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The Impact of Infrastructure Development on Rural Communities: A Literature Review

Incham Manggat, Rajwani Zain and Zakiyah Jamaluddin
College of Arts and Science, Awang Had Salleh Graduate School, University Utara Malaysia,
Sintok, Malaysia
Email: inchammanggat88@gmail.com

Abstract

This article surveys and reviews previous works that are related to the impact of infrastructural development on rural communities in Malaysia. The survey is carried out in view of the relationship between social wellbeing and provision of complete infrastructure facilities. At the moment, it is not clear how lack of basic infrastructure impacts the lives of members of rural communities. Failure to incorporate changes, specifically infrastructural development, into communities is believed to affect the community's state of wellbeing. The catalytic role played by social workers in developing a community together with the development planning authorities needs to be scrutinised. The important role played the social workers that complements the roles played by the development planning authorities warrants it to be discussed further. Taking this into account, it is pertinent to understand the concept of development and the meaning of infrastructure itself clearly to enable the planning authorities to be actively involved in providing sufficient basic facilities that could improve the rural communities' state of wellbeing. This concept paper seeks to discuss the impact of infrastructural development on rural communities. At the same time, the role played by the social workers will also be discussed. It is also important to understand the needs and wants of the rural communities from the communities' perspective. It is hoped that this paper could contribute ideas on issues related to the impact of infrastructural development on Malaysian rural communities.

Keywords: Infrastructure Development, Rural Areas, Community's Wellbeing, Social Workers

Introduction

Since Malaysia is a country classified as a developing country (Yusof, 2011), the government has initiated several efforts to improve the quality of the people's life, be it those in the urban or rural areas. Nevertheless, there is a huge gap between the population living in the urban and rural areas. Geographical, educational, income, gender and ages, as well as language and race gaps are some of the gaps that need to be bridged in Malaysia (Mohamed, Mohamad Judi, Noor & Yusof, 2012). The gaps are closely related to accessibility aspects and the level of

quality of life of the community, most notably those who live in the rural (Ali, Zainal, Desa, Omar, Omar, & Jali 2009).

Several factors have been identified as causing the said gaps. The main factor is none other than infrastructure development (Olufemi, Olatunbosun, Olasode & Adeniran, 2013). Urban areas are often synonymous with adequate facilities or fundamental infrastructure unlike rural areas that are still hampered with limited, inadequate infrastructure facilities. Rural areas also have distinctive demographic characteristics such as social aspects, infrastructure or basic amenities as well as economic production scales (Hlavsa, 2010). Basic infrastructural facilities such as roads, clean water supply and communication are the main keys to the wellbeing of a community, notably those in the rural areas (Yusoff, Talib, & Pon, 2011).

The matter of infrastructure development, specifically those that pertain to the provision and improvement of basic amenities in rural areas have long been considered by the government. Several policies have been advocated and implemented to ensure that the much-needed development takes place. One of the most recent policies is the *National Key Result Areas* (NKRA). The six key thrusts of the NKRA include reducing crime rates, implementing anti-corruption, expanding access to quality and affordable education, upgrading the low-income citizen's standard of living, improving infrastructure in the rural areas, and providing better public transport in moderate time frame (Jabatan Perdana Menteri, 2011).

The 11th Malaysia Plan (RMK-11) initiated by the Malaysian government, among others, has allocated a huge amount of budget to improve and upgrade current basic facilities in the rural areas to ensure that the wellbeing of the rural communities is taken care of (Unit Perancang Ekonomi, 2015). The infrastructure development in the rural areas is justified considering that the economic sources in these areas, in general, focus mainly on the agricultural sectors. Subsistence agriculture, commercial agriculture, husbandry, fishing, paddy planting and many others are some of the activities included in the agricultural sector. The infrastructure development in the rural areas is also an evidence of the government commitment in bridging the gaps between the rural and urban areas.

