

**Makalah / Articles**

**Critical Urbanisation Transitions in Malaysia: The Challenge of Rising Bernam to Linggi Basin Extended Mega Urban Region**

**Transisi Pembandaran Kritikal di Malaysia: Cabaran Membangunkan Lembah Bernam ke Linggi Kawasan Perluasan Pembandaran Mega**

ABDUL SAMAD HADI, SHAHARUDIN IDRUS, ABDUL HADI HARMAN SHAH & AHMAD FARIZ MOHAMED

ABSTRAK

*Alur proses pembandaran di Malaysia boleh dilihat dalam tiga fasa peralihan, iaitu fasa pembandaran permulaan (nascent), fasa pembandaran pseudo dan fasa pengembangan bandar sehingga membentuk perluasan bandar mega. Sudah diterima bahawa pusat bandar moden Negara diwujudkan oleh pentadbiran Inggeris sejak kurun ke-18, walaupun kesultanan Melaka dengan perdagangannya sudah ternama lebih awal lagi. Pusat bandar tersebut merupakan pusat pentadbiran bagi menjamin ketenteraman awam and menjadi tumpuan pelabur Inggeris untuk melombong bijih timah dan penanaman getah, selain menjual barangan keperluan. Cara hidup bandar adalah asing dari pengalaman penduduk setempat. Penyertaan mereka juga adalah pinggir sahaja, melainkan pembesar setempat. Fasa kedua dalam alur pembandaran itu adalah proses pembandaran pseudo, muncul selepas peperangan dunia kedua, yang rata rata menjelmakan kemiskinan tegar; khasnya di kalangan migran dari desa yang datang memperdagangkan tenaga tanpa kemahiran, relevan kepada keperluan pekerjaan di bandar. Kawasan setinggian dan sesak menjadi tumpuan. Justeru kehidupan mereka pun jauh ketinggalan. Fasa ketiga kelihatan berkembang selepas Dasar Ekonomi Baru (1970) yang berlaku dari pembukaan Negara kepada pelaburan langsung luar. Perindustrian untuk eksport dan limpahan pembangunan sejak itu telah menggalakkan pertumbuhan dan perluasan kawasan terbandar sehingga membentuk kawasan perbandaran mega, satu-satunya menganjur dari lembah Bernam di utara –Tanjung Malim, menganjur ke lembah Linggi di selatan, Negeri Sembilan dan Melaka.*

*Kata kunci: Transisi perbandaran; fasa pembandaran permulaan (nascent) dan pseudo; kawasan pembandaran mega; kehidupan bandar; masalah pembandaran mega*

ABSTRACT

*A three phase urbanisation transition is proposed to capture the urbanisation path shown by urban behaviour in the country; namely the phases of nascent, pseudo and the rise of the extended mega urban region. It is recognised that modern urban centres in the country were founded by the British administration of the country as from the 18<sup>th</sup> century, albeit the existence of the Melaka empire in earlier centuries. These urban centres were mainly administrative centres to administer law and order in order to sustain the exploitation of tin and rubber production, in addition to the provision of goods and services. Urban life in these centres were generally 'foreign' to the conception of life of the local people who participated marginally in the market economy controlled by British capital. The second urbanisation transition is the shift from the nascent urbanisation phase moving into the phase of what we have been widely referring to as the pseudo-urbanisation phase, taking place roughly after the end of World War II, when the country witnessed the movements of rural youths, dominantly males at first, to seek jobs in the limited and fragmented urban labour markets. Urban poverty was rampant. The third critical transition to the urbanisation experience of Malaysia lies in the outcome of the New Economic Policy (NEP), 1970 and the subsequent development policies after the NEP. The development policies, strategies, programs and activities produced widespread social, economic, environmental and spatial changes, seen in the growing extended mega urban region, stretching from the Bernam river basin on the Perak-Selangor border to the Linggi river basin bordering Negeri Sembilan and Melaka.*

*Keywords: Urbanisation transition, nascent and pseudo urbanisation experiences, mega urban region, urban life, mega urban problems*

## INTRODUCTION

Critical urbanisation transition brings forth the idea that the Malaysian urbanisation experience does not proceed in a smooth linear fashion from the founding years of modern urban centers in the country to the present state of urban development-dominated by urban conurbations and formative extended mega-urban region. There are transitions and perhaps critical ones too in the overall space – time urban growth and hence in the Malaysian urbanisation experiences. “Urbanisation transition” sets out the notion that the urbanisation experience of a country has moved from one condition to another while ‘critical’ in the urbanisation transition context entails a decisive turning point from one condition to another, in Gladwell’s terminology – a tipping point (Gladwell 2000). Reading the phrase ‘critical urbanisation transition’ in the context of the Malaysian urbanisation experience expresses the presence of decisive turning points in the march of the Malaysian urbanisation expansion. This article is set within the context of critical transitions in the history of urbanisation in the country. It argues that external drivers working with ‘local’ capitals promote the rise of towns and cities at first, then the expansion of cities and lately the rise of extended mega-urban regions. All these drivers can be set in the state, market and society relations. A tipping point in the dimension of the relationships that trigger a new energetic development and change in the spatial direction of the urbanisation development is the outcome of changing development policies of each period. Throughout the period of founding of towns and subsequently the growth of towns and cities shows also transitions in the rise of modernity for the urban peoples whose experience began with rural self sufficient agricultural activities to the present metropolitan lifestyles. Today cities become the windows to global linkages and interdependence; no one city can survive on its own, and thus each city commands huge carbon footprints.

