

Informal Economic Dynamics and Strategies on Urban Sprawl Handling in Manggala Suburban of Makassar City

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INTRODUCTION

The development and growth of Makassar city as the core city in Mamminasata Metropolitan Region is characterized by a highly intensive urbanization and urban-migration process. The expansion of the core of urban areas on the suburban has a very significant effect on the sustainability of development (Surya, 2016b). Urban expansion and growth of the urban population has global implications for future pathways of sustainable development (Li *et al.*, 2018). The growth direction of big cities and Metropolis needs to be controlled in a compact,

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Abstract: This study aims to analyze the dynamics of urban informal economic activities and urban sprawl handling on the suburbs of Manggala Makassar. Polarization of spatial function and suburban modernization becomes the determinant factor for the conversion of agricultural land use to urban industrial. This study used quantitative-qualitative approach. The data was obtained through observation, survey of 224 respondents and documentation. The research results show that changes in space utilization, changes in the pattern of urban transport movements causing urban informal economic activities to develop on the main road corridors. The dynamics of informal economic activity is a form of existence and community adaptation in responding the changing situations in urban areas. Urban sprawl on the suburbs area of Manggala Makassar has tendency towards single and unplanned land use patterns due to the weakness of spatial utilization control, so that, it impacts on ecosystem degradation, availability of green open spaces and urban traffic congestion.

convenient, efficient and intensive regional system, processes of peri-urbanization and ending in urban consolidation will require sustainable development (Parasati, 2011; Tavares *et al.*, 2012).

The polarization of Makassar city center activity functions towards the suburban is characterized by spatial physical changes and the complete land use conversion from rural land to industrial development, leading to an increase in population and suburbanization of the urban fringe. Effective polarization between city and countryside and the existence of interdependence among demographic processes have impact on suburban growth (Prados, 2009; Surya, 2015a). The dynamics of the suburbs of Manggala, Makassar is in the developing process toward a fairly complex land use pattern. This indication can be observed based on the pattern of the formed space. It is more likely developed toward the use of mixed land and oriented to the segmentation of urban communities due to urbanization and developing towards poverty being one of the most important global challenges facing human (Surya, 2010; Haider et al., 2018). There are 5 main factors causing the process, namely poor development control, especially in regulation of spatial use in the suburbs area the capital owner controlling the utilization of the land toward the domination of the spatial reproduction for the construction needs of large-scale settlement areas and the development of commercial economic activity functions partiality to the local urban economy has not been optimally and sustainably utilized the low participation of the community in planning, and post-implementation of space implementation utilization and not yet optimal management of urban transport and management of urban environments in the fringe areas. These five factors are identified as the reason of new problems arising in the dynamics of the suburbs areas development physically, economically, socially and culturally. The push and pull factor why the population and the space function are diverted to the suburbs is due to the development of new activity centers and the city center is no longer possible to be developed (Yunus, 2008; Surya, 2016a).

The growth and development trends of Makassar city toward the agglomeration of suburban areas due to urbanization are positively associated with the dynamics of informal urban economic activities dominated by groups of people with weak economic status both migrants and local communities. The fostering urban agglomerations are considered to lead the country's socioeconomic transformation and possess the greatest potential for the urbanization and economic growth in the coming decades (Guan et al., 2018). At the same time, conurbation due to rapid spatial physical changes in suburban area causes urban sprawl. These conditions occur due to the ineffective implementation of spatial planning and land use. Issues arising from the suburban transformation process and in the corridor areas in big cities are the rapid increase of economic activity from agriculture to non-agriculture, land use conversion toward urban housing, industry increasing population, land price rises, spatial structures and what kind of ecological impacts the new growth will bring without supported by adequate controlling instruments (Sui et al., 2001; Sugiana, 2011).

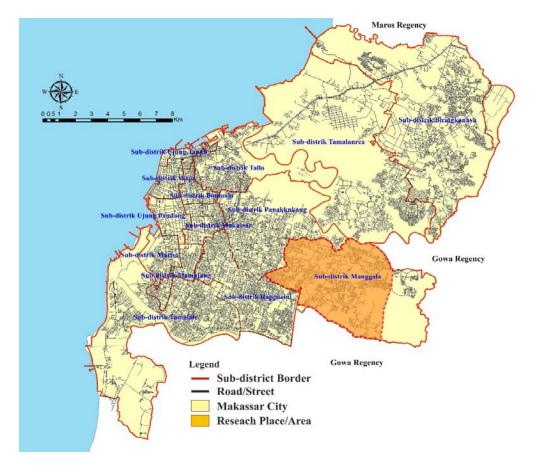
Urban sprawl in Manggalaof Makassar city is characterized by mixed land use undirected urban spatial development, separated land use patterns and functionally has no spatial relationship to the spatial functions that develop in the surrounding urban areas. Urban sprawl is associated with low-populated development, separated land use increased reliance on motor vehicles and the absence of activity centers as well as densification of settlements in suburbs (Giyarsih, 2001; Kustiwan, 2011). The urban sprawl symptoms on the suburban of Manggala run parallel to the suburbanization and the development of urban informal economy dominating the public space on the main road. This condition lead to traffic congestionand high movement of transport flow from and to the center of Makassar to Maros District and to Gowa district. Roads bring significant economic benefits that are vital for the development (Yunus, 2005; Damania *et al.*, 2018).

