

# **Chapter 4**

## **Place, Space, and Community:**

### **Spatial Planning for Rural Development**

Rohman Taufiq HIDAYAT

#### **1. Introduction**

Spatial planning is usually adopted in urban planning or higher levels of spatial entities and up to now, the adoption of spatial planning in rural development is still low. However, its implementation will spur rural development as it has the ability to elaborate spatial and non-spatial aspects (social, economic, and environmental), and it supports the current rural development approaches.

To outline this brief report, I will begin with a brief history of rural development in Indonesia, explaining the flow of money and goods, and then answer the question: Is spatial planning really necessary? Before I attempt to answer this question I'll give a fairly brief explanation of the significance of space and community in rural areas and what spatial planning is about as these concepts are relatively new, it may be the first time for some of you to read this terminology. I will conclude with two case studies that applied these planning techniques in the rural areas of Java and Borneo.

#### **1. History of Rural Development in Indonesia**

The history of Indonesian rural development can be traced back to the Kingdom's Era. The village was led by a lower royal family member and positioned as a producer for the kingdom, with a responsibility to develop their own villages, and villages with prominent achievements

received a prize from the king.

During the Colonialization Era, the status of rural areas in the state was relatively similar. “Negarakertagama” — a book of the Majapahit kingdom, and “Max Havelaar” — a true story-based novel written by a Dutch officer, illustrated rural development in the old era. Similar to the Kingdoms’ Era the Dutch colonial rulers had the authority to redirect rural development, especially that related to agricultural activities (*landelijk stelsel* and *cultuurstelsel*). The villagers had to give some of their agricultural produce to the Dutch company and also to the king.

Then with the coming of the Independent Era conditions for Indonesian rural development began to improve. The government then gave greater attention to developing infrastructure and regulations related to rural development (Zainal, 2016). After village law became effective, rural development became part of the national strategy to achieve national development goals, rural areas received equality status and were granted a limited budget for rural development and village councils were given limited authority to develop their villages.

Then, during the New Order Era, transmigration programs were introduced and basic infrastructures were developed. There was a Dutch immigration program and during that period the central government tried to distribute the birthrate more evenly by trying to reduce the population density in Java Island while increasing populations in other islands. Also during this era, the central government tried to develop basic infrastructure to enable the flow of goods.

These infrastructures were basic, but started getting better during the Reformation Era with improved village recognition and community participation in development.

Then with the Post-Reformation Era villagers had a greater opportunity to develop their own independence as a part of national development strategies and were given a special budget allocation.

The rural development objective was mainly based upon agricultural production and capital and economic development, and then the government tried to improve the social conditions, not only by considering how the economic benefit could be achieved, but also by trying to understand what the community's needs were.

Presently, the economic, social and environmental conditions are improving and the government is trying to achieve sustainability.

## 2. Place and Space

Place and Space are related to each other (Tuan, 1980). A simple illustration can explain place and space. A person stays in a 20m<sup>2</sup> room inside a house. The room is defined as a Place. The room size represents the Space. This example follows geographical measurement. It has a different meaning from the personal feeling perspective. The room, whomever the owner is, will give that person a different feeling; for example, this room is or is not mine. Further discussion will lead to a sense of place theory. As to Space: I may say that this room is too wide or too narrow for me. As we know, humans are equipped with the special ability to understand the place and space around them. Place is a location. Rural is a place without a firm definition and many researchers have used economic and social approaches to define it.



Figure 1. President's Room  
Source: Author

Can you guess whose room this is? This is the first president's room, and by using this picture, the objective is to describe three things, place space, and the community. The place is this room itself in the house. This is related to the location and space we live in

and usually it has a measurement. For example, Y is the volume and so on, and the community represents the people who live in this room.

Basically, place, space and community refer to physical things. However, if we learn more about the space and community we begin to understand the social aspect. When we consider space we mainly consider the physical things. However, there can be non-physical things, for example, a cyber place, we can think of ourselves as being in a cyber community, and then space is not always about the physical but also about the social aspect.

A rural area is place, space and community. It is a place for villagers to live and a space for agriculture. To get benefit from the place and the community they need a space where they interact with each other.

### **3. Community**

A community is a group of individuals who live in the same place and/or are bound by similar interests. Community participation is required to increase the development success rate and reduce the adverse impacts. Also, the village community has the special ability and knowledge that is beneficial to their living. For example, a villager can go inside the forest within village boundaries without getting lost. They can describe their village's special conditions using unique signage, such as trees, and the natural landscape.

