

# The Process of the Formation of Space by Political Prisoners in Exission on Buru Island, Maluku (Period 1969-1972) (Waeapo District, Buru Regency, Maluku Province)

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## Abstract

In urban development, there are often problems, namely land conversion in terms of changes in land use. The political prisoners were initially forced to open agricultural land with improvised tools which in the end grew rice fields in Maluku, the planting of rice fields managed to produce a harvest of 80 tons and until now has become the second largest rice barn. This study aims to determine the spatial changes that occur due to the disposal of political prisoners as well as the factors that influence the changes in space in Waerebo District, Buru Regency, Maluku Province. The variables analyzed are land use changes, both built and non-built areas by looking at the types of changes and the extent of changes in the area using the ArcGIS 10.5 application, then the types and extents of existing land use changes will be described descriptively. The spatial changes that occurred on Buru Island during the period of exile to the left experienced several parts, namely the Use Phase (Usage Place), Inrehab Phase (Rehabilitation Installation), Political Prisoners Release Phase and the Transmigration Phase until now which made Buru Island, especially the area that used to be a dumping site for Political Prisoners has the largest rice barn potential on a national scale. The evolution of agriculture is still being developed in supporting programs made by the government, among others, the Transmigration program. These programs are developing to date.

**Keywords**— changes, political prisoners, planting, factors, program

## I. INTRODUCTION

Regional changes are the impact of social movements that form new spaces naturally as a result of the interaction of human activities. Urban development can be seen in population growth that develops into a community [1]. The development of a region is determined by the hierarchical level [2].

Land is limited and cannot be added except by reclamation activities [3]. The problem that often occurs in urban development is land conversion in terms of land use changes [4]. The increasing need for land causes a process of land use change, especially the conversion of vegetated land into built-up land [5]. Reference [6] which states that land conversion is

generally irreversible or irreversibly. Vegetated land which has mainly been converted into built-up land is very difficult to convert back into vegetated land.

Indonesia experienced National Political turmoil, one of which was the September 30th movement (G30S) of the Indonesian Communist Party/PKI or G30S PKI for short. The G30S PKI incident changed the national political constellation [7]. One of the impacts of this incident was exile in remote parts of the country. On August 17, 1969, 800 people were sent to Waeapo District, Buru Regency, Maluku to form settlements. The total number that was sent was 10,652 people. The process of leaving for Buru Island forced political prisoners to

build the existing infrastructure on Buru Island [8].

Maluku is an archipelagic area, the natural conditions are hot, arid, and transportation accessibility is not adequate. Land tenure is a sensitive matter for the Maluku people in general [9]. Some of the land on the island of Buru is covered by forest, but many forests are damaged so that they are overgrown with shrubs [10]. This study aims to identify the process of spatial change that occurred in the period 1969 to 1972 that occurred in Waeapo District, Buru Regency, Maluku Province and the factors that influenced these changes.

## II. METHODS & MATERIALS

### A. *The Process of Forming Space*

Human activities require space as a forum for interaction Hakim [11]. Human resources and natural resources are the main supporting parts of utilization in shaping spatial planning [12]. According reference [13], public spaces have great access to the surrounding environment. Spatial planning is a vision of a future form of spatial configuration that describes a systematic form of physical, social, and economic aspects to support and direct space to increase productivity [6].

There are 4 components of room development, including: 1) Individual human (Anthropos) and local area (Community) in a large urban community, 2) Living room (Scallops), 3) Organization, 4) Nature [14]. There are two styles that influence each other in urban land use change and formation, namely the sripetal style, the situational style, and the social development style [15]. According reference [16], the spatial structure of the physical aspect such as the function of the building, the shape of the building, land use, and so on has changed quite rapidly except for the road pattern.

### B. *Land use classification*

Land use change is the transition of an old land use form and location into a new one [17] or a change in the function of a land at different times [18]. Reference [19] studied land use change that can change from one form to

another in 6-8 year intervals. Changes in land use with urban development are certainly unavoidable, starting from deforestation which is replaced by settlements and so on [20].

