



Balancing Local Government Capacity for a Sustainable Peri-Urban Development: The Case of Karawang Regency

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Abstrak. Sebagai suatu wilayah yang berdekatan dengan Wilayah Metropolitan Jakarta, Kabupaten Karawang menghadapi perubahan karakteristik dari perdesaan menjadi perkotaan. Sebagai wilayah peri-urban yang baru dari Wilayah Metropolitan Jakarta, Pemerintah Kabupaten Karawang membutuhkan kemampuan yang besar untuk melindungi wilayah ini dan mendukung pengembangan ekonomi dan pertumbuhan perkotaan di Wilayah Metropolitan Jakarta. Artikel ini bertujuan untuk mengidentifikasi usaha-usaha pemerintah dalam beradaptasi dengan perubahan karakteristik tersebut. Hasil penelitian menunjukkan bagaimana program-program pemerintah menggambarkan usaha pemerintah dalam mencapai keberlanjutan wilayah mereka. Sebagai mesin pertumbuhan wilayah metropolitan Jakarta, Kabupaten Karawang perlu memperkuat kapasitas lokal mereka untuk melindungi dan melestarikan wilayah mereka. Fokus pembangunan adalah peningkatan kemampuan institusional yang dibagi menjadi tiga modal yakni modal intelektual, modal sosial dan modal politik. Keseimbangan dalam pengimplementasian modal-modal tersebut akan menghasilkan suatu wilayah peri-urban yang berkelanjutan.

Kata kunci. Wilayah Metropolitan Jakarta, Kabupaten Karawang, kemampuan lokal, peri-urbanisasi

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Abstract. As an adjacent region of the Jakarta Metropolitan Area (JMA), Karawang Regency is facing the change from rural to urban characteristics. As a new peri-urban area of the Greater JMA (GJMA), Karawang Regency needs a strong capacity to protect the area while at the same time supporting the economic development and urban growth of the GJMA. This research is an attempt to identify government efforts in adapting to the characteristics change. It shows how local government programs exemplify local government efforts in achieving sustainability in the region. Metropolitan expansion is transforming the peri-urban area of Karawang Regency. As a growth machine for the JMA, Karawang Regency needs to strengthen its local capacity in order to protect and preserve the area. Institutional capacity building is aimed at three capitals: intellectual capital, social capital and political capital. A balanced implementation of all three capitals will lead to a sustainable peri-urbanization.

Keywords. Jakarta Metropolitan Area, Karawang Regency, local capacity, peri-urbanization

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Metropolitan Extension Creates a New Peri-urban Area

A city is an urban place with its own characteristics where a locality becomes the identity of a community. There is not only the need for a space for living but also a place for a better livelihood and life quality (Portugali, 2006). In metropolitan areas, expansion to surrounding cities often occurs because the city core faces an overburdened development. This expansion results in a fast-growing metropolitan area involving uncontrolled change of the rural-urban interface. The rural-urban interface is the encounter zone of the rural and the urban, which suffers from complex problems of rapid urbanization, intense pressure on resources, slum formation, lack of adequate water and sanitation services, and, most of all, poor planning and degradation of farmland (McGregor, Simon, and Thompson, 2006).

The mixed features of the neither urban nor rural peri-urban areas around Jakarta force them to transform into more specifically urban rather than rural areas. The linkage of urban and rural interests imposes conflicts that in turn threaten to decrease the original characteristics of the areas. Meanwhile, urban deconcentration is reshaping the peri-urban areas into centers of industrial agglomeration (Hudalah et al., 2013). Accordingly, this situation changes the city's characteristics and influences its economic value. The peri-urban areas become the primary object of metropolitan development. On the other hand, local governments attempt to protect their area by providing regulatory frameworks while at the same time providing conditions for economic and population growth. Here, local government capacity is required.

Being an agricultural region, Karawang Regency has abundant natural and human resources. Located next to the Jakarta Metropolitan Area, Karawang Regency is influenced by the massive development of Jakarta. Since the interconnection of flows of people, goods and communication easily occurs and passes by the conservative city center (Woltjer, 2014), there will be significant changes for the inhabitants. Absence of mechanisms to implement policies, uncoordinated and unplanned development, competition among local and migrant laborers, and other specific problems compel local government to prepare all the resources it has to create a sustainable peri-urban development.

