

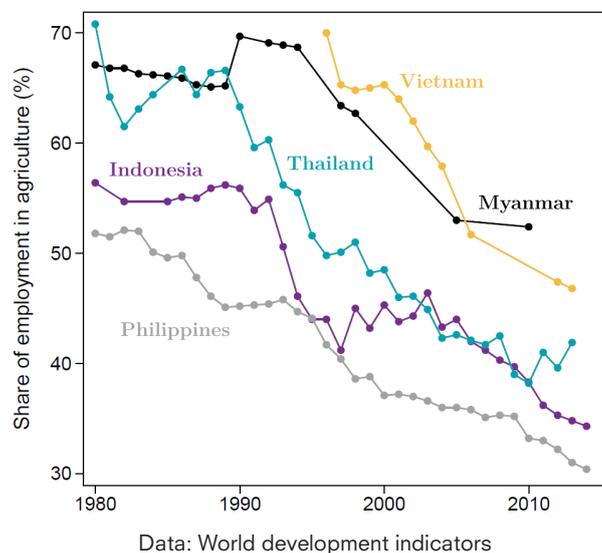
Urban Myanmar



1. Introduction

Cities conjure a sense of commotion. They can be hives of economic activity and interaction or centres of congestion and crime. Today, the majority of the world’s population lives in urban areas. Before the industrial age, cities as we think of them today were less common. There were hubs for commercial trade and administration, but people resided in rural areas, engaging in subsistence agriculture. Advances in technology from the industrial era created a highly productive sector: manufacturing. Higher paying manufacturing jobs drew labour out of the countryside, and modern cities were born (Figures 1, 2). As they grew, the focus shifted to meeting the needs of modern life: the services sector took centre stage.

Figure 1: Asia’s structural formation



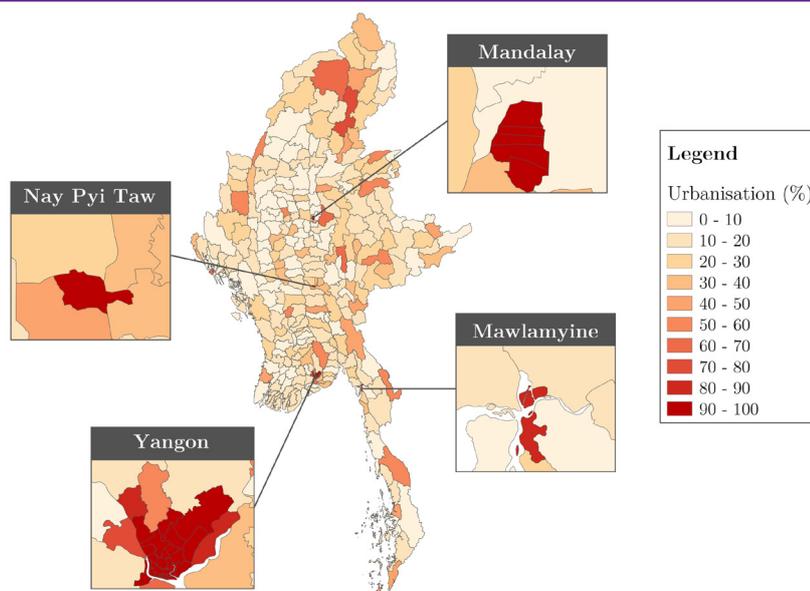
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Cities have tremendous economic potential because they cluster people and activity. Firms and workers can more easily find each other. Transaction costs are lower, with inputs for production never far away. Dense networks spread ideas and technologies, promoting innovation. The outcomes reach beyond economics; the concentration of people allows an inclusive and democratic society to emerge. For a city to blossom these interactions must occur frequently and effectively. The result is higher productivity and a higher quality of life -- but only if cities are well-managed. Myanmar's rapidly growing urban centres makes this a pertinent area for research.

Urban areas can be productive and liveable places if policymakers address key issues; land, transport, finance, employment, and service provision are some. A functional city has an appropriate investment balance between residential, commercial, and industrial structures. For these investments to work, there must be an effective land market, appropriate regulation, good public services, and adequate public finances. Without these elements, the benefits of cities are undermined.

Figure 2: Share of people living in urban area by township



Data: 2014 census

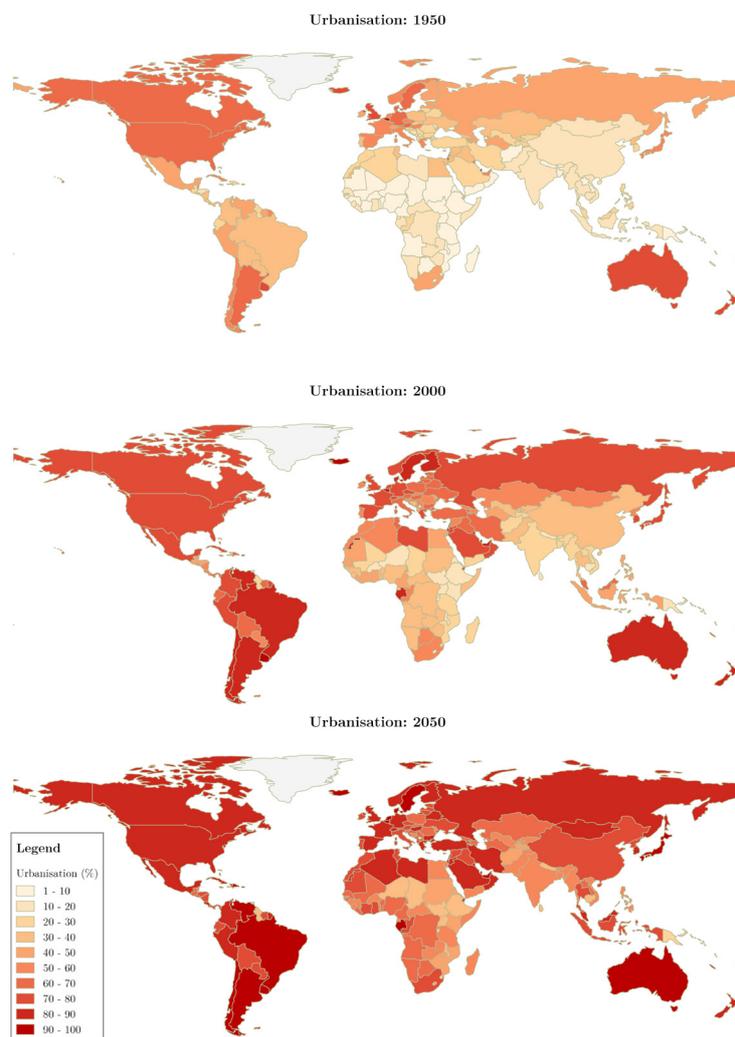
Cities also have a long lifespan. Their shape, once built, is difficult to change: the physical structure of a city can remain for more than 150 years (Hallegatte 2009). Urban planning decisions therefore have long-run implications for a city. The shape of downtown Yangon, with its many vertical streets, reflects old colonial constructions under British rule -- a shape which will remain in the future. Good planning shifts the balance between a successful and an unsuccessful city. How land is allocated under zoning policies, how the city expands, how infrastructure links are built, and how the urban landscape is made resilient to climate change are top planning concerns.