Reference [21] mentions that suburban areas are urban fairies. Peri urbah area is defined as an area that experiences a physical mixing of urban and rural areas<sup>21</sup>. Patterns of land use change include longitudinal patterns and scattered patterns [22]. Non-agricultural land use is basically a non-agricultural land use including urban land use, industrial area land use, road network systems, recreation and conservation areas or nature reserves [23]. Reference [24] states that the better and more complex a road infrastructure will result in the formation of activity centers and functions.

### C. *Initial Conditions of Buru Island*

The G30S PKI incident in Indonesia resulted in the sending of political prisoners to Buru Island as political prisoners from 1969 to 1977, totaling 14,000 political prisoners [25]. Buru Island is the second largest island in Maluku Province after Seram Island. Buru Island is divided into two administrative areas, namely Buru Regency and South Buru Regency [26]. Buru Island is known by the name Bupolo/Dampolot which means full of swamps and pecek [27].

The Buru people are people who live on the coast until the Dutch concentrated the Buru people to Kayeli (the center of Dutch government in the colonial era) so that the settlement pattern of the Buru people became centralized [26]. Waeapo Subdistrict is a pure location built by Political Prisoners at the end of 1969. At the beginning of the Dutch occupation of Buru Island, the main commodities on Buru Island were forest products in the form of cloves, nutmeg, charcoal and eucalyptus, besides that there was also wood oil. white from the distillation of eucalyptus tree leaves [28].

Reference [29] in the traces of the Dutch colonialism on Buru Island in the 17-18 century AD revealed that the process of massive spatial change occurred when the VOC occupied Buru

Island in search of spices and then concentrated all community activities.

#### **D. Methods**

This study uses a qualitative descriptive method and uses overlay analysis by overlapping the map results from the field survey. The qualitative descriptive research method was chosen because of the nature of the research that tends to be qualitative in nature, namely research in the form of pictures and narratives. According reference [30] qualitative research is research that uses open interviews to examine and understand the attitudes, views, feelings and behavior of individuals or groups of people. This research is descriptive in nature which focuses on historical tracing in the form of spatial developments formed by political resistance and also a track record of relics during the exile.

In the process of data collection carried out in order to connect researchers with the research location. Data collection was carried out, including the preparation stage and field survey, namely directly observing the research object located in Waerebo District, Buru Regency, Maluku Province. Secondary and primary data collection methods are carried out so that the data that has been obtained can then be managed for research needs.

The overlay method is carried out in order to describe the existing condition of the research location from year to year which is then presented in a partial change map tabulation so that it is easy to interpret as research needs.

### **III. RESULTS**

Buru Island as a location for exile is a stretch of wilderness and has a stretch of sago and eucalyptus trees that grow wild and there is the largest river on Buru Island, the Waeapo River which is the only source of life for the local indigenous people. Several political prisoners were sent from various regions as part of the social sanctions which were the impact of the G30S PKI incident and the National Political constellation.

The spatial changes that occurred on Buru Island during the period of exile to the left experienced several parts, namely the Use Phase (Usage Place), Inrehab Phase (Rehabilitation Installation), Political Prisoners Release Phase and Transmigration Phase. During the 10 years he was in the location of political prisoners, he built around 500 ha of rice fields and plantations which are used to this day.

Based on Solihin (2020), an informant who became a political prisoner, a political prisoner who was exiled on the island of Buru to continue the Tefaat (utilization) and Inrehab (Manage) development program for all physical buildings in the Unit area on average all the same, such as places of worship. (mosque, church, temple), monitoring post, commander's house, dam, art building, irrigation, and rice fields.