Facing the dilemmas of peri-urban development, the local government is induced to strengthen its capacity. Improving capabilities and abilities in planning, controlling and managing its area are among the objectives of its planning decisions. Moreover, either to adapt to the current situation or to anticipate further impacts of development, the local government should optimize the new characteristics in support of sustainability and local potential.

Through the knowledge that sustainability is about balancing the three pillars of society, economy and ecology or environment, this will become the main concern of imminent development. The local government needs to either strengthen its capacity accordingly or embrace a new capacity to adapt. This article aims to identify local government efforts in adapting to the characteristics change of Karawang Regency in order to both support the development of the JMA and improve local development.

Strong Capitals as Important Guidelines for New Development

A metropolitan area can be conceptualized as the extended city as a consistent basis for measuring the spatial extent of urban development (Bourne, 1982). There are at least three requirements for being classified as a metropolitan area, such as having a city center, central regencies and linkage between city center and central regency (Bourne, 1982).

As a metropolitan area expands, peri-urbanization emerges as an essential development. Initially, it tends to lessen the overburdening of the city core and achieve equal development between the central core and the hinterland. As it flourishes, the peri-urban area – as stated by Phillips et al. (1995) in McGregor et al. (2006) – is a region that is influenced by urban characteristics and has easy access to markets, services and other inputs, provides labor but has a relative lack of land and is under risk of urban invasion and pollution. Thus it emerges as a threat to local government, challenging it to protect the region.

In line with the emergence of a new peri-urban area, local government as the main actor of decentralization faces an immense challenge from outside over the development of the region. It needs capacity to run and solve problems. As Gargan (1981) has stated, local government capacity is needed as a function of expectations, resources and problems. Unlike what Gargan stated, Fiszbein (1997) claims that local capacity results from local leadership. Although the task of strengthening local government capacity is complex, the head of local government still has to fulfil the demands of capacity enhancement. Leadership persistence has a double front. Firstly, leadership involves internal organization in terms of customer-orientedness. Secondly, it involves a leadership role external to the organization.

In accordance with Fiszbein's claim, Bebbington, Dharmawan, Fahmi and Guggenheim (2006) have stated that capacity is closely related to the notion of power and authority. Capacity is the power to do something but its effectiveness depends on other actors' capacities. All actors are involved in a framework where assets are not the only source of problems. There is also power that can change livelihood by transforming assets or capitals. Grindle (1996, p. 44) in Wallis and Dollery (2002) distinguishes four categories of capacity: technical capacity, which is related to setting and managing comprehensible economic strategies, thus enabling authorities to supply effective leadership and strategic direction; administrative capacity in view of effective administration; and political capacity as the ability to arbitrate conflict, react to citizen demands and provide opportunities for effective political participation.

Summarizing these perspectives on capacity, Khakee (2002) considers how local development authorities succeed in building institutional capital for achieving sustainable development. Khakee defines institutional capacity as a complete quality resources collection that is embodied in social relations and interactions in a place. He identifies this capacity in terms of achieving sustainable development through intellectual, social, and political capital.

Table 1. Institutional Capital: Elements and Evaluation Criteria

Type of institutional capital	Elements	Evaluation criteria
Intellectual capital	Range and frame of knowledge, knowledge linkages, attitude towards new knowledge	Knowledge resources, use of knowledge, justification of ideas, degree of understanding, diffusion of knowledge and values, openness to new sources of information.
Social capital	Range of social relations, linkages between networks, power relations	Extent of stakeholder involvement, character of networks, nature and density of network linkages, access to networks, forces linking networks
Political capital	Structure of mobilization, methods for collective efforts, change agents	Selection and identification issues, range of mobilization techniques, consensus-building practices, character and role of key agents

Source: Khakee (2002)

As the peri-urban area becomes the focus of development, it influences the livelihood of the inhabitants. It is not only about creating a physical place but also about valuing space, considering 'quality of life' instead of 'well-being' (Diaz-Chavez, 2006). Accordingly, this area, where "rural and urban characteristics meet within urban borders, actually is completed to sustain natural resources without bargaining their presence for future generations, while nevertheless providing the basic needs to their populations". This development is assumed to have both positive and negative impacts for the local people.