Suburbanization on Manggala suburban is caused by high demand on development affecting the physical development of Makassar city and the dynamics of urban informal activities. Spatial physical development is seen as the trigger of changes in the community production mode and the emergence of various problems among others; degradation of biotic, abiotic, sociocultural environment and urban economic dualism in the suburban. Spatial physical transformation processes that tend to be sporadic, dispersed do not coalesce uniformly causing the urban sprawl and urban informal economic activity to develop along the main road corridors (Yunus, 2006; Surya, 2015b).

MATERIALS AND METHODS

Polarization of social economic activities of Makassar city center causes the land use conversion and encourages the development of informal urban economic activity in Manggala suburban. The diversity of activities and urban sprawl has a significant effect on the transportation system of Makassar city. Therefore, this study aimed to analyze the changes of spatial functions, the dynamics of informal economic activities and urban sprawl that took place in Manggala (Fig. 1). In accordance with the focus of the research, this study is naturalistic, holistic, cultural and phenomenological (Creswell, 20003). Therefore, it used the combination of quantitative-qualitative approach. The purpose was to obtain description of the space function changes, the dynamics of informal economic activity and urban sprawl on the suburban of Manggala, associated with events and critical incidents arising by describing in depth, detail in a particular context and holistic. The ontology assumption constructed in this study was that the occurring reality is social and plural. Hence, this research was not to test the relationship between variables.

The qualitative approach in this paper was used to analyze the polarization of Makassar city center activity



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Fig. 1: Map orientation of the research location in Manggala suburban of Makassar city; regional development planning board of Makassar, 2017

functions, the changes of spatial function and the urban sprawling in Manggala suburban followed by the interpretation of the ongoing process. In this context to interpret the process of spatial function changes, then interpretation should be performed in the process. While the quantitative approach was used to discover the dynamics of informal economic activities on the suburban of Manggala through the respondent's perceptions. The information was collected through survey by using questionnaire. The quantitative approach in this research was percentage analysis. Therefore, the answer of every question in the questionnaire was only in the nominal scale. It means that the answer of each answer in the questionnaire was not measurable but differentiated without value.

RESULTS AND DISCUSSION

In the period of 1990-2000 Makassar city had a rapid acceleration of development on the other side, the land in the city center was very limited. In that period, the city area expansion began to be performed by developing the suburban. In the East area focusing on the development located in the subdistrict of Tamalanrea and Biringkanaya was marked by the presence of higher education centers (Hasanuddin University), large-scale settlements, industrial area of Makassar (KIMA), offices, shopping centers and other functions of commercial economic activities. While, in the South area located in Subdistrict of Tamalate, it focuses on the development tourism area, large-scale settlements, offices and trading with the key functions as a Global Business area (RTRW Makassar city, 2015-2035). In the Subdistrict of Panakkukang, it focuses on the development as growth of new economic center. In the suburban of Manggala and the surroundings, it focuses on the large-scale settlement development, education, recreation and other commercial economic activities (Fig. 2).

The polarization of Makassar city center spatial functions is followed by the construction of road infrastructure connecting the downtown with the suburban and the surrounding small towns. The interested thing in

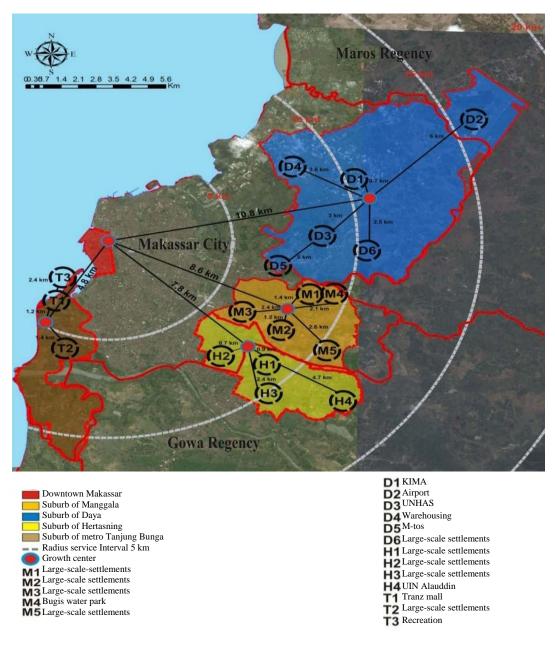


Fig. 2: Polarization of socio-economic activities functions of Makassar city regional development planning board of Makassar, 2017

the dynamics of these developments is spatial utilization along the main road corridor to the suburban dominated by shopping functions which run parallel to the development of informal urban economic activities. In the same position, it indicates that the coexistence of the capitalist mode of production and the running precapitalism mode production has no interrelationship but showing the domination of spatial reproduction by capitalism causing the differentiation of urban economic activity to develop (Surya, 2015b). The differentiation is the result of scale difference of different influencing factors (Yanbo *et al.*, 2018). The developing urban informal economic activity is basically due to modernization, suburbanization, action rationalization and forms of community existence responding to the rapid spatial physical changes. The fragmentation of spatial and urban sprawl utilization has a very significant effect on changes in spatial structure and urban spatial pattern of Makassar. It is marked by the increasing traffic volume, the decreasing environment quality and