The Transmigration Program held by the government should occupy all existing units, but only some units are occupied because some units do not have a proper agricultural system, so some units must be abandoned. This research is included in the administrative section of Waeapo District which has approximately 7 villages including Savana Jaya Village which includes (Unit VIII and Unit XIV), Gogorea Village, Waetele Village (Unit XV), Waenetat Village (Unit XVI), Air Mendidih Village, Village Waekasar and Command Headquarters include (Unit I and Unit II).

Waeapo District, there are six



*Figure 1. Waeapo District*

Savana Jaya is a central unit for Political Prisoners in developing the area, both the village government system and the style and procedures for land management managed by the government. Savana Jaya is a unit with a very striking change in space since the sending of families of prisoners who turned barracks into settlements.

The sending of political prisoners to Buru district was carried out in stages and divided into several groups. The first group was assigned to clear the land, while food was still provided by the government at that time. Political prisoners are forced to take advantage of the natural environment to manage in order to survive. At the beginning, political prisoners carried out the process of clearing rice fields and fields but they could not be harvested so that the prisoners were forced to eat anything edible, such as wild animals.

The second group was sent from Nusa Kambangan in 1972. The second group was tasked with developing areas where political prisoners were exiled and forced to develop rice fields, including building irrigation, dams and

making plans for settlements after sending the families of political prisoners.

In December 1972-May 1973, the New Order government sent families of political prisoners. The sending of families of political prisoners aims to change the conditions of the barracks into villages. Political prisoners build public facilities such as schools and hospitals. Teachers and doctors are filled by the political prisoners themselves. Political prisoners also develop agricultural areas including rice fields, plantations, dams, drainage and irrigation of rice fields.

After the island's political prisoners were released, the transmigration program was released. In 1979, the transmigrants were sent to Buru Island to occupy land that had been cleared by political prisoners and immediately divided into each unit for a total of 22 units. In this study, located in Waeapo District, there are six

The total land use established by political prisoners on the island of Buru is as follows:

**Table 1.** Area of land use for political prisoners.

| Number | Unit Name           | Unit area (Meters) | Rice field area (hectares) |
|--------|---------------------|--------------------|----------------------------|
| 1      | Unit I Wanapura     | 610                | 1000                       |
| 2      | Unit II Wanareja    | 440                | 500                        |
| 3      | Unit IV Savana Jaya | 680                | 500                        |
| 4      | Unit XIV Pilareja   | 440                | 50                         |
| 5      | Unit XV Waetele     | 440                | 500                        |
| 6      | Unit XVI Waenetat   | 440                | 500                        |
|        | Total number        |                    | 6100                       |

Source: field survey on 2020

#### IV. DISCUSSION

This research aims to identify the existing conditions formed by political prisoners, as well as to see the process of spatial changes that occurred during the period of exile in the period 1969-1979 and what factors influenced the changes in space. This study uses a qualitative descriptive analysis method to take a deeper look at the existing processes in the field and a Spatial Overlay analysis to see changes in land use in the period 2005 to 2019.

##### *Analysis of the Process of Changes in Land Use Political Prisoners*

Waeapo Subdistrict, Buru Regency, is a former location for exile for Political Prisoners. The units resulting from the formation of Political Prisoners are included in the administrative section of Waeapo District, including Savana Jaya Village which includes (Unit VIII and Unit XIV), Gogorea Village, Waetele Village (Unit XV), Waenetat Village (Unit XVI), Air Mendidih Village, Waekasar Village, Waekerta Village (Command Headquarters includes and Unit I), Waereja Village (Unit II).

**Table 2.** Area of Administration by Village in Waeapo District

| Village     | Area (km <sup>2</sup> ) | Percentage |
|-------------|-------------------------|------------|
| Savana Jaya | 4,58                    | 11,15      |
| Gogorea     | 2,48                    | 6,04       |
| Waekerta    | 2,72                    | 6,63       |
| Waetele     | 4,85                    | 11,81      |
| Waekasar    | 15,5                    | 38,46      |
| Waenetat    | 6,3                     | 15,34      |
| Wanareja    | 4,35                    | 10,59      |
| Total       | 41,08                   | 100        |

Source: field survey on 2020

Political prisoners on Buru Island were recorded as arriving at the Utilization Place (Tefaat) starting from 1979 to 1977, forming a place of exile on Buru Island, totaling 22 units, namely Units I-XVII and there were also units A, Unit R, Unit S and Unit T which were devoted to elderly political prisoners.

