

# **Study of Village Autonomy and the Rural-urban Linkages Framework for Equitable Regional Development under Village Law 6/2014: A Case Study of Indragiri Hulu Regency, Riau Province, Indonesia**

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## **Abstract**

Indonesia's Village Law 6/2014, a new rural development policy, has entered its fourth year of implementation. This policy enables villages in Indonesia to play a key role in national development. Rural growth is stimulated by Village Law 6/2014 through a provision of extensive autonomy and resource support to villages through significant financial transfers from central government. Inter-village development gaps are being reduced through the distribution of village funds in line with the area, population, geographical difficulties, and poverty levels in each village. However, regional development equity cannot be achieved if development focuses only on rural contexts. Reciprocal linkage is required between rural and urban areas. Village Law 6/2014 changes the role of district and village governments in rural development and goes a step farther to create a new rural-urban linkage framework in regional development. This paper suggests a regional development framework that emphasises the importance of mutually beneficial reciprocity between rural and urban areas. The rapid rural development under Law 6/2014 must be supported by strengthening the structure and function of towns in rural areas, so that people in the region may benefit from the simultaneous growth. A case study in Indragiri Hulu Regency shows that the implementation of Law 6/2014 has had a positive impact on the equitable distribution of rural infrastructure development. However, to reduce regional development disparities, the district government should also play an active role in the strengthening of small towns through the provision of infrastructure and public service facilities.

Keywords: Village Law 6/2014, rural development, rural-urban linkages, equitable development, Indonesia

## **1. Introduction**

After the fall of the New Order regime in 1998, many regions in Indonesia intended to separate themselves from the Unitary State of the Republic of Indonesia. Among other political factors, disparities in regional development – especially felt by regions that had abundant natural resources but were lagging behind in development – had been a driving force for these areas to separate from the Republic at that time<sup>1</sup>. Rustiadi et al. (2009) argue that the widespread rural-urban, Java-outer Java, and West Indonesia-East Indonesia development disparity was generated

by economic and other factors such as geographical location, politics, government policy, administration, and social culture. Amid the threat of disintegration and regional development inequality issues, the Government of Indonesia (GoI) issued a decentralisation policy on local governance through Law number 22 in 1999.

The regional autonomy policy for local governments through Law 22/1999, which was subsequently replaced by Law 32/2004 and Law 23/2014, was part of the efforts to address disparities in regional development, including an imbalance of authority between the central and local governments. Nevertheless, the regional autonomy policy has not had a significant impact on rural development. Village government remains in a weak position as the lowest administrative unit, and it is still highly dependent on higher government authorities (Maschab, 2013).

In 2014, the GoI issued an affirmative policy for rural regions through Village Law 6/2014. The policy provides broader authority and responsibility to village governments to implement development initiatives. There are several previous studies on the implications of Law 6/2014, some of which include Vel and Bedner (2015), Lewis (2015), Antlov et al. (2016), Phahlevy (2016), and Irawan (2017). Previous studies tend to focus on the issues in changing the nature of village governance from the perspective of state administration and public policy. Little, if any, emphasis tends to be placed on the issue of how decentralisation policies on rural development affect rural–urban linkages and regional development disparities.

Rural–urban linkages in developing countries have been widely studied and discussed by scholars (Maro, 1990; Pedersen, 1997; Douglass, 1998; Tacoli, 1998; Hinderink and Titus, 2001; Owusu, 2005; Rustiadi et al., 2009). However, the literature indicates that it is difficult to apply a generalised concept or theory to all such countries. Each country has its unique geographical features, political situation, social-economic conditions, cultural landmarks, and government policies. This paper examines the implications of the rural development decentralisation policy of Law 6/2014 to rural–urban linkages. It investigates how the law works to reduce development disparities in Indonesia from a regional development perspective. The discussion on this topic is essential, because rural and urban areas have a very close relationship in the processes of regional development. Reciprocal mutual relations between rural and urban areas would encourage the acceleration of equitable regional development in Indonesia.

The objectives of this paper are to illustrate the new framework of rural–urban linkages in regional development under Law 6/2014 and to examine the effect of the policy on the equitable distribution of infrastructure development in rural areas. This paper consists of the following sections. The first two sections examine the relationship between rural development decentralisation policies and urban–rural linkages in regional development to provide a theoretical framework for this paper. The third section describes the conceptual framework of rural–urban linkages in regional development. The fourth section examines the implications of Law 6/2014 for regional development disparities using the Indragiri Hulu Regency in Riau Province as an example. The fifth section concludes the discussion.

## 2. Rural–urban Linkages in Regional Development

### 2.1. Definitions of Rural and Urban

The definitions of the terms rural and urban vary significantly among countries. Since the differences between countries are vast, it is problematic to generalise these definitions based on demographics and economic criteria (Tacoli, 1998). In Indonesia, there are several legislations regarding the definitions of rural and urban (Table 1). Urban and rural, in local administrative contexts, can be explained as follows. According to Law 23/2014 on local governance, local administrative regions in Indonesia are separated into four levels: *provinsi*, *kabupaten/kota*, *kecamatan*, and *desa/kelurahan*<sup>2</sup>. *Kabupaten* (regency) and *kota* (municipality) regions are both autonomous within the

provincial administration. *Kota* is the administrative area designated as an urban area, while *kabupaten* is a rural area. *Kabupaten/kota* consists of *kecamatan* (sub-districts), and the sub-district consists of *desa* and *kelurahan*.

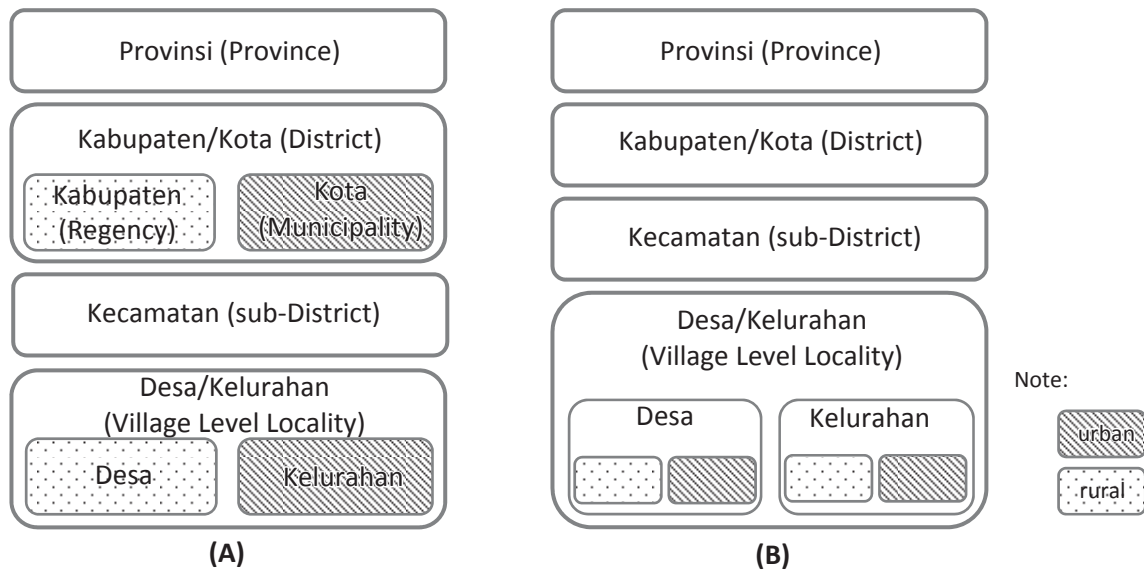


Figure 1. The rural-urban definition by administration definition (A), and function (B)

Source: Adapted from Law 23/2014 on Local Governance and Central Bureau of Statistics Regulation 37/2010

The definitions of rural and urban are also not limited solely to one administrative level. There are two ways of defining "urban-rural" in the Indonesian context: the administrative definition and the functional definition (Figure 1). In the administrative definition, *kota* and *kelurahan* are officially defined as urban areas and *kabupaten* and *desa* are defined as rural areas. In the functional definition, each village-level administrative region (*desa/kelurahan*) is assigned a functional status of "rural" or "urban" based on its character. The Central Bureau of Statistics, or *Badan Pusat Statistik* (BPS), applies a technical scoring method to determine whether a village-level administrative area can be classified as "rural" or "urban" by criteria such as population density, agricultural livelihood percentage, urban facilities, formal education facilities, or public health facilities.

Table 1. Definition of Rural and Urban in Legislations

No.	Legislation	Rural	Urban
1.	Law 22/1999 on Local Government	Areas of predominantly agricultural activities, including management of other resources, with the arrangement of functions including rural settlement, service, government, social services, and economic activities.	Areas of predominantly non-agricultural activities, with the arrangement of functions including urban settlements, centralisation, and distribution of government services, social services, and economic activity.
2.	Law 26/2007 on Spatial Planning	Areas with main activities in the agricultural sector and natural resource management, with the arrangement of local functions including rural settlements, government services, social services, and economic activities.	Areas dominated by non-agricultural activities, with functions including urban settlements, centralisation and distribution of government services, social services, and economic activities.  Urban areas are classified by size into small urban areas, medium urban areas, large urban areas, metropolitan areas, and megapolitan areas.
3.	Regulation of the Central Bureau of Statistics 37/2010 on the Definition of Urban and Rural	Rural is the status of a village-level administrative area ( <i>desa/kelurahan</i> ) that does not meet urban classification criteria.	Urban is the status of a village-level administrative ( <i>desa/kelurahan</i> ) area that meets the urban classification criteria.

Source: Compiled from Law 22/1999, Law 26/2007, and Regulation of the Central Bureau of Statistics 37/2010

In practice, rural development policies implementation in Indonesia are often based solely on administrative definitions to determine the target areas of these policies. Meanwhile, functional definitions from the Central Bureau of Statistics receive less attention. As a result, policy implementation is often poorly targeted, where *desa* that meet urban criteria still benefit from rural development policies. Meanwhile, *kelurahan* that are classified as rural are not the target areas of rural development policies.

## 2.2. Rural-urban Linkages and Disparities in Regional Development

In brief, regional development is concerned with the welfare of people inhabiting specific geographical locations and the enhancement of these locations. This is complex however, since regional development is a multidimensional concept with many socioeconomic variations. Nijkamp and Abreu (2009) state that several factors determine large socioeconomic variations in regional development, namely the availability of natural resources, access and availability of capital, labour quality and quantity, physical infrastructure, investment, culture, social structure, technology, and open-mindedness. The diversity of these factors affect the equity of regional development. In the context of Indonesia, the country has more than 17,000 islands with tremendous variety regarding natural resources, human resources, physical infrastructure, and culture. This causes developmental gaps between islands and provokes polarisation between villages at the district level. The widening urban-rural polarisation in regional development, especially in developing countries, has been a significant issue since the 1950s. At the time, the debate centred on the nature of rural-urban relationships and whether the city played a role as a parasite or driver in the development of rural hinterland (Singer, 1964). Planners, scholars, and policy makers are split into two groups: pro- and anti-urban. Pro-urban groups argue that economic growth and modernisation in urban areas will have a positive effect on the development of rural areas through a “trickle-down effect”. In contrast, the anti-urban group believes that the urban

role is only to exploit rural areas so that economic growth is concentrated on urban centres, which would be a source of problems for the surrounding rural areas (Douglass, 1998).

To better understand the rural-urban role in the polarisation of development, it is necessary to look at the interactions between rural and urban areas. Some previous studies discuss the different forms of rural-urban linkages in regional development (Table 2). The linkages between rural and urban areas can be the flows of tangible objects such as population, commodities, waste and physical infrastructure, or such linkages could be characterised by the flows of intangible objects such as information, economy, politics, and culture. The intensity and dependence of rural and urban areas on these flows affect the nature of rural-urban linkages, whether mutually beneficial or exploitative. It can be concluded that rural and urban areas are closely linked in sustaining life and improving the wellbeing of those residing in both areas.

**Table 2. Rural-urban Linkages**

No.	Author	Urban-rural linkages
1.	Preston (1975)	Linkages are reflected in the movement of people or migration, the flow of goods, services, energy, financial transfers, asset transfers, and information.
2.	Rondinelli (1985)	Linkages groups: physical, economic, technological, population movement, social delivery, and political relationships.
3.	Douglass (1998)	Five major linkage flows: population, production, commodity, capital, and information.
4.	Tacoli (1998)	The flow of people, goods, waste, information, and money act as the linkage between rural-urban spaces.
5.	Pradhan (2003)	Rural-urban linkages: spatial/physical linkages, economic linkages, socio-cultural linkages, technological linkages, administrative organisation linkages, and service delivery linkages.