## **2. Spatial Planning 1**

Previously, discussion of rural development in Indonesia mainly focused on economic activities and providing basic infrastructures such as education facilities, village markets, and transportation. Nowadays, rural development addresses quality of life, environmental quality, advanced technology, climate change, and sustainability. However, less

attention been paid to spatial aspects than in urban development, which has addressed spatial aspects extensively. The spatial development theory was introduced mainly based on economic activities (Robinson, 1969). Before revealing the necessity of a spatial approach in rural development, an understanding of the spatial components is necessary.

Spatial planning is a process for arranging the space, land utilization, and control (UU 26/2007).

The land use diagram illustrates how humans and living creatures utilize the land. It can be a built-up area or a cultivated area like farmland or a forest, and the land use has a function. It can be a social function, an economic function, or an ecological function. In a built up area for example, a building does not always have a single function. It may have multiple functions and they can be social functions or economic functions. Another example is the farmland. We can cultivate anything on the farmland and it may produce an economic function. However, farmers can interact with each other too. They can talk together and have a social interaction on the farmland, so it also has a social function.

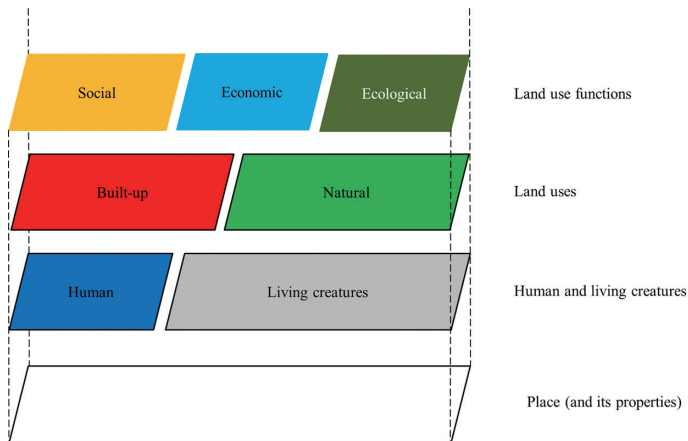


Figure 2. Process for Arranging the Space, Land Utilization, and Control (UU 26/2007)

Source: Author

Spatial planning is an approach that combines all development strategies into a single output document. Regional and urban planning has adopted spatial planning to direct development and has been developed over the centuries. In the past, spatial planning addressed technical and geographical aspects. Then, it incorporated intangible aspects since it is embedded in human nature. As humans have special abilities and knowledge, place and space are also determined by social aspects. Therefore, involving social aspects in spatial planning is possible.

Spatial planning covers physical and non-physical aspects. Briefly, it is constructed of land use planning and non-spatial planning, including land use and land use functions. Land use planning consists of a land-use structure plan, or a land use pattern plan. Non-spatial planning consists of a social and economic activities plan in the case study area. Spatial planning can be applied at any level (national, provincial, region, town, and rural).

### 3. Spatial Planning 2

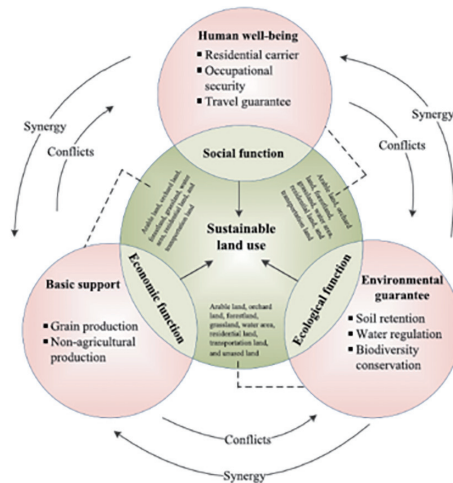


Figure 3. The Conceptual Framework of Land Use Planning  
Source: (Zhang et al., 2019)

The conceptual classification framework of land use functions (Zhang et al., 2019) in the above consists of:

1) Selected interaction among functions based on common patterns.

This is the concept or classification framework of land use function and every function is interconnected in this figure from Zang et al.'s research and illustrates a selected interaction among function pairs based on a common pattern.