In the analysis of spatial change in this study, the focus is on land use boundaries formed by political prisoners only, which then with population growth, land use changes spread to Savana Jaya Village (Unit VIII and Unit XIV) Waetel Village (Unit XV), Waenetat Village (Unit XVI), Command Headquarters (Unit I and Unit II).

##### *Analysis of the Process of Changes in Land Use Political Prisoners*

Changes in land use are inseparable from human needs. The increase in population is one of the factors that influence the change of vegetated lands into built-up lands [31]. The population growth in Waeapo Subdistrict is recorded as follows:

**Table 3.** Population Growth in Waeapo District

| Number | Year | Total Population |
|--------|------|------------------|
| 1      | 2005 | 28.576           |
| 2      | 2010 | 31.137           |
| 3      | 2015 | 11.836           |
| 4      | 2019 | 12.185           |

Source: Badan Pusat Statistik (2020)

With the change in the administrative area of the Waeapo sub-district in 2014, starting from 1 sub-district then divided into three sub-districts resulted in a spike in population growth decline in 2011 with the number of 31,137 decreasing to 11,836. The impact of the administrative split will certainly result in the dominant land use in the Waeapo sub-district.

In the Waeapo sub-district there are types of land use, namely built-up land covering areas for health, offices, education, trade and service worship, and settlements. Undeveloped land

includes forest areas, vacant land, plantations, rice fields, shrubs and rivers. Productive areas such as rice fields are the dominant development areas in Waeapo District. It is calculated that the land use in Waeapo sub-district is 42.862,64 hektares. Based on the results of spatial digitization analysis using the Gis application from Google Eart images in 2015, data on land use in Waeapo District in 2005 the undeveloped area was dominated by shrubs with an area of 4,514.84ha, and settlement areas with an area of 271.75ha.

**Table 4. Land Use in 2005**

| Number | Use of Land        | Total (hectares) |
|--------|--------------------|------------------|
| 1      | Forest             | 3.247,09         |
| 2      | Health             | 3,11             |
| 3      | vacant land        | 268,19           |
| 4      | office             | 5,90             |
| 5      | Education          | 15,63            |
| 6      | Worship            | 2,30             |
| 7      | Trade and services | 18,50            |
| 8      | Plantation         | 96,85            |
| 9      | Settlement         | 271,75           |
| 10     | Persil             | 97,49            |
| 11     | Ricefield          | 1.910,47         |
| 12     | Shrubs             | 4.514,84         |
| 13     | River              | 263,54           |
|        |                    | 10.715,66        |

*Source: Analysis Results on 2020*

Waeapo District in 2005 had a non-built productive area which was dominated by rice fields with a land use area of 1,910.47ha. Meanwhile, the bush area is an area that dominates Waeapo District in 2005 with an area of 4,403.91 ha. Based on the results of spatial analysis using the Gis application from Google Eart images in 2010, it shows that land use data in Waeapo sub-district in 2010 which includes undeveloped areas is dominated by shrubs with an area of 4,305.73 Ha, and built areas with an area of up to 338,72Ha.

