

ECONOMIC DEVELOPMENT BASED ON ADAT IN INDONESIA'S MOST EASTERN PROVINCE OF PAPUA¹Julius Ary MOLLET²Jhon Urasti BLESIA**Abstract.**

Development should improve all aspects of human living for local community including economic, social, and cultural aspects. In the context of development in Papua, under the centralization system, the Province remained poorly developed compared to other regions in Indonesia. Papua received special autonomy in 2001, and under this status, the local government has implemented development based on *adat* splitting the region into five clusters of development, namely *Mee Pago*, *La Pago*, *Mamta*, *Saireri*, and *Anim Ha*. The main reason for this type of development is due to the local government's perspective that the development in Papua has a little success which has caused Papuans' beliefs that the Papuans' cultural aspects are never considered and sensitized in initiating the development. By using secondary data published by the Development Planning Agency (Bappeda) of Papua Province, this research explores the implication of economic development and social indicators in five clusters of development in Mee Pago, La Pago, Mamta, Saireri and Anim Ha regions based on economic growth, income per capita, poverty rate, and Gini ratio. The results show that the development based on *adat* perspectives possesses huge challenges, one of which is when initiating the development in conflict zones. Despite economic potentials in some regions being tried to increase its growth, some are not consistently developed while some others are no longer operated; even if operated, safety issues require more practical steps towards a better solution. Thus, empowering local economy by pursuing peace among the community should become a priority program to improve the welfare of Papuans.

Keywords: Development, economic growth, *adat*, Papua

JEL Codes: R11, O53

1. Introduction

Among Indonesian provinces, only Papua province has declared development based on *adat* perspective. There is a unique model for development which involves cultural aspects in Papua. The concept of *adat* comes from anthropological perspectives which means not only referring Papua to as a cultural entity but also an identity that affects Papuan daily economic, political and social aspects. Under the Dutch colonialization, *adat* consists of seven groups namely Mee Pago, La Pago, Mamta, Saireri, Anim Ha currently situated in Papua Province while Bomberai and Domberai in West Papua Province.

¹Julius Ary Mollet, julius.mollet@feb.uncen.ac.id,

²Jhon Urasti Blesia, Jhonblesia7@gmail.com,

Cenderawasih University, Papua, Indonesia,

¹ Masnoben (1993) claims that there are about 250 tribes living on the Island of Papua starting from Kepala Burung (translated into English as the head of bird) and Merauke (the largest regency in Papua located at the bottom of Papua Province, bordered to the east to Papua New Guinea). This indicates that the Island of Papua has very diversity in the cultural backgrounds among the ethics groups.

Regional economic development in Papua fluctuated for a decade ago. The contribution of the mining sector has an important role in the Papuan economy. As reported by Bank Indonesia Papua Office, the share of the mining sector reaches about 40 of the total gross domestic product (GDP) in 2020 (Bank Indonesia Perwakilan Papua, 2020). The mining sector has a substantial contribution to the Papuan economy due to the significant role of PT. Freeport Indonesia (PTFI) in exploring cooper and gold in Mimika District (Mollet, 2011; Blesia et al., 2021). The exploration of copper and gold in Papua has been started in the early 1970s under the Suharto regime. The role of the central government in PTFI remained substantial in which the Suharto family business involved in PTFI business.

The structure of local government in Papua has changed since the province received decentralization from the central government of Indonesia in 2001. The feature of the decentralization system or special autonomy for Papua is that the province receives special autonomy funds, affirmative action policy, and the establishment of the Papuan People Assemble (In Indonesia - Majelis Rakyat Papua). The special autonomy funds for Papua are used to finance four program priorities such as education, health, local economy and infrastructure. Affirmative action policy means providing more opportunities for indigenous people of Papuans to participate in the development by giving them special treatment. From a political perspective, special autonomy provides an “*affirmative action*” policy which aims to protect marginalized population (indigenous people of Papua) to have more active participation in the development

Under Governor Lukas Enembe, the local government of Papua adopted development based on *adat* clusters which split Papua into five regions namely Mee Pago, La Pago, Mamta, Saireri and Anim Ha. The reason for implementing this new strategic development for Papua is that the development in the province, since becoming part of Indonesia, has shown little progress, and some people also think that development in Papua seems to be failed. This is partly because the development in Papua does not consider Papuan cultural aspects. In reality, for Papuan communities, culture plays a very strong influence in their daily life not only in social (Kanem & Norris, 2018), economic (Blesia & Ratang, 2016) but also in political issues (Azim, 2016; Kossay, 2014). Therefore, in order to reshape a strategic development in Papua, the local government has introduced development clusters based on *adat* (cultural aspects) in Papua since 2014.

Criticisms in the implementation of development clusters based on the *adat* remain significant among Papuas today, particularly “*rising ego*” among ethnic groups of Papuans

¹ West Papua is divided administratively into two provinces in 2003: the Western part of Papua is the Province of West Papua (Provinsi Papua Barat), and the eastern part of Papua is the Province of Papua (Provinsi Papua) (Widjojo, Elizabeth, Al Rahab, Pamungkas, & Dewi, 2010). However, most Papuans refer to both provinces as West Papua; the use of West distinguishes it from the rest of New Guinea island, which is part of Papua New Guinea.

giving rise to Papuans being split into the highland and lowland regions. This further affects the unequal share of development resources in both regions. As most top management of government bureaucrats and legislative are indigenous people from the highland, the provincial government of Papua pay greater attention to highland regions, such as in La Pago and Mee Pago areas.

The paper explores regional development based on *adat* in five development clusters of Mee Pago, La Pago, Saireri, Mamta and Anim Ha. It evaluates economic and social development indicators, such as economic growth, income per capita, poverty rate, and income distribution. This paper further discusses updated issues of development in Papua related to the development of Papua based on “*adat cluster*” perspectives of development from a different angle.

2. Culture and development: literature review

Despite many studies investigating the relations between culture and development, there is still a huge debate on how culture plays a role in economic development. In the 1950s and 1960s, the notion of development was referred to as economic growth, reflected in quantitative rather than qualitative changes in economic performance (Rabie, 2016). Lewis (1989) defines development as a change in the quality of life which emphasizes economic growth. Development is a process of disproportionate growth of systems.