True to all cities, Malaysian cities are centers of economic growth and social development too; town and city growth then is beneficial to the country. However, the benefits become problematic when they are not able to be shared fairly across the geographical regions and among all levels of the Malaysian society. Although the Malaysian policy makers (Malaya 1956 to Malaysia 1986) had constantly made balanced development as its priority since Independence (1957), class bias (Jomo 1986) in the redistribution process often times emerges to complicate the attempt to raise the overall quality of life of Malaysians. Since the 1990s when the concept of sustainable development has begun to embed all development initiatives in countries around the world (WCED 1987), Malaysia has also accepted the sustainable development framework to charter its future development initiatives. We are made aware of the need to protect the environment and natural capital while going all out for

economic growth to pay for social development. For the city habitat, a more ethical life style and consumption is called for to ensure the survival of the environment, the country and the city itself. Our cities today are not free from blames following increasing city environmental degradation.

Overall, the critical urbanisation transition in Malaysia is examined here focusing mainly on its spatiality over time with comments on the life of the urban people as well as the health of the environment. The article introduces a three-phase urbanisation transition framework to account for the urbanisation transition in Malaysia; These phases are the nascent urbanisation, the phase of pseudo-urbanisation and the phase of rising extended mega-urban regions (Abdul Samad Hadi et al. 2009), couched in the changing state, market and society relationship, as explained in the introduction. A change in the government development policy of each phase produces direct impacts on the growth and expansion of urban centers, towns and cities.

## A TEMPORAL ACCOUNT OF THE SPATIALITY OF MALAYSIAN URBANISATION

Urban centers and towns in today’s Malaysia are the outcome of British administrative hegemony for over 200 years, encompassing parts of the period of western colonial era in the country. The age of Malay Sultanate centering on Melaka crumbled down under the siege of an earlier colonial western power – the Portuguese in 1511; later the Dutch contested and replaced the Portuguese until the 18<sup>th</sup> century when the British and the Dutch agreed to delineate the areas of their suzerainty (1824)-the Dutch in what is now named as Indonesia and the British over Peninsular Malaysia, Sarawak and Sabah.

During the golden age of the Sultanate of Melaka, the local Malays in the Sultanate must have come face to face with urban life and the commercial functions of the port town. As an important trading emporium Melaka offered examples on trading activities and trading systems to the local people. Some locals must have participated in the urban market through selling their agricultural produce. Beyond the port town area people in the hinterlands remained basically rural. This means that the port town of Melaka, despite its global standing in trade at the time could have somewhat limited spatial impacts of urban life on the hinterland people.

### NASCENT URBANISATION

Human settlements that could be regarded as urban centres and cities in pre European Malaysia were already in existence, showcased by the archeological findings in areas such as the Bujang valley in northern Peninsula Malaysia. The ‘Malay(s)ian’ state must have been strong, stable functioning to allow for such settlement to prosper

and the Melaka port to grow to prominent port town. But Malaysian urbanisation, in the contemporary sense, involving the local populations – the Malays and all the Bumiputra population of the Peninsula, Sabah and Sarawak – has a short history. Towns and cities (except for Melaka city) of the country today are the creation of British intervention and administration of the country from about the 18<sup>th</sup> centuries, and peopled mainly in the initial years by Chinese and Indian workers. New port towns were founded on Penang Island (granted to Captain Francis Light in 1786), Melaka (occupied by the British in 1795 but handed over to the Dutch until it was exchanged in 1824), Singapore (Sir Stamford Raffles in 1919) and Labuan in Sabah (ceded by the Sultan of Brunei in 1846) by the British East India Company in the 19<sup>th</sup> century (British Malaya 1930). The port towns were later taken over as the British crown colonies. On the Peninsula the port towns and Melaka were later joined together into the Strait Settlements in 1824. British intervention after that in the affairs of the Malay States secured British capitals to mine tin and gold at first mainly with workers from Southern China. The Chinese in the mines soon invested also in tin mining from accumulation of capitals while working in the mines and from merchants in the more established port towns of Penang, Malacca and Singapore (Khoo Kay Kim 1972; Gullick 2003). Soon townships grew in the interior.

The founding of Lukut town on the coast of Negri Sembilan offered insights into the beginning of a township. Khoo Kay Kim (1972) related that Chinese miners in the Lukut tin mines established two rows of shop houses to serve the increasing Chinese population. The township grew with the expanding tin output. Lukut provided the story line that was duplicated in most of the modern towns in the country. British companies also explored the agricultural potentials in the hinterland, to grow tapioca, coffee and spices in some states at first. However, rubber offered the best prospect since the industrial revolution in the West opened a good demand for rubber. Thousands of hectares of virgin equatorial rain forest were converted to rubber growing.

Both tin and rubber became the economic mainstay of the British administration. Towns were founded as administrative centers offering safety, law and order such that tin and rubber could be produced without disturbances. A string of towns were soon founded in the interior Malay states. By the 1921 Population Census of Malaya (Nathan 1922) a hierarchy of towns were already functioning in the Peninsula (Lim Heng Kow 1978). Initial townships were established by the Brook family in Sarawak while an almost similar urban founding storyline of the Peninsula took place in Sabah.

Who were the initial urban dwellers? The majority were Chinese migrant workers, and Indian support staff especially in the Public Work Department. Some of course worked in the British administrative offices. Where were the local Malays and the Pribumi? The

1921 census indicated that about 30 percent of the Malays were also recorded as urban dwellers in the towns of the Federated Malay States working largely in marginal urban jobs, while the more educated few were in the administrative services as lower ranking staff (discounting of course the few high ranking local officers from high birth). On the commercial section, the domination of the Chinese migrants was almost absolute. The story of Lukut supports this observation again. The Chinese migrants started retail and services functions for the Chinese workers but the local Malays soon were drawn to the towns to fill up available labouring works. The more enterprising villagers nearby began to grow and sell village produce. But the growing Lukut township had one observable long term impact – that is rice production had declined as the able bodied villagers circulated and worked in salaried jobs in the township (Khoo Kay Kim 1972).