The Concept of Infrastructure Development

Today, infrastructure development has become a much-debated topic since scholars from various countries have utilised the aspect of infrastructure development as a parameter and index to measure the ability of each country to complete globally. (Opawole, Jagboo, Bababola & Babatunde, 2012). This is mainly because, access to basic, adequate facilities is viewed as strongly related to the wellbeing of general population in any country.

Infrastructure development is also the key aspect that is used to measure leader's performance in a country (Oyedele, 2012). Therefore, discussions on the concept and definitions of infrastructure development has to consider the viewpoints of researchers from different backgrounds. Such consideration is vital to facilitate understanding of the concept of infrastructure development. According to Sullivan & Sheffrin (2003), infrastructure could be defined as organisational structure and physical amenities that are needed by the community in general. These infrastructures include industries, buildings, roads, bridges, health services, governance, and many others. Sullivan and Sheffrin argue infrastructure development is needed as economically it affects the demand and supply as well buy and sell activities.

Other researchers argue that infrastructure development requires investment if such development is to take place in any country. Alleman, Hunt, Michaels, Muellers, Rappoport & Taylor (1994) and Ghafoor (2000), for instance, view infrastructural investment as an investment that can contribute the increase of economic growth. Infrastructure development is none other than a mechanism that increases the living quality of a society. In terms of economy, infrastructure development can impact the employment rate, productivity, and income as well as give an added value. Infrastructure development can also boost political integration and reduce societal geographical gaps.

The concept of infrastructure development also refers to the provision of fundamental infrastructure facilities such as the construction of roads and highways, availability of transportation, bridges, and ports and telecommunication systems (Cronin, McGovern, Miller & Parker, 1995; Madden & Savage, 1998). The basic physical development mentioned is considered important as it serves as an indicator to the progress and developmental process of a particular country. Lack of basic facilities shows that the country or region can be categorised as under-developed and is left behind by progress and modernisation.

The Needs and Impact of Infrastructure development in Rural Communities

Malaysia is a rapidly developing country which is also a peaceful country where the people live in full harmony. Nevertheless, exclusion and isolation still exist among the communities resulted from the geographical locality that involves the inequality of infrastructure development in urban and rural areas. In some rural areas in Malaysia, infrastructures are not as well developed as compared to the urban or outskirts areas. This has affected the quality of life of the community that lives in the rural areas in the country. Therefore, this conceptual paper will analyse the importance of the infrastructure development for the rural communities in Malaysia.

The rapid growth in the rural economies is determined by the accessibility and the delivery of essential infrastructures such as fine roads. The importance of road infrastructure to thrive the economy in certain areas has been emphasised specifically in the rapidly developing areas (Na, Han & Yoon, 2013; Hong, Chu & Wang, 2011; Brooks & Go, 2011 & Owen, Terence & Green, 2012). Kadir (2013) who examines the impact of land transport infrastructure development on Malaysia's economy growth found that the investments in the land transport infrastructure give a significant impact on the country's long term economic growth. The study also emphasised the importance of the development in infrastructure in thriving several important sectors in the country such as manufacturing, service, international trade, production and agriculture sectors. This shows that the development of basic infrastructures like road infrastructure is essential in order to increase the rural communities' life well-being through the provision on amenities for the community use (Simkova, 2008; Zivelova & Jensky, 2008; Hlavsa, 2010; Rozema & Martens, 2010; Mascarenhas, Coelho, Subtil & Ramos, 2010; Yilmaz, Dasedemir, Admis & Lise, 2010).