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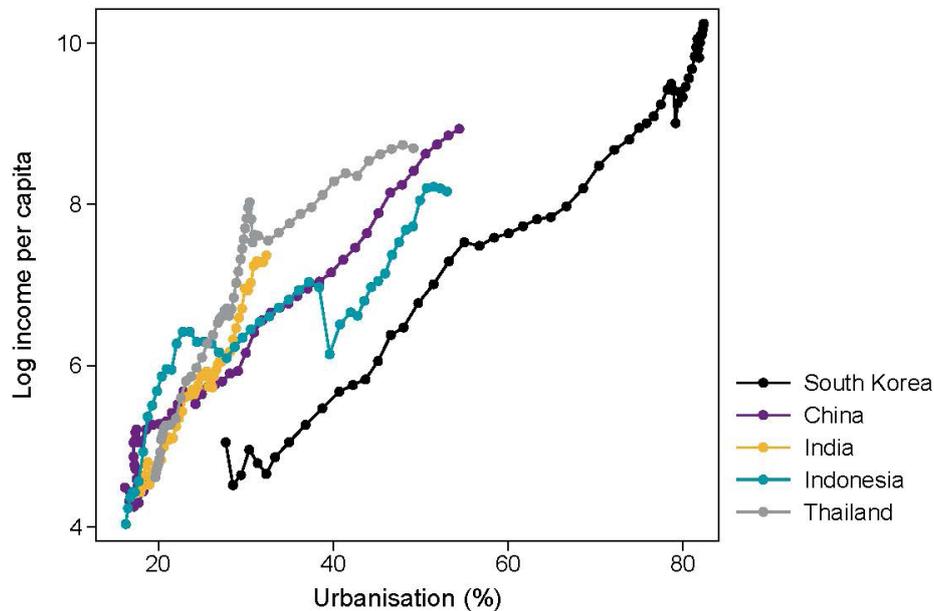
Managing rapid urbanisation is complex and few cities have done it well. This brief outlines how cities can become drivers of economic growth and how their negative effects can be avoided. Institutions and finance, central to both aims, are discussed at the end. Other cities' experiences help draw lessons for Myanmar going forward, and are integrated throughout. The paper ends with a research agenda for Myanmar.

Figure 3: Percent of people living in urban areas



Data: UN DESA

Figure 4: Urbanisation and log GDP per capita since 1960 or when data first available



Data: World Development Indicator

2. Making cities work for development

Cities can be both productive and liveable. The advantages of cities depend on their scale. Greater concentrations of people create more frequent economic and social interactions which boost productivity and offer a higher quality of life. This narrative only unfolds if cities are planned, serviced, and regulated well (Venables 2015a). Figure 4 shows the relationship between income and urbanisation rates: development goes hand-in-hand with urbanisation. Myanmar remains rural, with less than one-third of the population living in urban areas. This section looks at the importance of urbanisation for growth and how cities deliver long-term increases in livelihood.

2.1 Urbanisation as a national productivity strategy

Densely populated areas tend to be more productive. There are two main reasons why: first, dense areas themselves improve productivity, and second, productive places attract more people, especially talented ones. We see this in the large migration into Yangon and Mandalay. Determining which source is more important is hard, but both show the importance of cities as drivers for economic growth.

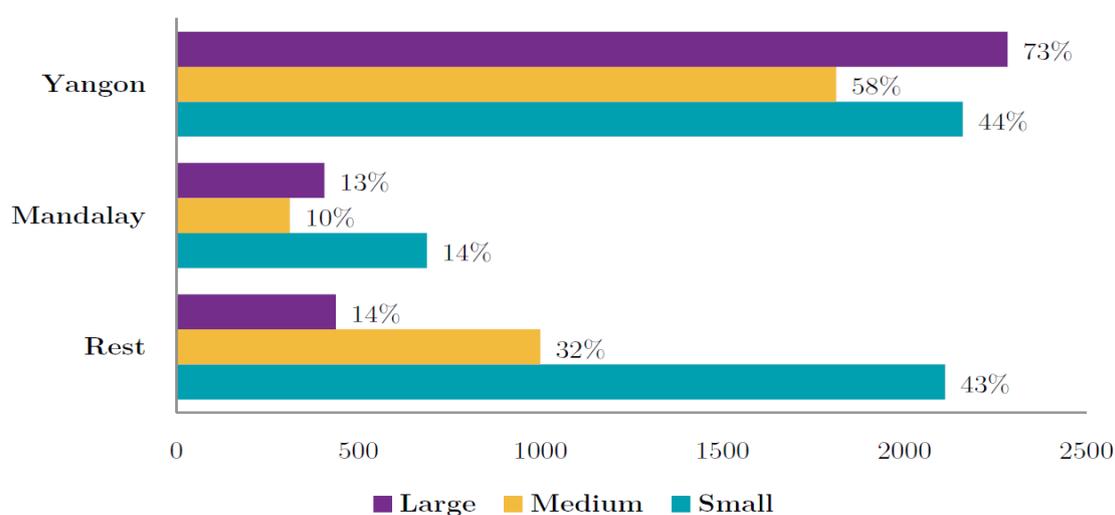
Three main channels make urban areas productive. First, local product and labour markets are deeper. Workers and firms which cluster in cities are able to find or fill jobs more easily. Hiring new workers (or finding new jobs) is quicker when there are more people or businesses in the area.