2) Tradeoff/synergy among functions

This figure tries to address the threat of instability among the functions. If they increase one function how will this affect two other functions for example?

If we use farmland more rapidly or more intensively how will this affect another function. Maybe we will get more income and more social benefits. However, if it decreases the ecological function the farmland will be degraded in the future.

3) Interaction between function and land use

This is another explanation of land use. Figure A shows the land use of each piece of land and the land use pattern is shown in Figure B.



Figure 4. The Master Plan of Pujon Kidul Tourism Village  
Source: RTRW Kabupaten Malang Tahun, 2011–2031; Bakorsutanal Tahun, 2011; Survey Primer, 2015

- ▶ Land use: land use of each piece of land (fig. A), land use pattern (fig. B), Land use structure (center of growth, sub-growth center, and links among them)
- ▶ Land function ( $\neq$  land use)  $\rightarrow$  agricultural land: farmland (land use) has economic functions
- ▶ Elaborate on physical and non-physical attributes  $\rightarrow$  forest's role in religious practices
- ▶ Maximizing the potential and overcoming the problems
- ▶ Drawing the interaction between activities and spatial onto a map

In the Indonesian context, spatial planning has a hierarchy, starting from national spatial planning and going down to specific spatial levels such as a neighborhood. Spatial planning must pass a synchronization procedure. For example, a lower level of spatial planning must address a higher level of spatial planning (national > Provincial > municipality > smaller spatial level/neighborhood/village). Spatial planning aims to provide a foundation and guidance for following development plans and involving actors and stakeholders. The main output of spatial planning is a policy and the concept of development plans. It requires further detail and an action plan. Otherwise, actors and stakeholders will find it difficult to employ it.

Under spatial planning law and village law (Government of The Republic of Indonesia, 2007, 2014), villages are encouraged to establish spatial planning to spur rural development. However, only a few villages have done so. They prioritize formulating a village government work plan since it is mandatory. Further, the village government work plan focuses on the villages' physical development, such as the basic infrastructure development plan. Promoting spatial planning in rural development is necessary and useful.

During formulating the spatial planning, multiple actors are



involved, including public participation. They discuss various issues, such as public services, social and economic dynamics, and environmental issues. Therefore, solutions and planning that are derived from the social and cultural approach are relevant. Spatial planning for rural development is simpler than others. It employs well-known rural development tools (PRA, RRA, social mapping) and combines them with maps. Spatial discussion is infused in it. The Standard of Basic Infrastructure is based on community needs because there is no exact standard for rural development. As facilitators, spatial planners usually adopt the rural region (consisting of several villages) and urban infrastructure standards (see Indonesia national standard for infrastructure/ SNI).

Since it involves many actors and stakeholders, spatial planning allows them to communicate and accommodate each other's needs. They will decide the common goals, implementation procedure, development priorities, and each actors' role. In the Indonesian context, spatial planning also consists of monitoring and evaluation procedure and incentive and punishment regulation.

Developing spatial planning is time-consuming because it involves many actors with their own needs. Constructing and achieving common understanding and goals requires time and resources.

Involving the community in the spatial planning process and implementation is not an easy task. Rural communities may have better social capital and strong social ties than urban communities. However, it is not guaranteed to be a smooth process. Current rural development depends on community participation. To some extent, the rural community is likely to be less enthusiastic. They often blame local officials and rely on government action.

To overcome this issue, the role of the facilitator is necessary. The facilitators educate the community to get involved in the process

actively thus bridging the gap among actors and stakeholders. The facilitator can be an individual from outside the village or a member of the community. They cannot be involved in decision-making because it violates the community participation concept.

During my fieldwork in one of the villages in Indonesia, when I asked the communities what they knew about their villages and asked them the location of the problems that existed in the villages and they tried to make a map and locate the problem on the map. It could be seen that villagers had a sense of spatial ability but they didn't realize it. In this sense, spatial planning is very feasible for rural community development.

## **4. Spatial Planning Components**

I will briefly explain the Indonesian spatial planning system. Spatial planning, consists of five components, spatial structure, spatial pattern, development concept and program, monitoring and evaluation program, and incentives and disincentives,

### **1. Spatial Structure**

Spatial planning requires an understanding of the spatial structure. If we want to develop the community in the village, we just need to focus on one place as our priority. If the place that we prioritize is growing well, so the surrounding area will also be growing well. It's like a simple random sampling. If we need to understand all the population we just pick some people at random, and by asking them we will be able to understand all things. For example, if we drink a coffee, we don't need to drink it all to judge the quality of the coffee. We need just a sip of coffee to judge the coffee itself. So using that idea spatial planning structure is implemented.