Nonetheless, the importance of the infrastructure development for the rural communities is more focused on the growth of agriculture sectors which is synonymous with the rural community's major economic resources (Ndulu, 2006; Calderon & Serve, 2008; Egbetokun, 2009; United Nation, 2011). The advancement in the aspect of basic infrastructure for rural communities is seen as an accelerator for the growth of the rural communities' economy which

in turn will give a positive impact for the quality of life for the community as a whole (Ale, Abisuwa, Olagunagba & Ijarotimi, 2011). At the same time, the development of the infrastructure such as road infrastructure is seen as the key for the development in the rural areas because by having these developments, basic amenities such as clean water, electricity and communication network will be brought into the rural areas as well (Straka & Tuzova, 2016). The Malaysian government is committed to develop the rural areas by establishing various relevant ministries such as the Malaysian Public Works Department and the Ministry of Rural and Regional Development. This shows that the government is aware of the importance of developing the infrastructure, utilities and basic amenities to enhance the well-being of the rural communities (Portal Rasmi KKL BW, 2017).

The impact of the infrastructure development is also related to the quality of social services especially in the aspect of education, health and the quality of life of rural communities in general. This is in line with the study carried out in Nigeria by Calderon (2009) and Egbetokun (2009) who found that the basic infrastructure is an integral part of the rural development strategies because the infrastructure development is integrated with all other aspects, including agriculture, education, health, nutrition, electricity and clean water, which subsequently be developed as well. The development of the basic infrastructure in the rural areas is seen as a holistic approach where it could be the solution for the problems of inequality and social justice for rural areas in general.

The importance of infrastructure for rural areas has also been discussed by Adeyoye, Yusuf, Balogun & Carim-sanni, (2011). The lack of basic amenities is the main factor that can affect the quality of life of rural communities as well as the factor that can undermine the effort in enhancing the rural communities' economic transformation which generally rely on the agricultural resources. Aziz (2015) who did a study on the relationship between the infrastructure and the economic growth in India revealed that the basic infrastructure is essential for a good quality of life especially in the socioeconomic aspect. The lack of basic amenities in the rural areas has direct negative impacts on the village residents such as increasing the rate of poverty, declining the agricultural products and hindering the ability to continue living a good life. All these negative impacts will definitely affect health services and halt access to education for the village communities.

The need to develop the basic amenities for rural areas should be considered as a part of an overall development which needs to include the economic growth, the increase in the health services, access to education and the community development itself. The provisions of sufficient and good quality of infrastructure can maintain the balance in the quality of life between rural and urban areas (Bulus & Adefila, 2014). The provision of sufficient and efficient basic infrastructure is the basis of a good quality of life among rural communities. The development of basic infrastructure in the rural areas such as roads can be considered as the medium of communication between the rural communities with the outside communities (Sangwan, 2010). The development of efficient basic infrastructure will enhance the access for social communication devices, the growth in economy and the environment sustainability (Lokesha & Mahesha, 2016). Authors also emphasize the importance of the infrastructure development towards the village communities which is to change the policy of isolation and seclusion. This can be realised with the availability of road network that allows contact to other people. Access

to communication devices such as telephones which will enhance the rural community's communication with the outside world, including borderless world.

This view is in tandem with Anderson & Taylor's (2013) definition of globalization as a process that increases the network and inter-dependency between communities. The World Economic Forum (2014) emphasized on the importance of enhancing the basic infrastructure as the advancement in this aspect will reduce the isolation among different areas and it can also integrate the local market and the local economy with minimal cost incurred unlike in the past.

The supply of treated clean water is one of the necessary facilities for rural communities. An observation study conducted by Taylor, Kahawita, Cairncross & Hensick, (2015) revealed that the provision of basic amenities such as clean water supply is essential as it will determine the communities' health level. The consumption of untreated water can cause users to be infected with cholera which is an infectious disease that is brought by a bacterium called *Vibrio cholera*. This is supported by studies done by Huq, Yunus, Sohel, Bhuiya, Emch & Luby (2010); Lantagne & Lasen (2012); Patrick, Berendes, Murphy, Bertrand, Husain, & Handzel. (2013); Etienne, Tappero, Marston, Frieden Kenyon & Andros. (2013) who also found that water that are untreated, unfiltered and not chlorinated, can cause users to be infected with diseases than are brought by water such as cholera and usually the infected are from the rural areas with the absence of basic amenities and treated clean water resources.