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Table 1: Space utilization of Manggala suburban Period of 2009-	2017
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Space utilization (2)	Land area (ha) Year 2009 (3)	Percentage (4)	Land area (Ha) Year 2017 (5)	Percentage (6)
Rice field	374.64	22.66	368.62	4422.29
Fishpond	32.81	1.98	25.49	1.54
Green open space	95.14	5.75	90.56	5.48
Recreation/balang Tonjong lake tourism	41.15	2.49	41.15	2.49
Trades and services	24.03	1.45	24.75	1.50
Education	5.84	0.35	6.38	0.39
Health	0.47	0.03	0.47	0.03
Offices	2.77	0.17	3.25	0.20
Bugis water park	0	0.00	4.71	0.28
Settlements	730.81	44.20	754.97	45.66
Industrial	2.75	0.17	2.75	0.17
Vacant land	167.03	10.10	156.63	9.47
Water infiltration	91.2	5.52	90.01	5.44
New settlement development area	59.08	3.57	57.98	3.51
Graveyard	25.68	1.55	25.68	1.55
Total	1.653.4	100	1.653.4	100

Field observation result and image map satellite processed of Manggala area of Makassar city, 2017

conurbation of the suburban through the integration of the Mamminasata Metropolitan urban system (Surya, 2016).

The development of spatial functions in Manggala Suburban: The spatial physical development of Manggala suburban in the period of 2008-2009 was marked by the construction of large-scale settlement areas implemented by Public Housing as a basis of growth followed by the construction of the main road lane Antang Raya road with a length of 1.7 km and Tammangapa Raya road with a length of 3.5 km. In the period 2016-2017, the acceleration of Manggala suburban development was strengthened by the construction of Bukit Baruga housing, Villa Surya Mas housing, BTN MakkioBaji housing, South Sulawesi Provincial Government housing, Local Government of Makassar housing, construction of UVRI college, tourism facility development of Bugis Water Park, shopping centers along the main road corridors and other commercial economic activity functions. The direct impact observed was the development of Manggala suburban toward highly complex modernization, suburbanization and morphological diversity. Spatial physical changes and population increase have implications for changes in spatial structure, spatial patterns and spatial interrelation patterns of the surrounding urban areas. The population growth of a county is associated with the decrease of land development ability along with the spatial influences of surrounding counties (Chi and Ho, 2018).

The developing spatial pattern in the period of 2016-2017 was a continuation of development activity in the previous year and developed dominantly as urban settlement area (Table 1). There are two interpretations that can be proposed related to the process, namely development of settlement area is aimed at solving the problem of housing needs fulfillment which increases

every year through decentralization of housing activity along with the functional activity of Makassar city toward the suburban of Manggala and the development of settlement areas is one form of urban problem solving in terms of the scope of regional development in order to meet the need for residential facilities that continue to increase due to urbanization. The currently development settlements utilize substantial land and have impact on decreasing agricultural productivity as well as urban ecological balance. Effective spatial approach for maintaining urban ecological security is based on the relationship between landscape patterns and ecological processes (Peng et al., 2018). Decreased productivity of agricultural land encourages changes in livelihood orientation and work orientation shifting to local communities from subsistence farmers toward urban industrial workers in one side and informal urban economic activity on the other side has create serious urban problem of inadequate housing (Yunus, 2006; Surya, 2015a; Gul et al., 2018).

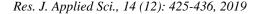
The dynamics of Manggala suburban development led to a significant change in land ownership structure from farmer's ownership to developer ownership with total land area that had been utilized until 2017 approximately 1,653.4 ha. Changes in land title status are further reinforcing the symptoms of aggression against farmers, characterized by the decrease in agricultural areas and decreased productivity of agricultural land. Noted how agriculture in these areas can supply key services derived from its environmental, social and economic functions in response to the consumptionoriented requirements of urban society by continuing investments in peripheral areas that offer sources of labor and natural resources such as land (Vizzari and Singura, 2015; Singh et al., 2016). Physical spatial changes in suburban areas due to modernization and spatial capitalization characterized by the reducing productivity of agricultural land causes working differentiation of social interaction process encourages between local communities and migrants who cause social change in local communities (Surya, 2014a).