Source: Compiled from Preston (1975), Rondinelli (1985), Douglass (1998), Tacoli (1998), and Pradhan (2003)

Previous studies list factors that affect rural-urban linkages, namely public services, infrastructure, production, socioeconomic, and institutional factors. The flows that occur in rural-urban linkages are generally the flows of people, money/goods, and information. The nature of the flows can be generative or parasitic/exploitative, depending on their impact on urban and rural development. The nature of these flows affect the polarisation in regional development between rural and urban areas. The previous studies mentioned above provide a theoretical foundation for the rural-urban linkages examined in this paper.

Government policies play a significant role in addressing the problems in rural-urban linkages. Over the years, there have been huge variations in policy interventions around the world in response to regional development disparities. However, the policy variations represented in the literature can be grouped into five major currents: supply-side policy, growth pole strategy, infrastructure policy, self-organising policy, and *suprastructure policy*<sup>3</sup> (Nijkamp and Abreu, 2009). Policy variations indicate that the developmental problems faced by countries in the world vary considerably. Thus, the policy interventions implemented also vary. Disparities in rural and urban development are also significant problems in Indonesia.

The GoI recognises the importance of equitable regional development. Since the 1990s, the GoI has made policy interventions to reduce regional development disparities by implementing various sectoral development programmes. Sectoral programmes such as Poverty Alleviation through Rural-Urban Linkages, Sub-district/*Kecamatan* Development Program (KDP), National Program of Community Empowerment/*Program Nasional Pemberdayaan Masyarakat* (PNPM), Development of Production Centres, *Agropolitan*<sup>4</sup> Development, *Minapolitan* (marine and fishery

centre), and Tourism Development Areas have resulted in variations across Indonesia (Mulyana, 2014).

Policy interventions through sectoral programs have not shown the expected results in reducing disparities in rural-urban development. One of the contributing factors is the diversity in geographic, socioeconomic, and cultural conditions. Regional and local development policies that prioritise sectoral integration, spatial linkages, and synergy among development actors tend to be more effective in reducing rural-urban disparities than sector-based approaches (Rustiadi et al., 2009). The lesson learned from the implementation of sectoral policies is that a top-down plan cannot be used as a single prescription to solve problems in the region context. This is owing to the diversity of regional characteristics and issues. Therefore, what is needed is a national policy that also considers the development from below, where the community is actively involved in the planning and implementation of development according to the needs and characteristics of each region. The new rural development policy through Law 6/2014 provides promising opportunities for equitable development in Indonesia, as it incorporates top-down and bottom-up approaches in policy implementation.

### 3. Decentralisation Policy and Regional Development in Indonesia

#### 3.1. Regional Autonomy and Regional Development Disparities

The terminologies of decentralisation and regional autonomy are not new for the GoI. In fact, they have been used in Indonesia's legislation since the beginning of independence in 1945 (Appendix 1). However, the issue of decentralisation and regional autonomy became a primary concern after the fall of Suharto in 1998. Akita (1988) reveals that the spatial pattern of Indonesia's economic development during the Suharto government was concentrated in Java, while the outer islands received less attention. Amid the problems of disintegration and development disparities between the regions, the GoI passed Law 22/1999 on local governance as a new decentralisation policy in Indonesia. It was subsequently replaced by Law 32/2004 and Law 23/2014.

Many studies discuss the implementation of the Local Governance Law from the perspectives of financial decentralisation (Lewis, 2003; Brodjonegoro, 2006; Mulyo, 2015; Anshari, 2017), regional development (Firman, 2009), and village governance and rural development (Antlov, 2003; Antlov and Eko, 2012). The implementation of regional autonomy is one of the ways in which the government intends to overcome the problems of regional development disparity and the imbalance of authority between the central and local governments. Decentralisation is not intended to weaken the role of the central government. Instead, it seeks to empower the local government to be more responsive to community needs at the local level (Firman, 2009; Rustiadi et al., 2009). Maro (1990) argues that decentralisation is the best way to implement development from below as a means for facilitating socioeconomic development planning. He elaborates that decentralisation has the following objectives: 1. to promote participation in local development planning either directly by local communities or through local politicians and administrators, 2. to improve development efficiency via flexibility in the implementation of planning and coordination among stakeholders involved in planning at the local level, and 3. to strengthen national unity through granting regional autonomy to the local government. The literature confirms that the decentralisation policy has provided significant opportunities and benefits to regions in development through transfer of authority and resources from the central government to local governments.

The Regional Government Law 22/1999 and its replacement laws not only outlined district-level decentralisation but also granted autonomy to the village government. However, in practice, the village government gained limited power for managing the development of its territory. Antlov (2003) and Antlov and Eko (2012) highlighted the issue of the role of village government in development over the period of 1999 to 2012. Although the GoI has granted

wider autonomy to village governments through Law 22/1999 and Law 32/2004, in implementation, village government was still heavily dependent on the central and district governments regarding rural development. Village government was given little authority in the management of finances. The implementation of rural development was carried out by the district government and through top-down sectoral programmes introduced by national ministries. Rural communities did not benefit from regional autonomy and rural development policies at the time. Nationally, the outcome of the policy was reflected in a low-categorised, self-sufficient village index in 2014 (Agusta, 2014). This low level of self-sufficiency among the villages indicates that development outcomes are still less likely to increase development potential, community participation, and desired benefits and impacts within villages. Thus, appropriate policy interventions are needed to address the rural development issues in Indonesia.

### 3.2. Village Autonomy and Rural Development

In 2014, the GoI passed Law 6/2014, which is the second law published by the Indonesian government which explicitly regulates the village. Before the enactment of Law 6/2014, villages were governed by Law 5/1979. With Law 6/2014, the decentralisation policies implementations previously restricted to the regency/municipality level became applicable to the village level, which is the lowest local administrative context in Indonesia. Changes in village definitions, financial resources, and relationships between villages and districts from 1945 to 2014 are displayed in Appendix 2.

Law 6/2014 grants broader autonomy to village government in the development of its territory. It emphasises the involvement of the community in the planning and implementation of rural-scale development policies. The principles adopted by Law 6/2014 regarding community participation and empowerment in rural development are a continuation of the values pioneered by Community Driven Development (CDD) programmes such as KDP and PNPM development (Wijaya and Ishihara, 2018). Dasgupta and Beard (2007) argue that there are three central propositions in a CDD approach: decentralisation, democratisation and collective action. Law 6/2014 focuses on more than just the devolution of the development authority to the village. It also focuses on the obligations of the central and local governments to allocate development funds managed by the village government.

Law 6/2014 mandates that the central government allocate a budget for the “*Dana Desa*” or Village Fund designated for the village. The funds are transferred through regency/municipality budgets and prioritised for development and empowerment of rural communities. Data from the Ministry of Finance (MoF) in 2017 show that more than 80% of the total Village Fund budget was used for infrastructure development in rural areas throughout Indonesia (Table 3). Through Law 22/1999 and Law 32/2004, the villages in Indonesia are experiencing rapid development that they have never previously experienced. Village-scale infrastructure such as roads, bridges, clean water facilities, educational facilities, and health facilities are the outputs of the implementation of Law 6/2014.

**Table 3. Utilisation of Village Funds 2015–2016**

	2015 Budget		2016 Budget	
	trillion rupiah	%	trillion rupiah	%
Infrastructure development	14.21	82.21	40.54	87.7
Community empowerment	1.37	7.7	3.17	6.8
Government operational	1.13	6.55	1.68	3.6
Community development	0.61	3.51	0.84	1.8

Source: *Buku Pintar Dana Desa*, Ministry of Finance, 2017

Some recent studies focus on the implementation of Law 6/2014. For instance, Irawan (2017) examines the implications of the policy from the perspective of public administration. He concludes that the implementation of Law 6/2014, a hybrid (top-down and bottom-up) approach to the development process, has increased the effectiveness of the village government and the level of community satisfaction with the provision of public services, democratic deliberations, and rural development. This result is consistent with the results of Antlov et al. (2016), who argue that a combination of strong upward accountability and active participation of village communities in the development process can provide balance to the village government so that it is responsive in meeting the needs of the community.

Previous studies tend to focus on significant changes in the rural development framework under Law 6/2014. Village autonomy, democratisation, and active participation from rural communities in the rural development process are crucial subjects in these earlier studies. However, the extent to which the implementation of village autonomy through Law 6/2014 affects rural-urban linkages and its impact on regional development equity do not appear to have received attention.

Recently, the GoI claimed that the implementation of Law 6/2014 has had a positive impact on the distribution of income in rural areas. This was indicated by the decline in the Gini ratio<sup>5</sup> in rural areas from 0.34 in 2014 to 0.32 in 2017. The fall in the Gini ratio was followed by a decline in the percentage of the poor population in rural areas from 14.09% in 2015 to 13.93% in 2017 (MoF, 2017). Rural and urban areas have their respective roles and functions, but they are complementary to each other and inseparable. Government policies in rural development will have an impact on the surrounding urban areas and vice versa. From Section 3.3 to the end of this paper, we discuss the implications of Law 6/2014 on rural-urban linkages and opportunities available for equitable regional development in Indonesia.

### 3.3. Role of Sub-district and District Capital in Regional Development

Various concepts and developmental strategies have been introduced to improve linkages and alleviate the disparity between urban and rural environments. In the 1960s, and in line with the development paradigm that prevailed at the time, many countries implemented development strategies designed to achieve economic growth by stimulating industrial development in centres that had been designated as “growth poles” through public investment (Douglass, 1988; Tecoli, 1998; Rustiadi et al., 2009). The failure of the “growth poles” theory led to new concepts of balanced rural-urban development. Friedmann (1968) proposes the importance of the growth of small towns in the hinterland to counter excessive agglomeration in major cities. Rondinelli (1985) states that three factors mean that rural-urban interactions are unfavourable to the development of the village, namely 1. the limited number of small and medium towns, 2. the limited distribution of facilities and services between small and medium towns in rural areas, and 3. the limited linkages between residential sites in rural areas.

According to size, the urban areas of Indonesia are separated into five areas, namely small urban areas, medium urban areas, large urban areas, metropolitan areas, and megapolitan areas. Small urban areas are located in sub-district administrations, medium and large urban areas, regency/municipality administrations, and metropolitan and megapolitan areas in the provincial administration<sup>6</sup>. In regional development, medium and small urban areas may play an essential role in equitable development if well planned and managed, as they can connect and mediate between rural and urban areas (Evans, 1992; Hinderink and Titus, 1998; Firman, 2016). Urban areas play the following roles in regional development: service centres and consumer shopping, support and marketing centres for agriculture, and antipodes of population migration from rural to metropolitan and megapolitan cities (Douglass, 1998).



The municipality/regency capital, as a centre of the government, public service, and economic activity in the district administration area, has been given authority in the management of local development since the beginning of Indonesia's independence. For the districts in Indonesia with large areas, sub-district capitals play a significant role given their urban function in rural areas. Facilities and infrastructure are developed in sub-district capitals as a service cluster for the surrounding countryside. This practice is in line with the concept put forth by Rondinelli (1985), who states the importance of grouping services, facilities, and infrastructure in a centralised place that may be easily accessed by a widely-dispersed population in rural areas.

After the enactment of Law 22/1999, district governments were given broader autonomy in regional development. Villages are heavily dependent on district and central governments for regional financial resources and infrastructure development. At the same time, the sub-district – which during the New Order<sup>7</sup> period had a village oversight function – no longer supervised the village and became a technical implementation agency with delegated authority from the district government. There has been a shift in the role of sub-districts and districts since the enactment of Law 6/2014. The role of sub-district and district governments has diminished because it has been decentralised to villages. However, village governments are still required to coordinate and collaborate with the sub-district and district governments.

According to Tacoli (1998), decentralisation policies supported by finance and resources that facilitate villages in the decision-making process can enable the articulation of local needs and preferences. This, in turn, spurs rural and urban development. Law 6/2014 has the potential to promote regional development because it provides broader authority to the village in the decision-making process for development. It is also significantly financially supported through the Village Fund distribution. Thus, it is expected to meet the local needs and preferences of rural communities towards development. The role of the district and sub-district capital in supporting rural development under Law 6/2014 is crucial as an economic, social, and public service centre for the surrounding countryside. Strengthening the function of small towns will support regional equity development efforts. However, as Hinderink and Titus (2002) found, reinforcing the structure and function of small towns will only have a positive impact on the countryside if the rural areas have been able to meet their own needs. Therefore, to ensure equitable development in Indonesia, the implementation of rural development policy through Law 6/2014 must be supported by strengthening the function of small towns.