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The same story applies for sellers and buyers: greater density helps the sellers of goods, but also the prospective buyers looking to purchase items. However, for a city to benefit from density, some balance is necessary: too many workers chasing too few jobs pushes individuals into the informal economy, or worse, into poverty and, potentially, crime.

Figure 5: Firms in industrial zones, from Robertson & Seng Taung (2015) and DISI. Small 'industrial' firms are between 10-15 workers, often family owned



The second productivity benefit comes from the availability of intermediary inputs and services. As a city grows, it might develop clusters of certain firms, such as manufacturing plants. This agglomeration lowers the transport costs for moving goods into and out of the area.¹ A large grouping of firms also encourages the start-up of new enterprises which service the cluster. These businesses might provide essential inputs for the group, complementing on-going activities.

Industrial zones and special economic zones (SEZs) throughout Myanmar are examples of agglomeration.² Industrial zones do not offer additional incentives for firms (mostly in garment manufacturing), but they are meant to act as beacons for industrial activity. SEZs offer a variety of benefits reduce trade costs, raise productivity, and jumpstart manufacturing activity (Khandelwal & Teachout 2016). New businesses will also sprout up to service the zones, especially for real estate developers and retailers.

1 To see why, imagine many garment manufacturing firms spread out, each purchasing fabric for production. The cost of delivering the fabric to each factory individually would be much higher than if they were all in the same location. The person tasked with delivering the fabric can gain from them being located closely, and this influences the price they charge.

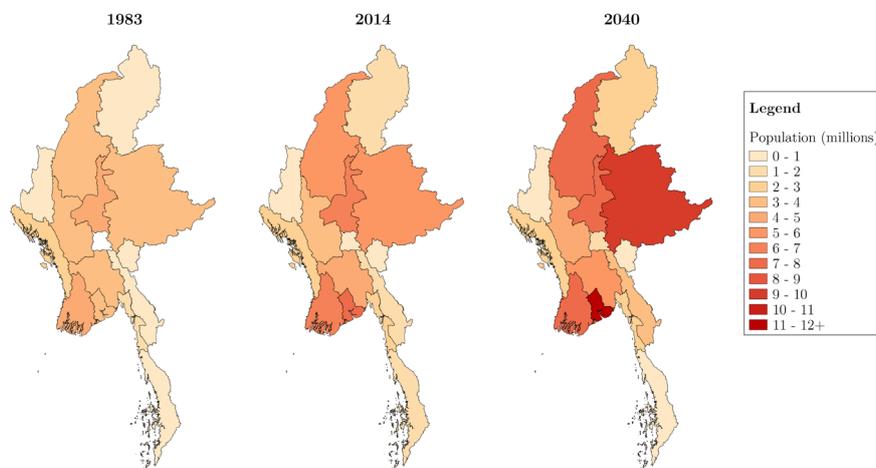
2. There are about three dozen current industrial zones, with more planned. Many are in the proximity of Yangon and Mandalay. There are also three special economic zones (SEZs).

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Approximately 11,000 registered firms exist in industrial zones in Myanmar, with over half in Yangon alone (Robertson & Seng Taung 2015).³ The majority of large registered firms are in Yangon. Many listed firms are no longer active, especially outside of Mandalay and Yangon. Field studies cite poor demand for the lack of activity in these zones; failed businesses in the zones dissuade new ones from coming in (Robertson & Seng Taung 2015). A lot of land remains idle, likely being held for speculative purposes.⁴ Few, if any, incentives exist for a firm to locate itself in an industrial zone by choice.⁵ This highlights how important supportive regulatory and institutional frameworks are.⁶ Myanmar's Thilawa SEZ is one example where this has been done well. A favourable business environment attracts investors. In Thilawa, all permits and licenses are acquired quickly and in one place, imports are duty-free, and transport and energy infrastructure is provided. These zones are also fertile ground for policy experimentation (altering policies to uncover the key ingredients for creating a healthy business environment). Policy experimentation has been pervasive in Chinese SEZs, with many of the country's reforms originating from its zones (Khandelwal & Teachout 2016). China has also focused on developing industrial parks, creating so-called edge cities. Zones featuring firms with higher human capital, greater agglomeration, and fewer state-owned enterprises saw greater spillover effects to neighbouring regions (Zheng et al. 2015), an experience Myanmar can learn from.⁷

Figure 6: Population growth in Myanmar



Data: Government of Myanmar projections

3. Registered has been emphasised because there are considerable concerns over data accuracy. The registration database is not updated regularly, and is certainly a weak indication of actual activity - at best.

4. The Yangon Region Government has recently completed a review of land use in industrial zones. About 40% of land is believed to be held for speculative means. See more, 'Yangon officials wind up industrial land review', The Myanmar Times, July 25, 2016.

5. There are even disincentives: firms operating in industrial zones pay a higher electricity tariff than outside the zone. Residential tariffs for electricity are low, while industrial rates are much higher. For an overview, see Dobermann (2016).

6. A lot of businesses were required to move into industrial zones following government efforts to move industry out of residential areas. With the benefits of such zones not articulated, many stayed out.

7. This relates closely to the SEZs, where a primary concern is how benefits in the zone can be transferred to surrounding areas.

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Human capital is the final channel through which cities benefit productivity. The promise of higher wages attract workers to cities. Wages in cities are higher because skilled workers gather there (Young 2013). Interactions between skilled workers lead to innovation and new ideas, increasing technology adoption and raising the complexity of firm operations. Skilled and unskilled workers also complement each other: contact between them results in knowledge transfer, raising the overall stock of human capital.