Apart from this, electricity supply is also vital in ensuring the quality of life among rural communities. This is in line with previous studies done in this area, for example a study by Bose, Uddin & Mondal (2013), who examined the impact of the development of electric facilities for rural communities in Bangladesh. They found that the villages that are selected to be supplied with electricity demonstrated positive results in the aspects of production, profit margin, development and business modernisation, women empowerment, quality of life and human capital development. On the other hand, Waeli & Mahdi (2017) felt that the use of alternative power resources that is environmental friendly such as solar power is a good and effective way to help the rural communities in Malaysia to have access to the electricity supplies in substitute with the use of electric generators that are costly and could cause air pollution. The use of environmental-friendly solar power is more beneficial as the resource is renewable.

Through his report in the Global Energy Network Institute 2014, Fong (2014) explained that most of the rural communities that do not have access to electricity supplies are among those in the developing countries. The rural communities with no access to electricity supplies is seen as having a low quality of life compared to their counterparts in the urban areas because electricity supply is a necessity for everyday life. Fong also stated that there are several negative implications caused by the absence of electricity supplies in rural areas such as the inability to store materials in the cold storage especially food and medicines, low exposure of lightings which can impact the education sector and economic productivity, the hindering of modernisation process and the limitation of communication network and its effects during emergencies.

The development of basic amenities is essential for a better quality of life. The inefficiencies in the provision of basic infrastructures such as roads, clean water supply, electricity supply and communication systems can affect the quality of life of the rural communities. It is pertinent to develop the network of basic amenities in the rural areas in order to reduce the gap between rural and urban areas community. Furthermore, it is necessary to reduce this gap in order to maintain the quality of life in general.

The Role of Community Social Workers

The roles and functions of social workers are usually identified through three main approaches which are micro (individual), mass (group) and macro (community). This conceptual paper also discusses the role of community social workers. However, to be able to understand the role, it is essential to first clarify the concept of community development. According to Ploch (1976), the community development refers to the active participations of the community in the programs that are planned for them in the effort to increase the community's quality of life. Twelvetrees (2008) defined community work (particularly in the community development) as the process of assisting the people to improve their own community through collective and autonomous efforts. Christenson, Fendley & Kim (1989) stated that the main objective of the community development is to assist in improving the social and economic well-being.

With this view, it can be concluded that the role of community social workers is to improve the communities' quality of life with the integration and cooperation by all related parties. Based on the community development concept, it is clear that the community social worker plays an important role in enhancing the quality of life especially for the rural communities. However, Skidmore, Thackeray & Farley (1994) contended that to be able to successfully perform the community development, the community social workers need to systematically apply their relevant knowledge related to the community and at the same time, they should organise themselves within the values of social workers practices. Therefore, Rubin & Rubin (1986) described that there are four important roles of community social workers which are educators, catalyst, facilitators, and the linking role.

The role of community social worker as an educator is seen as important in the community development. With the responsibility of an educator in the community development, community social workers should have the faith and beliefs that the community development is aligned with one of the objectives in the social work, which is the to increase the ability and capacity of the people. The finest step to realise this is to develop and encourage leadership among the community members themselves by electing potential and skilful individuals to hold certain roles that can act as the representative for the community who will also collaborate with the related parties. Having the role as the educators in the community is important for a community social worker as this can provide awareness to the community that they could also be the educators in their own community. This role is supported by Checkoway (1995) who stated that in order to succeed, community empowerment needs to be applied through a strategy called "popular education". The objective of "popular education" is to increase and create changes through the critical awareness on certain issues which is felt important to all related parties.

The second role of community social workers is as the catalyst, which refers to the role of community social workers in encouraging other community members to participate and take actions in community programmes. The development of organisations in the community is initiated with the identification of problems which is felt important and critical to the community. Next, the catalyst will include community members to be part of the organisation for them to know each other and develop the sense of belonging towards their community. This is seen important because good relationship among community members is the root for the community strength. The initial steps to be taken by the catalyst are to determine the targets and objectives that are needed to be achieved by the community. This is important because the targets and objectives determined will increase the interest of the community to get involve actively in the

activities that are felt important and concerns the problems which are related to the community themselves. Apart from this, the catalysts will endeavour to change the way of thinking among the community to be more aware towards the issues surrounding them and to encourage the community to participate actively in various issues.