## **2. Spatial Pattern.**

The spatial pattern consists of the pattern of the land use. We don't focus on a single-use but the pattern in general.

## **3. Development Concept and Program.**

Spatial planning also consists of a development concept and program according to the idea for the community development, and what has already been explained by Dr. Fitrio Ashardiono, Dr. Iqra Anugrah and Dr. Sianipar in the preceding chapters can be included in this part.

## **4. Monitoring and Evaluation Program**

The most interesting part of spatial planning is the Monitoring and Evaluation Program. Spatial planning is not always about the plan itself, but about monitoring to see that the plan is running well and ensuring quality control of the planning. For these reasons, monitoring and evaluating the program is important.

## **5. Incentive And Disincentive.**

This is related to reward and punishment and to ensure the improvement of the development itself. For example, if the farmers are following the rules of the spatial planning, we will give some incentive or reward, and if they break the rules, they will be censured. The aim is to teach them how to increase their capacity.

# **5. Spatial Planning Process**

The participants in the discussion of this spatial planning usually consist of the key persons in the village, the religious leader, group leaders and the village officials.

The stakeholders are usually the national governments and provincial governments, and next to the private sector, and then the groups in the village community. The process is as follows:

### **1. Data Collection**

The spatial planning process involves all the activities done by the communities themselves. During the data collection, we're trying to identify the community's needs, then identify the problems and then define the community's resources.

### **2. Analysis**

The analysis is based on the data that is gathered from the community try to identify potential problems and find possible solutions.

### **3. Plan Formulation**

Once they have identified and solved the important issues they will make possible development plans and select the best plan.

### **4. Plan Dissemination**

Finally, they hold an open public discussion to disseminate the plan, so that all community members will know what they will be doing in the future. During this process only the community members can give feedback or a suggestion. For example, if there's a plan to make a new building for education, but the community members think that it's not urgently needed, they can reject that plan and the community members will discuss whether they need to delete that plan or continue. Usually, if they face some objection, they will think again and try to find a solution.

## **6. A Story of Two Villages**

This section will describe the story of two villages, Pujon Kidul village, in Malang regency, and Batoq Kelo Village, in Mahakam Ulu Regency. I was involved in developing spatial planning in these villages, and the experiences illustrate spatial planning implementation in rural development. The case studies produced unique and distinguished experiences. The stories focus on the community initiatives, development process, and spatial planning results.

In 2015, Pujon Kidul village had the initiative to establish a village master plan. It was quite rare. Spatial planning and the village master plan are two different things. Spatial planning can be an approach to establishing a master plan. After conducting an initial discussion, they unconsciously employed the spatial method in their village public discussion. The village communities established a social map and identified community problems using a spatial approach, even though they had limited knowledge about spatial planning.

In 2019, we were involved in formulating the Batoq Kelo Village master plan. We employed a bottom-up approach, which is more relevant than a top-down approach for rural developments. After conducting an initial discussion with the village officers and key persons, we found that the Batoq Kelo community had no idea how to develop their village. Nevertheless, they wanted a better life and public services. On this point, the Pujon Kidul community was clearly more capable than the Batoq Kelo community.

We employed a participatory rural appraisal and spatial approach for Pujon Kidul village community needs assessment (CNA), and a spatial planning approach for Batoq Kelo Village (Hidayat & Vidianti, 2019). Focus group discussion and spatial mapping were the main tools to collect the data. Key persons such as the religious leader, public

figures, and village officers were actively involved during the process. As facilitators, we explained how to build the master plan using a spatial planning approach and gave them examples. Then, we started the planning procedure. The first step was to identify the village's condition and then analyze the strengths and issues of the village and find the solution. We provided capacity-building sessions that helped them through the process. Once the masterplan draft was completed, we held an open community forum to explain the draft and get their feedback. It took approximately a year to finish. We spent more time at Batoq Kelo village and gave extra discussion sessions, because their understanding of spatial aspects and development was lower than that of Pujon Kidul Community.