Skilled workers are in short supply throughout Myanmar, with foreign investment and industrialization driving up the demand for talented labour even higher. Guaranteeing that the skills demanded by firms matches with the skills of the labour force (now and in the future) will be a challenge. Population growth and urban migration will require the creation of new and suitable jobs. A leap forward in educational attainment (secondary and tertiary) is the first step. The Comprehensive Education Sector Review outlines measures for accomplishing this. Technical and vocational training programmes are also important. A draft technical and vocational education and training (TVET) law is being considered, with the former Ministry of Science and Technology taking the leading role.⁸ However, current programmes in Myanmar have low uptake as the requisites for joining are quite high.⁹ Because a large part of the labour force is ineligible for training, it becomes difficult to match employer demands with existing skills.

Table 1: Sector contribution to real GDP growth (%)

	2011/12	2012/13	2013/14	2014/15
Agriculture	-0.2	0.6	1.2	1.8
Industry	2.7	2.2	3.2	2.5
Services	3.4	4.5	4.2	4.2
Total growth	5.9	7.3	8.6	8.5

Data: World Bank

The services sector is the largest contributor to Myanmar's growth (Table 1). New commercial services arising alongside urban growth in Yangon and Mandalay are promising for future development, but hinge on having sufficient human capital.

Only by developing its urban centres can Myanmar sustain its high levels of economic growth. Yangon is naturally suited to take a leading role in commercial and financial services and light export-oriented manufacturing due to its ports. A good example where Yangon is benefitting from density and interaction is the in technology start-up scene. Nascent, but growing, it is a hub for innovation at a time when many users are acquiring their first smartphones and connecting to the

8. Following changes in March 2016, the Ministry of Science and Technology is now under the Ministry of Education.

9. Some programmes requiring passing the same matriculation exam needed for university education, naturally excluding a large share.

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workers.

There are valid concerns that large cities like Yangon may dominate activity at the expense of other parts of the country. This experience is not unique to Myanmar; in the early stages of industrialization, large cities are the focal points of the economy. They develop fast, attract foreign investment, and import the latest technologies for manufacturing. Because they are at the heart of all activity, firms located here have an advantage. Modern garment manufacturing firms in industrial zones bordering Yangon or industries in the Thilawa SEZ resemble this.¹¹ Over time, as the manufacturing sector becomes more established, the technologies used in production standardise. Best practices spread, as competing firms mimic the leaders.

Standardisation moves industrial production to other parts of the country. Small and medium-sized cities enter the sector and become highly specialised hubs for manufacturing. This paints the big picture of urban hierarchies: larger cities take the lead in manufacturing, but later switch to focusing on tradable services. Industrial production is pushed towards peri-urban areas, until highly specialised small and medium-sized cities fill the gap and take over manufacturing work. South Korea and Japan are great examples of this (Henderson 2012). In South Korea's case, widespread transportation and communications infrastructure investments in the early 1980s helped spread the benefits of agglomeration to less dense areas (World Bank 2013). Areas further away from cities were able to benefit, and by offering cheaper labour and cheaper land, took over the manufacturing reins. Decentralisation of the manufacturing sector has also been seen in India, where denser areas over time become more service-oriented (Ghani & Kanbur 2013).

A National Spatial Development Framework (NSDF), part of a National Urban Policy (NUP), is being prepared by the Ministry of Construction (MoC) with support by UN-Habitat. It develops a hierarchy of cities to arrive at a long-term plan for urbanization across Myanmar (UN-Habitat 2016) (see Figure 7). Primary tier cities -- Yangon, Mandalay, and Naypyitaw -- are national strategic growth centres. Secondary cities are regional nodes with strategic importance as clusters transportation and commercial activities. Agro-industrial centres, designed to link rural economies with industrial processes, form tertiary cities. Lastly, the development of border towns can boost trade and support national reconciliation; so-called special purpose cities.

On aggregate, Myanmar remains rural: only a third are in cities. Traditional industry (manufacturing) is likely to be a big driver of future urbanisation. This is apparent in the wake of plateauing natural resource revenues and a growing manufacturing sector.¹² The role of tradable services depends on Myanmar's ability to increase its human capital. The policy challenges are wide: providing enough jobs for those migrating into cities, establishing good infrastructure (housing, sewage systems, electricity, etc.), and building a clear institutional framework for management. The narrative behind urban

11. For a good overview on special economic zones, see Khandelwal & Teachout (2016).

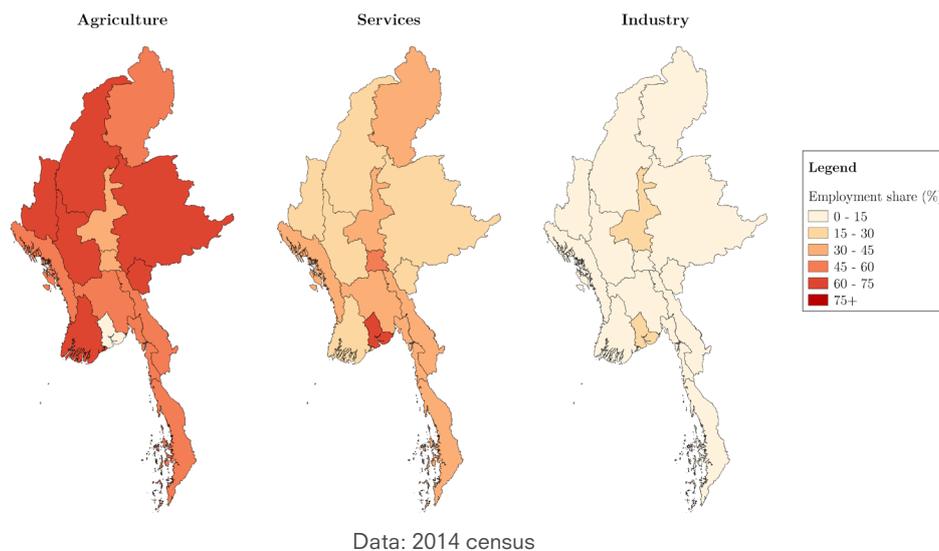
12. The case for jade is uncertain, given the lack of information about this sector. New natural gas supply is not expected until the operation of the M3 gas field around 2019 (Dobermann 2016).

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hierarchies makes these planning questions of great urgency for today's cities (Yangon, Mandalay), but also makes them relevant for the emerging secondary cities (Myitkyina, Mawlamyine, etc).