#### **4. Conceptual Framework of Rural–Urban Linkages in Regional Development**

The transfer of resources and authority from the central and local government to the village government under Law 6/2014 has several objectives. Regarding regional development, the fundamental aims are to improve public services, encourage the participation of rural communities in developing the assets of the village, and address the national development gap<sup>8</sup>. Indonesia, similar to many other developing countries in the world, is dominated by the agricultural sector and low incomes. Thus, the country faces the problem of widespread development disparities between urban and rural areas. Development equity, which is the primary objective of decentralisation, will be difficult to achieve if there is no simultaneous increase in the income of rural populations (Owusu, 2005).

Law 6/2014 provides an opportunity for villagers to be involved in the decision-making process through village meetings. These meetings address decisions involving the development of infrastructure and the provision of public services that can promote the economy of rural communities. Irawan (2017) find that village community satisfaction on the implementation of deliberative democracy, provision of public services, and infrastructure development had increased since the implementation of Law 6/2014.

Before the implementation of Law 6/2014, the district capital played a very significant role in rural development (Figure 2). Most infrastructure development projects and public services in rural areas were organised by the district and supported by sub-district governments, which are extensions of district governments. With the active participation of communities in their implementation, CDD programmes play a significant role in the empowerment of rural communities and the development of village-scale infrastructure. The fulfilment of public demand for public services, infrastructure development, and community empowerment affects the economy of rural communities. Rural economic conditions have strong links with population, money, and information flow in the surrounding small towns. Examples of such towns include sub-district capitals or villages that play the role of urban functional areas. The role of district governments is to ensure balanced development between villages and regions. On the other hand, villages have almost no role in the implementation of rural development since the decision-making process and development policy are focused on the district capitals.

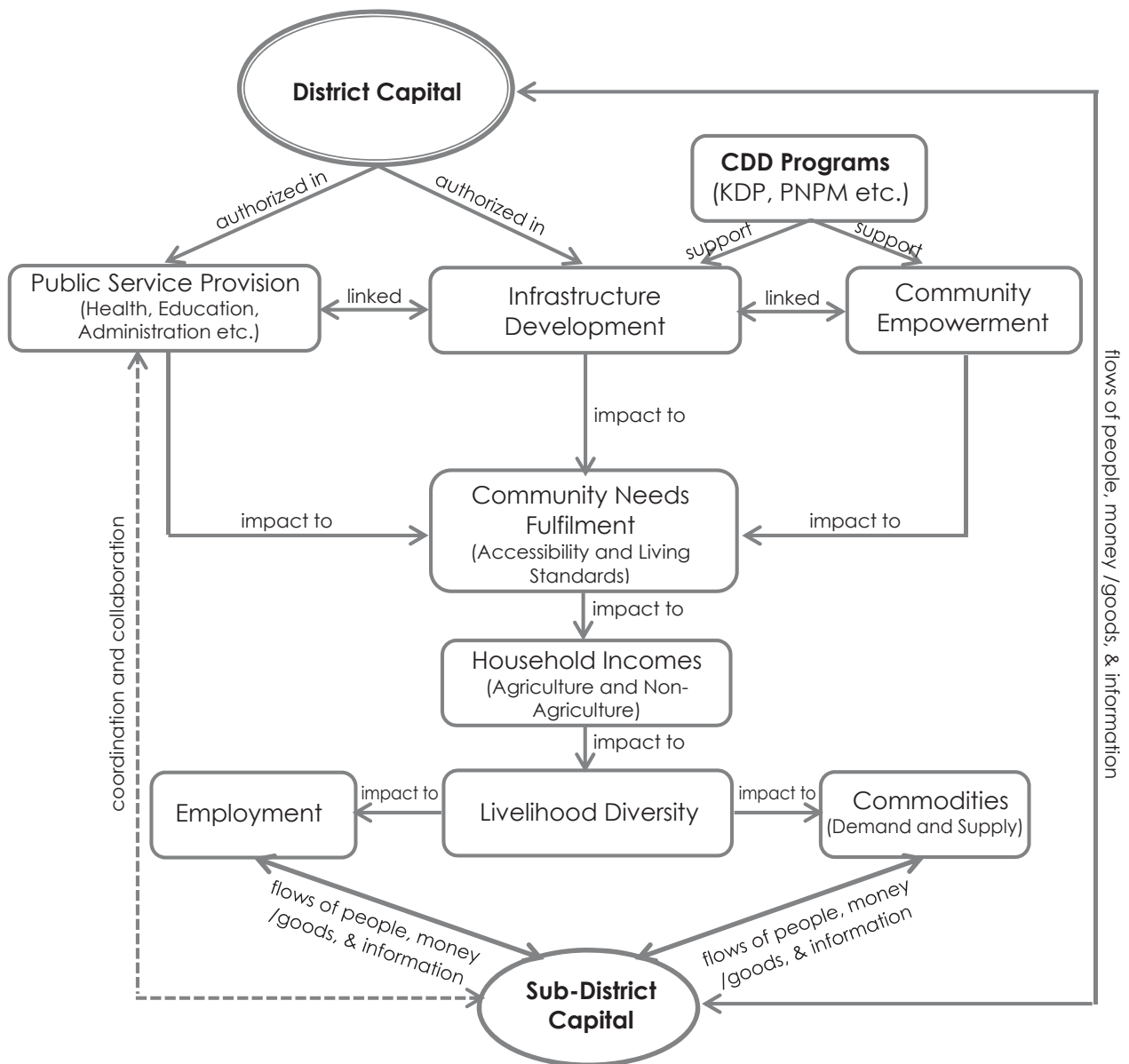


Figure 2. Framework of rural-urban linkages in regional development before the implementation of Law 6/2014

Source: Created by Author

The framework above is, to some extent, similar to some theoretical frameworks that are proposed by earlier researchers who emphasise the importance of strengthening small towns in rural areas. For example, Owusu (2005) introduces a development model centred on the district capital under Ghana's decentralisation programme. Owusu's framework is based on the idea that small town development will strengthen rural-urban linkages and have a positive impact on the hinterland (Figure 3). Owusu's framework demonstrates the significant role of district capitals in reducing poverty and improving living standards for rural populations. Village governments and rural communities tend to receive very little developmental attention from district governments.

Law 6/2014 is a form of a bottom-up approach involving community participation, as specified by Maro (1990), and it can have a positive impact on regional development. The village, which is the lowest administrative area in Indonesia, has been given significant authority and resources for development. However, it should be noted that

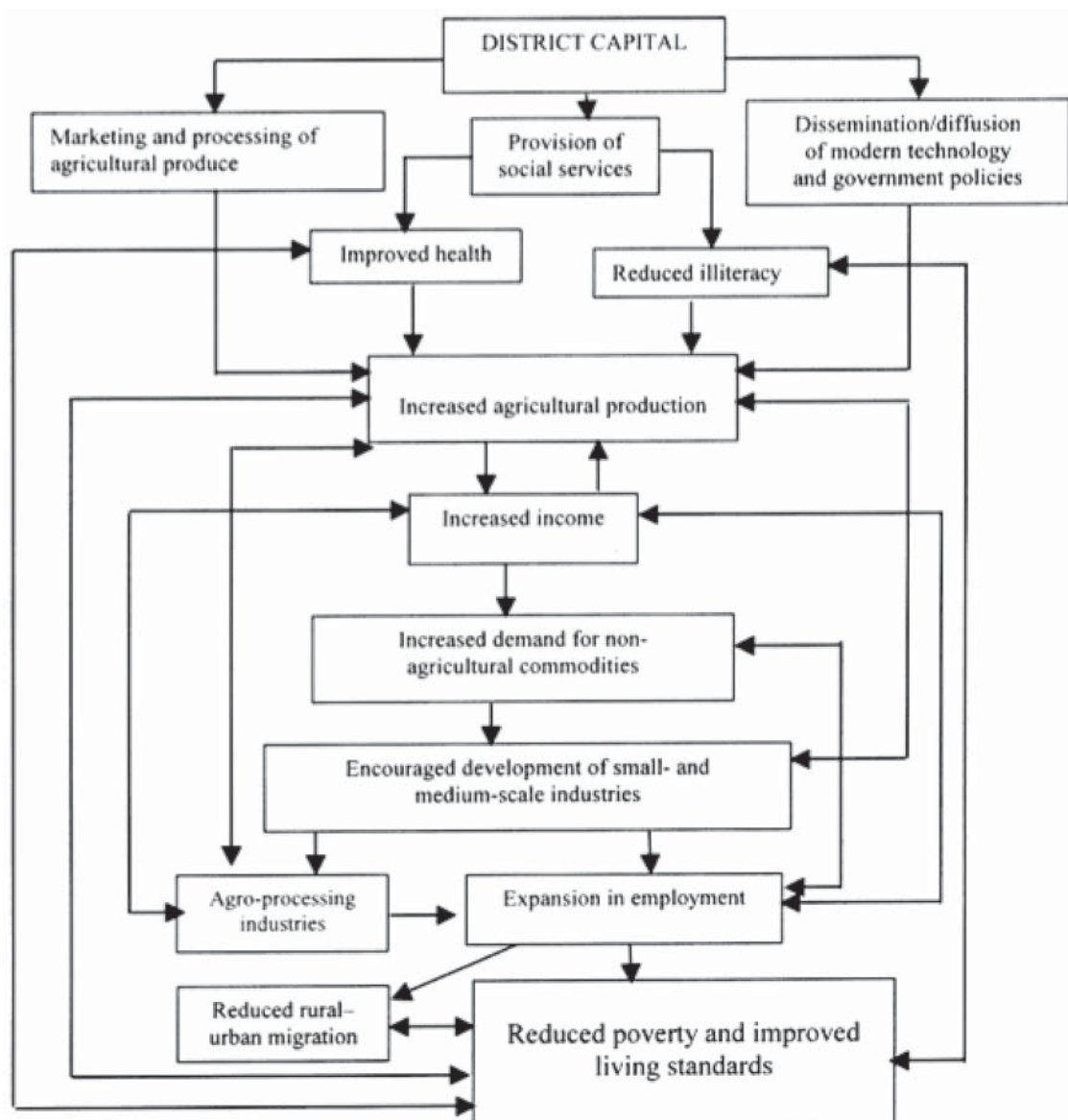


Figure 3. The DCDM: a conceptualised model of the role of district capitals in rural development under Ghana's decentralisation programme

Source: Owusu, 2005

strengthening the village is not only inspired by the goal of rural development itself. It is also important to strengthen villages because this achieves an equitable distribution of national development through improved rural-urban linkages. After the implementation of Law 6/2014, there was a shift in the roles and linkages between villages, sub-districts, and districts in regional development. The change in the functions and linkages between villages, sub-districts, and districts in regional development after the enactment of Law 6/2014 is displayed in Figure 4.

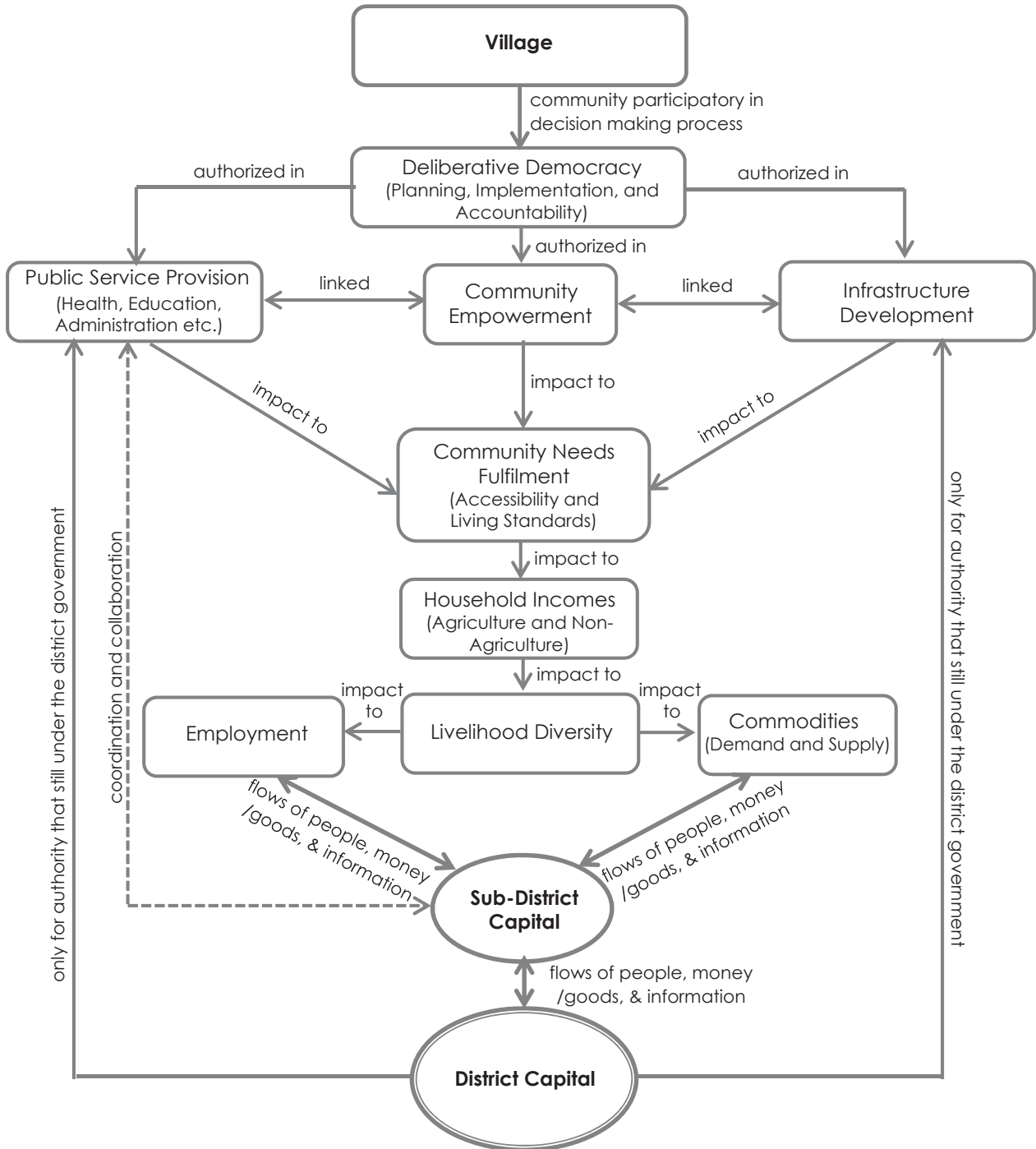


Figure 4. Conceptual framework of rural-urban linkages in regional development under Law 6/2014