Meanwhile, in economics, development should be seen as a multidimensional process that generates economic, technological, social, and institutional changes to support the wealth of nations and the comprehensive well-being of people in society (Coccia, 2021). Todaro and Smith (2020) define development as a process of improving the quality of all human lives with two equally important aspects of the economic and social system. They mentioned the objectives of development are 1) an increase in the availability and improvement of the distribution of food, shelters, education, health, community protection, etc. through relevant growth processes 2) improvement in all levels of living, including income, jobs, education, etc. by creating conditions conducive to the growth through the establishment of social, political and economic systems and institutions which promote human dignity and respect 3) expansions in the range of economic and social choices available to individuals and nations e.g., varieties of goods and services.

However, there exists “*economic dualism*” in the development between urban and rural areas and the shift from agricultural to manufacturing sectors. Cultural issues in the development are also absent in economists’ objects of discussion whilst in fact, they play a major role in the development in many developing countries. As pointed out by Claxton (1994), the development process can work if culture and tradition are considered for each country, since it is an all-encompassing process “linked to each society’s own values and calling for active participation of individuals and groups who are both the authors and the beneficiaries of the development.

As mentioned previously that culture has influenced development, Granato, Inglehart and Leblang (1996) define it as “a system of basic common values” which consist of the basic values shaping the behaviours of a person in the communities. In the context of the Papuan community, *adat* as representative of basic values for Papuan life has multidimensional meanings which involve customs, institutions, property rights and norms. According to Deda and Mofu (2014), *adat* can be defined as an individual, traditional laws and property

rights for indigenous people of Papua which affect their identity. As an individual, *adat* has an important role in giving the basic traditional values and relationship between the individual and its community. For traditional law, *adat* means to give the law for authority where the community is granted rights together. *Adat* can also mean property rights distributed among clans in the Papuan community where each clan is given the authority to manage their lands and manage them with “*local wisdom*.” The last meaning of *adat* refers to identity where the indigenous people of Papua are a part of Melanesian ethnic groups.

An endogenous approach should be adopted to explain the role of culture in development. The approach emphasizes that socio-cultural issues (anthropology, lifestyles, national values, and social organizations) are important parts of the development process since the approach has the objective to meet the needs of the people based on their own creative capacity, values and potentialities, forms of cultural expressions, and directive to fulfilling their own aspirations. Shucksmith (2000) points out that an individual with social and cultural attributes connects them socially to their ethnicity, their formal and informal education, or styles, taste, presentations and languages. Some countries have succeeded to implement this endogenous approach because it emphasizes technological change integrated with socio-cultural structures and ensures participation of all communities in political, social and economic aspects to achieve development goals. Therefore, some policies and strategies should be applied to obtain the desires of the development since each country has different socio-cultural backgrounds then need to be treated differently. Thus, development should consider local cultures. The study of Serageld and Taboroff (1994) in Africa shows that the introduction of innovation in the machination of agriculture in Africa has led to changes in indigenous culture in the local soils and agricultural methods.

According to the United Cities and Local Governments (UCLG, 2018), culture is also an important aspect of the sustainable development (SDGs) agenda in the 2030 Agenda. In order to be a successful SDGs agenda, cultural rights, heritage, diversity and creativity need to be considered in dealing with human and sustainable development. Thus, development should have paid attention to the local culture. The features of the local culture are usually associated with local values of indigenous knowledge. In many developing countries, indigenous knowledge has relatively a strong influence on development. Indigenous knowledge acknowledges the voices of indigenous people about their own development that often are unheard by the government, particularly related to the issues of their identities that could affect their economic development (Ntibagirirwa, 2016).

Another important aspect is that economic, community and environmental factors in the development have now received major attention from international communities. Sustainable development as an alternative solution for development has become an agenda for international communities to balance development between people’s needs and the environment. Sustainable development is a more friendly approach to balancing development goals among the interests of economics, societies and environments. Thus, sustainable development and culture play a decisive role on the international development agenda, such as poverty reduction, education equality, sustainable development, social cohesion, and inclusivity (UNESCO, 2007). Culture is a powerful driver for development in many developing countries with economic, social and environmental impacts. For

example, cultural heritage and creative industries together can provide strategic tools for job creation and revenue generation in many countries with a rich cultural environment.

Understanding of Papuan culture

The island of Papua has a diversity of cultures because it has many indigenous tribes. As Mansoben (1995) pointed out, Papua has 240 tribal groups over highlands and coastal lowlands. Papuan tribes respect *adat* (traditional values) in their daily activities. The concept of *adat* describes cultural connections uniting the ethics and values of the many and various Indonesian groups. From the perspectives of Papuan communities, *adat* means community harmony, family prosperity, environmental preparation and land ownership organization (Howard et al 2002).

Community harmony means harmony at all levels of Papuan lives. If conflicts occur among families within a tribe, a tribal chief according to *adat*, has the crucial role of gathering the members of the community to meet and discuss ways of reducing the tension and restoring peace between the families within a tribe. Furthermore, *adat* can also determine the way indigenous communities manage their land, allocate resources, divide labour between men and women, schedule the harvests, perform marriage rites, mediate disputes, and pay compensation for crimes (Howard et al 2002).

Family prosperity is another meaning of *adat*. This means that indigenous people should behave wisely in their communities for the economic welfare of their families. Men and women should share and understand each other in their separate roles. In the traditional agricultural systems, the tasks of men are to find suitable land for gardening and clearing the lands, and the tasks of women are to look after the gardens. Men hunt wild pigs and women look after their children. *Adat* also means environmental preservation. This means that indigenous people should live by using nature without destroying it. They believe that forests are for their future generations, and therefore, they should respect and manage them wisely without exploiting them. They also argue that only *adat* can manage nature wisely. *Adat* can determine which forest can be used and when they should be cutting down the trees. Finally, *adat* can mean organizing land ownership. In this case, *adat* can determine land division among indigenous people and indicate which land belongs to certain tribes.