Figure 8: Employment share by sector



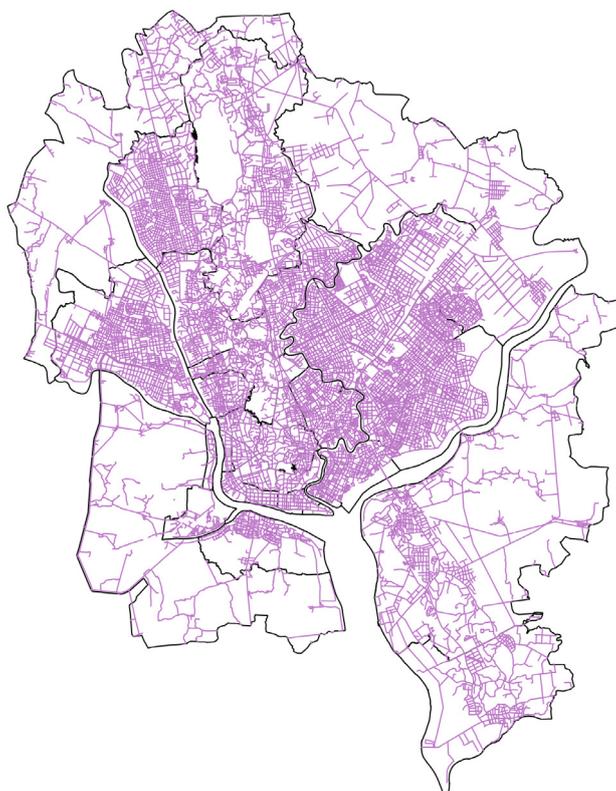
3. Minimising the risks of cities

Density comes with downsides. Congestion is the clearest, felt almost in real-time as the city grows. Contagion and crime emerge over time but cause serious problems. The risk of contagion relates to disease: a lack of clean water, poor sanitation, and a denser grouping of people aids its spread. Insufficient employment opportunities may lead to crime and a deep informal economy, making it difficult for governments to enforce regulations and raise revenues.

The risks are large and are already being felt: estimates in 2010 place the urban poverty rate at 34.6% (World Bank 2014). High urban poverty rates in Myanmar reflect high living costs and limited access to stable and well-paid employment. The urban poor are unskilled and work in the informal sector or as casual unskilled workers. Indebtedness to moneylenders is widespread. Many people are clustered around the poverty line. This is a positive sign, as it suggests the depth or severity of poverty is not high; however, it is also a tremendous concern as many risk sliding into poverty.

Avoiding these downsides requires a solid plan. Without a proper public foundation, density harms development. This section looks at these challenges and explores how to avoid them.

Figure 9: Yangon's road network (2012)



Data: YCDC

3.1 Congestion

3.1.1 Transportation

Congestion quickly becomes a headache, one felt daily in Yangon. A jump in foreign car imports in recent years has greatly increased the overall stock of cars. The only data available on modal share in Yangon (from 2011) shows very little car ownership: less than 4% commute via private car. The situation today is certainly different. A large influx of cars, seen as desirable assets to own, has made conditions worse as infrastructure cannot keep up. Compared to public transportation, individual cars take up more space. Motorcycles are not allowed in Yangon.¹³ Solving congestion requires accepting that private transport will become more common as Myanmar develops while developing good public alternatives for commuters. The recent introduction of a bus rapid-transit (BRT) covering Yangon's two main arterial roads is a good first step.¹⁴ Getting a grip on congestion needs

13. A small poll indicated that more than half of respondents in Yangon favoured continuing the current limitations on motorcycle use (JICA 2014b). There is on-going discussion on lifting the motorcycle restriction in townships further away from downtown.

14. As of May 2016, between 8,000 and 9,000 use the BRT everyday.

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a sense of how the city will evolve and expand. Transport infrastructure should be built with wider city planning in mind. Hanoi is an example where this was not done: a new mass transit system will branch out from the central business district, but it fails to reach the upcoming southwest of the city which has dense housing. Again, South Korea is an exemplar: large-scale apartment housing projects solved urban housing problems, with multiple transport modes being developed simultaneously. Urban highways, pavement projects, expressway networks, urban subway lines, and high-speed rail: together they formed a coherent and forward-looking plan (World Bank 2013). Building these links helps a city suburbanise and shifts the population out of the centre of the city.¹⁵ In Yangon, JICA has prepared an Urban Transport Master Plan (YUTRA). The plan makes projections for future travel demand, noting that currently the number of trips taken per person per day in Yangon is lower than some neighbouring countries. The total number of trips is to nearly double by 2035, from approximately 11 million today to 20 million in 2035 (JICA 2014b). In the short term, the plan proposes expanding the BRT network and addressing illegal parking behaviour.¹⁶ A unified transportation authority is also needed to replace the disparate agencies operating in urban areas.

Density often takes the blame for congestion, but it is not so straightforward. Stretching out or sprawling a city in an effort to reduce congestion might have the opposite effect. Low density, meaning high populations spread over large areas, can increase congestion if the city does not have adequate transportation links to dissuade private travel. A spread out city might make car ownership look more favourable, therefore not improving the overall situation. More roads tend to lead to more miles driven. Sprawling cities also increase the financial and time cost of movement within a city and shift where economic activities take place. Yangon and Mandalay have long-term expansion plans, the Strategic Urban Development Plan for Greater Yangon (JICA 2014a) and the Mandalay City Development Concept Plan Vision 2040 (ADB), which outline the development of new satellite towns around the city (in the case of Yangon, seven 'new cities', with five new sub-centres). These plans will require huge funds for infrastructure investment and strong administrative capacity for timely implementation.

3.1.2 Housing and slums

In Yangon, slums are home to 10-15% of the population.¹⁷ Employment opportunities are sparse and social safety nets are weak. The inability to absorb shocks, often health or environment-related, means moneylenders are rife.¹⁸ Several factors contribute to the growth of slums. One is migration,

15. A famous example of this in the post-war United States, which saw massive highway construction followed by subsequent suburbanisation. See Baum-Snow (2007).

16. Drivers typically have no choice other than parking on the street, causing congestion. The amount of off-street parking is limited. Without on-road parking, the average travel speed in the central business district could increase by 6-7 km/h.