If we can project the storyline of Lukut to the rest of the country then, the country's modern townships at the founding stage were alien to the very conception of modern habitat to the local population. Spatially then, the country's rural landscape had started to change – from rural self sufficient lifestyle, often times referred to by the British administrators as being leisurely and lazy in contrast to the hard working miners and rubber producers and those in the commercial areas. The actual townships used up a tiny proportion of the total area of the country but taking the commercial agricultural areas together with the mining areas – whose activities were actually urban in nature, a large area of the country had been transformed to become urban. Commercial attraction had also transformed rural villagers' preoccupation with self sufficient activities towards taking up commercial production for trade. Gullick (1951) observed in his study that in the 1890s bullock carts of produce were seen travelling from Jelebu districts to market the people's produce in Seremban town.

Thus, from the above observation it is clear that the spatial land use change is more than just a transition. It is argued that in the nascent urban development the local people had witnessed a dramatic transition – a critical one that demanded them to change from the sleepy village lifestyle to the stage of being involved in producing goods for international trade. Moreover, these urban centres and towns were initially peopled by immigrants from Southern China and Southern India. These migrants had to make adaptations not only to the new country but also to the new urban frontier.

Physically, rural areas were separated from the towns by distinct administrative boundary and physical differences. The development policy of the colonial administration favoured the urban centres and the urbanised areas where commercial agriculture was dominant. Urban management and planning was strongly for the welfare of the towns. Although road networks had increased accessibility between towns, other urbanised

areas and the rural hinterlands, the increased accessibility did not get translated into improved welfare of the rural traditional village communities.

From the founding years, these urban centers grew but at a slow rate. Except for certain cities with strategic importance such as Penang – a port in the north, Kuala Lumpur as the capital of the Federated Malay States at first and in 1948 as the capital city for the Federation of Malaya, and in 1963 as the capital city for Malaysia, and Johor Baharu, albeit overshadowed by Singapore at first, but after Singapore left Malaysia in 1963, bloomed. The rest of the towns grew slowly due mainly to limited economic activities. As such urban population growth relied mainly on urban fertility complemented by international migration from South China and India and a small percentage of rural to urban migration. Indeed these towns were the sleepy hollows reflecting the nature of the national economy that was vibrant but all export activities tended to by-pass these urban centers. By the end of the Second World War the urban landscape had become widespread throughout the country.

#### PHASE TWO: PSEUDO-URBANISATION

The pseudo-urbanisation phase was more on the internal involution of the larger towns in which the urban market failed to absorb the (over) supply of able bodied rural workers released from over populated rural self sufficient economy all over the country at the end of the Second World War. Having limited education and skills to sell in modern sectors of the urban economy these local rural to urban migrants seized any opportunities available in the modern urban sectors, but mostly in the lower category jobs such as gardeners, sweepers, and general labouring work at first. A more educated group with some skills in the 1960s could command lower ends of the white collar works. Overall, with small pay these migrants moved to existing kampungs in the townships' periphery, kampungs in the towns and available squatter settlements. Poverty was rampant and each urban dweller would fight his way in the towns to survive. McGee (1971) summarised the whole scene as a process of pseudo-urbanisation; an urbanisation process that should theoretically have brought the promised prosperity to the migrants but ended up in the poverty syndrome of city life.

Life was hard for the ordinary migrant families. Heads of household might have to do more than one job to meet sustain basic family needs. Between 1948 till the middle 1970s the pseudo-urbanisation process persisted. The social problems associated with urban poverty is well documented in studies of major squatter settlements around the world in the 1950s-1960s describing the sad state of life in such place as the favelas of Rio de Janeiro (Perlman 1976), Hugo (1978) and McGee (1967) in Southeast Asia. There is no necessity for us to repeat the story here. Nevertheless, we need to remind ourselves

that the squatter settlements in places like Kuala Lumpur might not reach the dimensions experienced by Jakarta or Bangkok in those days but life condition in those squatter settlements reproduced itself in Malaysia. Massive land development to resettle rural poor without land at the beginning of the 1950s in what has become well-known to day as resettlement into FELDA (Raja Muhammad Alias 2009) partly explained the smaller squatter settlements in the country. In addition, the smaller population of the country then (around 6 million in the 1950s) contributed to the controlled size of squatters. Improving the education level of Malaysians after Independence helped improved access to better jobs for these migrants in the city, and future migrants could look forward to better lives in the new habitat.

The urban centers as a whole had increased in areas albeit slowly by the 1960s (Hamzah Sendut 1962a; 1962b). Given that most towns were still embracing the sleepy hollow syndrome towns did not create the necessary growth to expand the labour market in line with the increasing urban population concentration in towns and cities. Slow expanding town population along with limited new housing development did not warrant quick adjustments to township boundary, although state capitals such as Seremban and Kuala Lumpur had gone through administrative boundary adjustments over those years. Social imbalances were noticeable across the urban social and spatial domains; Social imbalances in the city expressed themselves clearly in the political economy of the whole country.

To the extent that the pseudo-urbanisation phase had produced clearer social imbalances across the town areas the country can be said to have moved into an urbanisation transition from the nascent to the pseudo phase. Whether the change in the urbanisation experience is a critical 'transition' is debatable. This is because the overall conditions of urbanisation had changed after the World War II in response to the changing political scenario in the country (inclusive of Sarawak and North Borneo (Sabah). After achieving Independence, the Peninsula in 1957 and Sarawak and Sabah in 1963 the development policy of the new independent government also shifted. The immediate task was to make the development policy served the interest of the new nation-state. But the market was still heavily dependent on foreign investments. In fact the British colonial investments were still dominant in the country. In the initial development strategy the Malay(si)an government took the option to go on import-substitution industries which did not help directly to uplift the welfare of the general population along with rural land development for poverty eradication, modernisation and resettlement of landless people (Malaya 1956). Urban planning and management were very much into servicing the towns more. Social response to the urban biased development policy was visualised through the rural to urban flows.