**Table 5. Land Use in 2010**

| Number | Use of Land        | Total (hectares) |
|--------|--------------------|------------------|
| 1      | Forest             | 3.246,09         |
| 2      | Health             | 10,67            |
| 3      | vacant land        | 227,78           |
| 4      | office             | 6,34             |
| 5      | Education          | 12,67            |
| 6      | Worship            | 2,30             |
| 7      | Trade and services | 22,67            |
| 8      | Plantation         | 95,30            |
| 9      | Settlement         | 338,72           |
| 10     | Persil             | 148,60           |
| 11     | Ricefield          | 2.035,25         |
| 12     | Shrubs             | 4.305,73         |
| 13     | River              | 263,54           |
|        |                    | 10.715,66        |

*Source: Analysis Results on 2020*

Waeapo District in 2010 had a non-built productive area which was dominated by rice fields with a land use area of 2,035.25 Ha. Based on the results of spatial digitization analysis using the Gis application from Google Eart images in 2015, data on land use in Waeapo District in 2015 the undeveloped area was dominated by bush areas covering an area of 3,970.15 Ha, while the built area in Waeapo District in 2015 is a residential area with an area of 451.53 Ha.

**Table 6. Land Use in 2015**

| Number | Use of Land        | Total (hectares) |
|--------|--------------------|------------------|
| 1      | Forest             | 3.245,10         |
| 2      | Health             | 16,47            |
| 3      | vacant land        | 152,53           |
| 4      | office             | 11,94            |
| 5      | Education          | 13,13            |
| 6      | Worship            | 9,40             |
| 7      | Trade and services | 32,49            |
| 8      | Plantation         | 107,13           |
| 9      | Settlement         | 451,53           |
| 10     | Persil             | 159,34           |
| 11     | Ricefield          | 2.282,91         |
| 12     | Shrubs             | 3.970,15         |
| 13     | River              | 263,54           |
|        |                    | 10.715,66        |

*Source: Analysis Results on 2020*

Waeapo District in 2015 had a non-built productive area which was dominated by rice fields with a land use area of 2,282.91Ha.

**Table7.** Land Use in 2019

| Number | Use of Land          | Total (hectares) |
|--------|----------------------|------------------|
| 1      | Hutan                | 2868.79          |
| 2      | Kesehatan            | 17.7             |
| 3      | Lahan kosong         | 53.02            |
| 4      | Perkantoran          | 13.02            |
| 5      | Pendidikan           | 17.72            |
| 6      | Peribadatan          | 13.4             |
| 7      | Perdagangan dan jasa | 43.76            |
| 8      | Perkebunan           | 133.84           |
| 9      | Permukiman           | 479.85           |
| 10     | Persil               | 192.84           |
| 11     | Sawah                | 3912.09          |
| 12     | Semak belukar        | 2706.09          |
| 13     | Sungai               | 263.54           |
|        |                      | 10.715,66        |

Source: Analysis Results on 2020

Based on the results of spatial digitization analysis using the Gis application from Google Earth imagery in 2019, land use data in Waeapo District in 2019 was dominated by bush areas with an area of 2,656.20 Ha, while the built area in Waeapo District in 2019. In 2019, the settlement area reached 479.85ha.

Waeapo District in 2019 has a non-built productive area which is dominated by rice fields with a land use area of 3,712.51 Ha.

#### **Dominant Land Use Change 2005-2019**

Land use in Waeapo District, Buru Regency, Maluku Province, is dominated by rice fields. Based on the 2020 BPS, Buru Regency has a harvested area of 13,110 hectares consisting of 5,328 hectares in Waeapo sub-district [32]. Until 2019, Buru Island was used as a national rice granary area.

Existing land uses in the Waeapo sub-district include forest areas, vacant land, plantations, scrub bushes and rice fields, as well as rivers covering non-built areas, while built-up areas

include areas for health, offices, education, worship, trade and services, and settlements. with an average land use change reaching 829.33ha in the last five years, namely 2005-2010.

Based on the results of calculations carried out, changes in land use in Waeapo District in 2005-2010 were dominated by rice fields with an area of 283.00ha as non-built community production areas, while the built-up area was dominated by residential land with an increase in land use of 112, 00ha.