In addition, the dynamics of Manggala suburban are characterized by the existence of commercial economic activity functions that is shopping centers and recreational facilities of Bugis water park which is supported by the existence of transportation infrastructure that serves to connect Makassar with the district of Gowa and Maros. This process leads to the development of community social classes based on the income, job, lifestyle and its effect are very significant on the development of urban informal economic activities. It describes that the value of land and space on the suburban of Manggala is largely determined by the spatial functions developed by the capital owners. The effect is very significant on the Sales Value of Taxable Object (NJOP) over the space used and utilized. Thus, the economic value of the suburban land area is determined by the space function. The space function is determined by its location and position (Yunus, 2006; Surya, 2016a). The formation of urban economy based on land use value in the dynamics of Manggala suburb is positively associated with the market economy system, the increasing economic scale in terms of value and function of space. Differences in capital capabilities possessed by individuals and community groups are largely determined by the control of spatial reproduction while urban land allocation is largely determined by the income (Harvey, 2009). The existence of a society with a weak economic status in the context of Manggala suburban development moves toward informal urban economic activities is a rational choice and action.

The dynamics of urban informal economy activities: The dynamics of Manggala suburban development process show symptoms of dualistic and capitalistic economic development models. It means that formal economic activities are in one hand and informal economic activities are on the other. The dualistic economic model is shown through the process of coexistence of capitalism production mode and precapitalism production mode (Surya, 2014b). The facts found illustrate that informal urban economic activity has developed which is caused by 3 main things, namely the high flow of urbanization, migration and suburbanization affecting the competition for space dominated by capitalintensive groups and indicates the inability of low-income communities in the control of spatial reproduction, the shift in the orientation of community activities due to changes in spatial functions toward urban industry affecting the inability of communities to access spatial reproduction resources and only capable of promoting informal economy activities oriented to economic existence and well being, the development of strata and status with whole openness requires certain skills and expertise in which it is shown by the inability to access formal employment. The existence of such informal economic activity shows the existence of weak economic groups that can be accepted by society, simply because the government considers them to be legal and a striking characteristic of labor market in which the labor regulations are non-existent (Jamaluddin, 2015; Yahmed, 2018). Some of the factors underlying the existence of informal urban economic activities developing in the suburban of Manggala were measured using indicators social relationship that is built economically the community background and business talents educational level existence and well being of community.

Social relationship economically: Basically, social relationship economically is triggered by the existence of economic activity functions and the existence of settlement areas developed by the developers. Both processes are the push factors behind the movement of migrants to take advantage of the existing potential resource and action rationalization of both migrants and local residents to develop informal urban economic activities in the suburban of Manggala. The migrationis through the dialectic process spatially and the inter-communal interests. The facts in the field show that the migrants prefer to live in the locations within the local community areas. The emerging trend is to establish economic social relationship and the form of the action rationalization is to seize the economic opportunities that are potential to be developed. So, the rational choice is to utilize the public spaces along the main road corridor for economic activities to bring their businesses closer to consumers.

The potential informal urban economic activities that develop along the main road corridor of Manggala suburban (Fig. 3) shows the existence of the community. Economic relationships are developed through the awareness of communities in developing the economic business performed today. In a community with sufficiently well-developed economic capital capability, the trend of business activity developed moves toward commercial economic activity, namely carpentry, furniture and interior design. This business tends to develop at the construction location of the settlements built by the developers. Meanwhile, informal urban activities have a diverse tendency as a form of action rationalization in response to changes in environmental stimulus. Generally, people who have higher needsare more enthusiastic entrepreneurs. Consequently, it will result in faster economic development as well as high achievement motivation that can accelerate economic growth. Otherwise, the low motivation may slow down the economic growth (Laurel, 2003; Weber, 2007). Urban informal economic activities oriented to action



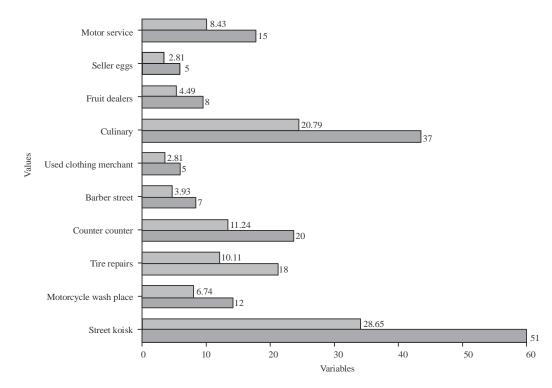


Fig. 3: Business activity of urban informal economic in Manggala suburban Makassar city; Primary data, 2017

rationalization arethe form of adaptive response toward the changes of environment situation to achieve economic achievement (Surya, 2015).

Background of community ethnic and business talent: The facts in the field show that developed urban informal economic activities have relationship with the background of ethnic and business talent of the community. The way people act is if the society evolves from traditional action into rational society. The process of social change will eventually evolve toward differentiation in society so that it becomes more complex. The behavior changes inactor's environment toward actor behavior are resulted the causes and consequences that followed (Ritzer, 2004; Weber, 2007). Therefore, the spatial functions changes in Manggala suburban are parallel with community action rationalization. Ethnic diversity is the spirit and motivation in achieving the economic and the existence inter-community for welfare purpose. The ethnic diversity that develops informal urban economic activities has a reciprocal trend between the economic interests of the community, social relations and the community ability to externalize and internalize the spatial physical changes on the suburban of Manggala.