Urban development across space and through time had brought more people into city life and exposed them to modernity, albeit many from the local migrant population remained marginal to the total city life. Compared to the founding Chinese and Indian urban population these local people were not completely immersed in the city life in terms of commercial involvement, modern trading and high end services. But more of the local population was making their way into city life, slowly but surely to tame the modern city way of life. The pseudo urbanisation in this case was also a critical transition for the local people. It is also true for the 'original' urban people (the Chinese and Indians urban dwellers); they had to make adjustments to the increasing numbers of local rural to urban migrants presence in their midst.

#### THE RISE OF THE EXTENDED MEGA URBAN REGION PHASE

The mega urban region urbanisation phase certainly represents a critical transition from past phases. Overlapping drivers were instrumental in bringing out the critical transition. The period during which the mega urban region phase rose began in the New Economic Policy (NEP) era-1970-1990. The NEP carried the noble twin aims of eradicating acute poverty and restructuring the existing Malaysian society then so that no one ethnic group would be known by the economic function it does (Malaysia 1971). Failures of past balanced development policy of the 1950-1969 to bring out the necessary socio-economic equity had plunged the country into acute social imbalances that cut across ethnic and regions. The country's wealth was largely in foreign hands such as British holdings, leaving the local people with a marginal amount while the Chinese and the Indians with relatively substantive holdings (Puthucheary 1960). Initiatives to overcome the existing acute social and spatial imbalances were centered on the cities through industrialism. Cities then became the promised centers of modernisation and wealth creation which could transform the country into the first world status by 2020. Wealth creation in cities with ethical redistribution across ethnic and spatial domain could have leveraged the rise of true multi-ethnic and unified Malaysia in which the Malays along with the other indigenous populations were able to hold on to a respectable amount of the country's wealth and hence would help solved the nagging social equity problems in the multi-ethnic relations of Malaysia before that. The period covering the 1970s until today saw the increasing role of the private sector. In the recently announced New Economic Model the private sector is to play a major role in the economic development (Malaysia 2010).

Insofar as the NEP had attracted manufacturing industries for export, the policy had been successful in expanding wealth to pay for the necessary social developments, consequently in bringing social and spatial impacts on the urbanisation of the country. By this period the Malaysian urbanisation experience had

progressed from nascent, through the rough years of pseudo-urbanisation to the more challenging large urban regions with rising socio-political and environmental problems.

Today the country has several large urban regions. The three large urban regions began with urban conurbations whereby small urban centers, small towns, municipalities and cities expanded outwards of their original boundaries to merge into each other forming a large agglomeration of urban centers. The three are the Klang valley urban conurbation stretching from eastern Kuala Lumpur – the national capital, to Port Klang covering about 50 kilometers of continual urban land use from the main mountain range to the west coast. The second large urban conurbation is the line of urban areas stretching from Penang Island across to Prai and then stretching to Kulim industrial area in Kedah, and the third conurbation is the Johor Bahru – Pasir Gudang urbanisation surface (Malaysia 1986; 1991; 1996). Over those years much smaller urban conurbations had grown centering on each state capital to new industrial estates covering in some cases more than 20 kilometers from the center of the state capital. To these urban conurbations labour from poorer rural areas had moved in searching for opportunities. Now that the NEP had provided more opportunities for self improvements among the Malaysian society these rural-to-urban migrants of the day had better skills than their predecessors under the pseudo urbanisation phase to participate more meaningfully in the urban economy. In so doing their commitment to the city was more total since they now have better stake in the city life. They have assets in the form of houses, permanent paid jobs and better access to physical and social facilities in these large urban agglomerations. For the future more large urban conurbations are in the making. The development corridor initiatives announced by the Malaysian government in recent years-such as the Northern corridor, the Eastern corridor and the corridor in Sarawak – will promote the growth of more urban conurbations in the coming decades. Hopefully, city life in these corridors will be more sustainable since the economic drivers of these corridors are having activities of high productivity

There are overlapping drivers that help to account for the growth and development of large urban regions in the country. These drivers can be better understood by framing them in the trajectory of the world system that Hopkins and Wallerstein articulated on a long range view of growth and development in the world economy spread from the more developed core economic areas in the North America-Western Europe to the rest of the world, especially to the developing world. (Hopkins & Wallerstein et al. in Chapter 1 (1998). Both the authors argued that the transition in the world economy covering the period from 1945 to 2025 was a continuation of an earlier historical system beginning from about the 16<sup>th</sup> century but with different details in the components of that system. Further they argued that since 1945 the

world economy was growing and expanding rapidly. This was possible when the United States, the rich super power, promoted economic growth through post war rehabilitation program in Western Europe and Japan in the east, later on to countries in Latin America as an attempt to win these capitalist countries and allies ravaged by the Second World War. A decade or so later the economic expansion to other third world countries followed especially during the height of the cold war. The reason was simple in that the United States wanted to stop the advancing centrally managed economy. Non communist states in East Asia benefited from that expansion especially for the four economic tigers of South Korea, Taiwan, Hong Kong and Singapore. The same process repeated itself in the recent rise of the four newer economic tigers in Southeast Asia, Thailand, the Philippines, Indonesia and of course Malaysia.

Malaysia gained from the world economic expansion in the forms of direct foreign investments in manufacturing industrial products for export. Like the other earlier economic tigers the manufacturing industries that came to get established in Malaysia were at first labour intensive industries, often the outcomes of the restructuring of production in the parent companies at home that were twilight firms commanding declining profits. The expansion overseas to East Asia and Malaysia was mainly to induce more profits for the shareholders at home in the West. It has become obvious from the somewhat brief summary of Hopkins and Wallerstein's discussion above, the period covering 1945-2025 saw the beginning, then expanding and later on intensifying manufacturing activities in Malaysia, coinciding with the NEP led development initiatives; But with the rise of Chinese and Indian economies in the new millennium, these mostly foot loose industries have slowly left the country for the two emerging economic giants in Asia. A lesson is learnt that up to 2010 of the period covered by the 1945-2025 economic development cycle in the world system the world economic expansion has benefited Malaysia in many ways. Absolute poverty was dramatically reduced over the 50 years, and thus the development has improved the Malaysian quality of life generally. There are problems too. Going beyond the success economic story in the region there are noticeable issues and vulnerabilities (social, environmental and spatial) in the phase three of the urbanisation transition. All these issues will be examined in the context of the growing extended mega urban region in the section below.