Source: Created by Author

The new conceptual framework supports Douglass' (1998) notion that policy intervention from the government is required. This is expected to strengthen rural structures and urban functions simultaneously to reinforce reciprocal rural-urban linkages. The novelty of this conceptual framework is that it places these rural-urban linkages within the context of the implementation of village autonomy in Indonesia through Law 6/2014. Within this framework, there is a shift in the roles of villages and districts in regional development. Theoretically, if the basic needs of rural areas have been met, strengthening the structure and function of urban areas will have a positive impact on the surrounding countryside (Hinderink and Titus, 2002). Law 6/2014 provides an excellent opportunity for communities and village governments to meet their basic needs. However, it is necessary to strengthen accountability by encouraging the active participation of all stakeholders in the supervision of its implementation (Antlov et al., 2016).

Law 6/2014 provides broader autonomy to the village through the decentralisation of rural development authorities and resources. Under Law 6/2014, rural areas are no longer highly dependent on district governments to meet their basic needs, and they can be directly involved in rural development. Because Law 6/2014 mandates an active participation of the community in a collaborative development process through village-level democratic deliberations, village governments and rural communities become actors who have prominent roles in development. The processes of planning, implementation, and accountability in rural development involves the active participation of the community in the decision-making process through democratic village meetings.

The decision-making process through village deliberations is an essential milestone in rural development. Rural communities can determine the types of infrastructure, community empowerment, and public services they want to meet their needs. The priorities of rural development vary between villages according to the needs and conditions of each region. The fulfilment of community needs through infrastructure development, community empowerment, and public services would improve the accessibility of rural communities to transport, health, education, and administrative services that would enhance their living standards.

Better accessibility and improved living standards in rural communities have an impact on population incomes. Changes in income levels in turn affect livelihood diversity, both in agriculture and in other rural livelihoods. Flows of employment, information, capital, and commodities to the sub-district capital are impacted by rural economic conditions. However, rural-urban linkages are not limited to the economic sector. These relationships extend to the provision of public services, facilities, and other infrastructure that the village itself cannot complete. The role of sub-district capitals, which have long been functioning as centres for services such as population administration, health, education, and economy, will affect the quality of rural-urban linkages in regional development.

The sub-district government is an extension of the district government with regards to public services and government administration. Sub-district governments have limited authority over village development. Nevertheless, they play an important role in facilitating inter-village collaboration in their administration areas. The role of the sub-district capital as a small town for rural areas is vital to the development of equity. The sub-district capital – as a centre of a rural community's public services and facilities – can serve as an antipode for the flow of population, money, and commodities from rural areas to large cities outside of district administrations. Strengthening the functioning of small towns in sub-districts can produce two favourable outcomes. Empowered small towns can reduce the flow of urbanisation of rural populations to big cities, and they could also retain the benefits of development so that they can be felt by the residents of the region. The district government should focus on strengthening the role of sub-district capitals as urban functional areas for the surrounding countryside. District governments can stimulate inter-regional development by reinforcing the function of small towns in rural areas that are still lagging behind. The reciprocal linkages between the sub-district and rural areas will help accelerate regional equity development efforts in Indonesia.

## 5. Development Disparities and Opportunities for Equitable Development in Indragiri Hulu Regency

### 5.1. Regional Autonomy and Rural Infrastructure Development

Indragiri Hulu Regency, located in the southern part of Riau Province, is one of the oldest districts in Sumatra. The regency has experienced two stages of regional proliferation. At the beginning of Indonesia's independence, Indragiri Hulu Regency, which at that time was part of Indragiri Regency, was designated as an autonomous region under the Central Sumatra Province<sup>9</sup>. In 1958, the Government of the Republic of Indonesia established the Riau Province. This consisted of Kampar Regency, Indragiri Regency, Bengkalis Regency, Kepulauan Riau Regency, and Pekanbaru City.<sup>10</sup>

The proliferation of Indragiri Regency first occurred in 1965. Based on Law 6/1965, Indragiri Regency was split into two regencies: Indragiri Hulu and Indragiri Hilir. Furthermore, in 1999, Indragiri Hulu Regency was split for a second time into two regencies, namely Indragiri Hulu and Kuantan Singingi.

Indragiri Hulu occupies an area of about 8,198.26 km<sup>2</sup>, consisting of 14 sub-districts divided into 178 *desa* and 16 *kelurahan*. The district capital is located in Rengat. However, the district government administration is centred in Rengat Barat, 15 km from Rengat. The average distance from the sub-district capitals to the district capital is 57.5 km. Rengat, Rengat Barat, and Pasir Penyau are relatively more developed sub-districts, and they have more urban characteristics than other sub-districts in Indragiri Hulu Regency. Based on population density and availability of public service facilities, Rengat, Rengat Barat, and Pasir Penyau are classified in this paper as urban sub-districts. The rest are considered rural sub-districts (Appendix 3).

According to the Central Statistics Bureau classification in 2010, among 194 *desa/kelurahan* in Indragiri Hulu, only 27 *desa/kelurahan* in 5 sub-districts are classified as urban. These are concentrated in 3 sub-districts. Figure 5 shows the comparison between the distribution of sub-district capitals and rural-urban locality based on the definition of the function in Indragiri Hulu Regency. Contrary to the general opinion that sub-district capitals typically function as small towns in rural areas, in Indragiri Hulu, only five sub-district capitals are classified as urban. Meanwhile, the

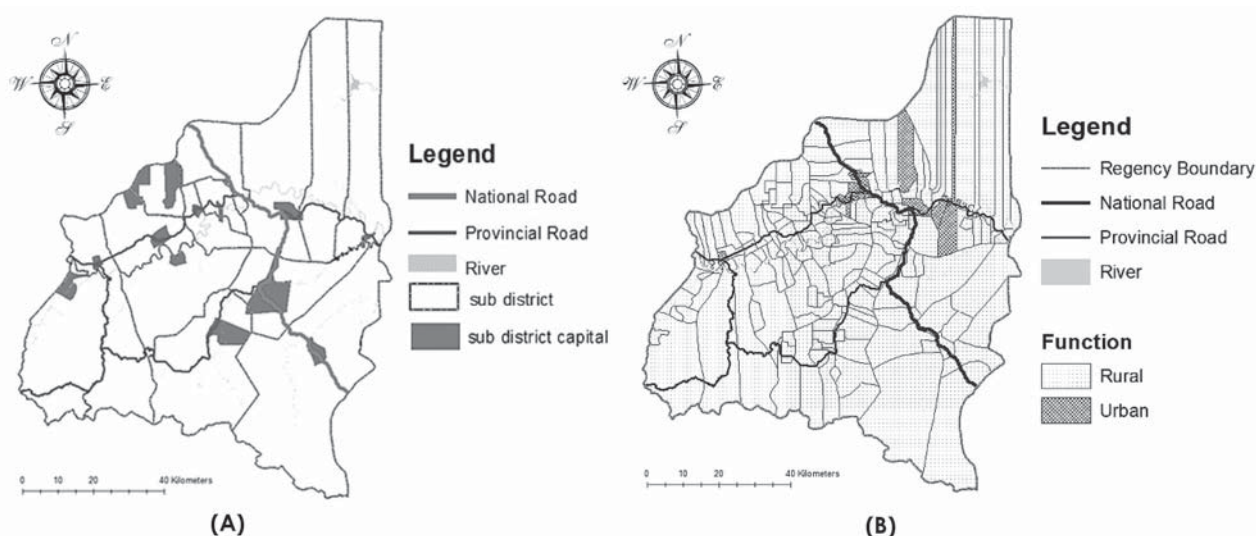


Figure 5. Comparison between the distribution of sub-district capitals (A) and rural-urban locality by function (B) in Indragiri Hulu Regency

Source: Based on Regulation of the Central Bureau of Statistics 37/2010 and MoHa Regulation 137/2017

other nine sub-district capitals are classified as rural. Public service facilities in Indragiri Hulu are mostly concentrated in a few urban sub-districts capitals, resulting in a development gap between urban sub-districts and rural subdistrict.

However, with the implementation of Law 6/2014, the Central Bureau of Statistics' urban and rural classifications are no longer accepted. Instead, the GoI uses the village administrative territory data provided by the Ministry of Home Affairs (MoHA). As per this data, Indragiri Hulu comprises 178 *desa* and 16 *kelurahan*. Table 4 illustrates that there are gaps between the localities classified as urban and rural based on the administrative status of the MoHA. Urban-rural classifications are based on the functions outlined by the Central Bureau of Statistics. Some localities which are administratively designated as urban areas (*kelurahan*), have not functionally met the requirements to be considered urban. In contrast, some localities with rural administrative status (*desa*) have fulfilled the requirements of being considered urban areas based on the categorisation of the Central Bureau of Statistics. Funds are transferred from the central government and local governments under Law 6/2014 only to the village-level government of *desa*, regardless of the rural or urban category of the *desa*. Meanwhile, the *kelurahan*, although categorised as rural, is not included in the implementation.