The meeting of several ethnic groups shows that ethnic acculturation is parallel with the changes of cultural values of each community as a result of replacement by the value system of urban industrial society. Most of the cultural contact diversity, society

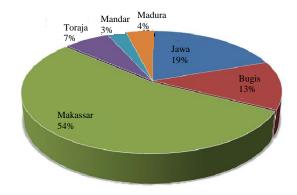


Fig. 4: Background of community ethnic and type of business developed; Primary Data, 2017

groups interaction and principle of association are the primary and "because" the society outperformed individuals in time and space unlimitedly (Garna, 1992; Beilharz, 2005). The meeting of community groups as a result of the change of spatial function of the Manggala suburbs is positively associated with the integration of several ethnic groups to develop informal economic activities and in the process indicates the difference of developed business activities but have similar characteristics in externalizing the spatial function by establishing social relations economically.

Figure 4 shows the dominant stalls business activities developed by Makassar ethnic or 53.9% and a small

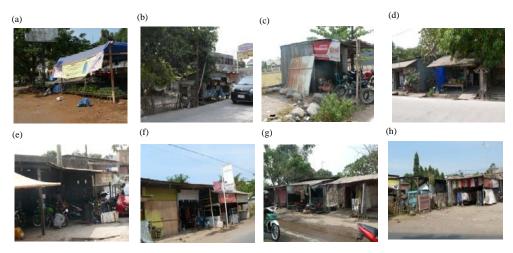


Fig. 5(a-h): Informal economic in Manggala suburban of Makassar city; Primary data, 2017

Table 2: Differences in the management	of informal economy	y activities based on educational ba	ckground		
Educational heatenound					

	Educational background			
Informal economic activity (2)	Bachelor degree (3)	Senior high school (4)	Junior high school (5)	Elementary school (6)
Investment and technology development	High	Moderate	Low	Low
Normative spatial shifting	High	Low	Low	Low
Rationalization of action	High	Moderate	Low	Low

Primary Data, 2017

portion runs by Javanese or 19.7% by peddling traditional food. While the informal economic activities run by the Madurese that is street barbers is informal economic activities which are not dominant. The changing function of suburban of Manggala in its dynamics shows the variations and differences in inter-community business activities based on the ethnicity. It is highly dependent on the capabilities of capital, creativity and internal innovations of the actor. In process of interaction, the actors who utilize resources are structural elements in social system, unequal access to resources that represent the basis of existing power relationships as autonomous relations and reproducible dependencies (Giddens, 2008). Interdependence between action and structure can only be conceived as a temporal relation. Social system exists as reproduced practices and concept about the system requires the existing of reproduction concept (Giddens, 2008; Ritzer, 2008).

More specifically, it is directed toward the unification process between local and global culture in a hierarchical position. Cultural globalization does not necessarily lead to homogenization of cultural values and the intensity of local communities (Harrison and Huntington, 2000). Articulation of values and norms appears in the interplay media (Meillassoux, 1972), the existence of a production mode or a simultaneous economic system indicates the dominance of one production mode to other production modes (Forbes, 1983; Surya, 2015b). The elements of local culture and global culture come together but global culture is more preferable to be a reference than the local culture. The dynamics of urban informal economic activity that develops in the suburban of Manggala indicates the mixing of modern society culture and traditional society culture that is bridged by the industrial working order and actualized through the process of intercommunity externalization in developing the economic business activity.

Figure 5 shows the differences among urban informal economic activities developing in Manggala suburban and affected by the educational background of the community whether it is migrants or locals. The facts in the field illustrated that the business activities of a developing economy are positively associated with the educational background of the community. It means that the educational level affects positively to the innovation and creativity in developing the business including management, normative spatial shifting and the labor used.

Several interpretations may be proposed (Table 2), i.e., First, the spatial physical changes of Manggala suburban are in line with the development of investment, technology and management. In the production procedures of community economic activities with educational background of bachelor degree is categorized as high and move into the business of commercial economic activity. The procedures for the production of commercial economic activities are strongly affected by the support of investment, technology and management by establishing investment cooperation network based on economic motivation and business opportunity. Technology is a tool, technique and knowledge of society members which are used in the fulfillment of daily needs and economic activities cannot exist without technology yet, economy is something bigger than just the level of technology.

Second, the normative space shifting based on educational background of the community also shows differences associated with the developed production procedures. Normative spatial shifting is categorized as high on the community with relatively high educational background. This condition occurs due to the production procedure has a tendency toward contractual and collective work system. Individuals have different ability to achieve their desire. It means that position and status are largely determined by the capacity of individual adaptation in achieving, thus it will create classes of urban industrial workers. Community with educational background of Senior High School, Junior High School and Elementary School have trend of normative spatial shifting with moderate and low category. This condition occurs due to the strong influence of traditional values and principles of togetherness and tends to be in social groups. So, the development of social classes does not directly affect the production procedures performed as well as the position and social status tend to be constant, despite of the social polarization has occurred but its effect is insignificant.