In Papuan custom, the influence of traditional political structures remains significant which determines the authority of territories. Mansoben (1995) points out that, in Papua, generally there are four types of traditional political structures: the Big Man system, the Ondoafi system, the Kingdoms system and the Mixed System. In the Big Man system, the process of selecting the Big Man is required to take into consideration his wealth, diplomacy, charisma, honesty, physical strength and prowess in war” (Mansoben 1995, p. 40). Among the Papuan communities, the Big Man system will be found in the tribal groups of Me, Meybrat, Muyu, Dani and Asmat. The second type of traditional political system is Ondoafi, a term adopted from the Sentani tribal group in Kota Jayapura referring to the leaders of villages. The male descent line rather than wealth is considered an important factor for selecting an Ondoafi. In this community, people live in extended families headed by the Yo Ondoafi. The Ondoafi system can be found in the Skouw, Arso-Waris, Tobati, Moi, Tabla, Nimboran and Muris tribes. The third model is the Kingdom system. In the Kingdom system, the king is assisted by a large group with duties to carry out royal commands, maintain law and orders, settle disputes, maintain religious affairs and collect

taxes. The Kingdom system is adopted by indigenous tribes in Raja Ampat Islands, Onin, Teluk McCluer and Kaimana and was originally influenced by Kesultanan Tidore in Maluku. The fourth model, the Mixed system, is a combination of the Big Man and the Ondoafi systems. The choice of leader is based on inheritance and the achievement of the candidate during a certain period as well as on prosperity and experience. The Mixed system can be found in the Biak, Wandaman, Waropen, Yawa and Maya tribes.

Under the leadership of governor Lukas Enembe, the first governor from the highland areas of Papua, the vision of the governor for developing Papua is “*Papua Bangkit dan Mandiri*” (Papua rise and self-sufficient). In order to implement the vision of the governor, the local government of Papua has introduced the development strategy by dividing Papua into five regional development areas based on their cultural units or adat. The reason for Papua has implemented development based on cluster adat is due to development remaining poor since Papua integrated with Indonesia in the earliest 1960s. For example, in 2000 the poverty rate of Papua was around 40%, then dropped by around 27% in 2019 (BPS Provinsi Papua, 2020). Although the poverty rate in Papua declined substantially during two decades, the poverty rate in Papua remained higher compared to the national level which constituted about 5% (BPS Indonesia, 2020). It seems that the failure of development in Papua is because of an absence of considering the issues of cultural aspects that strongly influence Papua societies.

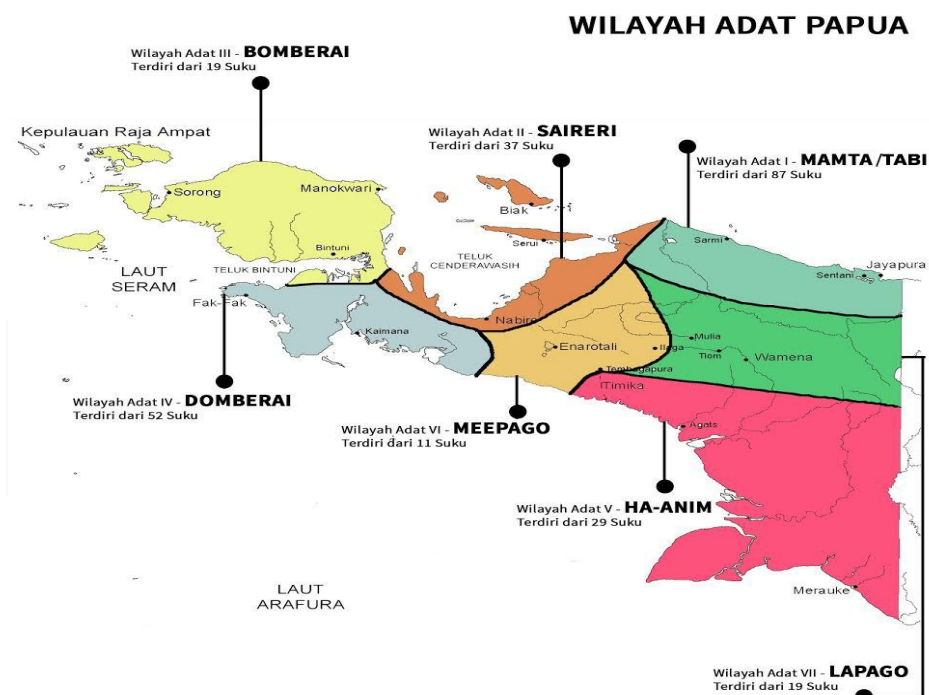


Figure 1. Development in Papua based on adat in Papua province
(Source: Bappeda Provinsi Papua, 2016)

Basically, the idea of Papua being split into 5 cluster development areas was adopted by the Dutch during the time the Dutch colonized Papua. As presented in Figure 1, the five

cluster developments based on *adat* consist of Mee Pago, La Pago, Mamta, Saireri, Anim Ha. Mee Pago consists of the regencies of Intan Jaya, Paniai, Deiyai, Dogiyai, Nabire (highland) and Mimika (highland). La Pago includes the regencies of Pegunungan Bintang, Jayawijaya, Lani Jaya, Puncak Jaya, Pucak, Nduga, Yahukimo, Yalimo, Mamberamo Tengah. Mamta region refers to the regencies of Municipality Jayapura, Jayapura, Sarimi, and Mamberamo Raya. Region of Saireri include Biak, Kepulauan Yapen and Warapon. Ah Hanim region are Merauke, Asmat, Boeven Digoel, Tanah Merah.

As discussed above that there is a link between culture and development. Development is a process of transformation from sub-subsistence to modern societies. Many studies suggest that development should have paid attention to the issues of social and cultural aspects of the process of development. The endogenous approach for development and dimension of development are useful approaches to examining the role of culture on development. In Papuan communities, indigenous people respect their culture which influences the people indigenous to their nature and lands. *Adat* is a manifestation of Papuan culture with a wide range of meaning such as harmony and the pattern of a structural political system which brings Papua to be categorized into five major areas that the local government of Papua has determined for development.

3. Method and data

This research uses secondary data obtained from the Development Planning Agency of Papua Province (BAPPEDA Papua Province). The raw data from BAPPEDA consist of 29 regencies from Papua that have split into the regions of Mee Pago, La Pago, Saireri, Mamta and Anim Ha. The data collected was analyzed into economic growth, income per capita, poverty rate, Gini ratio, and average household consumption.

