possibilities regarding the main cause of this shift. Firstly, the transformation was stimulated by an increase in agricultural production that was closely related to the rise in technological inputs (Losch, 2011), especially through government programs. The economic benefits of this increase allowed capital expansion to non-agricultural activities. The subsequent implication is the creation of job opportunities that do not rely on extensive land parcels, such as trade and services activities. Secondly, structural transformation can also occur in conditions when one particular mode of production dominates over several other modes in a certain area. This situation allows the extraction of social and economic surplus from the use of the factors of production by the dominant party (Peet, 1978).

The two possibilities above show two different processes in rural transformation: diffusion and domination. Diffusion is understood as a movement of inclusive development involving interactions and networks that imply the creation of several equal connections between actors with different roles (Habiyaremye, Kruss, & Booyens, 2020). Meanwhile, dominance explains the presence of a single actor who is able to force others to develop under his control (Setiadi, Yunus & Purwanto, 2017). However, it is difficult to make an absolute distinction between the two processes because of the work of the 'money economy'. This kind of economy causes a shift in the basis for economic prosperity from 'static capital' in the form of land to 'moving capital' in the form of money (Lombard, 2005). Money not only serves as a store of value but also as a tool for payment (Monnet, 2015). Therefore it can easily change hands and has very large social penetration power (Leyshon & Thrift, 1998).

In terms of rural capitalization, the flow of money is an important factor in agrarian change related to the issue of farmers' incomes (Jianping & Yanzun, 2014). It stimulates the commercialization of agriculture and causes changes in the organization of production, which are reflected in agricultural labor recruitment and land transactions. In fact, not all farmers can benefit from it because they cannot escape from traditional farming methods on limited land plots only used for securing food sources (Hanani & Purnomo, 2010). This is common in Indonesia as well as in some other Asian countries where farmers – especially small farmers – treat money as a tool of payment to meet basic needs rather than as capital for investment in the future (Hermawan & Andrianyta, 2013; Taylor, 2013). Many of them have to work various jobs to increase their income or to pay their debts to money lenders. Some of them look for work in urban areas (Rigg,

2006), which indicates that in fact rural capitalization has no effect on the financial returns or social status of farmers in the local system (Hanani & Purnomo, 2010).

From a regional perspective, the money economy represents a network ideology that emphasizes the process of negotiation and comprises the development of profit-based collaborations (Lombard, 2005). Through the money economy, each individual has greater autonomy to develop an economic network. This is a challenge for the agricultural or rural sector, which always faces uncertainty and instability of profits due to being very sensitive to climate and market conditions (Aimin, 2010). As a result, farmers may sell or convert agricultural land, allowing for developing non-agricultural activities that are more profitable, productive, and stable. However, the opportunity for farmers to switch jobs is also largely determined by their ability to take advantage of the role of the state, the existence of social networks, and often political conflicts (Rigg, 1998). The sale of agricultural land is often also a result of economic difficulties among farmers (Abelairas-Etxebarria & Astorkiza, 2012). This trend is a threat to the social status and economic resilience of farmers' households with limited land and subsistence farming methods (Pradoto, Setiyono, & Wahyono, 2018)

As a main actor of rural transformation, farmers are believed to have the ability to become an endogenous factor and stakeholders who can control activities that affect the condition of the land around them, and maintain stability and synergy between agricultural and non-agricultural activities (Lupi, Giaccio, Mastronardi, Giannelli & Scardera, 2017). Both individually and collectively, they play an essential role in decision making to maintain, expand or transfer ownership and use of land. The dynamics of land availability is part of a framework that emphasizes the relationship between human knowledge and experience as well as the spatial function of a place. In this perspective, the importance of the human factor lies not only in demographic aspects such as number, age, occupation, density, and distribution, but also in cognitive aspects such as values, beliefs, awareness, and expectations (Capra, 2007).