#### FROM THE BERNAM TO THE LINGGI MEGA URBAN REGION

That the Malaysian government has been emphasising the need for the private sector to play an active role in the development of the country testifies to the changing position taken by the government in development. With

the state and private involvement in development, the country has been able to maintain reasonable economic growth over the four decades since the 1970s. The spatial effects of vibrant economic growth and social development activities are registered in emergent expanded urban region.

The first large urban conurbation in Malaysia stretching from the central mountain spine to the west coast has expanded all round to emerge as a potential mega urban region covering the area from the Bernam river basin in south Perak to the Linggi river basin in Negri sembilan bounding an area of about 200 kilometers, north – south and about 40 kilometers east-west, from the mountain spine to the Straits of Melaka with an estimated population today around 7 million people (Figure 1). The Bernam-Linggi embraces the combined drivers to mature the region into a prominent mega-urban region in Malaysia in coming years. Kuala Lumpur maintains its position as the national growth center commanding the dominant Klang valley conurbation. More development drivers entered the conurbation beyond the 1980s that bolstered spatial expansion of urban areas from the existing centers to the north and south following more people coming to make their homes in the area.

Historically, the seed to the growing prominence of the Bernam- Linggi mega urban region in the Malaysian urban landscape could be traced back to the rise of tin producing activities in the Lukut-Sungai Ujung area in the Linggi river basin and later on in the Kanching area in the hinterland area of Selangor and also in the Klang valley around Ampang on a larger commercial scale in the early part of the 19<sup>th</sup> century (Khoo Kay Kim 1972). Khoo Kay Kim stated also that from the early 20<sup>th</sup> century rubber growing in the areas after the failure of tapioca and coffee ventures became another economic driver to the growth of the urban areas. Khoo Kay Kim observed too that mercantile capitals from the established port town communities of Melaka, Penang and Singapore invested in these commercial activities that led to the founding and growing of those towns such as those outlined for Lukut earlier in the article.

It should be pointed out also that the Bernam-Linggi region shares another common ground shown in its political system in the early part of the 19<sup>th</sup> century. Again referring to Khoo Kay Kim (1972) the Sultan of Selangor had jurisdiction over the present Selangor and also the Lukut area stretching to the right bank of the Linggi river for most of the 18<sup>th</sup> century. The Bernam river basin was once the dependency of Perak. It was later annexed in the early 19<sup>th</sup> century to come under the rule of the Raja Muda of Selangor who once chose to live in the area. Much of the Bernam-Linggi basin area was under the Sultan of Selangor while the rest of the Linggi basin was under the Undang of Sungai Ujung. That the Sultan of Selangor and the Undang of Sungai Ujung were pro-business helped in making the Bernam-Linggi basin a primer area of future growth. The British intervention in

the Malay states in the 19<sup>th</sup> century provided the needed push for the other drivers.

A primary set of drivers for urban growth and development after Malaysia's Independence is industrialism. The Klang valley received import substitution industries as early as in the early 1950s (IBRD 1951/1955; Malaya 1956; Malaya 1961). But the tipping point in the leap towards full urban growth expansion with manufacturing industries as a base began in 1970, beginning with the NEP (Malaysia 1971). The NEP in some ways provided a broad development equity framework for all Malaysians in the 1970-1990 years and the spirit of the equity and development framework remained beyond the period until today (Malaysia 1976; 1981; 1986; 1991; 1996; 2001; 2006). Drivers of economic growth and development since the period became diversified. Social, cultural, educational and tourism products to name some have made strong impacts on the country.

country. The labour intensive industries redistributed female workers as well, from the rural areas. More importantly, as the urban population increases urban areas grow; some urban agglomerations become more prominent. With the growth more social infrastructures, amenities ranging from shelters to education at all levels also grow.

With respect to the first impact, the outcome can be spatially visualised. The original Klang valley conurbation of the 1970s grew into the urban-industrial area to the north of Kuala Lumpur centering on Rawang town which used to be a sleepy hollow. In recent decades, urban uses get extended further north heading towards Kuala Kubu town- the police training center for senior officers. Not far north from Kuala Kubu is the township of border town Tanjung Malim which houses the first teachers' training college at the beginning of the 20<sup>th</sup> century. Nowadays a university, and the national car industry- Proton, two portent basic economic functions that can promote faster urban growth in the Bernam basin area. Southwards from the Klang valley urban expansion has completely taken over former rubber and oil palm estates. The urban frontier continues to move south merging with the Nilai industrial area providing the push. Nilai too has grown with the help of commercial development at Nilai 3 and the rise of higher educational hubs for Negeri Sembilan. To date a government university lies close to two private university colleges. More educational institutions are in the midst of being developed in the Enstek housing area – a neighborhood of Nilai township. The urban expansion from Nilai new town is meeting the urban moving frontier from Seremban – Port Dickson urban conurbation. Thus, the urban landscape is continuous from the Proton city in Tanjung Malim in the Bernam to the Seremban-Nilai- Port Dickson rising urban complex, albeit the rural urban fringes of all these towns still show physical rurality but with very urbanised socio-economic activities.

The second impact of the urban landscape expansion in the Bernam-Linggi region will clarify the urbanised nature of socio-economic activities among the kampung people in the region. Straddled between urban areas kampung people are slowly finding themselves being engulfed by urban based activities to which they circulate daily or they still retain their rural agricultural works. But the nature of agriculture that they are involved in is more commercial. A GIS data analysis of economic activities of rural areas covering about 15 miles from a township using data from the 2000 Malaysia Population Census shows that over 50 percent of rural labour engages in urban based activities. Field inspection involving talking to rural people in some parts of the study region confirms our observation. Almost all kampung youths have gone to work in towns and cities leaving elderly folks at home who cannot undertake the long dreary work especially in agriculture.