In line with the above statement, Jordan (2008) writes that sustainable development is comprehensively complex and needs to link economic prosperity with environmental protection, which emerges as a result of social dialogue and reflection. Hence, a system of governance is needed as an elaboration of local government capacity.

Sustainable development is a concept that bridges multidimensional aspects. It attempts to synergize the three pillars of society, economy and environment. Furthermore, peri-urban development is closely related to creating integrated development provided by sustainable governance as a result of applied practices guaranteeing that society proceeds along a sustainable path (Meadowcroft et al., 2005; in Jordan, 2008).

Berke (2002) has stated that the main goal of sustainable development is "intergenerational equity", thus improving quality of life. Accordingly, in line with what Campbell (1996) has argued about the three main pillars of sustainable development, Berke (2002) states that sustainable development basically is a simple concept, aimed at attaining a decent living for people within the bounds of natural systems. In other words, sustainable development is about how development can improve life quality. Hence, as explicated by both Campbell (1996) and Berke (2002), sustainability is principally about balancing the three pillars of society, economy and environment.

An increasing demand for metropolitan functions emerges as the metropolitan area extends its borders. Peri-urbanization becomes prevalent. In order to support urban growth and economic improvement, the peri-urban area rapidly changes into a strategic area. Instead of improvements occurring, it suffers from an overburden of tasks that are charged to it. Therefore, the role of local government is essential in constraining peri-urban development so there will be a balanced development that can lead to a sustainable future.

Facing a new peri-urban development means having to be prepared for a change in characteristics. In view of this transition, local government has to strengthen its capacity to avoid exaggerated development that could harm both citizens and the environment.

Methodology

This work is a qualitative-descriptive research based on facts and evidence gained from a case study. Like Neuman (2006), it elaborates ideas by using themes or concepts as tools for making generalizations. It is also about conceptualization when the researcher organizes and makes sense of data.

Finding out how sustainability can support the endurance of local characteristics, this research aims to show how the local government of Karawang Regency attempts to strengthen its capacity. In the case of measuring human capital, comprising indicators are essential to see how local capacity emerges and influences peri-urbanization in the case study area. The indicators

should cover various aspects that elaborate the three capitals mentioned by Khakee (2002). Not only in view of strengthening existing capitals as such but also to see how Karawang Regency can achieve sustainability by having the indicators of human capital mentioned.

The framework is arranged so that it shows the relations between the different aspects that can strengthen local capacity within peri-urbanization in view of achieving a sustainable area. Each indicator represents the real situation in the area. In order to avoid incomplete or ambiguous information, each indicator was retrieved from different sources (government's website, e-newspaper, journals/articles).

Compiling indicators in the research framework has helped the researcher to obtain answers from the case study. Using the software tool ATLAS.ti version 6.2 has helped the author to collect articles with the same idea. Furthermore, the framework comprises three main aspects that influence peri-urban development. The research indicators were limited to those in the annex table to avoid either irrelevant information or overlapping contexts while focusing on local government capacity for sustainable development.

Table 2. Indicators Framework

Capacity	Peri-urban characteristics	Sustainability indicators		
		Societal	Economy	Environment
Intellectual Capital	<ul style="list-style-type: none"> Range and frame of knowledge 	<ul style="list-style-type: none"> Educational level 	<ul style="list-style-type: none"> Economic innovation 	<ul style="list-style-type: none"> Environmental innovation
Social Capital	<ul style="list-style-type: none"> Social relations both networking and power relations 	<ul style="list-style-type: none"> Collaborative Participation Public access (health, market, transportation) 	<ul style="list-style-type: none"> Public-private partnership 	<ul style="list-style-type: none"> Public awareness to environment
Political Capital	<ul style="list-style-type: none"> Structure of mobilization, collective efforts 	<ul style="list-style-type: none"> Consensus-building practices Community's initiative (coalition planning) 	<ul style="list-style-type: none"> Key agents of resources 	<ul style="list-style-type: none"> Regulations to protect environment