In rural livelihoods, a spatial symbolic order that forms the basis for a sustainable agriculture in which farmers and rice fields play a central role (Setiadi, et al., 2021). The relationship between the two determines the rural transformation scenario. In this case, farmers are the main controllers and decision makers over agricultural lands as the basis for their livelihood. However, the patterns of relations between farmers and their fields are not free from external influences. The market mechanism that leads to a money-based economy is the most active and most decisive external factor (Braudel, 1979) in changing the patterns of farmer-land relations. Hypothetically, it would be more challenging to apply such questions to highlands or mountainous regions where 'great culture' and 'great environment' meet (Price, 2015). Because of this, there is a need for "more research into social systems and their interactions with ecological systems" (Gleeson, et al., 2016) related to rural transformation, mainly in unique places such as mountainous regions.

However, farmers are not only connected to each other but also to other actors in a network according to a unique pattern. There are always various interests and distributions of power between actors across space (Castells-Quintana et al., 2017). The presence of these actors means that any attempt to change land use can be characterized by cooperation, conflict, or competition. As a result, land-use changes always take place in a complex process with non-linear patterns (Rindfuss et al., 2008). Therefore, development policies must be able to open up opportunities to internalize various externalities related to land-use change, including transfer of ownership

Result and Discussion

Spatial pattern of capital inflow: tourism development

As previously mentioned, Ciwidey is the main producer of highland vegetables such as carrots, cabbage, leek, cauliflower, lettuce, and garlic. However, in terms of land tenure, this region is divided into state-owned (represented by the SOCs) and community-owned territory. This is a symptom of land fragmentation where the difference in terms of ownership and land use is obvious (van Dijk, 2004). Various studies have discussed the different negative and positive impacts of land fragmentation. Some of the negative impacts are increasing economic costs, inhibiting mechanization, and high production inefficiencies, which result in reduced profits (Manjunatha, Anik, Speelman, & Nuppenau, 2013). Meanwhile, the positive side of land fragmentation is related to managing the risk of natural disturbances due to spatially dispersed agricultural activities, scheduling of harvests and employment of labor according to differences in physical land conditions, and the formation of a natural mosaic of landforms and plant types (Demetriou, 2014).

In Ciwidey, land fragmentation related to state-owned land in the form of plantations and forests has resulted in restrictions on land access. Historically, those lands were private plantations belonging to European businessmen during the colonial period in the nineteenth century (Nuralia, 2018). After being taken over by the Indonesian government, the management of the lands became the responsibility of the SOCs. Then, state rules were enforced in the name of mutual benefits while limiting the opportunities for local people to derive direct advantages from the land (Peluso, 1992). People's access to benefits from forests and plantations depends on the programs offered by the SOCs. On the other hand, among local farmers there is a feeling of what forest rangers call 'land hunger'. Our interviews with farmers confirmed that these feelings encourage some of them to take advantage of vacant and unguarded forest lands, especially on the boundaries of protected forests. They believe that using the vacant land is better than leaving it unused.

The adoption of the CAM in 2007 encouraged investment outside of state-owned land. Figure 2 shows the development of tourist attractions before and after the establishment of the CAM. After 2007, the number of tourist attractions has approximately doubled along the main roads. The center of tourism activities has also shifted from the area managed by PT Perhutani (near the Kawah Putih tourist attraction) to areas managed by the local community. Around this new center, tourist attractions and facilities have sprung up, developed by local people (strawberry gardens, rental houses, souvenir shops, etc.) and non-local investors (hotels, cottages, tourist parks, villas, restaurants, etc.). All of this is mixed with local settlements, indicating the connection between capitalization and the population's daily life.