4. Result and discussion

Economic growth is an indicator to determine the development process in Papua. Table 1 shows Papua's economic growth based on five development clusters. In general, economic growth in Papua declined from about 8% in 2015 to 4.9 % in 2019. Among five regions, Mee Pago had the highest economic growth compared to other regions in 2013. It then dropped almost double in 2019 but remained substantially higher than La Pago and Mamta. An interesting point is that Mee Pago reached about 10% growth in 2015. This was partly due to the share of the mining sector from PT. Freeport Indonesia provided significant contributions to the Regency of Mimika (Resosudarmo & Mollet, 2018). Table 2 also reveals the decline of economic growth in Anim Ha Region from 6,6% in 2015 to 5.2% in 2019. Merauke Regency grew above 7% from 2015 to 2019 and has stable GDPs due to its dominant agricultural sectors. The massive influx of transmigration at the end of the 1980s and early 1990s had led the Regency to become "buffer food" for Papua (Mollet, 2018). Merauke distributed 372,300 ton of rice to Surabaya in 2019 (Perindag Merauke, 2020). Meanwhile, Boven Digoel has the lowest economic growth in Anim Ha Region which shows a constant decrease from 2013 to 2019. At the end of 2019, the region shows the lowest amount of GDP all the time at only 2.39%.

In La Pago Region, economic growth declined almost double from 2015 to 2019. The economic growth was high in Nduga, Mamberamo Tengah and Yalimo, above 10% in 2015. However, by 2019, the economic growth in these regencies dropped almost double.

In the case of Nduga Regency, the non-economic aspect has become a major concern, particularly related to a security issue in the region. Recently, the region is considered a “war zone” due to the death of bridge construction workers being shot by Papuan Independence Movement’s separatists. The Government of Indonesia has sent more policemen and the army to secure the situation in the region. This, as a result, gave rise to more Nduga communities seeking refuges in safer places, and it is reported the deaths of 182 members of the community in the process of seeking refuges (Syakrish, 2019). The separatism movements and activities in Nduga have caused slower economic activities and public services. Table 2 present the economic growth in Mamta Region from which it remained higher, although the trend of economic growth fluctuated from 2013 to 2019. The City of Jayapura and Jayapura Regency had the highest economic growth in 2015, reaching about 10% GDPs, but both regencies had dropped by 5% for the City of Jayapura and 7.8% for Jayapura Regency respectively. The features of the economy in the City of Jayapura are its services. As the capital city of Papua Province, the economic growth in the city has relied on its service activities. Whilst the growth was relative stable, during the time the research was undertaken, the data reveal a decline in economic growth (BPS Kota Jayapura, 2020). Meanwhile, for Jayapura Regency, the contribution of the agriculture sector remains substantial constituting around 56% (BPS Kabupaten Jayapura, 2020). The contribution of the private sector oil palm industry from PT. Sinar Mas in the region also remained significant since its operations in the early 1990s.

In Mee Pago, the trend of economic growth declined from 2015 to 2019. It dropped by almost double in 2019. Although Me Pago had the highest economic growth in 2015, it was the lowest in 2019, decreasing almost 5 times from 2015 to 2019. In 2015 the economic growth in the region reached 10% which was the highest economic growth from 2013 to 2019, and Intan Jaya Regency had the highest economic growth reaching 12% in 2015. The highest economic growth in Intan Jaya occurred due to massive development of road infrastructure that connects the regency to other regencies. This is also one of Indonesia’s strategic programs to build connections between regions in the highlands in their mega project of Trans Papua Corridor Project (Kumparan, 2020).

In Saereri Region, the economic growth fluctuated during 2013-2019. The growth reached a peak of about 7% in 2013 and 2014. However, the economic growth of Saereri shows the lowest point of around 3% in 2017. An interesting point when examining the trend of Saereri’s economic growth is that the Regency of Waropen’s economic growth remained high constituting about 11%. Biak Numfor as well as Kepulauan Yapen regencies also show quite high economic growth, which is at 7% in 2013. The high growth in Waropen was partly due to the operation of Wapoga Plywood Company in the region as well as the near area in the Regency of Kepulauan Yapen. In Biak Numfor Regency, the increase in economy in that period is due to the operation of the Tuna Fish Company which provided exports to several countries. These companies were no longer operating in Waropen, Biak Numfor, and Kepulauan Yapen.

The income per capita is an important indicator for determining the welfare of the region divided by population. As presented in Table 2, income per capita for Papua fluctuated from 2013 to 2019 when it reached Rp. 48 million per year in 2018 and declined to Rp 39,9 million in 2019.