Third, the social adaptation process among the communities is followed by action rationalization. Action rationalization shown is categorized as high, moderate and low depends on the internal spirit and motivation of the community. The effect of spatial physical changes and spatial functions is very rapid indicating that the existence of the community tends to maintain the existence and the achievement of wellbeing and motivation. Individual adaptation capacity is part of the ecosystem complexity (Yunus, 2008; Surya, 2016b). The differences in educational backgrounds contribute positively to the differences in informal economic activities between communities and move towards different levels of welfare. It means that educational level affects positively toward the strata and inter-community status of Manggala suburban of Makassar city.

Existence and welfare of community: Changes in spatial functions of Manggala suburban of Makassar show the difference in economic orientation of both migrant and local communities. Existence and welfare of community are measured based on indicator income rate, business opportunities, access to education and health services and development of business activities. The categorization shows the differences to the continuity of economic

activities for each community. It means that the differences arising in informal economy activity are determined by economic, creativity and business innovation that can be developed in response to environmental change stimulus.

Urban sprawl handling in Manggala Suburban of makassar city: The spatial physical changes of the fast and revolutionary suburban of Manggala due to modernization, and suburbanization lead to the expansion of urban areas in Makassar. The observable direct impacts are changes in agricultural land use to non-agricultural use and the high flow of transport movements from and to the Makassar city center and vice versa from and to the urban areas of Maros district and urban areas of Gowa district. Urban sprawl in the dynamics of spatial physical development which has tendency towards the expansion of the developed area are largely compared with undeveloped area. It shows that spatial physical changes are in line with upper middle class housing construction and occupy the strategic positions or near to all socio-economic activities and shopping center. It means that the upper middle class housing construction still depends on the major transport infrastructure and commercial economic activities.

Urban sprawl is the development of urban areas that occur randomly, undirected, the rate is more rapid than the population growth due to the expansion of urban areas toward the suburban (Bryant et al., 1982; Soussan, 1981; Cocheci et al., 2015). The urban sprawl tendency illustrates the spatial pattern with a large number. It means that the dominant land use in the suburban of Manggala is shopping centers developed along the main road corridor and followed by the construction of large scale settlements. It shows that the allocation of suburban spatial utilization tends to be in one way and not supported by the existence of activity center as one unity of spatial structure and pattern integrated to surrounding urban activities system. The facts in the field illustrated that spatial utilization Manggala suburban is dominating bylinearly or elongated development. It tends to develop sporadically and the particular commercial economic activities are more concentrated along the road corridors. Consequently, it results in traffic congestion because the traffic volume is not proportional to the roads capacity.

In addition, Manggala suburban shows that the created leapfrog spatial pattern tends, so that, the building and population density accumulates at some point and the trigger factors are the excessive urbanization and accumulated urban activity at certain point. This urbanization is legal and produces new residential or commercial districts, following spill-over or leapfrog spatial patterns (Perrin *et al.*, 2018). The process has an impact toward the clutter of spatial physical functions of

the area characterized by the presence of urban economic activities. It means that urban sprawl is in line with the formal and informal urban economic system. The direct implications on Manggala suburban are the high flow of transport and traffic congestion, especially at the intersection of the main road corridors limited land for green open space social segregation which is characterized by different status among ethnicities developing economic activities characterized by dualistic economy, formal and informal economic activities and environmental quality degradation (biotic and abiotic) due to the construction of large-scale settlement areas utilizing the water absorption areas. These five things have significant effect on the development of Manggala suburban and the surrounding urban areas.

The strategy to overcome urban sprawl in Manggala suburban are integrating functions of the area to be united to create effectiveness and efficiency in spatial utilizing. It is realized through the development of new settlements followed by the development of commercial economic activities in a unified region. The arrangement of each function to be developed is not independent but associated with the spatial functions that have developed around it. Restricting the development of retail functions that tend to be linear along the main road corridor. It is realized through strict regulatory arrangements relating to the granting of building permits (IMB) and the imposition of incentive policies and synergy to any functions that will be developed by individuals, private or developers. Equal distribution of population density in Manggala suburban. It is realized through the policy regulation on population density zones by integrating the pattern of development activities based on the spatial capacity and the environment carrying capacity in sustainably. Developing the pattern of settlement spatial utilizing based on the planning standards. It is realized through providing green open space (RTH) on every block of housing followed by the providing of adequate infrastructure and avoids the segmented-oriented housing but rather the separation of housing groups by type, architectural style and price according to market segmentation and income levels. Protection of environmental ecosystems through the optimization of the use of local ecosystems, especially on the catchment area. It is realized by considering the condition of topography, slope and hydrology of the area, given that Manggala suburban have various characteristic of topography. For instance, the existence of BalongTonjong Lake as a water catchment area that needs to be maintained. Making spatial planning (Neighborhood/Hamlet of Makassar) integrated with Neighborhood/Hamlet Metropolitan of Mamminasata as an instrument of spatial control use. It is realized through the regulation of each zones of the region as a basis for the development of the surrounding urban areas in a regional development concept.