A social worker who acts as a facilitator not only has the role as a driving force for the community to solve problems but the role goes beyond this. A facilitator for the community has a role to monitor the organisations' activities and to ensure that they run smoothly. The role of a facilitator is created when failure in organisations and erroneous actions by the community occurred. Failures that occurred usually are caused by erroneous actions taken due to the lack in experience and the lack of patience in trying to stabilise the organisation. Failures in organisations usually are caused by the lack of an overall observation towards the organisation. At the same time, the lack of interest in the community activities by the community members is also seen as the reason for the failures in some organisations. Therefore, the role of a community social worker as a facilitator in the community can assist organisations to better achieve their success.

The fourth role of a community social worker is as the linking role. A linking role is interpreted through the roles in bridging the gaps between the organisation, the community members and the community itself. There are several ways that this role can be performed. One of it is the acquisition of information on broad issues such as the current politic issues. Nonetheless, to act as a linking role also requires specialised skills on certain tasks which are related to managing cases which requires collaborations with other agencies and institutions. For example, the social worker will collaborate with the police and other related parties in cases such as rape among teenagers.

Farley, Kenneth, Rex and Milton (1982) also identifies the roles of rural social workers. According to them, rural social workers play three important roles. Firstly, to provide services to individual, tribes and families, secondly, to act as the source of expertise and thirdly, as the administrator and manager for social services and community.

The changes and the pressure involving the rural communities explain the important post held by rural social workers. The rural social workers need make their presence visible to the rural communities and inform the communities how they can assist in resolving the problems faced by community. Several issues related to the economy and the changes in the number of community members have affected the life of the community members and their families. The pressure from these problems will lead to stress, domestic violence, drug abuse and depression. The social workers services are seen as much required in these situations where these services can assist the community to overcome their problems directly or indirectly.

The second task of a rural social worker is as the source of expertise. The role as a source of expertise is not an easy task. A source of expertise needs to help in optimising the use of scarce resources in the rural areas. As a source of expertise, the creativity in collecting resources and to have various sources of information helps to fulfil the needs of the community with regards to information resources. Social workers must always find alternatives to ensure that they are always following the progress on the programmes provided and funded by the state and federal government.

The role of rural social workers as the administrator and management of the community is focused to align all the social services that are being conducted in the community. As the

management of the community, the rural social workers are responsible to raise new funds to accommodate the needs for the community that have not been fulfilled. The administrative function which is to collect and to find fund resources is a very big and challenging task. A rural social workers must first understand the organisational structure of the community to enable him/her to provide his services without any restriction. This is because the rural community maintains an informal organisational structure and the leader in the community holds more power than the appointed officer. The leader of the community possibly is more respected than the appointed officer.

In overall, it can be concluded that the community social workers play an important role in assisting and developing the rural communities while maintaining good collaboration with the development planner for the community. The community social worker understands the world view of rural communities much better as they are closer to the community and they are working with the community to achieve the objectives that have been set. Therefore, the important roles of the community social workers need to be viewed as aligned with the role of other development planners so that these parties can work together to improve the rural communities' quality of life.

Concluding Remarks

The discussion on the impact of infrastructure development in the rural areas is not only focused on the physical development but at the same time, concerns the efforts in improving the quality of life of the rural communities. The infrastructure development in the rural areas requires collaboration and integration between all related parties especially the development planner and the community social workers. The collaboration of the related parties and the rural communities are essential in achieving success in the rural community development programmes.

Corresponding Author

Incham Manggat, University Utara Malaysia, Malaysia, Email: inchammanggat88@gmail.com

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