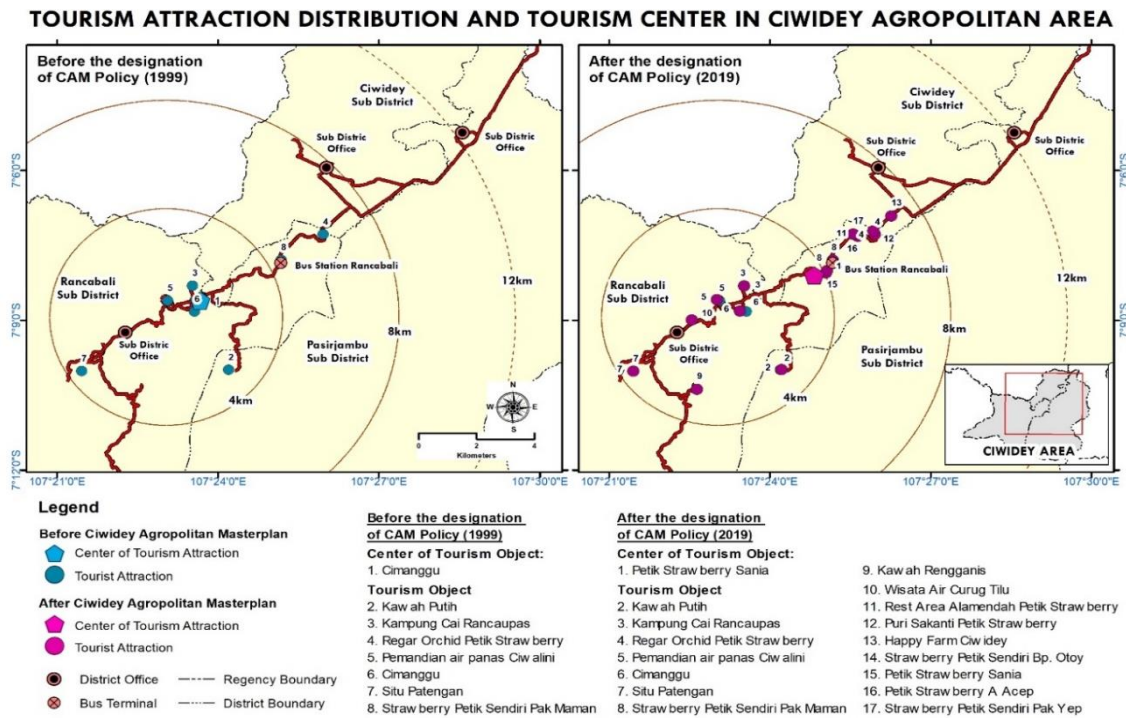


Figure 2. Spatial distribution of tourist attractions before (1999) and after (2019) Publication of the Ciwidey Agropolitan Masterplan (CAM) in 2007.

After 2007, two state-owned companies managing protected forests (PT Perhutani) and tea plantations (PT Perkebunan XII) also took advantage of investments in the tourism sector. Apart from not having to buy land, they were endowed with many natural features such as waterfalls, hot springs, forests, and landscapes in the area under their control. They had a comparative advantage to develop nature-based tourism (NBT) that depended on indigenous factors in terms of natural environment and socio-cultural elements (Reynolds & Braithwaite, 2001). In addition to Kawah Putih as the main attraction opened by PT Perhutani in the Patuha Forest Area, several other NBT attractions were also developed. Tourists can enjoy forest tracking to the crater, spend the afternoon in a hot spring pool, and sleep at a campsite. Several tourist operators also offer packages for spending a couple of days in the Ciwidey area, such as 4WD road trips, glamour camping near Lake Rengganis, morning tea-walks in tea plantations, and various other outbound activities. In creating interesting tourism package these operators are working together with local communities and different actors in the area. This situation supports Hakim's finding that community involvement is crucial as part of the sustainable tourism framework (Hakim, 2008).