Table 1. Economic growth in five cluster development in Papua

Adat Region	Rehencies	GDP Growth (%)						
		2013	2014	2015	2016	2017	2018	2019
Anim Ha	Merauke	8.49	7.93	7.04	7.65	7.45	8.13	7.58
	Boven Digoel	6.65	5.48	5.6	4.83	4.06	3.43	2.39
	Mappi	5.21	8.24	6.89	6.94	7.05	6.32	6.12
	Asmat	6.14	5.45	5.73	6.18	5.85	5.78	4.72
	Anim Ha	6,6	6,8	6,3	6,4	6,1	5,9	5,2
La Pago	Jayawijaya	7.31	7.13	6.22	4.73	5.52	6.36	5
	Puncak Jaya	4.65	3.52	6.41	4.58	3.7	4.52	4.29
	Yahukimo	6.76	6.65	6.96	5.21	6.05	5.46	4.96
	Pegunungan Bintang	6.52	6.35	6.11	8.27	6.04	5.26	4.72
	Tolikara	6.15	7.67	5.5	4.69	4.61	4.64	3.92
	Nduga	11.26	9.41	7.82	6.55	7.24	5.75	4.84
	Lanny Jaya	8.31	7.46	6.6	5.78	5.38	5.27	5.15
	Mamberamo Tengah	10.89	8.8	6.35	5.7	5.62	5.11	4.95
	Yalimo	12.35	9.76	8.88	6.84	5.18	6.5	5.49
	Puncak	9.19	9.65	10.32	7.95	6.68	6.72	4.8
	La Pago	8,3	7,6	7,1	6,0	5,6	5,6	4,8
Mamta	Jayapura	10.2	11.26	9.98	8.74	7.15	7.8	7.79
	Sarmi	6.69	6.74	7.25	6.74	6.95	6.36	6.0
	Keerom	9.59	8.75	7.07	5.75	4.86	4.19	3.92
	Mamberamo Raya	9.17	9.75	10.25	8.38	6.38	5.8	5.81
	Kota Jayapura	10.35	10.37	9.29	7.23	6.02	5.44	5.14
	Mamta	7,1	7,3	6,9	5,9	5,1	4,8	4,7
Mee Pago	Nabire	9.27	7.63	8.23	8.15	7.13	7.13	5.83
	Paniai	6.96	8.68	9.82	7.14	5.23	5.88	5.13
	Mimika	9.48	1.58	7.68	7.68	5.37	4.86	5.02
	Dogiyai	8.11	9.02	9.16	7.65	5.95	5.91	5.79
	Intan Jaya	11.27	10.71	12.18	7.17	3.66	2.78	2.72
	Deiyai	10.9	11.52	12.94	7.94	4.81	3.43	3.74
	Mee Pago	9,3	8,2	10,0	7,6	5,4	5,0	4,7
Saereri	Kepulauan Yapen	7.35	6.87	6.34	5.4	4.62	4.54	4.72
	Biak Numfor	7.02	5.28	8.89	3.98	4.55	0.41	2.14
	Waropen	11.76	10.43	9.67	9.48	7.71	7.15	5.41
	Supiori	4.26	5.17	5.14	4.44	4.02	4.19	4.34
	Saereri	7,6	6,9	7,5	5,8	3,0	4,1	4,2
Papua Province		8.35	3.81	7.97	6.96	5.37	5.35	4.91

(Source: Data calculated from Bappeda Provinsi Papua, 2020)

A comparison of regions of table 1 with the Indonesian average income per capita evolved, for the period 2015-2019 as follows: In year 2015, the percentage of Papua province average (41.38) on Indonesian average (44.487) was 93.0%, and in year 2019 the percentage was only 64.3%, as Indonesian average at current prices was 61.993 million in year 2019 (BPS Indonesia, 2020).

Accordingly to World Bank statistics, real Income per capita, at 2010 prices, evolved in Indonesia from 28.13 million in year 2010 to 40.62 in year 2019, with an increase of 44% (World Bank, 2022). In year 2015, Papua province, with a 93% of Indonesian average

amounted to 26.16 million Rupiah at 2010 constant prices, and in year 2019, with a 64.3 of Indonesian average, amounted to 25.360, what implies almost stagnation, with an small decrease, in real income per capita of Papua province. Declined the real income per capita in Papua was due to decline the GDP's growth by 0.44% during 2018 to 2019 (BPS Papua, 2020)

Table 2. The income per capita in five cluster development in Papua (million Rp.)

Adat Regions	Regencies	Income per capita				
		2015	2016	2017 ^r	2018*	2019**
Anim Ha	Merauke	35.38	37.5	39.68	42.46	45.33
	Boven Digoel	45.42	46.36	47.13	47.67	47.77
	Mappi	15.89	16.68	17.64	17.83	18.24
	Asmat	13.8	14.37	14.78	15.2	15.6
	Anim Ha	27,62	28,73	29,81	30,79	31,74
La Pago	Jayawijaya	18.66	19.17	19.98	21.03	21.76
	Puncak Jaya	7.42	7.47	7.51	7.7	7.83
	Yahukimo	6.86	7.06	7.37	7.69	8
	Peg. Bintang	15.8	16.64	17.41	18.11	18.62
	Tolikara	6.75	6.93	7.1	7.37	7.58
	Nduga	6.6	6.92	7.33	7.71	8
	Lanny Jaya	5.44	5.69	5.93	6.21	6.48
	Mamberamo Tengah	13.16	13.8	14.34	14.88	15.58
	Yalimo	10.18	10.72	11.08	11.74	12.09
	Puncak	6.21	6.55	6.84	7.08	7.28
	La Pago	9,71	10,09	10,49	10,95	11,32
Mamta	Jayapura	61.33	65.29	68.64	72.42	76.09
	Sarmi	38.77	40.58	42.67	43.96	45.29
	Keerom	30.88	32.41	33.43	34.34	34.87
	Mamberamo Raya	36.52	38.93	40.53	41.09	42.1
	Kota Jayapura	64.08	67.46	70.32	73.14	76.27
	Mamta	46,32	48,93	51,12	52,99	54,92
Mee Pago	Nabire	42.42	44.47	46.43	48.2	49.73
	Paniai	14.87	15.58	16.06	16.79	17.03
	Mimika	283.69	315.88	320.02	344.56	207.8
	Dogiyai	7.64	8.03	8.4	8.74	9.12
	Intan Jaya	14.14	14.71	14.93	15.19	15.45
	Deiyai	9.9	10.5	10.75	11.09	11.39
	Mee Pago	62,11	68,19	69,43	74,09	51,75
Saereri	Kepulauan Yapen	26.26	27.17	27.87	28.42	28.64
	Biak Numfor	24.18	24.69	23.09	22.61	22.5
	Waropen	39.87	43.02	45.28	46.74	47.86
	Supiori	35.45	36.42	36.65	36.44	36.75
	Saereri	31,44	32,825	33,2225	33,5525	33,9375
Papua Province		41.38	44.34	45.58	48.09	39.85

(Source: Data calculated from Bappeda Provinsi Papua from selected years)

Among all five *adat* regions, Mee Pago has the highest income per capita in Papua. A closer look at the data, the trend of income per capita in the region fluctuated from 2013 to 2019. It was an increase from 2013 to 2018, then declined to Rp.51 million in 2019. The highest

income per capita is contributed by the Regency of Mimika's highest amount of income per capita which constituted Rp. 283 million in 2013, but then declined again Rp. 207 million in 2019. This indicated that the contribution of the mining sector operated by PT Freeport Indonesia remains significant for Mimika's economic growth.

Meanwhile, Mamta has the highest income per capita after Mee Pago region. The data reveal that income per capita increased from Rp. 46 million in 2013 to Rp. 54 million. Both the City of Jayapura and the Regency of Jayapura have a quite high amount of income per capita in the whole Mamta Region.