**Table 4. Rural-urban localities by administrative and function definition**

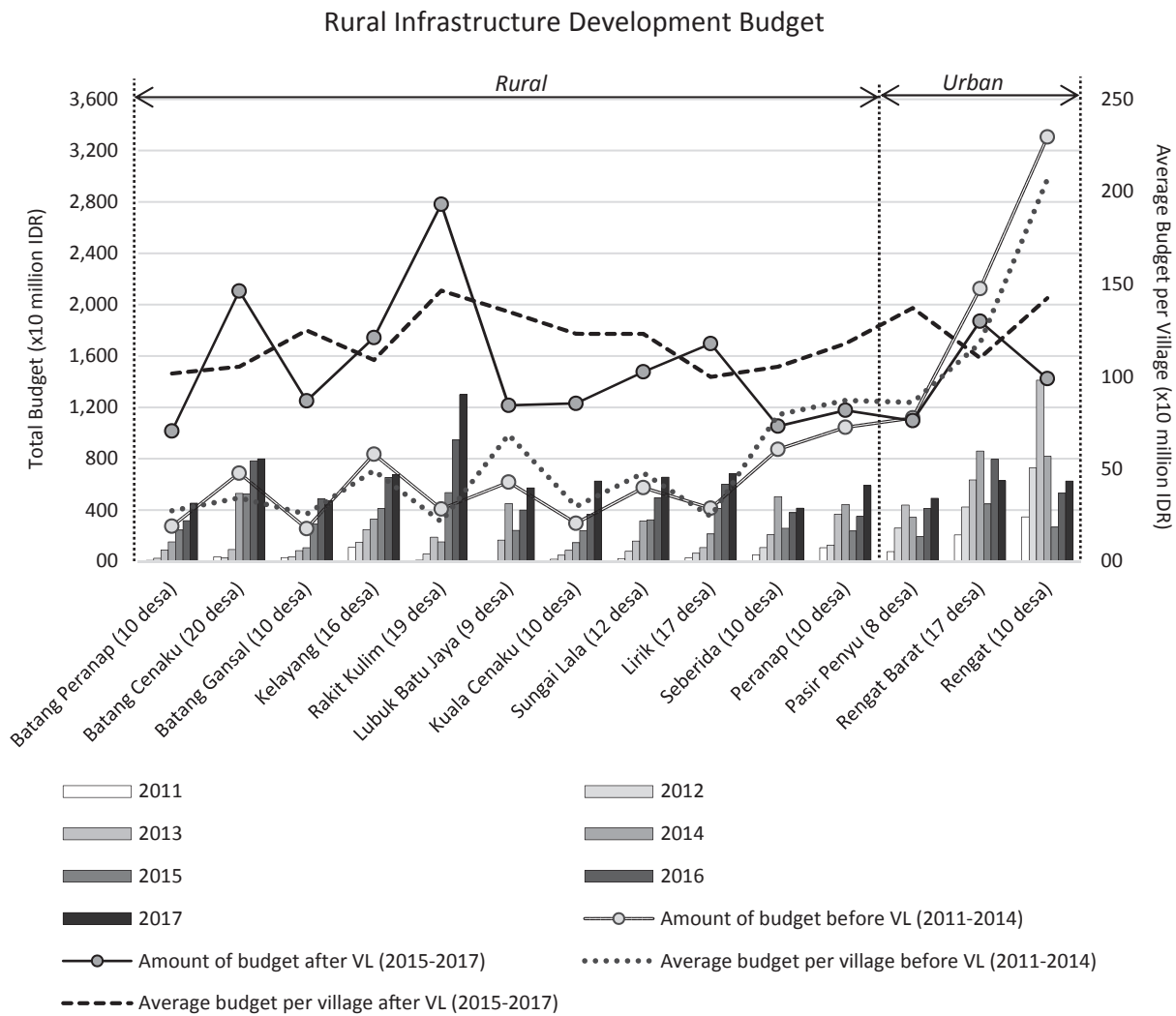
Sub-district	Village level localities	Administrative		Function	
		<i>Desa</i> (rural)	<i>Kelurahan</i> (urban)	Rural	Urban
1. Peranap.	12	10	2	11	1
2. Batang Peranap	10	10		10	
3. Seberida	11	10	1	11	
4. Batang Cenaku	20	20		20	
5. Batang Gansal	10	10		10	
6. Kelayang	17	16	1	17	
7. Rakit Kulim	19	19		19	
8. Pasir Penyau	13	8	5	5	8
9. Lirik	17	17		8	9
10. Sungai Lala	12	12		12	
11. Lubuk Batu Jaya	9	9		9	
12. Rengat Barat	18	17	1	16	2
13. Rengat	16	10	6	9	7
14. Kuala Cenaku	10	10		10	
<b>Total</b>	<b>194</b>	<b>178</b>	<b>16</b>	<b>167</b>	<b>27</b>

Source: Based on Regulation of the Central Bureau of Statistics 37/2010 and MoHa Regulation 137/2017

The Village Fund considers the principle of equity and justice for regional development. Each village receives funds consisting of "Basic Allocation" and "Formula Allocation". Basic allocation funds are disbursements of the same amount of funds for all villages in Indonesia, while formula allocation funds are additional finances that vary depending on the population, poverty level, region, and geographic challenges of each village. Figure 6 displays the significant development in village-scale infrastructure budget in Indragiri Hulu over the past seven years. From 2011 to 2014, the distribution of district government budgets was uneven for rural infrastructure development in sub-districts. A considerable proportion of infrastructure development budgets during this period was concentrated in only a few sub-districts, especially urban sub-districts. Meanwhile, rural sub-districts received a small proportion of

development funds. Batang Gansal, Batang Peranap, and Kuala Cenaku are the sub-districts that received a small proportion of the district government's budget for village-scale infrastructure development.

After the implementation of Law 6/2014, there was a change in the trend of rural infrastructure development in Indragiri Hulu. In general, there was a significant increase in infrastructure development in sub-districts compared with development before the implementation of Law 6/2014. This was not true only in urban sub-districts. The urban sub-districts experienced a decrease in the budget for the construction of village-scale infrastructure. The Village Fund provides substantial opportunities to sub-districts, which previously received little attention from the district government. This allows these sub-districts to be able to implement development projects in line with their own needs and priorities. The average budget for infrastructure development per village during the three-year period of Village Law 6/2014 was relatively more equitable than that in the previous period. The more equitable rural infrastructure development seems to contribute to poverty reduction in Indragiri Hulu. The Central Bureau of Statistics noted that there had been a decline in the poor population in the last three years, from 7.76% in 2015 to 7.15% in 2016 and 6.94% in 2017.



Note: See Figure 6 for locations of sub-districts in Indragiri Hulu Regency.

**Figure 6. The budget for rural infrastructure across sub-districts in Indragiri Hulu Regency 2011-2017**

Source: Author's calculation with the data of Indragiri Hulu's Community Empowerment Agency



## 5.2. District Economy and Market Places

The agricultural industry is the dominant economic sector in Indragiri Hulu. Agriculture, along with forestry and fishery, has contributed significantly to the economic growth of Indragiri Hulu. In 2016, this sector accounted for 28.88% of the Gross Regional Domestic Product (GRDP), the largest proportion of all categories. Data from 2011 to 2016 show a relatively stable trend of GRDP for this sector. Plantation is the largest sub-sector contributing to the GRDP. Each year, this sub-sector accounts for an average of 66.73% of the agricultural sector (BPS, 2017). The main crops grown in this district are cash crops, especially rubber and palm oil. The total area under plantation for both types of crops is 1,174.84 km<sup>2</sup>, which dominates all sub-districts in Indragiri Hulu Regency (Figure 7). The rubber plantation area spans over 605.99 km<sup>2</sup>. Batang Peranap, Peranap, Kelayang, Rakit Kulim, Rengat Barat, and Rengat are more dominated by rubber plantations than oil palm plantations. The remaining eight sub-districts have a larger area of oil palm plantations than rubber plantations. The area of oil palm plantation in Indragiri Hulu covers 568.85 km<sup>2</sup>. Both types of plantation crops represent the primary source of livelihood for the Indragiri Hulu community. Per the Agricultural Census of 2013, 57,253 families (about 54.8% of the families in Indragiri Hulu) rely on these two crops.

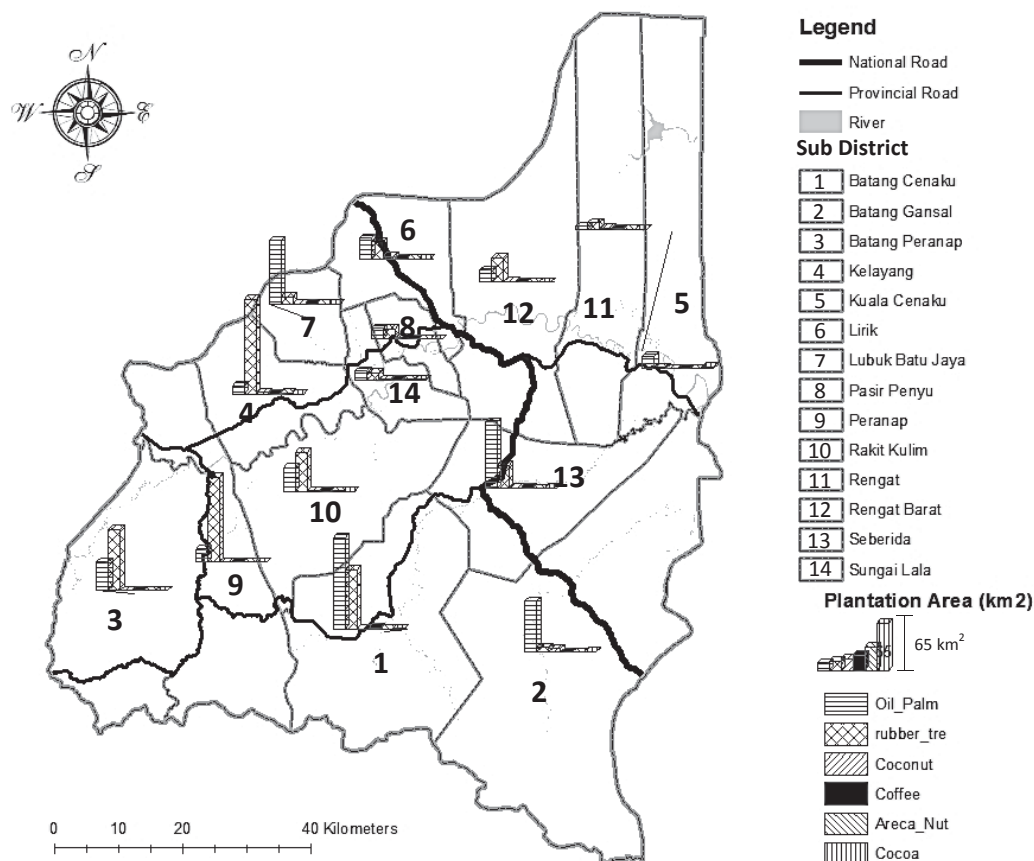


Figure 7. Plantation area by type of crops and sub-district in Indragiri Hulu, 2016

Source: Based on BPS-Statistic of Indragiri Hulu ([www.inhukab.bps.go.id](http://www.inhukab.bps.go.id))

Village-scale marketplaces, traditional markets located in the village which are managed and developed by village government and communities<sup>11</sup>, are scattered in the sub-districts. However, not all *desa/kelurahan* have their marketplaces. There are only 82 markets for 194 *desa/kelurahan* in Indragiri Hulu. In general, urban marketplaces are located in urban sub-districts, a small percentage of which are located in rural sub-districts such as Peranap and Seberida. In recent years, the district government has constructed new marketplace buildings in several sub-district capitals to support trading activities at the sub-district level (Table 5). However, these new marketplaces have not been able to compete with emerging markets in the urban sub-districts.

**Table 5. Sub-district Marketplace in Indragiri Hulu**

Sub-district	Established	Sub-district	Established
Rengat	2012	Kuala Cenaku	2014
Rengat Barat	1945	Lubuk Batu Jaya	2004 and 2010
Pasir Penyau	2004	Rakit Kulim	2008
Peranap	1945	Kelayang	2014
Seberida	2013	Batang Gansal	1970
Lirik	2000 and 2000	Batang Cenaku	1982 and 2014
Sungai Lala	2014	Batang Peranap	1950

Source: Industry and Trade Agency of Indragiri Hulu Regency

The marketplaces in the villages and sub-district capitals have no significant role in the sale of cash crops. Cash crops sales centres are not located in the village or sub-district markets. The crop sales centres are located in rural areas close to plantation land and processing plants. They form temporary collection points before the crops are distributed to processing plants. Farmers sell their products either directly or through middlemen/collectors. There is usually a collector/middleman in each village who is an extension of a plantation company or processing plant. These companies, and some multinational corporations, play a significant role in determining the selling price of agricultural products, especially rubber and palm oil, based on international and national trade conditions.

Local markets and service centres serve merely as trade distribution centres which primarily serve the increasing demands of the emerging rural middle class. According to Titus (1991), the limitations of local markets and service centres in rural areas can be attributed to rural development policies and agriculture programmes. These are largely determined by decision makers at the national level, resulting in markets and local service centres being limited to the distribution of rural consumer goods.

Before the implementation of Law 6/2014, the construction of market facilities at the sub-district and village levels was primarily carried out by the district government. The remaining facilities were generally built independently by villagers or through CDD programmes. After the implementation of Law 6/2014, villages can build market facilities to support trade activities in their village areas. 11 village market facilities were constructed within 3 years of the implementation of Law 6/2014 in Indragiri Hulu.

### 5.3. Area, Population, and Provision of Public Services

The population of Indragiri Hulu, with an average annual growth of 2.4%, increased from 365,421 in 2010 to 417,733 in 2016 (BPS, 2017). Urban sub-districts have a higher population density than rural sub-districts. Pasir Penyau is an urban sub-district with the highest population density, while Batang Gansal the rural sub-district with the lowest population density in Indragiri Hulu. The number of educational facilities varies from one sub-district to another.

There are more primary school facilities than junior and senior high schools (Appendix 3). The ratio of primary, junior, and senior high schools in Indragiri Hulu is 5.5:1.5:1.

The proportion of educational facilities to the population in each sub-district varies (Figure 8). Population does not seem to be the lone criterion for the provision of educational facilities. Other elements such as area, social conditions, economics, and other components seem to also affect the district government's policy on the development of educational facilities in each sub-district.