Meanwhile, on the lands of local people, agriculture-based tourism (ABT) was developed. Ciwidey villagers involved in tourism business by converting their vegetable fields into strawberry farms for picking tours.. This began in the early 2000s when strawberries emerged as a new agricultural commodity and became a new tourist icon. Strawberry gardens emerged along the main road to tourist attractions and were cultivated by local residents. During interviews, strawberry farmers informed us that many tourists visit to pick strawberries at a price of IDR 35,000 to 50,000 per kg. In a different way, strawberry farmers whose land is far from the road usually sell their products at stalls on the side of the main road or at tourist spots. Thus, local residents who work as farmers have the opportunity to obtain economic benefits from tourism development without having to convert their agricultural land, instead only changing the type of crops from vegetables to strawberries. In addition to local tourist markets, farmers also sell

strawberry products to regional markets (Bandung and Jakarta) through local middlemen and wholesalers. Actually, there are also several large-scale strawberry plantations owned by outside investors, which are generally integrated with hotels, restaurants, and tourist parks. The involvement of investors in the strawberry business indicates the sale of agricultural land by farmers, especially in locations with good accessibility and beautiful scenery.

The rapid development of tourism activities in Ciwidey after the designation of the CAM is clearly visible in the pattern of development of secondary tourism facilities such as hotels, restaurants, and souvenir shops. As with the tourism attractions, most of the secondary facilities that were developed after 2007 are on lands belonging to local people (Figure 3). Spatially, these facilities are located at a radius of more than 4 km from the main tourist attraction of Kawah Putih. Unlike strawberry farming, hotel construction is always preceded by the sale of land owned by residents to outsiders. Many of these hotels were developed by private companies based in Jakarta and Bandung. A feasibility study document presented by one of the informants revealed that the investment in hotel construction could reach around IDR 80 billion, of which 36.2% (IDR 26 billion) was allocated for the purchase of 13,000 square meters of land. On average, this means IDR 2 million for every square meter of land. For farmers, this price is quite tempting because it can provide the opportunity to earn large amounts of money. This figure also indicates the rapid capitalization of community-owned territory. The land sold was not only agricultural land but also residential land.