Source: Author, 2014

Research Findings

Karawang Regency

The Jakarta Metropolitan Area is growing rapidly, which brings along a massive development of new towns around suburban areas. This development signals the overburdened development of the metropolitan area that enforces metroplitan expansion around suburban areas, creating a new peri-urban area. Adjacent to the JMA, Karawang Regency is one among several localities in the peri-urban area of the metropolis. Possessing all potential characteristics of being the next promising peri-urban area, Karawang Regency is the focus of JMA's expansion.

Meanwhile, being located in between two metropolitan areas forces Karawang Regency to adapt to a rapid development that can cause the loss of its original characteristics. Hence, strengthening the original characteristics of Karawang Regency is important in facing the

characteristics change. Recognizing this fragile situation forces local government to be more aware of local capacity as valuable capital to protect local development from metropolitan expansion.

As sustainability is about a balanced development between society, economy and environment, Karawang Regency as a potential new peri-urban area is compelled to deal with social, economic and environmental problems. Starting as urban sprawl, which causes poor service development in particular areas, a new peri-urban area also needs economic development, which requires consistent policies that can decrease the gap of income and opportunities between native inhabitants and migrants. Moreover, it needs a holistic system of protecting the environment to create the best life quality for the people.

Intellectual Capital

Intellectual capital as an indicator places issues in a perspective based on knowledge resources reviewed from past experiences and the concern of understanding people, places and issues (Khakee, 2002). Regarding the emergence of peri-urbanization, Karawang Regency has to deal with societal issues, productivity or economic issues and environmental issues, which influence the intelligence rate demanded of the local government in facing the transformation of the area. Intellectual capital can also help inhabitants be prepared for the struggle with the new situation. By focusing on educational improvement, local government can attempt to lessen the knowledge gap and encourage innovation to improve life quality.

Educational level

Aimed at improvement of life quality, intellectual capital reflects the educational level of both inhabitants and local government employees. The increase of the educational level will improve the civilization level and innovation. This indicator points at government capacity to achieve a sustainable peri-urban area with regard to these factors.

Educational level as an indicator of intellectual capital reflects government efforts in improving people's knowledge. These efforts include construction of formal and informal educational facilities. This indicator also depends on the number of educators and activities that can improve capacity of both government employees and inhabitants. We can see from Table 3 below that the number of higher education students is lower than the number of senior high school students in the same year (2010). This situation indicates that the local government of Karawang Regency needs to encourage people to attend higher school levels in order to be ready for labor competition from outside Karawang Regency, which surely needs highly educated people, not only for its own workforce but also as employees of private companies.

Table 3. Number of High Educational Students 2010-2011

Schools	Number of students		
	Male	Female	Total
Singaperbangsa Karawang University	3,236	2,458	5,694
High School of Management and Computer Science Kharisma Karawang	207	102	309
Academy of Management and Computer Science – Bina Sarana Informatika Karawang	449	381	830
Higher Education of Management and Computer Science PAMITRAN Karawang	52	30	82
School of Management and Computer Science ROSMA Karawang	247	156	403
TOTAL	4,191	3,127	7,318

Source: Regency (2013)

Economic Innovation

Economic innovation depends on educated inhabitants. Having a better educational background and more knowledge empowers people to improve their economic situation through innovations. One of the articles of local regulation no. 19/2004 stipulates that regulation and easy permit acquisition are among the government's efforts to create a key region of industry in Karawang Regency (Syahrudin, 2011). The government encourages private companies to invest their capital in Karawang by providing easy permit acquisition, which is like realizing an old desire. Government focuses on manufacturers of three different scales: small scale, medium scale and large scale.