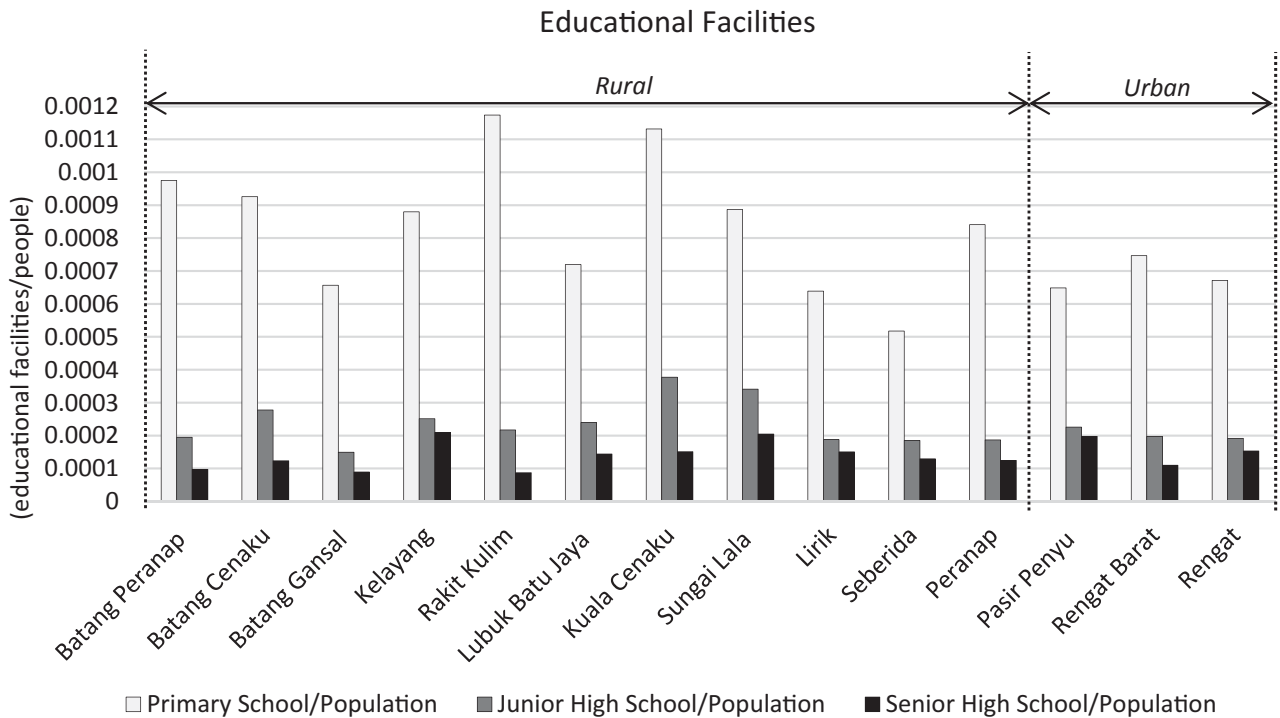


Figure 8. Ratio of educational facilities to population in Indragiri Hulu Regency

Source: Author's calculation with the data from BPS-Statistic of Indragiri Hulu ([www.inhukab.bps.go.id](http://www.inhukab.bps.go.id))

The implementation of Law 6/2014 has no impact on the provisions of primary, junior, and senior high school facilities in the sub-districts, since the village government does not have the authority to build these facilities. The authority to establish these facilities is with the district and provincial government. Nevertheless, villages are given the power to provide village-level educational services such as kindergartens, playgroups, and Islamic educational facilities for children. Since the implementation of Law 6/2014 in 2015, 178 village-scale education facilities have been built in Indragiri Hulu.

The health service facilities in Indragiri Hulu consist of hospitals, clinics, *Puskesmas*<sup>12</sup>, and *Puskesmas Pembantu*<sup>13</sup>. The ratio of health facilities to population in Indragiri Hulu is displayed in Figure 9. There are only three hospitals in Indragiri Hulu: one regional public hospital located in Rengat Barat and two private hospitals situated in Rengat and Pasir Penyu. Most of the clinics are located in Seberida, followed by Rengat, Pasir Penyu, and Batang Cenaku. Urban sub-districts have relatively complete health facilities compared with rural sub-districts. The limited number of hospitals in rural sub-districts and remote villages resulted in difficulties for these communities to obtain health services. Although there are several other support facilities in each sub-district, they present limitations in terms of medical personnel, medicines, and equipment. People in rural sub-districts rely on health services from *Puskesmas* and *Puskesmas Pembantu*. Almost half of the sub-districts in Indragiri Hulu can only depend on the *Puskesmas* and

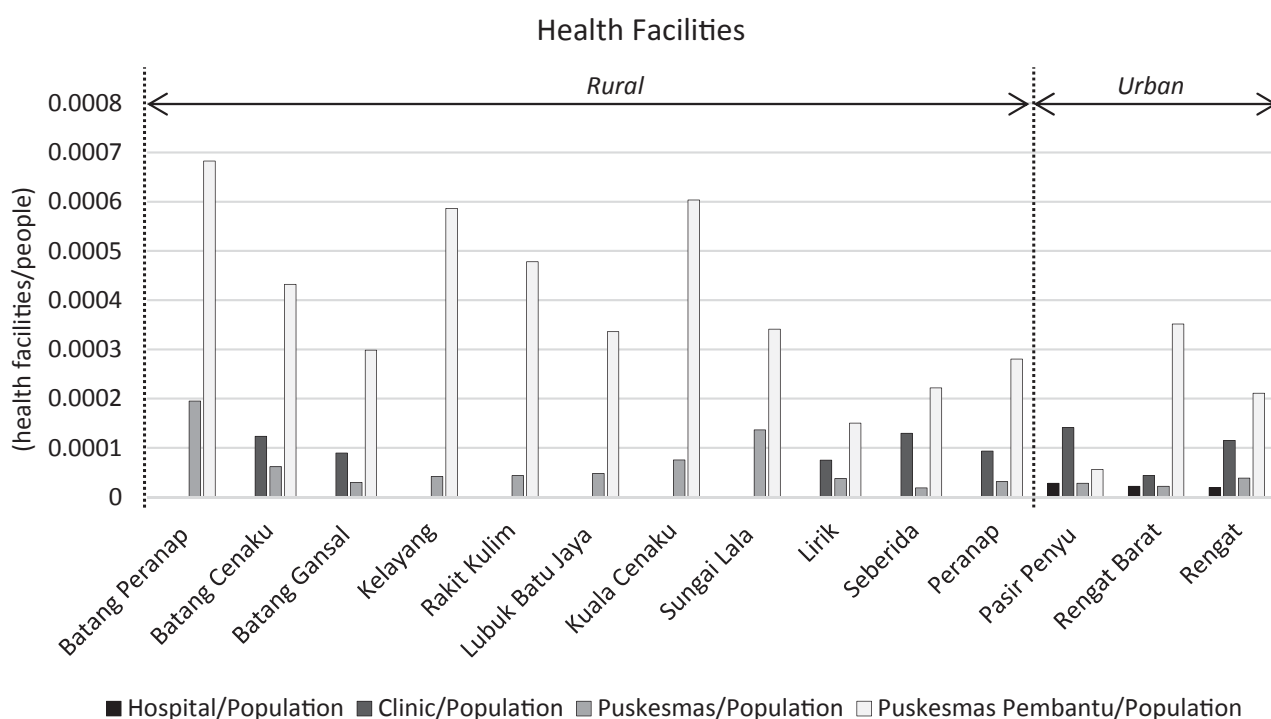


Figure 9. Ratio of health facilities to population in Indragiri Hulu Regency

Source: Author's calculation with the data from BPS-Statistic of Indragiri Hulu ([www.inhukab.bps.go.id](http://www.inhukab.bps.go.id))

*Puskesmas Pembantu*. This is due to the unavailability of clinics and hospitals for public health services. Rural communities need urban sub-districts to obtain access to better health care.

The provision of health facilities is the responsibility of the district government. After the enactment of Law 6/2014, villages were given the authority to establish village-level health service facilities such as *posyandu*<sup>14</sup> and *poskesdes*<sup>15</sup>. 135 *posyandu* and *poskesdes* facilities have been built in Indragiri Hulu since 2015.

#### 5.4. Accessibility and Distribution of Public Services

Roadways are the dominant means of transportation in Indragiri Hulu. Nonetheless, some villages use boats to cross the river owing to the unavailability of bridges. Of the total 1,737.05 km of roadways in Indragiri Hulu, less than 20% have been paved. Only about 37% of all roads, paved and unpaved, are in good condition. Road density and surface conditions in each sub-district vary widely (see Appendix 3). Rengat Barat has the highest road density in Indragiri Hulu, while Batang Gansal is the sub-district with the lowest road density among other sub-districts. Figure 10 shows that there is a gap among sub-districts in Indragiri Hulu regarding road density. The average road density in urban sub-districts is higher than that in rural sub-districts. Only 2 of the 11 rural sub-districts (Kelayang and Lubuk Batu Jaya) have relatively higher road densities. In general, there are still many rural sub-districts lacking road infrastructure to link scattered and isolated settlements, especially in large sub-districts. The development of district roads is the responsibility of the district government.

After the enforcement of Law 6/2014, the construction of rural roads has become a priority in village development (Wijaya and Ishihara, 2018). This objective had previously lacked the attention of district governments. Evidence obtained in a survey of 140 respondents from across sub-districts in Indragiri Hulu indicates that road infrastructure development is a priority in rural development (Figure 11). Community preferences in rural road infrastructure

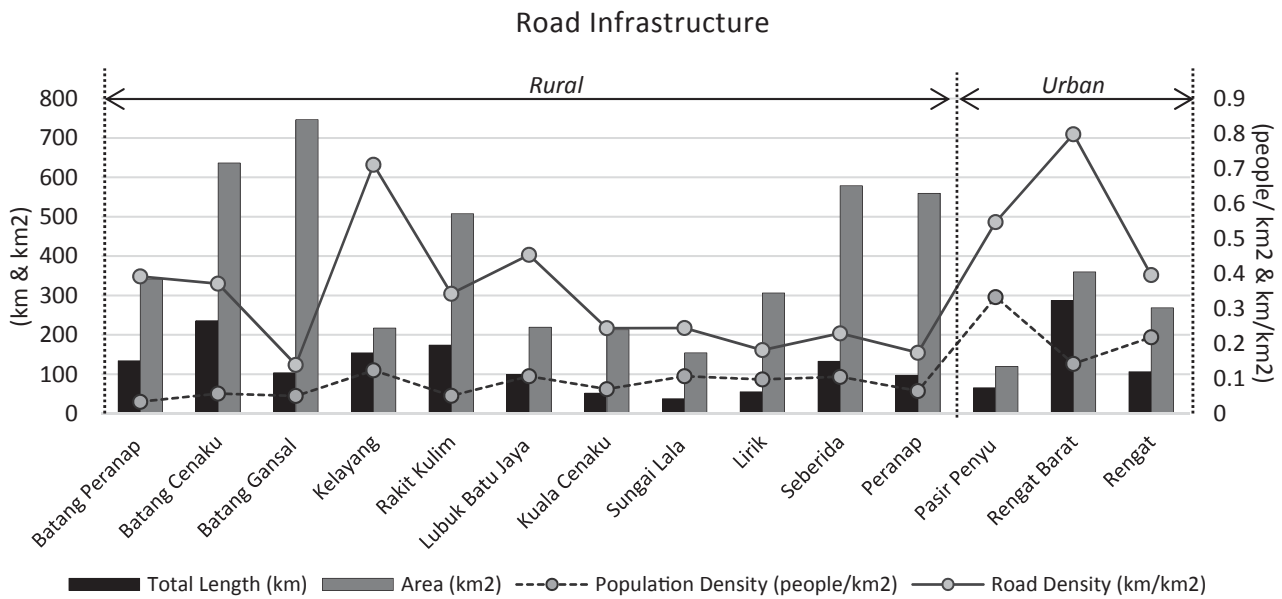


Figure 10. Road infrastructure in Indragiri Hulu Regency

Source: Author's calculation with the data from BPS-Statistics of Indragiri Hulu ([www.inhukab.bps.go.id](http://www.inhukab.bps.go.id))