17. It is hard to find good data on slum populations. This figure is probably an underestimate if we consider informal housing more generally. Either way, this places the slum population between half a million and one million residents, mostly in the periphery of Yangon.

18. Anecdotes suggest that more than two-thirds of those living in these informal areas borrow from moneylenders, at exorbitant rates: over 20% per month.

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often from rural areas.¹⁹ Slum growth in Hlaing Tharyar has notably increased in the past three years. Another cause is the insufficient supply of affordable housing (and high living costs more generally). New housing supply catered to an upper class (mostly foreign) demographic, instead of the middle and lower classes. Solving the urban housing problem needs not only cheap housing, but also providing housing in locations which provide value to residents. A fundamental trade-off exists in urban economies: productivity requires density -- people and jobs must be close to each other -- but greater density implies that living space is more expensive and scarce (Venables 2015b). There are two ways to resolve this trade-off: by enlarging the effective area of the city, or by using existing areas more efficiently. An efficient use of area ensures that high rent residential areas near the centre are also high density, with land prices declining by distance. Allocating land in such a way needs an established land market, which Myanmar lacks.

The Mahabandoola rental housing development is a prominent example attempting to address the housing issue.²⁰ The density of the development is high, which is good, but questions remain whether it makes economic sense to place low-cost housing in the heart of Yangon's business district. Because the price is highly subsidised, the opportunities for scaling up are also limited. A scheme offering affordable rates might create greater in-migration, amplifying the underlying condition of limited supply. Yangon cannot avoid constructing more residential infrastructure targeting middle or below middle class residents, but an equal priority is developing a functioning land market (discussed more later). Housing of this sort must also have good transport access to centres of employment.²¹

3.2 Contagion

The Yangon city administrative boundary has grown considerably over the last 25 years (for a good comparative overview, see LSE Cities (2016)). This is a substantial increase in the range and population requiring municipal services from YCDC. In many peripheral areas, which coincide with informal settlements or slums, service provision is poor or non-existent. This reflects another challenge of building institutions: how to structure and adapt them to be suitable for rapidly growing urban areas. Sewerage coverage is minimal, with underlying infrastructure in Yangon dating back to century-old British systems.²² Mandalay does not have a piped sewerage system or a centralized wastewater treatment plant. Urban households discharge wastewater into septic tanks. Only since 2005 has wastewater been treated in Yangon; before 2005, waste went into nearby rivers (UN-Habitat 2016).

Water and sewerage form some of the basic functions of an urban government, yet they often fail to reach the most difficult areas. Poor sanitation has direct effects on life expectancy: under five mortality in Mandalay is high and attributed to water-borne diseases. Diarrhoea, stomach problems, and hepatitis -- by-products of poor sanitation -- are common in poor outskirts. Dense pockets of

19. Historically, forced evictions have also been a factor in the growth of slums in Myanmar, as have other push factors like natural disasters.

20. 1,200 units are offered at a monthly rent of 30,000 kyats. Over 35,000 applied for the lottery. See: 'Demand sky-high for Mahabandoola rental housing', The Myanmar Times, March 10, 2016.

21. In Myanmar, some factories offer transport services (buses) to collect workers.

22. See 'Upgrading Yangon's ancient sewer system', The Myanmar Times, March 3, 2016.

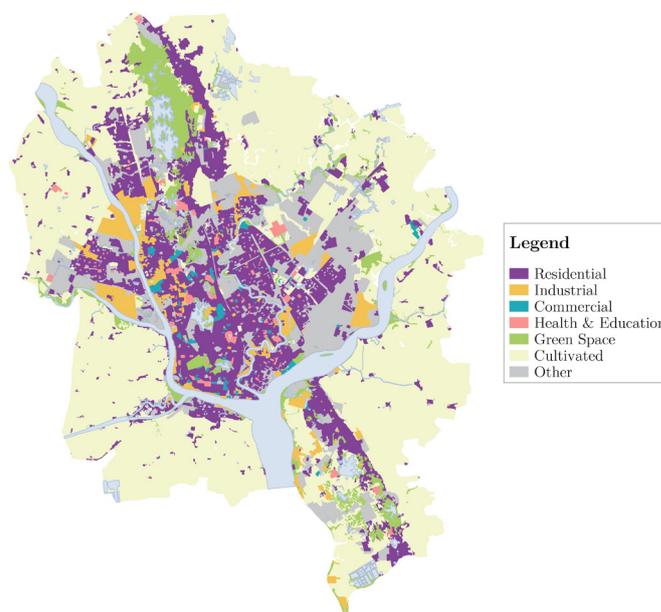
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people with minimal access to health services has led to tuberculosis outbreaks in urban areas across Myanmar. Providing infrastructure is essential, but there should be flexibility over provision and funding. Private operators, or operators working closely with the public sector, can help serve urban populations. ADB is doing this in Mandalay with its Urban Services Project (ADB 2015).

Funding these investments needs either public support or an attractive market for private operators (which might mean limited competition on provision). Inefficient utility companies also harm service quality: in both Yangon and Mandalay, water losses and non-revenue water amounts to over half of the total supply, meaning piped water is not always stable or reliable. In part this is because tariffs for water supply, sanitation, and waste collection are very low, resulting in insufficient funds for operation and maintenance. Utilities are not managed on a corporate basis, unlike the Manila Water Company and Phnom Penh Water Supply Authority which are two good examples of well-performing utilities in the region. A streamlined governance has allowed them to reduce non-revenue water supply and expand service coverage to the poor (ADB 2015). Improving the health environment can also be accomplished without large-scale infrastructure investments. Cheap, low-hanging fruit exist: providing chlorine tablets at the point of water consumption can be just as effective as larger infrastructure projects (Kremer et al. 2009).

Figure 10: Land use by type



Data: YCDC

4. Governing cities

As a city grows, institutions have to be updated. Otherwise poor fiscal institutions, bad management, and inadequate planning have negative consequences for cities: congestion, pollution, poor sanitation, and urban sprawl. They can quickly become overwhelming, impeding economic activity and lowering the quality of life. Good institutions also save time and money. In Myanmar, overlaps between municipal, regional, and union-level governments blur responsibilities and create confusion. Accountable local urban governance is also missing. Without mechanisms to coordinate policy and planning, especially across boundaries and stakeholders, little moves forward.