CONCLUSION

As the discussion results, the conclusion are as follows spatial physical development of Makassar city shifting to suburban results in structure and spatial pattern changes that are characterized by the conversion of agricultural land use to urban industrial development. Modernization and suburbanization of Manggala suburbs are the driving force behind the urban sprawl and urban conurbation. Urban sprawl and ongoing conurbations lead to a very complex morphological diversity, high flow of transport movement and the dynamics of urban informal activities.

The dynamics of urban informal economy activity is a form of existence, adaptation of the community in responding to the environmental situation changes and the different economic activities sustainability of each community. The changing function of suburban of Manggala shows the variations and differences of inter-community business activities based on the ethnicity. It largely depends on the capabilities of capital, creativity and internal innovations of the actor through ethnic integration process. The existence of communities through urban informal activities tends to move toward maintaining its existence and achieving welfare and motivation for achievement.

Urban sprawl as a result of spatial functional changes in Manggala suburban runs parallel with spatial physical changes and significantly contributes to the development of surrounding suburbs. So, it is requiring synchronization of various spatial planning levels. Integrating urban systems will require the effort of controlling the use of space by restricting the spatial use along the main road corridor, creating new settlement clusters integrated with adjacent space functions, the arrangement of integrated spatial zones with the preparation of green open spaces in a sustainable manner and avoiding the utilization of water catchment space in maintaining the balance of urban ecosystems.

REFERENCES

- Beilharz, P., 2005. Social Theory (Translated by Sigit Jatmiko). Pustaka Pelajar, Yogyakarta, Indonesia,.
- Bryant, C.R., L.H. Russwurm and A.G. McLellan, 1982. The City's Countrysides: Land and its Management in the Rural-Urban Fringe. Longman Inc., New York, USA., ISBN:9780582300453, Pages: 249.
- Chi, G. and H.C. Ho, 2018. Population stress: A spatiotemporal analysis of population change and land development at the county level in the contiguous United States, 2001-2011. Land Use Policy, 70: 128-137.

- Cocheci, R.M., R.H. Dorobantu and C.N. Sarbu, 2015. Environmental degradation in rural areas with high anthropic pressure-impact and planning models. Carpathian J. Earth Environ. Sci., 10: 25-36.
- Cresswell, J.W., 2003. Research Design: Qualitative, Quantitative And Mixed Methods Approach. 2nd Edn., Saga Publication, Califonia, ISBN: 9780761924418, Pages: 246.
- Damania, R., J. Russ, D. Wheeler and A.F. Barra, 2018. The road to growth: Measuring the tradeoffs between economic growth and ecological destruction. World Dev., 101: 351-376.
- Forbes, K.D., 1983. Geography of Underdevelopment (Translated by A. Setiawan Abadi). LP3ES Publisher, Jakarta, Indonesia, (In Indonesian).
- Garna, Y.K., 1992. [Theories of Social Change]. Padjadjaran University, Sumedang, Indonesia, ISBN:9789798546013, Pages: 143 (In Indonesian).
- Gidden, A., 2008. Social Theory Today: A Systematic Guide to Leading Traditions and Trends of Social Theory. Pustaka Pelajar, Yogyakarta, Indonesia,.
- Giyarsih, S.R., 2001. [Symptoms of urban sprawl as a trigger to the densification process of settlements in urban fringe areas cases of the Yogyakarta suburbs (In Indonesian)]. J. Reg. City Plann., 12: 40-45.
- Guan, X., H. Wei, S. Lu, Q. Dai and H. Su, 2018. Assessment on the urbanization strategy in China: Achievements, challenges and reflections. Habitat Intl., 71: 97-109.
- Gul, A., M. Nawaz, M.A. Basheer, F. Tariq and S.A.R. Shah, 2018. Built houses as a tool to control residential land speculation-A case study of Bahria Town, Lahore. Habitat Intl., 71: 81-87.
- Haider, L.J.H., W.J. Boonstra, G.D. Peterson and M. Schluter, 2018. Traps and sustainable development in rural areas: A review. World Dev., 101: 311-321.
- Harrison, L.E. and S.P. Huntington, 2000. Culture Matters: How Values Shape Human Progress. Basic Books, New York, USA., ISBN: 0-465-03176-5, Pages: 339.
- Harvey, D., 2009. Neoliberalismand Restoration of Capitalist Class. Resistance Books, Australia,.
- Jamaluddin, A.N., 2015. Urban Sociology: Understanding the City Society and its Problems. CV. Pustaka Setia, Bandung, Indonesia, (In Indonesian).
- Lauer, H.R., 2003. Perspective on Social Change (Translated by: Alimandan). PT Adi Mahasatya, Jakarta, Indonesian,.
- Li, N., D. Chan, Q. Mao, K. Hsu and Z. Fu, 2018. Urban sustainability education: Challenges and pedagogical experiments. Habitat Intl., 71: 70-80.
- Meillassoux, C., 1972. From reproduction to production: A Marxist approach to economic anthropology. Econ. Soc., 1: 93-105.