Innovation also penetrates the agricultural sector. The way farmers optimize their yield by diversification or aerobic paddy organic based, 'jajar legowo' plant method or even System of Rice Intensification (SRI) are also examples of innovation. These methods are the latest innovations, which will produce a high quality of paddy and crops and thus will lead to improvement of the agricultural sector in line with industrialization. The way the government implements a grassroots economy, in an effort to empower local people in the agricultural sector around industrial areas, is by creating agribusiness and agroindustry.

Environmental Innovation

Improvement of the educational level will result in economical and environmental improvements. People will create innovations that bring forth economic growth without ignoring the environment. As the economy grows, the environment faces two situations that guide it into two different conditions: a threatened environment that negatively affects life quality and a caring environment that creates liveable surroundings. Efforts of government in protecting the natural environment show how new technology can be used. For example, the right technology for specific characteristics of soil to improve paddy production, monitoring water pollution using telemetric monitoring and control systems, or applying organic fertilizer combined with high-yielding crop varieties, organic plantations, and pre-harvesting and post-harvesting technologies. All these attempts are crucial to both preserving the environment and competing with urban growth.

Based on the elaboration above, the way government improves intellectual capital by increasing the educational level or level of knowledge directly influences the capability of people to create life-supporting innovations. Innovations that emerge from the desire of improving life quality hopefully will lead people to be prepared for the transformation of the area.

Social Capital

Social capital is about networks and connections that involve stakeholders and nurture social relations where common norms and values stand together (Westlund and Kobayashi, 2013). This capital positively impacts the welfare of the people in the area and thus increases people's appreciation of their existence. Additionally, Ostrom and Ahn (2003) have stated that the interlinking of trustworthiness, networks and institutions are three mechanisms that can enhance social capital.

As a potential peri-urban area, Karawang Regency shows an effort in strengthening its social capital by giving public participation a significant role at the neighbourhood level. This participation reflects how social interactions and productive power relations are important advantages to have in facing peri-urbanization. According to Creighton (2005), public participation is a two-way communication and interaction when the public's concerns, needs and values are incorporated into governmental and corporate decision-making.

Collaborative Participation

Collaborative participation is about trying to address the interests of all and using dialogue and discussion as ways to communicate (Innes and Booher, 2004). Since collaboration also builds networks, it helps understand the public's perspective and builds trust. In line with this assumption, according to IAPP (--), collaborative participation is about public partnering in constructing decisions, including alternative development and solution identification.

The role of the public in Karawang Regency encompasses activities to improve all aspects of their own neighbourhood. Starting with a family welfare education organization (*TP PKK*), which gives an important role to women, especially through housewives' education and a local women's community (*Posyandu*) that is largely responsible for emerging health awareness in their neighbourhood, and also through community organizations such as the Madani Community Forum.

Collaboration in Karawang Regency also includes how the community takes part in national programs to reduce poverty and deciding what should be done with waste and coastal pollution. There exists a community waste management program (3Rs: Reuse, Reduce, Recycle) that is involved in cleaning the coastal area together with local government.

Public Access

There is public access when local people can easily reach public facilities to improve their life quality. This starts with increasing the number of educational facilities such as schools, both public schools and private schools, which has increased significantly over the last number of years, as shown in the table below. Local government also tries to fulfill the people's needs in health care. Having 30 regencies, local government provides 46 public health centres, 71 public health subcentres, 57 dispensaries and 172 general clinics. The provision of public access is also

supported by the availability of paramedics, whose number has increased with 45 percent in 2012.

Local support for public access is authorized in local regulation no. 8/2012 about implementation of social welfare, local regulation no. 5/2013 about location permits, and local regulation no. 8/2013 about levies for certain licenses. Those particular regulations attempt to guarantee that the implementation of social services runs continuously and interactively. Furthermore, they also control and integrate the utilization of space and enforce an investment framework in favour of public welfare.