Changes in land use in Waeapo District in 2010-2015 were dominated by bush areas with an area of 352.00 ha, meanwhile the rice fields experienced an increase of 19.10 ha as a non-built community production area, the built area was dominated by residential land with an increasing number of land use of 10.30ha. The average land use change in 2010-2015 reached 624.89ha.

The changes in land use in 2015-2019 reached 38,926.32 ha. The areas in the Waeapo sub-district in 2015-2019 include forest areas, vacant land, plantations, scrub bushes and rice fields, as well as rivers, including non-built areas. Meanwhile, the built areas include areas for health, offices, education, worship, trade and services, as well as settlements.

Changes in land use in Waeapo District in 2015-2019 were dominated by shrubs with an area of 1,264.06 Ha. The rice field area has increased to 1,629.18 Ha as a non-built community production area, the built area is dominated by residential land with an increase in land use of 28.32 Ha. The average land use change in 2015-2019 reached 3,478.42 Ha.

#### **Analysis of Dominant Land Use Change in Waeapo District**

Changes in land use, both built and non-built areas by looking at the types of changes and the extent of changes in the area using the ArcGIS 10.5 application, then the type and extent of changes in existing land use will be described descriptively, presenting changes in land use in the period 2005-2019 in present with a table of dominant land use.

The spatial changes that occurred in Waeapo Sub-district underwent several phases of change, including being exiled by the new order government which was then known as the Phase.

1. The political prisoner phase is the initial land clearing phase when land use is still dominated by several local indigenous villages. Political prisoners who were sent were forced to make major changes to convert forest land into residential land. The factor that influences the change in space is the primary human need for survival. Then the change in space occurred according to the needs of the political prisoners at that time to survive.
2. Transmigration Phase Transmigrants in 1980 were part of the continuing rehabilitation program by the New Order government at that time. Land clearing by political prisoners has been completed and forms the location of the Unit complete with an irrigation system as well as a dam.

The factor that influences the change in space is the existence of a central government program in dealing with the rapid population growth in big cities, so there needs to be an even distribution in the form of sending families in the development program, namely Transmigrants.

The largest land uses in a row include dry land agriculture, residential rice fields, fishponds, trade and government services, education, ports and terminals. Meanwhile, the most dominant land use change is residential land. This is in accordance with the research of reference [33] which states that the decrease in open land occurs due to the intensive use of open land to be used as residential areas.

The existence of population growth, increased activity and infrastructure from 1999-2004 has not shown a significant change in the spatial structure because the development of the city is only in the city center and has not grown new urban developments.

According reference [34], changes in increasing population growth have an impact on activity. According reference [35], the increase in built-up land such as settlements and infrastructure is one of the factors that lead to the development of these areas<sup>35</sup>.

## V. CONCLUSIONS

The evolution in agriculture is the largest that has ever happened to people with the status of political prisoners, until now the island of Buru is the second largest rice supplier area on a national scale. Changes in space from groves to rice fields and the location of the location of settlements or so-called Unit locations since the beginning of the arrival in 1969, the peak occurred in 1972 when families of political prisoners were sent. This is a very striking change, especially in the Savana Jaya Unit. It was recorded that 3.50 people were exiled in Waeapo Sub-district and opened an area of 6,100 hectares complete with supporting facilities and rice fields. Changes and patterns of spatial formation carried out by political prisoners are very feasible to be developed because they have a serious potential to affect the economy of the surrounding community.