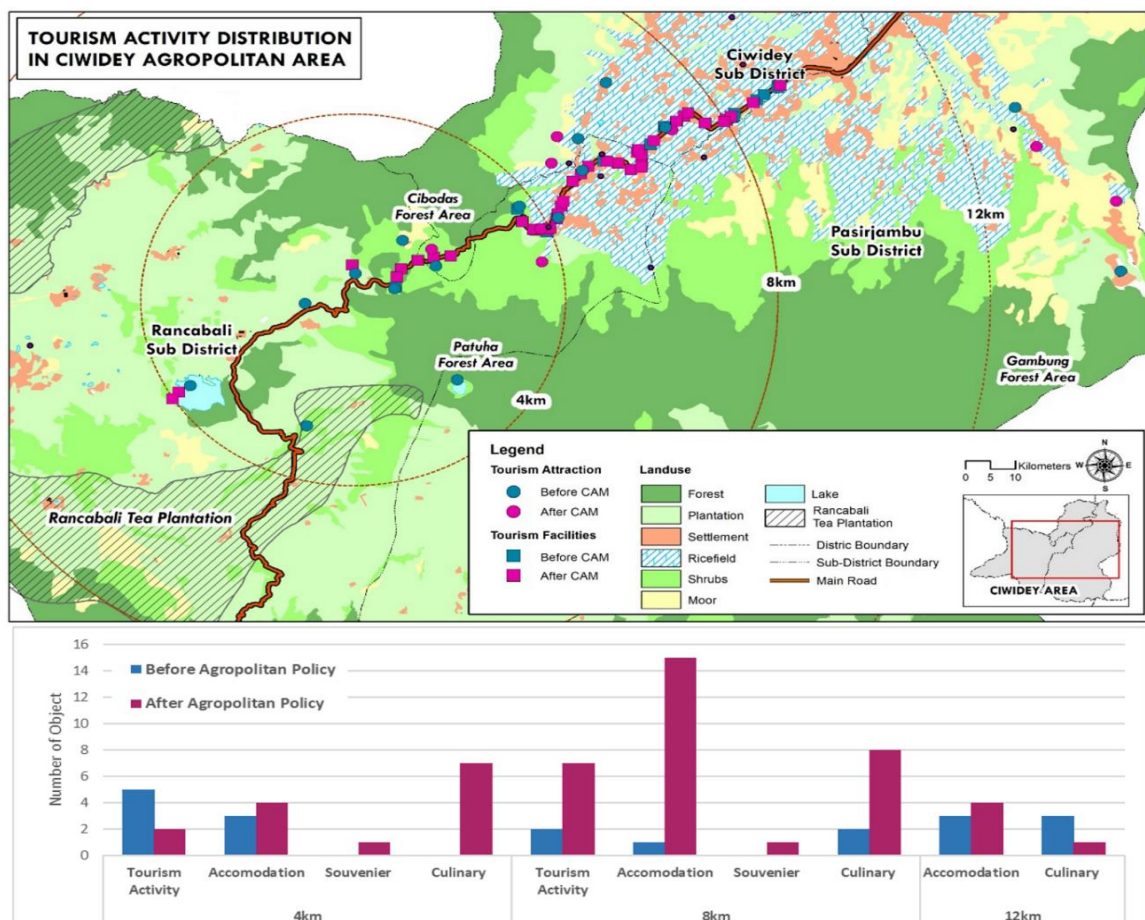


Figure 3. Spatial distribution of tourism activities and facilities in the Ciwidey area before (1999) and after (2019) the publication of the Ciwidey Agropolitan Masterplan (CAM).

Impact of tourism capital inflow on rural transformation

The discussion above showed that there are differences in the basis and patterns of tourism development between territory owned by the SOCs and territory owned by the community. The discussion in this section focuses on the impact of tourism development on two aspects of rural life, namely changes in livelihoods and land use.

The first aspect in discussing the impact of tourism is changes in livelihoods. We conducted a questionnaire survey among ninety individual tourism workers, both at tourist attractions and secondary facilities. The results of the survey are presented in Table 1 and Figure 4. After the CAM was adopted in 2007 there was a drastic increase in the number of tourism workers from around 9% to more than 70%. Many farmers and traders changed their livelihoods to become tourism workers. Among the farmers, only 15% remained who chose to stay. New workers also preferred to work in the tourism sector rather than in agriculture. A surprising finding was that only 10% of participants were involved in trading after 2007. The low involvement of local workers in trading activities indicates a weak relationship between local life and tourism, whereas trade is a local economic activity that is most easily developed by the advancement of tourism (Muro-Rodríguez, Pérez-Jiménez & Sánchez-Araque, 2020). Spatially, the shift in livelihoods occurred both among those who lived near and those who lived far from tourist centers (Setiadi, Rizqihandari & Setiadi, 2022). The distance between residence and tourist attraction was not a determinant for local residents to choose a type of livelihood.

Table 1. Occupational shift of local people

1999 (before CAM)	2019 (after CAM)						Total	
	Trade		Tourism		Farming			
	Person(s)	%	Person(s)	%	Person(s)	%	Person(s)	%
Not working	3	3.3	20	22.2	3	3.3	26	28.9
Trade	4	4.4	18	20.0	0	0.0	22	24.4
Tourism	1	1.1	7	7.8	0	0.0	8	8.9
Farming	1	1.1	20	22.2	13	14.4	34	37.8
Total	9	10.0	65	72.2	16	17.8	90	100