After a long process, each community agreed to the master plan. The development concept for Pujon Kidul Village is a tourism village. Batoq Kelo community agreed to focus on basic infrastructure development. Both communities planned to establish a village-owned enterprise to improve their economic capacity.

## **7. Pujon Kidul Village**

Pujon Kidul Village is in Malang Regency, Jawa Timur Province. It is located approximately three kilometers from Batu city which is one of the emerging tourism destinations in East Java. The total area is around 324 hectares and the total population is 4,790.

### **1. Initiative**

Initially, Pujon Kidul was an agricultural village but after they established spatial planning they changed its identity to a tourist village. I would like to explain each story in three phases. The first part is the initiative, the second is the process, and the third is the result.

The first initiative came from the village community. At that time, the village leader came to my university and told us that they wanted to have a kind of development plan. As I am in the spatial planning department, I proposed this spatial planning, and they agreed to adopt this proposal.

They wanted to develop tourism activities because their village is very close to Batu city which is a tourism destination. They thought that if the tourists in Batu village felt bored and wanted to see something different, their village could provide something to attract them, so they should become a tourism village.

## **2. Process**

We went to the village and told them about the process. We explained that the work would be done by the community, and we would just act as facilitators and we would supply them with all the information they needed.

The neighborhood had a forum discussion with a focus group to identify the issues and the potential in their village and how they could overcome these issues using the village's potential. Then they formulated a village development concept and a development program.

They held a village forum discussion and received a lot of feedback from the community members, after which the focus group revised and finalized the plan and disseminated it again for the last time

## **3. Transformation**

Pujon Kidul was divided into three hamlets called Krajan, Maron, and Tulungrejo. In the plan, each hamlet would have its own particular activity, and they supported each other. For example, Tulungrejo hamlet would focus on establishing tourism attractions. Maron Hamlet is predominantly housing, and several households have small-size enterprises. It has no tourism potential so producing souvenirs for the tourists and selling them

at the sightseeing spots is most profitable activity. We try to synchronize the activities so Krajan Hamlet was the center of tourism and the other areas would provide the support. So for example, Maran Hamlet would produce the souvenirs that are needed by Krajan Hamlet.

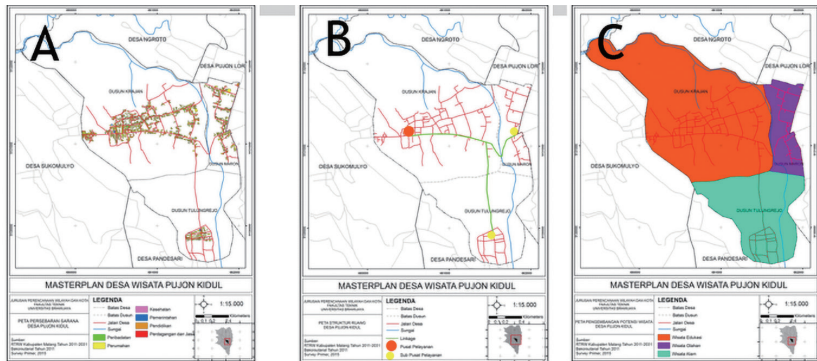


Figure 5. Pujon Kudol Village Spatial Planning

Source: RTRW Kabupaten Malang Tahun, 2011–2031; Bakorsutanal, 2011; Hidayat, 2015

These maps show the transformation of the village in the case of spatial planning. They represent the condition of Pujon Kidul village and we can see here that the land use is very low. The small shapes are the village houses. The villagers identified which part of the village is the central business district and identified the yellow part as the center of growth and light yellow as the sub-center. All the development will focus on the central area and the other area will support the development.

## 8. Batoq Kelo Village

The second story is of Batoq Kelo Village located in Mahakam ulu Regency, Kalimantan Timur Province, Kalimantan, East Borneo. This



is an agricultural village located three kilometers from the Regency capital. The total area not including the forest is around 7,846 hectares and the population is only 843.

The process in Batoq Kelo village was different from the previous one. I would like to explain the initiative, the process, and the result.

## **1. Initiatives**

Batoq Kelo village community is unique because it is split into two groups. Some of the villagers moved from the old place to the new place because of a lack of facilities. So they moved closer to the regency capital. Then, after a certain number of years, some villagers returned to the original location because it was closer to the farmland. Some people stayed in the original place and some people moved to the new place and never wanted to return again. As a result the Batoq Kelo community lives in two separate villages. Usually, a tribe lives in one village, and territorial expansion is possible but not a common practice.