Public investments are limited by a lack of financing. By one estimate, Myanmar will need to invest \$320 billion in its infrastructure between 2010 and 2030 to sustain economic growth, mostly in residential and commercial real estate (McKinsey Global Institute 2013). Although municipal authorities have responsibility for collecting revenues, the current systems are ineffective. A genuine property tax, based on value, has not been implemented.²³ Discussions on city financing should also include developing a city's creditworthiness, with steps towards issuing municipal debt, and how an appraisal of municipal assets can be used to develop new ones. Ultimately, investment decisions should align with city plans to make sure cities are not locked into an undesirable shape.

4.1 The importance of institutions

Good institutions form the chassis of a well-functioning city. Outside of Yangon and Mandalay, Development Affairs Organizations (DAOs) are responsible for municipal governance (Nixon et al. 2015, Arnold et al. 2015). DAOs are the only fully decentralized government agencies under the aegis of state/region governments. Mostly self-funded, DAOs are responsible for providing services and are partially overseen by elected community members. Their revenues come from taxes, license fees, and auctions (tender fees), which they use to fund trash collection, construction and maintenance of urban infrastructure (roads, bridges, drainage systems), street lighting, and water supplies (Arnold et al. 2015, Dickenson-Jones et al. 2015). However, several challenges prohibit DAOs from realising their potential. Multi-year budgeting is not possible and all budget surpluses must be sent back up to state/region governments. Compliance in paying taxes and fees is low. Without enough revenues, these municipal governments struggle to provide adequate services. Longer term strategic planning is rare in secondary cities and most DAO investment choices are limited to spending on modest infrastructure improvements and other capital expenditures (The Asia Foundation & Renaissance Institute 2016). Although part of their legal mandate, wider urban planning and collaboration with other agencies remains minimal. This is seen clearly in Yangon and Mandalay where DAOs are responsible for townships outside of YCDC and MCDC but struggle to connect with these agencies in long-term development planning.

The lack of planning capacity in DAOs has shifted spatial planning in secondary cities to the union-level. The Department of Urban and Housing Development (DUHD), under the Ministry of

23. The reasons for this are limited administrative capacity to carry out such a tax effectively and little social appetite to impose one.

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Construction, has been preparing concept plans for all secondary cities, but in a hurried manner: plans are drawn up in weeks and DAOs do not take ownership of them. A forthcoming Urban and Regional Development Planning Law envisions turning these concept plans into law. On paper, DAOs are meant to oversee the work of deconcentrated branches of union-level sectoral ministries (UN-Habitat 2016). Reality is more blurred, especially in Yangon and Mandalay.²⁴ A single actor with authority to make decisions at a local level is missing. Across urban areas in Myanmar, the result is a strongly hierarchical and compartmentalized governance structure.

Land and housing markets are another area which suffer from poor institutions. Following reforms in 2011, Myanmar witnessed an influx of foreign migrants and repatriating Burmese. Residential supply was limited, causing a sharp escalation in property prices. Living in the city centre became unaffordable for the average resident. Myanmar's lack of a real land market amplifies these difficulties. All land is owned by the government and is leased out. Grants are given for specific uses (housing, industry, agriculture) for 30 to 60 years, depending on the activity. People then trade the right to use land, not the land itself; changing the actual use of land requires government approval.²⁵ Selling off land for other purposes is illegal. Getting land regulation right is a tricky balancing act; regulation which is too stringent can squeeze housing supply and make it less affordable (Turner et al. (2014) documents the welfare effects of land use regulations).

Yangon also lacks clear zoning policies, although a zoning plan is expected to enter into law soon. Zoning laws should place industry away from residential areas and coordinate with transport infrastructure plans. When implementing, responsibilities for each government agency should be clear. Overlaps cause confusion and tension. This is most prevalent in the big cities, where mandates of the union-level Ministry of Construction and the local city governments (YCDC, MCDC) are sometimes blurred in practice.²⁶

Overall, housing policy is difficult to get right. Policy does more to influence the supply of housing than the demand for it. Importantly, rules on construction must be enforced. Otherwise, substandard housing can become widespread as rules are flouted -- Mumbai is a great example (Glaeser & Joshni-Ghani 2013). Much can be learned from South Korea where urban planning and land management institutions evolved successfully during each stage of urbanisation. First, the government established land development programmes, followed by regulations on land use (World Bank 2013). On planning, guidelines for 20-year visions, zoning and planning facilities were drawn up. Crucially, development projects adhered to the plans. City-regional planning was instituted to bring all government actors onto the same page. Bangkok is another case study of loose zoning laws leading to unplanned and haphazard urban expansion (LSE Cities 2016).

24. For example, some village tracts in Yangon are often considered part of the city and vote in municipal elections, but are still serviced by DAOs instead of YCDC (LSE Cities 2016).

25. Changing a plot of land from rice paddy to non-agricultural requires union-level approval, for instance.

26. An example of where tensions occur: on the licensing of construction permits.

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4.2 Municipal finance

4.2.1 Increasing revenues

Municipal governments are responsible for raising revenues to cover their operations, mostly through taxes and fees (license fees, permits, tender fees, waste collection fees, etc) (Arnold et al. 2015).²⁷ They receive limited transfers from state/region governments and a small share of revenues collected by the union government (The Asia Foundation & Renaissance Institute 2016). Tax revenue is low, in part due to weak incentives: any surplus income beyond budgeted expenditures is sent up to state/region governments. Capacity challenges constrain the amount of revenues collected; for instance, implementing an efficient value-added tax (VAT) is many years away. Income and corporate (business) tax collection is sparse, and a large informal economy makes for a small tax base. Overcoming these barriers to tax policy enforcement requires greater access to information, best obtained through experimentation and policy innovation. Harnessing social incentives can boost tax morale and compliance while motivating tax collectors could further increase revenues (Kleven et al. 2016). Using technology for managing and collecting taxes can help local tax collectors raise more revenues and opens up space for adding incentives such as performance-based pay. A mobile application and digital system for tax collection is being piloted in Taunggyi and Patheingyi by The Asia Foundation, Koe Koe Tech, and IGC.