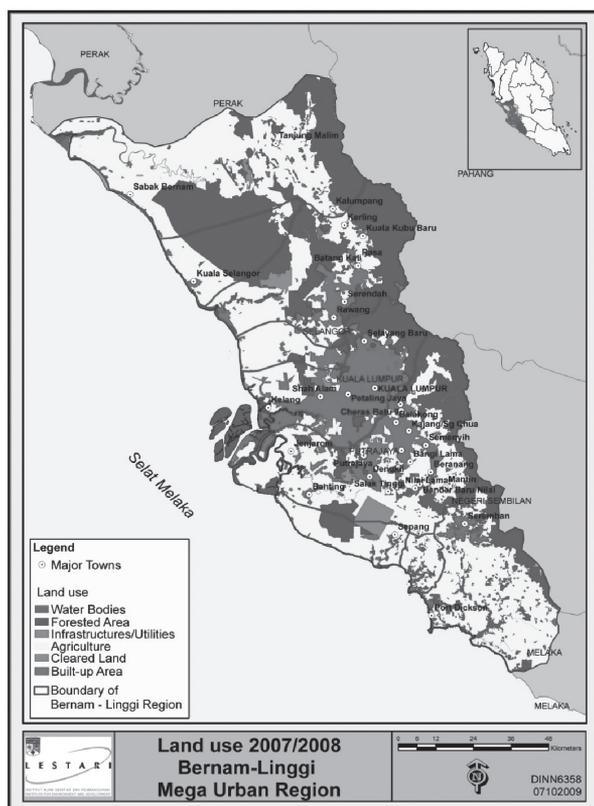


FIGURE 1. Landuse of Bernam-Linggi Mega Urban Region, 2007/2008

Source: Department of Agriculture, various year; GIS analysis

Two broad effects of industrialisation on the urbanisation of Malaysia are noticeable. First, the founding of new industrial areas in older towns and in newly built industrial towns have attracted diversified urban functions among which are new housing areas. Second, massive rural to urban flows in the post war years albeit smaller in total number due to the FELDA land schemes bring direct impacts on urban development and the overall urbanisation of the

So far we have accounted for the perceived advantage of the growing urban areas in the Bernam-Linggi basins. As stated in an earlier section, there are vulnerabilities to area and to people in the mega urban region to which the next section is to address.

It is useful to recall on what has been stated earlier that the incoming foreign direct investments since the 1970s just like those reported in other countries in newly industrialising Asia at the time- brought in parts of the activities, especially those that are no longer profitable in the core industrial areas in the West to the main cities and even to new townships built for these in-coming industries. The preferred locations have many things in common such as close to main ports of entry, areas with highly developed infrastructures and so forth. But as stated earlier these industries were foot loose and labour intensive. When the economic return is no longer sustaining as shown in the last decade or so these industries moved on to more competitive countries with cheaper labour charges. These industries are polluting and ravaging the ecosystem to which the country has to meet the high cost to ameliorate the damaged ecosystem resources and services (DOE 2006). If we include the rising youths and the wider social problems in the mega urban region we are beginning to be confronted by an urbanisation process that is anarchic, somewhat out of control.

#### THE BERNAM-LINGGI MEGA URBAN REGION: LOOKING TO THE FUTURE

Elsewhere the possible outcomes for the future of the Bernam-Linggi mega urban region have been discussed. First is the issue of urban livability; second concerns a search for a new way to come to grip with the processes shaping the mega urban region in the form of urban complexity in which social and environmental processes at the local level – the individuals, families and communities' every day decision making have produced the temporal and spatial growth patterns within the mega urban region. The attempt to understand the processes falls under the study of city complexity (Allen 1996; Batty 2005).

#### CITY LIVABILITY

A recurrent issue about city growth and development revolves around its sustainability in the context of sustainable development. In post Brundtland report on the state of our planet towards the end of the 1980s (WCED 1987) sustainable development has been adopted by almost all countries in the world as an enduring framework for development. At the Earth Summit in Rio de Janeiro 1992 all attending countries had agreed to adopt the framework, and ten years later in Johannesburg in 2002 the framework was again discussed to give

each country the benefits of its own interpretation and needs. The framework has been contested widely but it still stands without rival and therefore remains useful (Dovers 2009).

The sustainable development concept is somewhat complicated and less clear when applied to city sustainability especially with regard to complexity issues. A window to city sustainability is best captured through the concept of city livability, about the daily lives of city people- about their behaviour patterns imprinted on city space over time. We have articulated the concept of city livability for Malaysia elsewhere (Abdul Samad Hadi et al. 2009; 2007). To us it captures the essence of city economic vibrancy such that the city people can sell their labour, getting choice jobs that are generally always available. The city is healthy, socially attractive to live in, safe, green with an enabling framework for an ethical living which is necessary in a world often gripped by extreme social, political, economic, and weather variability. The city then has an agglomeration of possibilities that can facilitate the progress towards realising everyone's potential in life. Viewing city livability from this angle gives us the domain to encompass agents and structures of the city. This domain goes beyond the activities prescribed by the agenda 21 of the sustainable development framework. The three pillars of the sustainable development framework are embedded in the livability, the city quality of life. In short the Bernam-Linggi mega urban region should in the end embrace the livability for the good of all. Above all the environmental problems and issues referred to earlier have to be solved in order for the livability to emerge.