The features of economic activity in the City of Jayapura are its services sector, while the Regency of Jayapura is popular for its agricultural sector. Unfortunately, Mamberamo Raya has the lowest income per capita in the region which stood at Rp. 42 million in 2019.

Similar to other *adat* regions in Papua, the trend in income per capita in Saereri increased from 2013 to 2018, but declined in 2019 which stood at Rp. 39.8 million. A closer look at the data, reveals that Waropen Regency has the highest income per capita compared to other regencies reaching Rp. 39.8 million in 2013 to Rp.47.8 million in 2019 million. Two regencies with low income per capita in the region are Biak Numfor and Kepulauan Yapen which stood at Rp.22.5 million and Rp.28.64 million respectively.

The trend in income per capita in Anim Ha shows an increase from Rp 27.6 million in 2013 to Rp. 31.7 million in 2019 in which Merauke and Boven Digoel Regencies play a significant contribution to the income per capita.

In La Pago Region, it shows an increase in the income per capita from Rp. 9 million in 2013 to Rp. 11 million in 2019. Jayawijaya and Mamberamo Tengah regencies have high income per capita where in 2019, Jayawijaya's income per capita was Rp. 15 million. Meanwhile, Lanny Jaya has the lowest income per capita in the whole La Pago Region which was only Rp. 6 million.

As presented in Table 3, the poverty rate of five *adat* regions in Papua fluctuated. The highest percentage of poverty is found in the Region of La Pago, standing at about 40,6 % in 2013, but declined to about 36% in 2019. While the poverty rate in Papua declined by about 4% from 2013 to 2019, La Pago has the highest rate of 36.37%, higher than Papua's overall poverty rate. Compared to the poverty rate at the national level of only 9.22%, Papua's poverty rate remained higher (27.53%) in 2019. Thus, the reduction of poverty program should become a program priority for Papua in the Special Autonomy Era.

In Anim Ha, the trend of poverty rate declined from 25% in 2013 to 13% in 2019. Asmat and Mappi's highest poverty rate in the region constituted about 26% and 25% respectively in 2019, while Merauke's lowest poverty rate reached 10% below the average level in Papua.

While La Pago has the highest poverty rate among regions in Papua, the rate decreased from 40% in 2013 and dropped by 4% in 2019. Some regencies with a poverty rate above 40% in 2013 include Jayawijaya, Yahukimo, Lanny Jaya, Yalimo and Puncak. Mamta has the lowest poverty rate in Papua Province, and it shows a continuous decline from 21% in 2013 to 17% in 2019. The City of Jayapura has the lowest percentage of the poorest standing at 11% in 2019, but a substantial percentage of the poverty rate happens to Mamberamo Raya Regency, about 29%. Keerom Regency also shows a substantial decline in the poverty rate constituting from about 23% in 2013 to 16% in 2019.

Several issues causing the high poverty rate in Papua are associated with the lower levels of education, isolated areas, poor economic conditions, culture and conflicts. Mollet (2006) shows that education in Papua remain poor in the highland areas due to the lack of infrastructure in education such as lack of teacher and poor school building. Rumbewas supported it by showing that the high poverty in Papua is caused by the low education as well as its isolated areas (Rumbewas, 2003).

Table 3. The poverty rate in five cluster development in Papua

Adat Regions	Regencies	Poverty rate (%)						
		2013	2014	2015	2016	2017	2018	2019
Anim Ha	Merauke	12.33	10.2	11.1	11.08	10.81	10.54	10.35
	Boven Digoel	23.7	18.87	19.5	20.82	19.9	20.35	19.66
	Mappi	30.35	25.95	26.96	26.64	25.75	25.64	25.5
	Asmat	33.84	29.1	28.48	27.79	27.16	27.41	26.60
	Anim Ha	25,06	21,03	21,51	21,58	14,47	14,58	13,88
La Pago	Jayawijaya	41.81	39.6	39.48	39.66	38.62	38.66	38.33
	Puncak Jaya	39.92	36.15	37.45	37.31	36.01	36.27	35.71
	Yahukimo	43.27	39.02	41.26	40.62	39.33	39.25	38.82
	Pegunungan Bintang	37.23	32.78	31.55	31.52	30.60	30.75	30.51
	Tolikara	38	33.27	34	33.63	32.73	33.14	32.9
	Nduga	39.69	35.89	32.1	38.47	37.29	38.13	38.24
	Lanny Jaya	43.79	39.26	41.97	41.68	39.60	40.06	39.52
	Mamberamo Tengah	39.59	35.47	35.54	38.36	36.38	37.02	36.93
	Yalimo	40.33	35.65	35.88	35.8	34.97	35.45	34.52
	Puncak	41.96	37.85	38.74	38.58	37.46	38.15	38.24
	La Pago	40,56	36,49	36,80	37,56	18,65	29,75	36,37
Mamta	Jayapura	17.58	14.18	14.69	13.49	13.01	13.44	13.13
	Sarmi	17.72	13.32	13.85	13.74	13.75	14.51	14.41
	Keerom	23.23	19.12	15.83	17.15	16.69	16.9	16.83
	Mamberamo Raya	34.25	29.86	29.71	29.52	29.88	30.1	29.13
	Kota Jayapura	16.19	12.21	12.22	12.06	11.46	11.37	11.49
	Mamta	21,79	17,74	17,26	17,19	10,98	17,26	16,99
Mee Pago	Nabire	27.69	23.92	24.37	26.03	26.03	25.38	24.81
	Paniai	40.15	36.07	37.43	39.13	37.4	37.35	37.16
	Mimika	20.37	16.11	16.2	14.72	14.89	14.55	14.54
	Dogiyai	32.25	29.1	29.1	31.21	30.36	30.48	31.12
	Intan Jaya	42.03	38.16	41.34	43.73	42.23	42.71	42.92
	Deiyai	47.52	44.49	45.74	45.11	43.63	43.49	43.65
	Mee Pago	35,00	31,31	32,36	33,32	25,15	32,33	28,23
Saereri	Kepulauan Yapen	29.32	26.39	27.7	27.54	26.82	27.17	27.13
	Biak Numfor	30.28	27.44	27.23	26.99	25.44	25.72	25.5
	Waropen	37.27	32.63	31.41	31.25	30.82	30.53	30.95
	Supiori	41.5	36.65	39.25	37.99	37.4	39.22	38.79
	Saereri	34,59	30,78	31,40	30,94	15,71	24,23	22,86
Papua Province		31.52	27.8	28.17	28.54	27.62	27.74	27.53