Source: Field survey, January 2020

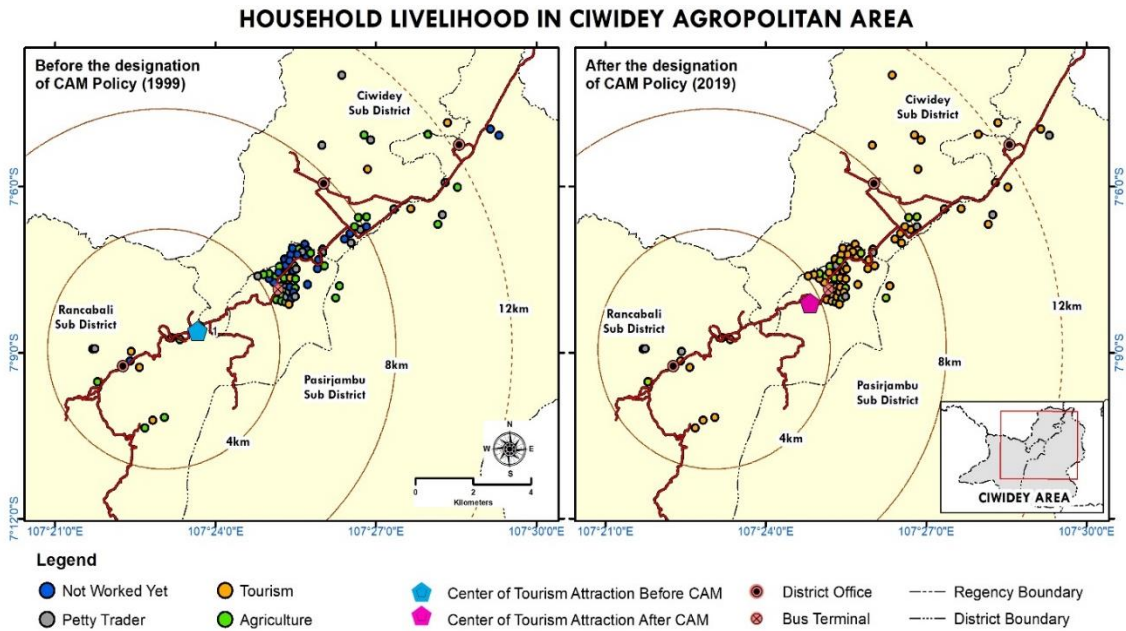


Figure 4. Change in occupation of local people before (1999) and after (2019) the publication of the Ciwidey Agropolitan Masterplan (CAM) in 2007.

To review the land-use changes, we observed fourteen parcels of land that varied in size, location, and use (Figure 5). In addition, we also conducted interviews with the respective landowners to obtain information about their experiences and preferences for selling land and changing the land use.