- Peng, J., Y. Pan, Y. Liu, H. Zhao and Y. Wang, 2018. Linking ecological degradation risk to identify ecological security patterns in a rapidly urbanizing landscape. Habitat Intl., 71: 110-124.
- Perrin, C., B. Nougaredes, L. Sini, P. Branduini and L. Salvati, 2018. Governance changes in peri-urban farmland protection following decentralisation: A comparison between Montpellier (France) and Rome (Italy). Land Use Policy, 70: 535-546.
- Prados, M.J., 2009. Naturbanization: New Identities and Processes for Rural-Natural Areas. CRC Press, Boca Raton, Florida, ISBN:9780203881149, Pages: 265.
- Ritzer, G., 2004. Sociology: A Multiple Paradigm Science (Translated by Alimandan). PT. Raja Grafindo Persada, Jakarta, Indonesia,.
- Ritzer, G., 2008. The Postmodern Social Theory (Translated by Muhammad Taufik). Kreasi Wacana, Yogyakarta, Indonesia,.
- Singh, V.P., B.L. Maheshwari and B. Thoradeniya, 2016. Options and Strategies for Balanced Development for Liveable Cities: An Epilogue. In: Balanced Urban Development: Options and Strategies for Liveable Cities, Maheshwari, B.L., V.P. Singh and B. Thoradeniya (Eds.). Chapter 35, Springer, Cham, Switzerland, ISBN: 978-3-319-28110-0, pp: 589-601.
- Soussan, J., 1981. The Urban fringe in the third wrold. Master Thesis, School of Geography, University of Leeds, Leeds, England.
- Sui, D.Z. and H. Zeng, 2001. Modeling the dynamics of landscape structure in Asia's emerging desakota regions: A case study in Shenzhen. Landscape Urban Plann., 53: 37-52.
- Surya, B., 2010. Urbanization and City Growth. Prestasi Pustaka Publisher, Bandung, Indonesia,.
- Surya, B., 2014a. Globalization, modernization, mastery of reproduction of space, spatial articulation and social change in developmental dynamics in Suburb Area of Makassar City (a study concerning on urban spatial sociology). Asian Soc. Sci., 10: 261-268.
- Surya, B., 2014b. Social change, spatial articulation in the dynamics of boomtown construction and development (case satudy of Metro Tanjung Bunga Boomtown, Makassar). Mod. Appl. Sci., 8: 238-245.
- Surya, B., 2015b. Spatial articulation and Co-existence of mode of production in the dynamics of development at the urban fringe of Makassar City. J. Eng. Appl. Sci., 10: 214-222.
- Surya, B., 2015a. The dynamics of spatial structure and spatial pattern changes at the fringe area of Makassar City. Indonesian J. Geogr., 47: 11-19.

- Surya, B., 2016a. Change phenomena of spatial physical in the dynamics of development in urban fringe area. Indonesian J. Geography, 48: 118-134.
- Surya, B., 2016b. The processes analysis of urbanization, spatial articulation, social change and social capital difference in the dynamics of new town development in the fringe area of Makassar City (case study: In Metro Tanjung Bunga Area, Makassar City). Proc.-Social Behav. Sci., 227: 216-231.
- Tavares, A.O., R.L. Pato and M.C. Magalhaes, 2012. Spatial and temporal land use change and occupation over the last half century in a peri-urban area. Applied Geogr., 34: 432-444.
- Vizzari, M. and M. Sigura, 2015. Landscape sequences along the urban-rural-natural gradient: A novel geospatial approach for identification and analysis. Landscape Urban Plann., 140: 42-55.

- Weber, M., 2007. The Protestant Ethic and the Spirit of Capitalism (Translated by Yusup Priyasudiarja). Jejak Publisher, Indonesia,.
- Yahmed, S.B., 2018. Formal but less equal: Gender wage gaps in formal and informal jobs in Urban Brazil. World Dev., 101: 73-87.
- Yanbo, Q., J. Guanghui, Y. Yuting, Z. Qiuyue and L. Yuling *et al.*, 2018. Multi-scale analysis on spatial morphology differentiation and formation mechanism of rural residential land: A case study in Shandong Province, China. Habitat Intl., 71: 135-146.
- Yunus, H.S., 2008. [Dynamics of Peri-Urban Region: Determinants of the Future of the City]. Pustaka Pelajar, Yogyakarta, Indonesia, ISBN: 97860283 00438, Pages: 487 (In Indonesian).
- Yunus, S.H., 2006. Megapolitan: Concepts, Problems and Prospects. Pustaka Pelajar, Yogyakarta, Indonesia,.