## REFERENCES

1. Todaro, Michael P, "Pembangunan Ekonomi di Dunia Ketiga," Edisi ke 7, Erlangga, 2000
2. Murtadho. A, Wulandari. S, Wahid. M., and Rustiadi. E, "Perkembangan Wilayah dan Perubahan Tutupan Lahan di Kabupaten Purwakarta sebagai Dampak dari Proses Konurbasi Jakarta-Bandung," *Journal of Regional and Rural Development Planning*. 2(2), 195., <https://doi.org/10.29244/jp2wd.2018.2.195-208>, 2018
3. Untoro. H. H, "Perubahan Fungsi Lahan Pertanian menjadi Non Pertanian di Kecamatan Godean," *Jurnal Pembangunan Wilayan & Kota*. 8(4): 330-340. 2006
4. Lisdiyono, "Penyimpangan Kebijakan Alih Fungsi Lahan Dalam Pelestarian

- Lingkungan Hidup,” *Jurnal Hukum dan Dinamika Masyarakat* Edisi Oktober 2004. Fakultas Hukum Untag: Semarang, 2004
5. Pravitasari. A. E, Saizen. I., Tsutsumida. N, Rustiadi. E, and Pribadi. D. O, “Local Spatially Dependent Driving Forces of Urban Expansion in an Emerging Asian Megacity: the Case of Greater Jakarta (Jabodetabek)”, *Journal of Sustainable Development*. 8(1), 108-119c, 2015
  6. Rustiadi. E, Saefulhakim. S, and Panuju. D. R, “Perencanaan dan Pengembangan Wilayah,” 58-114. Yayasan Pustaka Obor, 2011
  7. Abdullah. Taufik, A. B. Lopian, “Indonesia dalam Arus Sejarah Jilid VII (Pascarevolusi),” Jakarta: PT Ikhtiar Baru van Hoeve. Untag, Semarang, 2012
  8. Tati. Haryati, “Tahanan Politik Pulau Buru Maluku (1969-1979),” *Jurnal Ilmiah IKIP Maratam*. Vol. 3. No.2 ISSN:2355-6358, 2018
  9. Matuankotta. J. K, “Hak pengelolaan atas tanah-tanah adat di Maluku,” Retrieved August 11, 2016, from <http://fhukum.unpatti.ac.id>, 2013.
  10. Mubekti, 2011,” Karakterisasi Sumberdaya Lahan dan Perwilayahan Komoditas Unggulan Perkebunan di Pulau Buru,” *Jurnal teknologi inventarisasi sumber daya alam, Badan Penerapan dan Pengkajian Teknologi*. Vol 12 No 3 Tahun 2011 ISSN 1441-318X, 2011
  11. Hakim, Rustam. Ir, “Unsur Dalam Perancangan Arsitektur Landscape,” Jakarta: Balai Pustaka .1987
  12. Mokodongan. B, Sela. R, and Karongkong. H, “Identifikasi Pemanfaatan Kawasan Bantaran Sungai Dayanan Di Kotamobagu,” *Sabua*. 6(3), 273-283, 2014
  13. Scurton. Roger, “Public Space and The Classical Vernacular,” Singapore: The Public Interest, 1984
  14. Pontoh. Nia, K. I. Kustiawan, “Pengantar Perencanaan Perkotaan,” Penerbit ITB. Bandung, 2009
  15. Zulkaidi. Denny, “Pemahaman Perubahan Pemanfaatan Lahan Kota Sebagai Dasar Bagi Kebijakan Penanganannya,” *Jurnal Perencanaan Wilayah dan Kota*. Vol, 10, No. 2, 1999
  16. Jerzi. Budiarto, and Djoko. Suwandono, “Identifikasi Perubahan Struktur Ruang pada Jalan Utama Kecamatan Kraton D.I Yogyakarta,” *Jurnal Ruang*. Volume 2 Nomor 1 Tahun 2014 ISSN 1858-3881, 2016
  17. Tengah. J, Geogrifi. F, and Gadjah. U, “Perubahan Penggunaan Lahan dan Faktor yang Mempengaruhinya di Kecamatan Gunungpati Kota Semarang. 2016
  18. Wahyunto. S. H, Agus. F, and R. L. Watung, “Environmental Consequences of Land Use Changes in Indonesia. *Jurnal Conserving Soil and Water for Society Sharing Solutions*. 954 (1): 1-4. 2001
  19. Syam. T, H. Nishide, AK. Salam, M. Utomo, AK. Mahi, J. Lumbanraja, SG Nugroho, and M. Kimura, “Land use and cover changes in a hilly area of South Sumatra, Indonesia (from 1970 to 1990)” *Soil Sci. Plant Nutr* 43(3): 587-599.1997
  20. Pawitan. H, “Perubahan Penggunaan Lahan dan Pengaruhnya Terhadap Hedrologi Daerah Aliran Sungai,” *Laboratorium Hidrometeorologi FMIPA IPB*. Bogor, 65–80, 2003
  21. Yunus. H.S, “Dinamika Wilayah Peri Urban Detirminan Masa Depan Kota,” Yogyakarta: Pustaka Pelajar, 2008
  22. Bintarto. R, “Pengantar Geografi Kota,” Yogyakarta: Spring, 1997
  23. Sitorus. S. U, 2016, “Pengaruh Time Pressure, Audit Risk, Professional Commitment, Review Procedure and