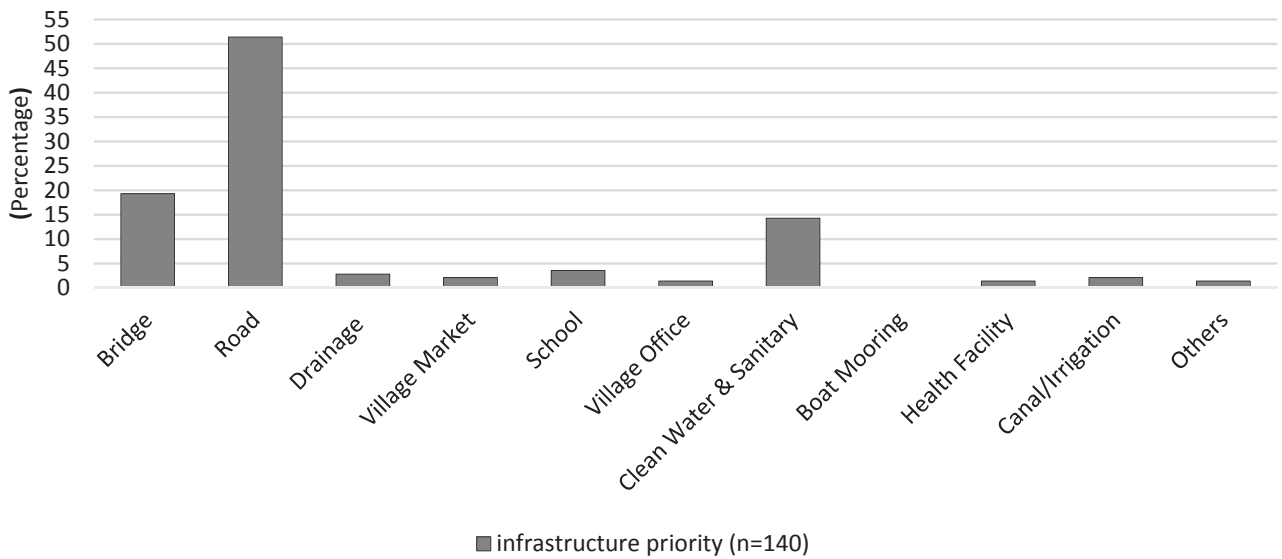


Figure 11. Priority needs for rural infrastructure

Source: Wijaya and Ishihara, 2018

development reaches 51.4% of total respondent choice, much higher than bridge construction and clean water/sanitation facilities. Data from 2016 shows that 52% of the Village Fund was used for the construction of village roads, an increase of 19% from 2015. During the two years of implementation of the Law 6/2014, more than 312 km of rural roadways have been built in Indragiri Hulu.

In general, rural communities in Indragiri Hulu are not satisfied with rural road conditions. A survey of 266 respondents from 3 villages with different levels of remoteness showed that only 16% of the respondents rated village roads as being in good conditions (Figure 12). The condition of rural roads and district roads, which are often damaged and unpaved, creates hardships in transportation among rural communities, especially in the rainy season. Motorcycles are the primary means of daily transport for rural communities. Poor road conditions result in longer

travel times and frequent damage to motorcycles.

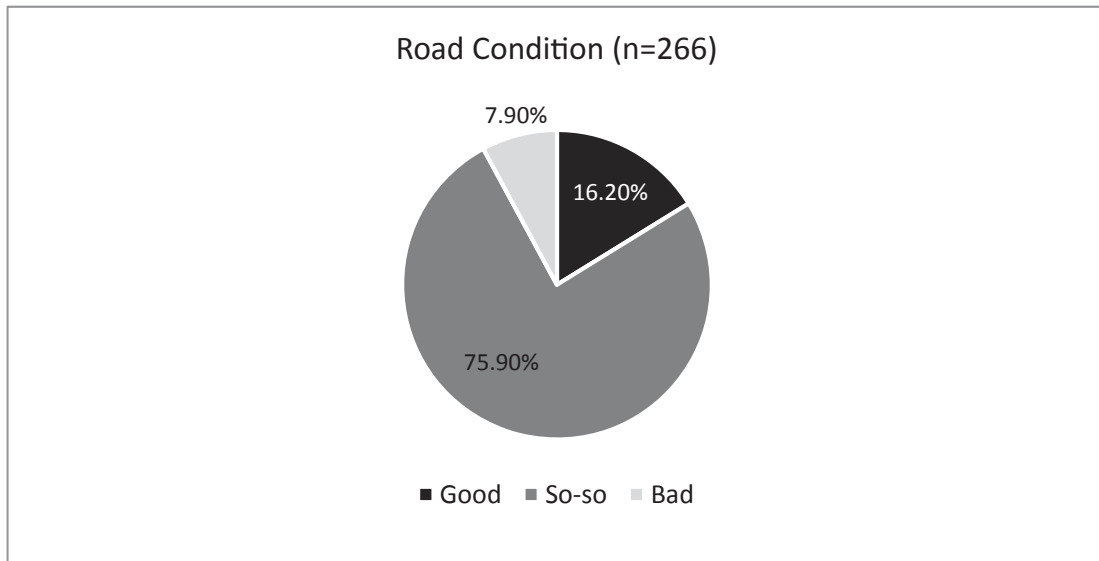


Figure 12. Assessment of rural road conditions

Source: Field Survey, 2017

More than 45% of the respondents stated that their villages lacked agricultural road infrastructure. This figure is higher than that noted for other types of roads, such as roads to settlements and other public facilities (Figure 13). Road access to agricultural land in Indragiri Hulu consists of mostly dirt paths that can only be traversed by foot or motorcycles, causing difficulties for rural communities in transporting and selling crops. Poor farm roads result in higher costs to transport agricultural produce, consequently reducing farmer incomes. According to respondents, the provision of more effective agricultural road infrastructure would reduce spending on agricultural transport, amounting to 10 to 20% of the value of their agricultural products.

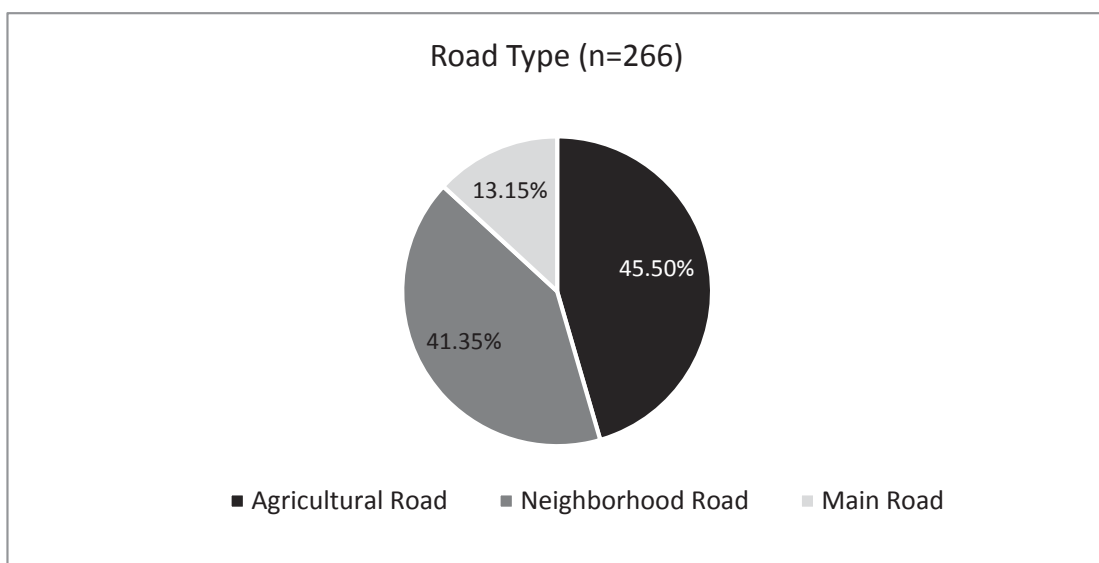


Figure 13. Types of roads needed by rural communities

Source: Field Survey, 2017

Accessibility to public service facilities and economic resources is an essential aspect of improving the welfare of rural communities. Figure 14 shows the distribution of public facilities such as health facilities, education, and markets, which are often located close to national, provincial, and district roads. The remaining public facilities are located in riverside villages, which are indigenous villages in Indragiri Hulu Regency. Before road access became the primary means of transport in Indragiri Hulu, the indigenous population relied on the river for transportation. Thus, most indigenous villages of the regency were established and flourished on the river banks. As road access improved, community settlements grew around the main roads and public service facilities were built around major roads by the district government. This led to villages which are close to main roads being benefited by increased access to transport and public services.

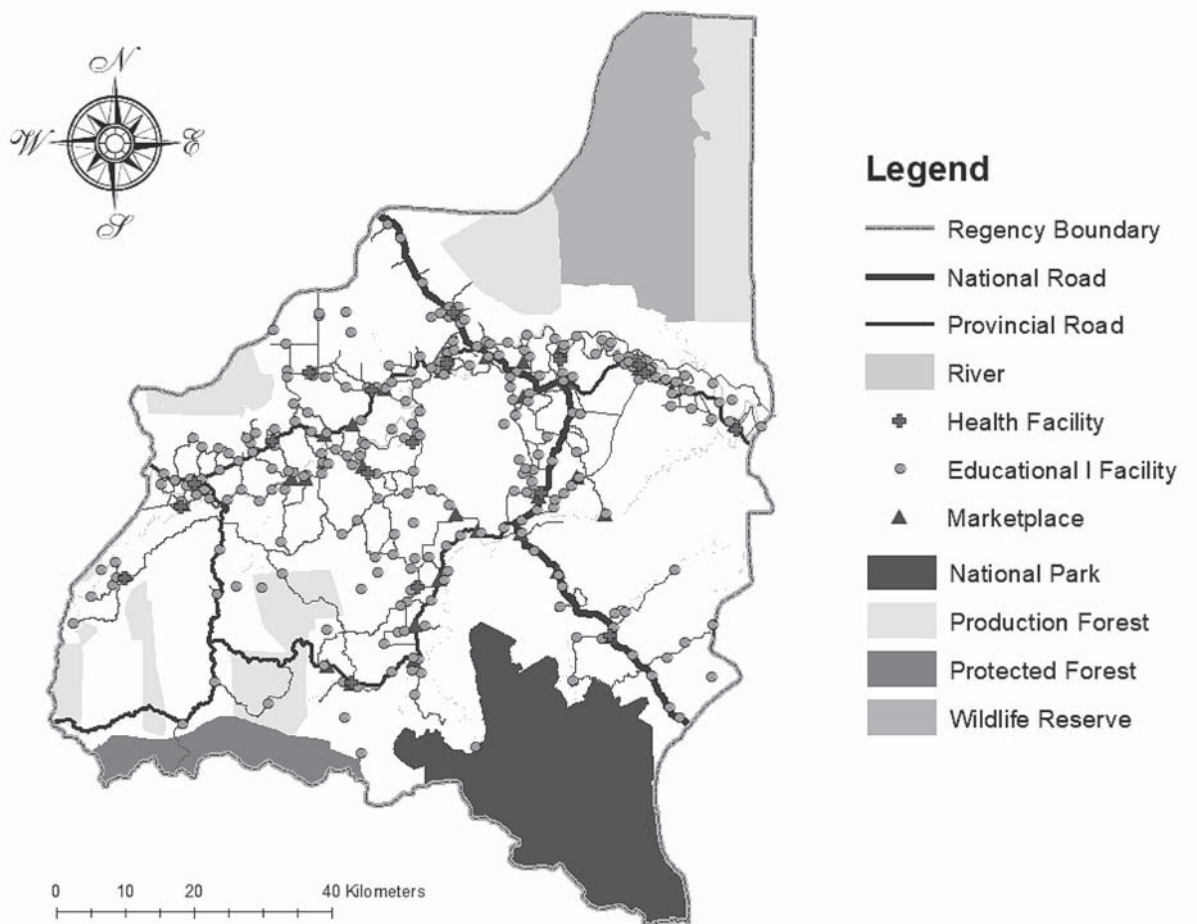


Figure 14. Distribution of public facilities in Indragiri Hulu Regency

Source: Based on the data of Indragiri Hulu's Planning Agency and Field Survey 2017

## 6. Conclusions

The purpose of this paper was to describe the framework of rural-urban linkages in regional development under Indonesia's Village Law 6/2014. The study also sought to examine the law's effect on the equitable distribution of infrastructure development in rural areas. The paper first revealed that the implementation of Law 6/2014 introduced a new framework for rural-urban linkages in Indonesia. The new framework has, to some extent,

reversed the national development paradigm in which rural areas were the last to benefit from development. As a result, rural areas are now at the forefront of regional development policy in Indonesia. This paradigm shift affects the role of district and sub-district capitals as urban functional centres in rural areas. This paper suggests that rural development should be accompanied by a strengthening of the structure and function of small towns to create a rural-urban reciprocal linkage for equitable regional development. The sub-district capital – as a centre of public, economic, and social services for a rural community – can serve as an antipode for the flow of population, money, and commodities from rural areas to large cities outside of district administrations. Strengthening the function of small towns in sub-districts may reduce the flow of urbanisation of the rural population to big cities and retain the benefits of development for the residents in the region.