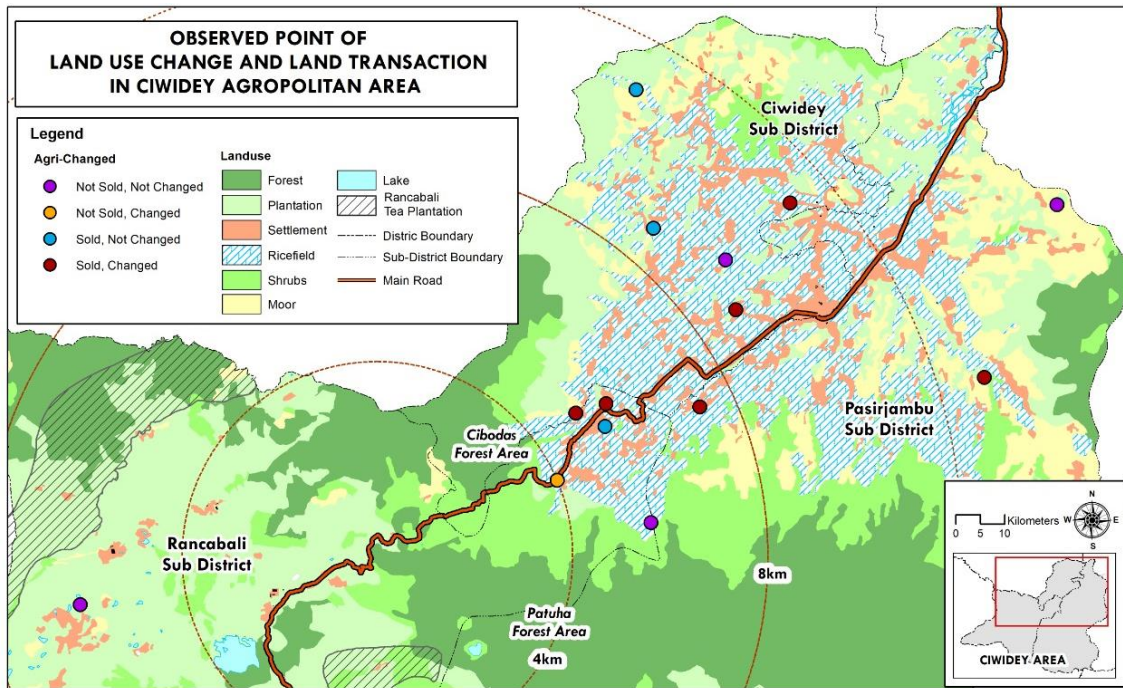


Figure 5: Variations in land transactions and land-use changes in the Ciwidey Highlands based on 2020 survey results (modified from Fikri et al., 2022).

Table 2. Experience and preference for selling land

No	Experience of selling land	Agricultural commodities	Motives	Future Land Use Change/Sale Plan
1		Strawberries	Land as a basis for household income	Not planning to sell
2	Not sold, not changed	Strawberries	Future family assets	Not planning to sell
3		Rice paddies	Source of food for family	Not planning to sell
4		Vegetables	Maintain agricultural livelihood	Possible to sell due to urgent need
5		Vegetables	Get a plot of land closer to home	Not planning to sell, instead want to expand the land
6	Sold, not changed	Coffee, vegetables	Get a plot of land closer to home	Not planning to sell
7		Coffee, avocados, vegetables, rice paddies	Buy a motorcycle for family daily needs	Not planning to sell
8	Not sold, changed	Strawberries	High land prices and urgent need for quick money	Possible to sell due to urgent need
9		Rice paddies into shop house	Prepare for children's education costs	Possible to sell due to urgent need
10		Vegetables into a cottage	Take profit from increased land prices	Possible to sell due to urgent need
11	Sold, changed	Strawberries into shop house	Pay off family debts	Not planning to sell, instead want to expand the land
12		Figs	Provide living cost for children to study outside the village, a big city	Not planning to sell
13		Oranges, sweet potatoes	Buy a car to increase family assets	Possible to convert part of the land for building cottages
14		Vegetables in petty store	Overcome crop failure	Possible to sell due to urgent need

Source: Field survey in January 2020 and Fikri et al. (2022)

There is one important note regarding the sale of land in the Ciwidey Highlands. Local residents recognize two land area units, namely *tumbak* and square meters. The *tumbak* is a traditional unit of measurement that is generally used to determine the extent of agricultural land. One *tumbak* is equivalent to fourteen square meters. *Tumbak* is usually used when farmers want to sell their land to fellow farmers. However, if farmers intend to sell their land to outsiders, they prefer to use square meters. In this way farmers can offer higher prices. For comparison, when the survey was conducted in January 2020, the price of agricultural land far from the main road was around IDR 3 million per *tumbak*, or IDR 215 thousand per square meter. For the land near the road, the price

ranged from IDR 700 to 900 thousand per square meter. Meanwhile, the price of land on the side of the main road, which is in great demand by capital owners, was around IDR 2 to 5 million per square meter. That means selling land to outside investor provides a greater financial return than selling to local residents.

Figure 5 reveals the relation between location characteristics and land sales by local residents. By recalling Figures 2 and 3, it can be seen that there was a high tendency to sell land around the center of tourism activities. The flow of capital to this location increases the economic value of the land. This allows the owners to earn more money from the sale of land, although afterwards they may no longer have land to farm anymore. It depends on whether the money earned is sufficient to buy other farmland from fellow farmers, which may be smaller. As presented in Table 2, two of the fourteen interviewed landowners admitted that high land prices were the reason for selling agricultural land. The proceeds from these sales could be used to buy other, cheaper agricultural land. Respondent 10, for example, said he sold land because he was tempted by the high price. He used the money to buy land at a lower price that was situated in the foothills. Thus, he did not need to change his occupation as a farmer. He spent some of the money to build a house for his son. Although he still wanted to be a farmer, he would not mind selling land again in the future under urgent conditions.