(Source: Data calculated from Bappeda Provinsi Papua from selected years)

As alluded to Section 1, under “Special Autonomy Law”, Papua receives Otsus funds, and the funds should be used to provide poverty alleviation programs, such as economic empowerment Papuans can benefit from. However, corruption has massively occurred in the distribution of the funds. The Ministry of the Law and Human Righth of Indonesia stated that “Political elites in Papua have corruptted the special autonomy funds, and Papuan communities does not receive it” (CNN Indonesia (04 Dec 2020)). The corruption also occurred in the Department of General Affair Papua Province where the Head of Department used special autonomy funds for road constructions for his personal interests (CNN Indonesia, 2020). In fact, the corrupted money should have been useful to reduce the poverty in Papua by improving the welfare of Papuan communities.

Conflicts often occur in Papua since Papua is considered part of “*Military Operation Zone*” under President Suharto. The Indonesian military troops are deployed to Papua to ensure controls and safety of the region (Scott & Tebay, 2005). The Central Government of Indonesia has increased their concerns of Papua security. Tension is rising due to the separatism activities of Papuan Freedom Movement (OPM) that intimidates the local community, Particularly non-Papuans. Open fires also often occur between Indonesia’s army and separatists that have caused many innocent people to suffer not only Papuans but also non-Papuan community. As reported by the International Crisis Group (2002) that conflicts occur due to the issues of land and natural resource rights. Many local communities in Mee Pago and La Pago Region eventually have to leave their home towns as their house and public facilities was destroyed giving rise to many people to become poorer.

Poverty in Papua is frequently associated with political situations in the region, especially related to the general election of regional leaders, such as governors, regents, and majors. This situation is vulnerable to cause horizontal conflicts among the community.

As pointed out by Mollet (2020), the conflicts related to political issues in Papua are due to the dissatisfaction with the results of general elections when one candidate does not win the election. Lack of transparency in election has created conflicts among local communities in Papua. Take one example, the general elections in the Regencies of Lanny Jaya, Dogiyai, Intan Jaya, Boven Dogouel, Yahukimo, Yalimo, Mamberamo Raya are colorized with conflicts. Those who are dissatisfied with the election results often express their dissatisfaction by destroying public facilities which can cause causalities.

In order to secure their lives, many people seek temporary refuges. 2017 press release highlights “the Vice Governor’s concerns about election in Papua that have caused the deaths of many Papuans” (Pemerintah Daerah Provinsi Papua, 2017). Futhermore, conflicts in Papua occur among ethnic groups (clans) among Papuans (Kogoya and Nurmandin, 2015). Rahmawati (2004) defines the conflicts in Papua as “The Papua Conflict Triangle” in which the causes of conflict can be categorized into the issues contradictions, behaviors and attitudes. The contradiction refers to the economy, social and political matters while the behaviors involve the hostility, violence, behaviors that reflect to anger, discrimination, and distrust.

Gini ratio is an important indicator to understand the inequality of income distribution among society in the region.

Table 4 presents income distribution of five regions in Papua. Although, the trend of Gini Ratio in Papua fluctuted from 2013 to 2019, the overall trend shows a decline of Gini Ratio

from 0.41 in 2013 to 0.36 in 2019. This indicates the presence of a relatively small gap of income distribution.

Table 4. Gini Ratio in five cluster developments in Papua

<i>Adat</i> Regions	Regencies	Gini Ratio (index)						
		2013	2014	2015	2016	2017	2018	2019
Anim Ha	Merauke	0.47	0.45	0.41	0.34	0.37	0.37	0.35
	Boven Digoel	0.30	0.35	0.36	0.33	0.35	0.34	0.3
	Mappi	0.30	0.30	0.34	0.44	0.39	0.32	0.4
	Asmat	0.39	0.39	0.34	0.31	0.23	0.33	0.35
	Anim Ha	0,37	0,37	0,36	0,36	0,34	0,34	0,35
La Pago	Jayawijaya	0.37	0.34	0.4	0.34	0.33	0.30	0.25
	Puncak Jaya	0.22	0.27	0.34	0.15	0.21	0.30	0.38
	Yahukimo	0.27	0.30	0.26	0.25	0.33	0.34	0.32
	Pegunungan Bintang	0.15	0.22	0.27	0.29	0.34	0.33	0.33
	Tolikara	0.20	0.22	0.37	0.38	0.30	0.27	0.27
	Nduga	0.20	0.22	0.24	0.25	0.21	0.20	0.18
	Lanny Jaya	0.18	0.22	0.30	0.28	0.31	0.31	0.28
	Mamberamo Tengah	0.23	0.26	0.27	0.27	0.23	0.29	0.28
	Yalimo	0.26	0.21	0.14	0.19	0.25	0.33	0.26
	Puncak	0.18	0.25	0.33	0.19	0.18	0.15	0.17
	La Pago	0,23	0,25	0,27	0,26	0,27	0,28	0,27
Mamta	Jayapura	0.27	0.32	0.39	0.31	0.28	0.26	0.4
	Sarmi	0.33	0.43	0.35	0.35	0.4	0.38	0.44
	Keerom	0.28	0.31	0.36	0.35	0.36	0.36	0.4
	Mamberamo Raya	0.31	0.27	0.23	0.30	0.20	0.40	0.39
	Kota Jayapura	0.37	0.35	0.35	0.28	0.32	0.31	0.3
	Mamta	0,31	0,34	0,34	0,32	0,31	0,34	0,39
Mee Pago	Nabire	0.33	0.35	0.39	0.3	0.38	0.33	0.34
	Paniai	0.32	0.25	0.32	0.46	0.46	0.33	0.26
	Mimika	0.30	0.34	0.33	0.29	0.33	0.29	0.30
	Dogiyai	0.19	0.25	0.20	0.25	0.22	0.27	0.30
	Intan Jaya	0.23	0.38	0.27	0.29	0.26	0.25	0.23
	Deiyai	0.32	0.26	0.28	0.25	0.24	0.19	0.20
	Mee Pago	0,28	0,31	0,30	0,31	0,32	0,28	0,27
Saereri	Kepulauan Yapen	0.32	0.36	0.37	0.32	0.33	0.37	0.34
	Biak Numfor	0.42	0.39	0.39	0.36	0.36	0.38	0.34
	Waropen	0.22	0.28	0.33	0.31	0.34	0.28	0.30
	Supiori	0.28	0.24	0.28	0.31	0.25	0.32	0.29
	Saereri	0,31	0,32	0,34	0,33	0,32	0,34	0,37
Papua Province		0,41	0,41	0,42	0,38	0,39	0,37	0,36