Secondly, the case study on Indragiri Hulu showed that the implementation of Law 6/2014 had a positive impact in terms of reducing infrastructure development gaps in rural areas. Before the enactment of Law 6/2014, the development of rural infrastructure was concentrated in urban sub-districts, while rural sub-districts received little attention from the district government. Provision of infrastructure, education services, health services, and rural economic development facilities at village level has increased significantly since the implementation of Law 6/2014. Most rural development budgets are being used for the development of agricultural roads to increase incomes for rural populations, which are mostly farm based. Although data on rural household income increase is not available, the Central Bureau of Statistics noted that there was a decrease in the proportion of those living in poverty in Indragiri Hulu from 7.76% in 2015 to 7.15% in 2016 and 6.94% in 2017.

Finally, this paper also suggested that it was inappropriate to determine the target location of Law 6/2014 solely based on village administrative status. The case study findings revealed that some villages held the administrative status *desa* and functionally could be categorised as urban. If the purpose of Village Law 6/2014 is rural development, the disbursement of village funds to these villages is inapposite. The government should also consider the rural/urban functions of a region when setting the target location of rural development policy. The administration status of a village should be determined by its structure and function in regional development. Each sub-district has at least one small town that serves as an urban functional centre for the surrounding countryside.

This paper is part of on-going research on the impact of Law 6/2014 on regional development. Further research is required to investigate whether the accessibility of villagers to nearby small towns influences the level of reciprocal linkage between the two. Further investigation is also required to determine the effect of village remoteness on the preferences of rural communities in rural infrastructure development.

## Acknowledgements

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## Notes

- <sup>1</sup> Kimura (2013) explained the political and social conditions comprehensively after the fall of the New Order regime that underlies political reform and regional decentralisation in Indonesia, along with other driving factors.
- <sup>2</sup> The *kelurahan* and the *desa* are both "fifth-level" government organisations. *Desa* has an autonomous status with directly elected leaders. *Kelurahan* is the administrative area under the supervision of the sub-district and is administered by civil servants (Antlov and Eko, 2012).
- <sup>3</sup> Provision of supportive R&D conditions, educational facilities, knowledge centers, etc. to the region for self-sustained development.
- <sup>4</sup> The agropolitan program was launched in 2003 by the Ministry of Agriculture and is supported by the Ministry of Public Works. The agropolitan concept aims to create growth centres in rural areas that are productive or potentially productive and agriculture-based small towns (Mulyana, 2014).
- <sup>5</sup> Gini ratio is a statistical calculation used to measure population income distribution in a country, particularly in terms of inequality.
- <sup>6</sup> Based on Government Regulation 15/2010 on the Management of Spatial Planning.
- <sup>7</sup> New Order is a term coined by Indonesia's second president, Suharto, to distinguish it from the previous regime (Old Order). The period of the New Order regime lasted from 1966 to 1998.
- <sup>8</sup> Law 6 of 2014, Article 4.
- <sup>9</sup> Based on the Decree of the Central Sumatra Military Governor 10 / GM / T.49 on November 9, 1948, Law 4/1952 and 12/1956, the Autonomous Region was established within Central Sumatra Province including Indragiri Regency. (<http://www.kemendagri.go.id/pages/profil-daerah/kabupaten/id/14/name/riau/detail/1402/indragiri-hulu>).
- <sup>10</sup> Emergency Law 19/1957 concerning the Establishment of the First Level Regions "*Swatantra*" of West Sumatra, Jambi, and Riau.
- <sup>11</sup> Definition of village market according to Minister of Home Affairs Regulation 42/2007 on Village Market Management.
- <sup>12</sup> *Puskesmas* is an abbreviation of *Pusat Kesehatan Masyarakat* or Community Health Centre, which provides healthcare for populations at the sub-district level.
- <sup>13</sup> *Puskesmas Pembantu*. Sub-community health centre supporting *Puskesmas* functions at a village level.
- <sup>14</sup> *Posyandu* is an abbreviation of *Pos Pelayanan Terpadu* or Integrated Service Post, which originally functioned as family planning and health services at village level.
- <sup>15</sup> *Poskesdes* is an abbreviation of *Pos Kesehatan Desa* or Village Health Post.

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## Appendix 1. Laws on Decentralization and Regional Autonomy in Indonesia, 1945 - 2014

No	Period	Law	Discussion on decentralization and regional autonomy
1.	Old Order (1945-1965)	Law 1/1945 on the Status of the National Committee of Regions	Establish three types of autonomous regions (without mentioning the authority of each part), namely: 1. <i>Keresidenan</i> /Residency; 2. <i>Kabupaten</i> /Regency; 3. Kota <i>Berotonom</i> /Autonomous city. Province only forms administrative areas without autonomy.
		Law 22/1948 on Regional Government	The Government embraces a <i>material</i> autonomy system, whereby there is a detail division of local and central government authorities. The region is separated into three levels: 1. Provincial or regional level I; 2. Districts and major cities as regional level II; 3. Village or small town as regional level III.
		Law 1/1957 on the Principles of Regional Government	Local government have the right to regulate and manage their domestic affairs as an autonomous region, but it is not explained in detail what the authorities of the local government are.
		Law 18/1965 on the Principles of Regional Government	Regions have the right to organize and manage their domestic affairs. The region is separated into three levels, namely: 1. Provinces as regional level I; 2. Regency or Municipality as a regional level II; and 3. sub-district as regional level III.
2.	New Order (1966-1998)	Law 5/1974 on the Principles of Regional Government	Based on the principle of decentralization, the regions are divided into two: First level regions (Provinces), and Second Level Regions (Regency and Municipality). The central government tightened control of the local government known for three types of supervision: preventive supervision, repressive supervision, and general oversight.
		Law 22/1999 on Regional Government (and its amendment legislation)	Regional autonomy is the authority of the autonomous regions to organize and manage the interests of local communities according to their initiative based on the aspirations of the people by the laws and regulations  The division of regions into Provinces, Districts, and Cities (abolition of regional level I and II)  Emphasis on the implementation of regional autonomy regarding democratic principles, community participation, equity and development justice, and attention to potential resources and diversity of each region.  Districts and Cities fully use the principle of decentralization or autonomy. The sub-district and sub-district governments are functioned as a means of autonomous regions (extension of hands) from Regencies and Municipalities  There is a division of authority between the local government and the central government.
3.	Reform Era (1999- now)	Law 32/2004 on Regional Government (and its amendment legislation)	Regional autonomy is the right, authority, and obligation of autonomous regions to regulate and manage their government affairs and interests of the local community in the system of the Unitary State of the Republic of Indonesia.  Division of government affairs in the affairs of the central government and local governments (mandatory and optional)  Establish the Village Fund Allocation ( <i>Alokasi Dana Desa/ADD</i> ) which is the village right for operational and development implementation. The amount of the Village Fund Allocation is derived from at least 10% of the transfer funds from the central government to the local government (regency/municipality).
		Law 23/2014 on Regional Government (and its amendment legislation)	Law 23/2014 was the result of the split from Law 32/2004. Law 32/2004 has been separated into three laws based on three major substances, namely Law No. 6/2014 on Villages, Law No. 22/2014 on the Election of Governors, Regents and Mayors, and Law 23 / 2014 on Regional Government.  Incorporate elements of community participation in the development process.  Central and regional government affairs are separated into absolute government affairs, concurrent government affairs, and general government affairs

Source: Compiled from Law 1/1945, Law 22/1948, Law 1/1957, Law 18/1965, Law 5/1974, Law 22/1999, Law 32/2004 and Law 23/2014

**Appendix 2. Village Governance in Indonesia's Legislation, 1945-2014**

No	Law	Definition of village	Village funding	Relation with district
1.	Law 1/1945 on the Status of the National Committee of Regions	n/a	n/a	The village government is part and under the district administration
2.	Law 22/1948 on Regional Government	The area of the lowest autonomous administration (level III), located directly under the regencies and cities (level II)	n/a	The village government is part and under the district administration
3.	Law 1/1957 on the Principles of Regional Government	The lowest community that has its territory, its people, its ruler and possibly also his properties.	Not specifically regulated, incorporated into the local financial budget	The village government is part and under the district administration
4.	Law 18/1965 on the Principles of Regional Government	A legal community unity with a ruling entity that is entitled to administer and maintain its domestic affairs.	Not specifically regulated, incorporated into the local financial budget	Village and a combination of several villages (sub-districts) are under the district
5.	Law 5/1979 on Village Governance	An area occupied by some residents as a community unity including the legal community unity that has the lowest governmental organization directly under the <i>Camat</i> (sub-district head) and entitled to conduct its affairs within the Unitary State of the Republic of Indonesia.	Block grant from district government, and national initiatives such as the Left-Behind Village Program	Strictly under the authority of sub-district and district, no autonomy to approve regulation or budget
6.	Law 22/1999 on Regional Government (and its amendment legislation)	A legal entity that has the authority to organize and manage the interests of the local community based on local origins and customs that are recognized in the national government system and located in the district.	Block grant from district & provincial government & local sources	Far-reaching autonomy provided, with weakened upward accountability
7.	Law 32/2004 on Regional Government (and its amendment legislation)	A legal community unit with a territorial boundary that is authorized to regulate and administer government affairs, the interests of the local community, based on community initiatives, rights of origin, and/or traditional rights recognized and respected within the system of government of the Unitary State of the Republic of Indonesia	Block grant from district & provincial government, local sources, and national program funding	Far-reaching autonomy provided, with weakened upward accountability, final decision-making of budget & regulation by district
8.	Law 6/2014 on Villages	A legal community unit with a territorial boundary that is authorized to regulate and administer government affairs, the interests of the local community, based on community initiatives, rights of origin, and/or traditional rights recognized and respected within the system of government of the Unitary State of the Republic of Indonesia.	Substantial national, district level allocations, block grant from provincial government, and local sources	Hybrid system between self-governing community & local self-government

Source: Compiled from Law 1/1945, Law 22/1948, Law 1/1957, Law 18/1965, Law 5/1974, Law 22/1999, Law 32/2004, Law 23/2014, and Antlov et. al (2016)

## Appendix 3. Road Infrastructure and Public Service Provision in Indragiri Hulu

Sub District	Area* (km <sup>2</sup> )	Population	Road Density	Road Length** (km)	Road Condition (%)			Health Facility				Education Facility		
					Good	Moderate	Damaged	Hospital	Clinic	Pushkesmas	Pushkesmas Pembantu	Primary School	Junior High School	Senior High School
Batang Peranap	342.09	10,254	0.39	134.09	57.00	19.02	23.98	0	0	2	7	10	2	1
Batang Cenaku	636.29	32,409	0.37	236.2	30.69	34.04	35.27	0	4	2	14	30	9	4
Batang Gansal	746.38	33,510	0.14	103.9	27.43	31.62	40.95	0	3	1	10	22	5	3
Kelayang	217.35	23,872	0.71	154.53	35.38	24.04	40.57	0	0	1	14	21	6	5
Rakit Kulim	507.6	23,006	0.34	173.95	37.22	41.60	21.18	0	0	1	11	27	5	2
Lubuk Batu Jaya	219.35	20,844	0.45	99.5	29.84	36.04	34.12	0	0	1	7	15	5	3
Kuala Cenaku	213.1	13,258	0.24	52.04	46.93	26.81	26.27	0	0	1	8	15	5	2
Sungai Lala	154.27	14,661	0.24	37.74	47.14	12.08	40.78	0	0	2	5	13	5	3
Lirik	306.52	26,617	0.18	55.62	42.48	41.26	16.25	0	2	1	4	17	5	4
Seberida	578.8	54,071	0.23	132.8	39.58	20.18	40.24	0	7	1	12	28	10	7
Peranap	559.37	32,105	0.17	97.27	38.93	39.12	21.95	0	3	1	9	27	6	4
Pasir Penyu	119.84	35,460	0.55	65.59	47.58	27.52	24.90	1	5	1	2	23	8	7
Rengat Barat	360.07	45,526	0.80	287.4	32.14	31.70	36.16	1	2	1	16	34	9	5
Rengat	268.85	52,140	0.40	106.42	40.42	15.08	44.49	1	6	2	11	35	10	8

Note:

\*Excluding the area of national parks, wildlife reserve, production forests and protected forest.

\*\*District road.

Source: Author's calculation with the data from BPS-Statistic of Indragiri Hulu ([www.inhukab.bps.go.id](http://www.inhukab.bps.go.id))