High land prices are not the only reason to sell land. Another reason is the fear of crop failure and urgent needs, including paying debts, as related by Respondent 14 (Table 2). He was forced to sell his land to cover losses due to crop failure. Besides paying his debts, the money from the sale of the land was used for daily needs, so he had nothing left to buy another plot of land for farming. Since then, he worked as a farm laborer for a daily wage. However, he wished that one day he would be able to own land again for farming.

These reasons indicate that the mechanism of land price formation due to tourism investment had a different effect on each farmer. Some farmers were determined not to sell land despite the opportunity to earn more money. According to Figure 5, this determination is more visible in locations far from tourist centers. As emphasized by Respondents 1 and 2, the farmers did not want to sell their land because they perceived agriculture as their primary source of income and future savings for the family. Especially for rice farmers (Respondent 3), the land is a source of food for the family, so they can save household expenses. In fact, this tendency was also found in locations around the tourist centers. One of five landowners near the tourist centers, namely Respondent 8, had no desire to sell his land even though he was aware of the increase in land prices. In order to earn more money, he only changed his agricultural production from vegetables to strawberries. Some other farmers also saw the tourism business as an opportunity to increase household income by converting part of their agricultural land to tourism facilities, as stated by Respondent 13, who wanted to build a cottage in the near future, even though he had previously sold part of his land.

The findings above show that no matter how much capital flows into rural areas and changes the agricultural landscape, there is always hope among the villagers, especially farmers, to keep their agricultural lands. The farmers in the most profitable locations have to deal with the land market mechanism. Resistance to the temptation of high land prices is essential for keeping agricultural land (Petrescu-Mag, Rastegari Kopaei & Petrescu, 2021). It implies significant difficulties for farmers who are in uncertainty about their agricultural commodities. Agricultural land is always vulnerable to change. This situation often raises critical questions about whether the transfer of agricultural land ownership to outsiders reflects investors' speculative economic motivation or an opportunity for regional development and progress.

The study results indicate that rural areas are highly vulnerable to changes due to external influences related to two main factors. Firstly, the socio-economic dynamics that are in line with the penetration of capital in the urban sector. And secondly, the specific pattern of changes in agricultural land use according to the drivers of change, which will be different in different landscapes (Alexandrov, 1997; Metzger, Rounsevell, Acosta-Michlik, Leemans & Schröter, 2006). Government policy interventions and market mechanisms can modify the nature of vulnerability. In the case of Ciwidey, the establishment of an agro-tourism area was a gateway for spreading the influence of market mechanisms legitimized by government policies. This designation had a profound impact on two important rural elements, namely agricultural land and livelihoods, and the relationship between the two. Although agricultural land is the basis of long-term livelihoods for most villagers, there has been a tendency for a small number of villagers to perceive land as an asset that can be traded for short-term financial gain.

Conclusion

The increase in tourism investments as a result of the establishment of an agropolitan master plan in the Ciwidey Highlands has led to a shift of the tourist center from state-owned to community-owned areas, which shows the influence of capitalization in the daily lives of the local population. In line with this, the proportion of local people working in the tourism sector has increased more than eight times as many farmers and new workers have entered into economic activities related to tourism. It also stimulated the demand for land, which encouraged the desire of farmers to sell land or change the use of their land. No matter how much farmers want to keep agricultural land, rural transformation to non-agricultural life will continue. Rural capitalization that takes place through tourism has an impact on the decreasing interest of the local population to work in the agricultural sector and the emergence of the view among farmers that land is an asset that can be traded for short-term financial gain. Even though most farmers still believe in land as the basis for long-term livelihoods, capitalization has changed the agricultural landscape, causing them to have to deal with market mechanisms.

Acknowledgments

The authors would like to thank the Directorate of Research and Development, the University of Indonesia for the support and opportunity to complete this research through the PUTI Q3 Research Grant with Agreement Letter Number NKB-1980/UN2.RST/HKP.05.00/2020.

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