Table 4. Number of Schools in Karawang Regency

Regency	Number of					
	Elementary Schools		Junior High Schools		Senior High Schools	
	Public	Private	Public	Private	Public	Private
Year 2012	849	173	88	81	22	90
Year 2011	-	-	-	-	-	-
Year 2010	946	26	95	43	25	62
Year 2009	1,001	26	65	41	25	60
Year 2008	1,003	21	58	39	26	58

Source: Regency (2013)

Regarding the increase of local income, the local government is more flexible towards industrial growth around its area. Considering its role of employment provision, the industrial sector becomes a strategic factor. According to Regency (2013) this sector provides employment for almost 86 percent from the total of job seekers. Facing this real situation, prioritizing education, as mentioned under intellectual capital, is essential, since the number of occupied job seekers by educational attainment is dominated by senior high school graduates. In fact, a senior high school graduate is unable to occupy strategic positions.

Public-Private Partnerships

Improving social capital by government is continuously prospected by supporting corporation with local industries. Giving approval for large industry to invest in Karawang, the regent imposes companies to employ indigenous people in view of improving local welfare. This enforcement is authorized in local regulation no. 11/ 2011, article 25. It is stipulated that companies have the obligation to prioritize local labor filling in job vacancies. Moreover, regarding public-private partnerships between government and companies, corporate social responsibility (CSR) plays an important role as facilitator.

Another effort that companies have realized in cooperation with government is the provision of health facilities such as hospitals, local clinics and pharmacy stores. In addition, companies also support local government projects, for example reclamation projects.

Public Environmental Awareness

Environmental awareness shows how networks and power relations can mutually reinforce each other. It means that a community realizes the importance of the environment to their lives.

Public environmental awareness emerges with the three steps of waste management: reuse, reduce and recycle. Communities also join the monitoring of the implementation of government regulations about controlling water pollution. Thus, this awareness leads to a strict implementation of environmental regulations and punishes companies that go against the rules.

A local regulation about preservation from 2013 emphasizes local willingness both to protect and preserve the environment. Local regulation no. 4/2013 stipulates that local government coordinates cultural heritage preservation in order to create an ideal environment for all inhabitants. As a matter of fact, preservation as mentioned in this local regulation is everyone's responsibility. This shows that local government takes care of the environment and asks people to do so as well. Another indication of environmental awareness is the local government's decision to implement emission testing for each transportation mode. Moreover, it also implements spatial planning based on long-term and mid-term objectives. Here, they ask developers to be more concerned about the impacts of their activities in order to achieve a sustainable development.

Political Capital

Strengthening political capital means how government not only arranges and implements policies but also how it involves people and stakeholders in identifying opinions and building consensus. Government also arranges policies as constraints on new developments. Moreover, qualified political capital can also be seen from the high number of community initiatives to manage their own neighbourhood, thus establishing collective efforts.

In the case of preserving the existing area and constraining new development, government also arranges local regulations that strengthen local capacity in dealing with the peri-urbanization of Karawang Regency. The regulations support development while protecting both the environment and neighborhoods. The way in which government is engaged in the transformation of the region can be seen from how local regulations are being adjusted to the current situation. Using either legislation, rules, regulations or even agreements, authority is reinforced by strategic responsibility.

Consensus Building Practices

Consensus building is a practice which is deeply rooted in interest-based bargaining (Innes, 2004). It is not about redistributing power. It emerges when there are conflicts of interests and goals preventing bureaucratic solutions, so the result can be robust. Another argument of Innes (2004) is that consensus building produces an interlinked package of proposals and actions, and hence creates an incentive for persisting joint support.

Since consensus building is not only about producing agreements and plans but also about experimentation, learning and shared building, it can create implementable agreements (Innes and Booher, 1999). Accordingly, seeing how consensus building is an aspect of political capital, Karawang Regency has succeeded in imposing the community to make agreements both in the form of community organizations, such as Forum of Singaperbangsa Children as an educator, aspirator, initiator and facilitator of children's right protection, and the village consultative board as a facilitator that connects government with local people to ensure that it works in line with regulations, and in the form of non-organizations, such as the creative craftsmen community that executes the one-village-one-product program.