- Quality Control, dan Self Esteem in Relation to Ambition Terhadap Terjadinya Penghentian Prematur Atas Prosedur Audit (Premature Sign Off),” *JOM Fekon*. Vol. 3, No. 1 (Februari), 2016
24. Susanti. I. S, “Pengaruh Perkembangan Pembangunan Infrastruktur Jalan terhadap Pertumbuhan Pemanfaatan Lahan Kota,” *Jurnal Rekayasa*,.17(1), 49-57, 2013
  25. Ricklefs. M. C, “Sejarah Indonesia Modern,” Serambi; Jakarta, 2010
  26. Grimes, Charles E, “Hawu and Dhao in Eastern Indonesia; Revisiting Their Relationship,” Makalah yang disajikan pada Tenth International Conference on Austronesian Linguistics. 17-20 January 2006. Puerto Princesa City, Palawan, Philippines. <http://www.sil.org/asia/philippines/ical/papers.html>
  27. Eklevina, Eirumkuy, “Suku Bangsa di Kabupaten Buru TheTibe in Buru Regency,” *Jurnal Penelitian*. Vol 7 No 5 Edisi November 2013
  28. Miller. C.A, “Nursing Care of Older Adult: Theory and Practices,” Philadelphia: JB. Lippincott Company, 2012
  29. S. Mansyur, “Jejak VOC-Kolonial Belanda di Pulau Buru (Abad 17-20 M)”, *Jurnal Penelitian dan Pengembangan Arkeologi AMERTA* Vol.32 No. 1, Juni 2014.
  30. Moleong. Lexy J, “Metodologi Penelitian Kualitatif”. Bandung: PT Remaja Rosdakarya, 2012
  31. Prasetyo. A, Koestoer. R. H, and Waryono. T, “Pola Spasial Penjalaran Perkotaan Bodetabek: Studi Aplikasi Model Shannon’s Entropy,” *Jurnal Pendidikan Geografi*. 16(2), 144-160, 2016
  32. Badan Pusat Statistik Kabupaten Buru, “Luas Panen Tanaman Pangan Menurut Kecamatan dan Jenis Tanaman di Kabupaten Buru (Hektar), 2019-2020”, Badan Pusat Statistik, 2020
  33. B. Setiawan, I. Rudiato, “Kajian Perubahan Penggunaan Lahan dan Struktur Ruang Kota Bima,” *Jurnal Pembangunan Wilayah dan Kota*. 2016.
  34. Pribadi. D. O, Vollmer. D, and Pauleit. S, “Impact of Peri-urban Agriculture on Runoff and Soil Erosion in the Rapidly Developing Metropolitan Area of Jakarta,” Indonesia. Springer-Verlag GmbH Germany, 2018
  35. Firman. T, “The Continuity and Change in Mega-urbanization in Indonesia: A Survey of Jakarta-Bandung Region (JBR) Development”, *Habitat International*.33(2009), 327-339.2009