#### COMPLEXITY AND UNDERSTANDING OF URBAN GROWTH

City livability can be linked directly to the issues of city complexity. Not only that the physical structure of the city is complex the city population offers more complexities. The daily demands for goods and services have structured the cities and towns into a hierarchy of settlements – with the largest city having the largest population and the most comprehensive range of services and goods and the smallest town offering the least range of goods and services that commensurate with the smaller total population. Increasing transport availability connects the neighbourhoods within cities and between cities and towns.

It is noted also that since the 1970s housing neighbourhoods had sprung up at a rate never seen before, moving out at first from the main established cities and towns to the periphery and later on to the rural-urban fringes. New towns were also set up to meet the demands from the manufacturing industries, the workers, and subsequently the commercial initiatives. The ease of mobility following the construction of highways and good connecting roads supported by private car ownership policy has promoted the growth of sprawling urbanised

areas along roads and in areas close to the highway. Over the years we have witnessed the traditional villages which were once isolated from one another and from the towns and cities are now being engulfed into the urbanisation spread. Traditional villages close to the main cities and towns provide shelters to those commuters working in the cities and towns. Such villages may show some traditional village self sufficient activities but for most villagers they are undergoing change to an urban way of day to day living. The villagers then are best described as undergoing the 'in situ urbanisation' process (Brookfield, Abdul Samad Hadi, Zahrah Mahmud 1993). The villagers remained firm in their villages but since they get access to all urban jobs, facilities and amenities they could circulate daily from the village to these urban jobs, thus keeping living cost under control.

Connecting back to the issue of city complexity, the myriad decisions made by the 7 million people in the Bernam-Linggi mega urban region to live in their chosen neighbourhoods of larger towns and cities, municipalities, new towns and urban fringe villages have to be studied. We view that the people's behavioural responses to the urban condition and their subsequent decisions to stay influence the manner and patterns of city growth in the Bernam-Linggi urban region. It is widely held that city complexity is in parts path dependent, suggesting that past behaviour patterns tend to influence future direction. An understanding of the process shaping the subsequent urban growth patterns is crucial. The growth process from the city center to the periphery may not necessarily be linear; It may assume other patterns. Such scientific knowledge is crucial to our search for an understanding of the dynamic social processes in urban growth and thus urban planning for orderly outcomes for a livable Bernam-Linggi mega urban region.

#### MANAGING THE MEGA URBAN REGION

Beyond planning for the livable mega urban region, there is a need to manage and govern the region. The main issue is who is to do what, and whether there should be sharing of responsibility in making decisions about many things in the mega urban region. There are options: one, to go on managing it as it is practiced at all levels of administration, or two, to develop partnership between the public, private and the mega urban region citizen. Another option is to develop an entirely new governing structure with shared responsibilities among the whole hierarchy of institutions, stake holders and the government (Pierre 1999). While researching the Seremban Urban Region we argued for an entrepreneurship approach to managing the city (Abdul Samad Hadi et al. 2009). Given that each city and township in the extended Bernam-Linggi mega urban region house multiple forms of capital that generate the economy serving their respective owners they will still remain the main player in the city. But if the entrepreneurial approach is cast in a more open multi-

level partnerships with shared common core values for a livable extended mega urban region ordered by a more ethical consideration of sharing the wealth, the extended mega urban region may grow for all people in the area- the native city people, transients and visitors; the social dynamics can then be channeled to realise the promise of city livability, showcasing urban citizen living amidst high quality of life.

#### POLICY IMPLICATIONS OF THE MALAYSIAN URBANISATION TRANSITION

It has become clear that more Malaysians are now making the urban areas as their home base. Equally clear is the trend that major cities and municipalities in the area stretching from the Bernam river basin to the Linggi river basin are growing out from their periphery into the surrounding rural areas, creating extended mega-urban. Such extended urban areas always lie outside the administrative boundaries of existing cities and municipalities but therein lies a number of contested problems such as conflicting land uses, environmental conflict, social issues, transport demand and on assessments (McGee 2009).

The existing urban management with respect to urban services and others end at the city or municipality's administrative boundary. Beyond the boundary, the land comes under a different administrative body. An urgent issue arising from the circumstances is about policy matters. Currently, the Malaysian urbanisation policy is more about the urban physical wellness, while the National Physical Plan concentrates more on delimiting the physical boundaries, more for the purpose of development. There is a need for a more inclusive urban policy that will see to the extended urban areas being integrated with the city or municipality's management system.

#### CONCLUSION

The Bernam-Linggi complex urban area is slowly evolving into a continuous urban landscape forming a formidable mega urban complex centering on Kuala Lumpur – Putra Jaya as the national capital. Overlapping development drivers focusing on the economic, social, cultural, health, education, recreational and physical infrastructures have helped to prop up the initial advantage enjoyed by the Seremban-Kuala Lumpur development axis in the 18<sup>th</sup>-19<sup>th</sup> centuries to produce the region as it is today. That the population of the region continues to attract more people and in turn they influence the physical expansion of all urban areas moving outward beyond their legal administrative boundaries engulfing along the way isolated kampungs forming a huge urban landscape is there for all to see. There is need to examine the role of the

individuals, the families and urban communities as well as those in the adjacent kampung communities in shaping the growth patterns and the physical structure of the present region. What we have tried to show here is to look at urbanisation from below; embedded in this is the idea of city complexity; the city complexity will determine the nature of city livability and its sustainability. Then there is need to evolve the management style such that all people can get involved in ensuring the regions' livability, in terms of its economic, social, cultural and environmental vibrancy. For now, there are times that the urbanisation process in the Bernam-Linggi mega-urban region appears anarchic; there are occurrences seemingly out of control.