Due to the separation, maintaining rural development was becoming difficult. The municipal government initiated a process to develop spatial planning. The process is similar to the first story but the result is quite different. Every place is entitled to government funding for rural development and the village had already received funds from the government which they split equally between the households who used that money to build the necessary facilities or improve their homes according to their separate ideas. Actually, this practice is against the wishes of the central government which rules that these funds should be used to implement holistic spatial planning and establish facilities that are not yet available.

## **2. Process**

During the planning process, the villagers agreed that the development

should focus on the original location because the new place already had access to the basic infrastructure of services of the regency capital from the neighboring village.

### **3. Result**

As a result of spatial planning, they decided to try to revitalize and repair the existing infrastructure because they thought it could still be used if it was repaired. They decided that multiple uses of community buildings were the most preferable because this area has surplus buildings that can be used for various activities. Another reason was that purchasing materials to make another building would be quite expensive, and they were trying to reduce their expenses.

## **9. Conclusion**

During the process of adopting spatial planning, these rural communities learned their potential, how to interact with each other and nature, what they needed, and how to resolve their problems. The stories of these two villages have demonstrated that if a community is open to spatial planning and understands their village's spatial attributes and how to elaborate them with its economic and social aspects, they can work together to improve their economic conditions.

As researchers who specialize in rural development we learned many things from these two stories that will be of use in future applications of spatial planning. The solutions always depend on the village and community conditions. Educating the community and ensuring community participation are the most challenging parts and furthermore technical terminology and procedures need to be explained in a way that can be easily understood. Moreover, as the villagers spend most of their time working, we have set the schedule based on participants' convenience.

However, there are undoubtedly benefits to adopting spatial planning methods to help rural communities to develop the potential of their villages in a holistic, sustainable way in relation to the natural features and nearby towns. If the potential of each area can be optimized in relation to the whole, it can have a positive effect on rural economies and especially on attracting the younger generations to remain or return to rural life.

## References

- Indonesian Central Government, Law (UU) No. 26. 2007. Spatial Planning. Regulation Details. (In Indonesian)
- Hidayat, A and Vidiyanti, R. 2019. Community Service Facilities and Infrastructure Improvement in Remote Areas of East Kalimantan (Case study: Conflict in Batoq Kelo Village, Mahakam Ulu Regency). *IOP Conference Series: Earth and Environmental Science*. 328. DOI: 012032.10.1088 / 1755-1315/328/1/012032.
- Robinson, J. 1969. The Theory of Value Reconsidered. *Australian Economic Papers*, 8(12), 13–19. <https://doi.org/10.1111/j.1467-8454.1969.tb00214.x>
- Tuan, Y. 1980. The Significance of the Artifact. *Geographical Review*, 1980-10-01, 70(4), 462–472.
- Zainal, A. 2016. *Learning Evaluation (Principles, Techniques, and Procedures)*. Eighth Printing, Jakarta: Rosda Karya. Arikunto, Suharsimi. (In Indonesian)
- Zhang, Y., Long, H., Tu, S., Ge, D., Ma, L., and Wangaf, L. 2019. Spatial Identification of Land Use Functions and Their Tradeoffs/Synergies in China: Implications for Sustainable Land Management. *Ecological Indicators*, 107, <<https://doi.org/10.1016/j.ecolind.2019.105550>>

**AR. Rohman Taufiq HIDAYAT**



**Chapter 4: Place, Space, and Community:  
Spatial Planning for Rural Development**

**Profile:** Lecturer, Regional and Urban Planning,  
Universitas Brawijaya, Malang - Indonesia

**Selected articles:** 2021 Farm Owners' Perception toward Farmland Conversion: An Empirical Study from Indonesian Municipality. 2021 Food security in the disaster-prone area: an empirical study from the rural area of Indonesia. 2019 Soil/Land Use Changes And Urban Sprawl Identification In Pandaan District, Indonesia. 2019 Spatial Pattern of Land Cover Change in The Coastal Area of Gresik Regency, Indonesia Using Land Change Modeler. 2019 Does ICT facilitate or impede rural youth migration in Indonesia? 2018 Challenges for the next level of the digital divide in rural Indonesian communities. 2018 Factors that effect land-use change in Pandaan District.