(Source: Data calculated from Bappeda Provinsi Papua from selected years)

Anim Ha shows a slight decline of Gini Ratio which constituted about 0.37 in 2013 to 0.35 in 2019. An interesting point is that the regency of Mappi indicated an increase from 2013 to 2019, slightly different from the overall Anim Ha's Gini Ratio's trend. The main reason is that there was Oil Palm and Timber Companies as well as Gold Mining operated by the local people in Mappi. This has led to the high salary of those working there. It should be

noted that the majority of Mappi people work as subsistence agriculture which indicate low income.

In La Pago Region, Gini Ratio surprisingly shows an increase from 2013 to 2019. However, that for the Regencies of Jayawijaya, Nduga and Puncak shows lower than that of other regencies. It is assumed that most people in the region work in substance agriculture with low income leading to the gap in the income distributions among population. Apart from the three regencies, the other regencies indicated a rise of the Gini ratio. Massive projects of infrastructure, particularly road and bridge constructions in the highland areas of Papua contributed to substantial Gini Ratio.

The trend of Gini Coefficient in Mee Pago fluctuated from 2013 to 2019, but overall, it declined during the time. In some regencies such as Nabire, Mimika and Dogiyai, Gini Ratio remain substantial which constituted about 0.3. This indicates a wide gap of the income distribution in these regions. In Mimika, most people work the the mining sector and subsistence agricultural sectors, meanwhile many people in Nabire and Dogiyai Regencies work as civil servants but also in subsistence agricultural sectors.

Meanwhile in Mamta Region, Gini Ratio increased by 0.08 during 2013 and 2019. The Regencies of Jayapura, Sarmi and Keerom show relatively higher Gini Ratio compared to City of Jayapura and Regency of Mamberamo Raya. As alluded to above, most people work in subsistence agriculture in these three regencies. In the City of Jayapura, as the capital city of Papua Province, the majority of population work in the services sectors indicating that their income is relatively same.

In Mee Pago, data reveal that the Gini Ratio declined from 2013 to 2019. Paniai and Deiyai also show a decline whilst that in Nabire, Mimika and Dogiyai remained substantial. The increase in the income from households contributes to substantial Gini Ratio, for example, in Mimika, as many work for the mining company (PT Freeport Indonesia), the high income contributes to the rise of Gini Ratio.

The trend of Gini Ratio in Saireri shows an increase from 2013 and 2019. The Gini Ratio in 2019 remained substantial which constitute 0.37. The ratio in Biak Numfor declined during the time and relatively lower compared to other regencies in the Saireri. Service sector is predominant in Biak, so the income owned by those people are pretty the same leading to the relatively lower Gini Ratio compared to the rest of other regencies.

Gini Ratio among five *adat* regions in Papua shows a variety of the coefficient Gini Ratio representing the characteristics of economic development structures among the regions. It should be noted that some regions have advantages of development, but others still show poor development due to the issues of remote areas and conflict zones. The political issues further contribute to the dinamytic development in Papua.

5. Conclusion

Papua Province has implemented regional development based on *adat* since 2014. The *adat*'s regional development is referred to the categorization based on characteristics of Papuan cultural backgrounds. The purpose for implementing this development strategy is due to stagnant or little development since the province became part of Indonesia. Under *adat* system, Papua was split into five regions, namely Mee Pago, La Pago, Mamta, Saereri, and Anim Ha. This study examined the implication of *adat*'s regional developments of economic and social indicators, such as economic growth, income per capita, poverty,

household consumption and Gini ratio. With respect to the economic growth, the study shows that the trend of economic growth in Papua fluctuated and declined almost double during time of observation. Despite the decline, Anim Ha's economic growth is relatively stable compared to other regions such as Mee Pago, La Pago, Mamta and Saireri. Anim Ha had highest economic growth in 2019 compared to other *adat* regions in Papua. Agricultural sector, thus, contributed to the Anim Ha's economic growth that is relatively higher compared to other regions.

Income per capita among *adat* regions show that Mee Pago has the highest income per capita. This was partly due to the contribution of the mining sector from PT. Freeport Indonesia, however, as the company did not have maximum production in 2019, it then affects the GDP growth which leads to also a decrease in the income per capita. On the other hand, Mamta also indicates higher income per capita in 2019. Services sector contributed to the high income per capita region.

The poverty rate in Papua remained higher compared to the rest of Indonesia. This study shows that in 2013 the poverty rate in the region of La Pago and Mee Pago remained higher compared to other regions in Papua, and Mamta has the lowest of poverty rate. However, in 2019 Anim Ha has the lowest poverty rate while La Pago region has the highest poverty rate. Moreover, Gini Ratio as indicated by the income distribution shows that La Pago and Mee Pago have the lowest ratios compared to Anim Ha, Mamta and Saireri. The majority of people live in the both regions work in the agricultural sectors with the low Gini Ratio.

Finally, this study suggests that the dynamic economic and social indicators represent the development process among *adat* region in Papua. The development in Papua face many challenges if seen from the economic growth, income per capita, consumption, poverty rate, and income distribution. Conflict issues in some areas in Mee Pago dan La Pago have distracted the development in these regions. It seem that the main issues of Papua are related to the substantial number of poor people which lead to marginalization of many people in the five *adat's* regions. Thus, empowering local economy in Papua is becoming priority program to improve the welfare of Papuan community.

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