## REFERENCES

- Abdul Samad Hadi, Shaharudin Idrus, Abdul Hadi Harman Shah & Ahmad Fariz Mohamed. 2009. *Dayahuni Bandar (Urban Livability)*. Bangi: LESTARI and Museum Negeri Sembilan.
- Abdul Samad Hadi, Abdul Hadi Harman Shah, Shaharudin Idrus, Ahmad Fariz Mohamed & Norlida Mohd Hamim. 2007. *Modelling Local Urban Sustainability: Developing a Conceptual Framework for Sustainable Development*. Round Table Dialogues No 15. Bangi: LESTARI.
- Allen, P.M. 1996. *Cities and Regions as Self-Organizing Systems: Models of Complexity*. London: Taylor & Francis.
- Batty, M. 2002. *Cities and Complexity*. Cambridge: MIT Press.
- British Malaya. 1930. *Handbook to British Malaya*. London: Waterlow & Sons Limited.
- Brookfield, H., Abdul Samad Hadi & Zaharah Mahmud. 1991. *The City in the Village*. New York: OUP.
- Department of Agriculture. 2008. Land Use Map.
- Department of Environment (DOE). 2006. Annual Report 2005.
- Dovers, S. 2009. *Implementing Sustainable Development: Long Term Policy and Institutional Challenges*. LESTARI Public Lecture Series No 6. Bangi: LESTARI Publisher.
- Gladwell, M. 2000. *Tipping Point*. New York-Boston: Little Brown & Company.
- Gullick, J. M. 1951. The Negri Sembilan Economy of the 1890s. *Journal of the Malayan Branch of the Royal Asiatic Society* 24(1): 38-55.
- \_\_\_\_\_. 2003. A History of Negri Sembilan. Malaysian Branch of the Royal Asiatic Society. Monograph 33. Bandar Puchong Jaya. Selangor.
- Hamzah Sendut. 1962a. Patterns of Urbanisation in Malaya. *Journal of Tropical Geography* 16: 114-130.
- \_\_\_\_\_. 1962b. The Resettlements in Malaya. *Geography* XLVII: 41-46.
- Hopkins, T.K. and Wallerstein L. 1998. The World System: Is There a Crises? In *The Age of Transition: Trajectory of the World System*, edited by Hopkins. T.K., Wallerstein, et al., 1-12. London: Zed Book.
- \_\_\_\_\_. 1998. The World System: Is There a Crises? The Global Picture. In *The Age of Transition: Trajectory of the World System*, edited by Hopkins. T.K., Wallerstein, et al., 209-225. London: Zed Book.
- \_\_\_\_\_. 1998. The World System: Is There a Crises? The global Possibilities, 1990-2025. In *The Age of Transition: Trajectory of the World System*, edited by Hopkins. T.K., Wallerstein, et al., 226-243. London: Zed Book.
- Hugo, G.J., 1978. *Population Mobility in West Java*. Yogyakarta: Gadjah Mada University Press.
- International Bank for Reconstruction and Development (IBRD) 1951. IBRD Report. *Draft Development Plan of Federation of Malaya*. Kuala Lumpur: Printed at the Government Press by H.T Rose.
- International Bank for Reconstruction and Development (World Bank). 1955. *The Economic Development of Malaya*. Baltimore: The Johns Hopkins University Press.
- Jomo, K. S. 1986. *A Question of Class: Capital, the State and Uneven Development in Malaya*. Singapore: Oxford University Press.
- Khoo, Kay Kim. 1972. *The Western Malay States, 1850-1873 : The Effects of Commercial Development on Malay Politics*. Kuala Lumpur: Oxford University Press.
- Lim Heng Kow. 1978. *The Evolution of the Urban System in Malaya*. Kuala Lumpur: University of Malaya.
- Malaya. 1956. *First Malayan Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1961. *Second Malaya Plan*. Kuala Lumpur: Govt. Printer.
- Malaysia. 1966. *First Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1971. *The Second Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1976. *The Third Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1981. *The fourth Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1986. *The Fifth Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1991. *The Sixth Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 1996. *The Seventh Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 2001. *The Eight Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- \_\_\_\_\_. 2006. *The Ninth Malaysia Plan*. Kuala Lumpur: Govt. Printer.
- McGee, T.G. 1967. *The Southeast Asian City*. London: Bell.
- \_\_\_\_\_. 1971. *The Urbanisation Process in the Third World*. London: Bell.
- \_\_\_\_\_. 2009. The Spatiality of Urbanisation. LESTARI Public Lecture No 8. Bangi. LESTARI. Universiti Kebangsaan Malaysia.
- Nathan, J. E. 1922. *The Census of British Malaya (The Straits Settlement, Federated Malay States and Protected States of Johore, Kedah, Perlis, Kelantan, Terengganu and Brunei 1921)*. London: Waterlow & Sons Limited.
- Pearlman, J.E. 1976. *The Myth of Marginality: Urban Poverty and Politics in Rio de Janeiro*. Berkeley: University of California Press.
- Pierre, J. 1999. Models of Urban Governance: The Institutional Dimension of Urban Politics. *Urban Affairs Review* 34(3): 372-96.
- Puthucheary, J. J. 1960. *Ownership and Control in the Malayan Economy*. Singapore: Eastern Universities Press.

Raja Muhammad Alias. 2009. *The Architect of FELDA*. Bangi: Penerbit UKM.  
WCED. 1987. *Our Common Future*. Oxford: Oxford University Press.

Abdul Samad Hadi, PhD  
Institute for Environment and Development (LESTARI)  
Universiti Kebangsaan Malaysia (UKM)  
43600 Bangi  
Selangor, Malaysia  
e-mail: [asamad@ukm.my](mailto:asamad@ukm.my)

Shaharudin Idrus  
Institute for Environment and Development (LESTARI)  
Universiti Kebangsaan Malaysia (UKM)  
43600 Bangi  
Selangor, Malaysia

Abdul Hadi Harman Shah  
Faculty of Social Sciences and Humanities  
Universiti Kebangsaan Malaysia (UKM)  
43600 Bangi  
Selangor, Malaysia

Ahmad Fariz Mohamed, PhD  
Institute for Environment and Development (LESTARI)  
Universiti Kebangsaan Malaysia (UKM)  
43600 Bangi  
Selangor, Malaysia