Community Initiatives

According to Chaskin (2001) a community initiative is a set of community capacities that is exemplified by core characteristics that are built through strategic intervention. This strategic intervention is not only about skill development, but also requires leadership, time and effort (Aisensen, Bezanson, Frank, and Reardon, 2002). In the case of Karawang Regency, community initiatives are described by their attempts to improve livelihood. Such initiatives appear in the form of a self-initiated transmigration program, which is managed by an enthusiastic community organization; the Village Unit Cooperative, a financial support organization which is ran by the community; childcare development and empowerment centers; and a local forum that acts as a team for monitoring and evaluating of government performance.

Therefore, based on the available data, community initiatives in Karawang Regency have already emerged and are running well. They emerge from the community's desire to improve life quality and act either as initiator or facilitator of government programs for improving the community's livelihood.

Key Agent of Resources

As potential area of development Karawang Regency has abundant resources. These can be found in the form of human resources as potential labor force, in the form of land with its mineral potential for both plantations and mining, or in the form of fisheries and mangroves as natural habitats and tourist destinations. The government must be aware to protect them. As the key agent of resources, the government has imposed a number of local regulations both to protect and preserve existing resources.

An important local regulation (No. 1/ 2011) is about labor and it guarantees indigenous people to have equal rights in being employed by private companies. Other distinctive regulations are about taxing land acquisitions and buildings (No. 4/2011), general services (no. 2/2012), a business services levy (No. 3/2012), levies for certain licences (No. 4/2012), a levy for renewal of foreign employee permits (No. 7/ 2013), and environmental protection (No. 4/ 2013).

Environmental Protection Regulations

As political capital is enhanced, the government's environmental awareness inclines and arrives at a point where legal regulation is a must. Sustainable development is the focus of long-term planning in Karawang Regency, considering the government's focus on the environment as one of the factors that is being threatened by massive development. This effort is reflected in regulations to preserve the environment. These regulations are strict legal documents to be implemented by all actors of development.

There are local government regulations about controlling air pollution by emission testing for each transportation mode and applying the polluter-pay principle to factories and industry as a step in air pollution reduction. There is also the decision to implement the governor's proclamation about control and criteria of industrial environmental pollution (No. 660.31/SK/694-BKPM/1962). This serves as an instruction from the government to developers to enhance environmental awareness and to follow the local regulations about preserving the environment as stipulated in local regulation no. 4/2013.

Conclusion

What can be concluded based on our analysis is that in order to deal with characteristics change in a peri-urban area, local government needs to balance three capitals. Firstly, a strong intellectual capital that leads inhabitants to become an educated community, which will improve their livelihood by guiding them to more easily adapt to the new characteristics of the area. This situation reduces social inequalities between inhabitants and migrants, thus creating better societal relationships. It was found that societal relationships emerging from social capital encourage people to spread their networks and connections, creating balanced norms and values within the community.

Nevertheless, whether these two capitals are strengthened or not, it will lead nowhere without being supported by political capital that enhances the role of the government. Political capital is important as the basis for maintaining local capacity in both protecting and preserving the area. Regulations, as a form of authorized instructions, integrate all aspects of development, including economy, society and environment. Focusing on a strong political capital means enhancing the government's role as the 'central' control of change. The local government should try to endorse a lawful gap between the new emerging characteristics and the original features of Karawang Regency.

These research results are collected findings on what the local government has done and plans to do in order to deal with the peri-urbanization of Karawang Regency. Generally, the local government of Karawang Regency is already on the right path of strengthening local capacity to achieve a sustainable new peri-urban area.

Potentially having characteristics of urban and rural areas, the new peri-urban area combines both into general peri-urban characteristics such as:

1. Educational concern as a result of intellectual capital improvement. This will lead to a highly educated population that can further create technological improvement. This will affect the provision of available labor, employment rate, local income rate, and also local neighborhood awareness.
2. Strong relationships, including both networking and power relations, and a participating community as a living amenity. This characteristic is a description of how social capital runs well. It is closely related to the awareness of having better life quality.
3. Collective efforts in neighborhood development as a result of raising of political awareness. Here, the community is involved in the decision making of the planning process. This also describes how the community already has awareness of a liveable neighborhood; this awareness emerges when education is part of daily life.