Land is centre stage in Myanmar. The country grapples with land grabbing, land speculation, and astronomical prices, with a clear link between all three. Successful urban expansion and development is based on a strong system for assessing land values and utilising land-based taxes. Clear property rights are the first requirement; gathering information is the second. Good information on land values helps the government allocate land to best use, implement genuine taxes on land use and value, and raise capital. Data on market transactions, potential income from land, and costs of inputs for land development help assess land values; ideally, these would all fall into a digital land register. On the institutional side, transparent property appraisers help make information on land values accessible. For revenue generation, land is an opportune source: its location is fixed and its use is visible; land-based revenues are progressive in nature; land taxes, collected by local authorities, grants them greater (decentralized) authority; and they tend to promote transparency and accountability in local government (UN-Habitat 2015). Myanmar's property and land taxes need updating as taxes are based not on land value, but land size, and at marginal rates. A genuine land and property tax could generate substantial revenues for municipal governments to invest in infrastructure and provide services. Determining optimal rates and how such taxes should be implemented is a key research priority.

4.2.2 Leveraging the market

While it is the government's responsibility to provide basic services like water, sanitation, transportation, and electricity, outsourcing their provision to private companies can alleviate tight

27. These revenues are not necessarily restricted to urban areas; they operate under township-wide jurisdictions.

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budgets. Where wholly competitive markets are not desirable, such as in garbage removal, market rights can be auctioned off. This is already being done on some levels (toll roads or ‘wheel tax’ collection, for example) but could be extended. DAOs typically announce public tenders for such services, but in large cities like Yangon and Mandalay these services are provided by state utilities which struggle. For there to be any incentive for a business to operate in providing services, tariffs must be high enough and competition sufficiently limited. Natural monopolies, such as the provision of water and sanitation, are best kept under public control.

The bus market in Myanmar is an interesting example of where too much competition may be harmful. It is ultra-competitive in big cities like Yangon, bringing many downsides (dangerous driving, squeezed profits at the expense of vehicle quality and safety).²⁸ While there are a few large companies, many are small, operating only a few buses. The main positive from competition is that prices are low, around 200 kyat (approximately \$0.15 per journey). But vehicle quality is poor, resulting in high pollution and serious safety concerns. With profits low, money for upgrading the transport fleet is non-existent. The introduction of the BRT has introduced new buses onto the streets of Yangon. A single company operates the route and remains financially independent (with the exception of purchasing the actual bus fleet). The flat fee is slightly higher, but initial anecdotes suggest that it has resulted in safety improvements (no need for racing to fight over riders), with the buses themselves being much cleaner.

Private investors can also help fill a financing gap. On a macro level, this involves creating an amenable environment for investors. Cutting red tape and lifting harmful restrictions is the first step. Beyond broader development of the financial system, ensuring land rights and a clear and transparent procurement process are essential. There is no procurement law in Myanmar, though various guidelines and procedures exist. Tender criteria vary and can appear ad hoc. As a result, there are many concerns about the validity of awarded contracts in Myanmar.²⁹ A proper system outlines all the actors, steps, and approvals, and has cost-benefit analysis at its core.

5. Constructing a research agenda for Myanmar

A research agenda for urban development will naturally be large. Most work in Myanmar has focused on infrastructure and big picture planning, often from an engineering perspective. This brief has focused on identifying areas for further work alongside these plans. We can split the research agenda into two main strands: a macroeconomic, spatial development strand and a microeconomic strand.

5.1 Urban development at the national level

The suggested National Urban Policy (NUP, led by the Department of Urban and Housing

28. More than 350 privately-owned bus lines compete for customers in Yangon.

29. Re-assessing contracts made by the previous administration has been an early focus area for the newly elected government, which took over in April.

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Development, Ministry of Construction, with support by UN-Habitat) outlines five thematic areas:

1. Municipal governance and finance
2. Urban and regional legislation
3. Land governance
4. Housing
5. Environmental and climate change issues

The aim of this policy is to translate the broader principles behind a comprehensive vision for urban development into more concrete directives. Three central goals -- economic development, liveability, and sustainability -- inform the direction of the NUP. Drawing from these five areas, and based on recommended policy options discussed in the paper, priorities for research are:

Governance and finance:

- What would a local, accountable, and democratic municipal government with singular (decentralized) authority look like?
- How can Myanmar develop a genuine and effective market for land? What should be in a new comprehensive land law?
- What would budget and fiscal decentralization reforms look like, and how would this impact municipalities in Myanmar?

Planning:

- What would an urban hierarchy of cities in Myanmar look like? Can a single spatial planning system be established nationwide?
- What should be included in a National Housing Strategy?
- How vulnerable are Myanmar's cities to climate change and natural disasters? How can resilience, at all levels, be embedded into current plans, and how can pollution be addressed in cities?

5.2 Urban development at the local level

At the municipal level there are already actions governments can take without substantial changes in legislation. Identifying ways to improve existing efforts, like tax collection or service provision, can help urban development. Some areas are:

Revenue generation:

- What interventions can empower local authorities to increase revenue generation, particularly tax revenues? How can tax compliance be improved? What are optimal tax and fee rates?
- Can municipals be supported in developing a digital land register, and which sources of land-based revenues should be prioritized?
-

Slums and urban poor:

- How can employment opportunities be generated for the informal poor?
- What is the best way to provide affordable housing? Can informal settlements be upgraded?
- Why, from where, with what, and with whom are people migrating to cities?

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Service provision:

- What transportation infrastructure is necessary and how can the public and private sectors work together to provide such infrastructure?
- How can the provision of water and sewerage infrastructure be expanded?
- What should municipal governments do to improve the provision of education, health, and other social services?

Enterprises:

- What can municipal governments do to create an attractive environment for businesses to create jobs?
- For larger cities, what steps can be taken to encourage innovation?

City management:

- What policies need to be put in place for the optimal spatial development of a city?
- How can coordination with municipal governments and other agencies be improved?
- What capacities are missing for improved planning and management and how can this be remedied?

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