As a new peri-urban area, Karawang Regency faces a promising future as a more urbanized area with an improved livelihood in spite of declining rural characteristics. Coping with this situation, local capacity as a main factor in keeping the peri-urban area livable by supporting the metropolitan development while preserving its own characteristics. Hence, the transformation will not only bring urbanization into the rural area but also environmental sustainability. However, the expanding metropolis will have impacts that can be beneficial or harmful to the area and local capacity is required to deal with both.

Recommendations

This investigation of local capacity in a new peri-urban area to achieve a sustainable peri-urban area leads to new thinking of what government should do to cope with metropolitan expansion. As this expansion creates new habits of city management, including local people and environment, this research recommends several ways to both protect and preserve the area, in this case Karawang Regency.

Recommendations for Local Government

Firstly, as Karawang Regency faces the new characteristics of a peri-urban area, it is important to identify the potentials of the area and its inhabitants. After identifying the potentials, the government can act as needed. Based on the research findings above, even though the number of educational facilities has increased, the number of people who are interested in continuing their studies at a higher level is relatively small compared to the number of senior high school students. This means that the institutional capacity should not only be about physical development but also about mental development. The local people need to become aware of the need of a higher education to improve their life quality. Thus, the role of government should also include mental education, awareness of the possibility of a better livelihood, which means a better knowledge level, better environmental awareness and better networks.

Secondly, the concept of dividing institutional capacity into three capitals – intellectual capital, social capital and political capital – is important. These three capitals are about institutional competency coping with alterations or even interventions both from inside and outside. The balance of the three capitals shows if an institution is ready to deal with changes in its environment. Based on the previous explanation, the local government of Karawang Regency actually has already involved all three capitals in its activities. Nevertheless, there is an imbalance. It has been found that the social and economical pillars are taken care of fairly well, but the environmental pillar less so. Here, the government should reflect on their planned activities to better support environmental action. This can be initiated by creating awareness of the need of a good environment for improving life quality, such as lessening air, water and noise pollution.

Thirdly, considering the current local government efforts to use its authority through local regulations and legalizing public rules, it is hard to say that implementation has already advanced enough. For example, regarding the local regulation about prioritizing local people to be employed in companies around Karawang Regency, in reality the implementation of this regulation is not as strict as it might be. Since the education level of the local people is not sufficient for middle up positions, companies prefer hiring migrants as their employees. Rules and regulations should be applied strictly by improving relations and networks between local government, companies, and local high schools.

Recommendations for Future Research

This study has delivered an investigation of local capacity in relation to creating a sustainable new peri-urban area. However, there are still unresolved issues that can be the subject of further studies in the future.

Firstly, it would be useful to compare the empirical findings in the present study of Karawang Regency with other new peri-urban areas of the Greater Jakarta Metropolitan Area, such as

Serang and Cilegon. A comparative study could enrich the findings about the kinds of local capacities local governments need to deal with peri-urbanization. The current study provides an illustration of how knowledge, contextual sources and planning practice interact with each other. It would be interesting to find more specifically how development planning runs well under particular circumstances such as a strong national demand for a rural buffer zone.

Secondly, this study underlines the role of local government in dealing with the national demand of peri-urbanization. Meanwhile, there is a local community that has a role as important as the government's in dealing with characteristics change. Thus, it is important to investigate community capacity in adapting to new characteristics instead of being restricted to institutional capacity. It would be fair to suggest that capacity is needed from both perspectives.

Thirdly, the sources of this research – reports, articles and literature – were limited to a particular time range. In order to update the research to the latest findings and to find out what is really happening, there should be in-depth interviews to clarify and compare written information and real perspectives of the local government.

In a nutshell, this study indicates how local capacity can be divided into three capitals, intellectual capital, social capital and political capital, all three of which are necessary to enhance the characteristics of a new peri-urban area. Moreover, these capitals are likely embedded behavior of government to determine the level of sustainability that has been achieved and is to be implement according to planning. The main challenges for planning in a new peri-urban area are connected to physical and non-physical aspects. Those aspects would be undisputed and resolved by combining both local and national planning and the characteristics of both local environment and local people and also strengthening the capacities of both the local government and the local community.

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