



NATIONAL DEVELOPMENT: INSIGHTS FROM ASIA



Infrastructure
New Zealand

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EXECUTIVE SUMMARY

Enabling Wellbeing

After a decade as the “Rock Star Economy”, New Zealand remains on the same economic trajectory it has been on for three decades. We’re not closing the gap with successful OECD economies like Australia and we’ve been overtaken by the new, dynamic economies of Asia.

Singapore and Hong Kong incomes have long since surpassed New Zealand’s. China is catching up fast. It’s not just economic performance. Singapore was recently voted the best place in the world to raise children. Hong Kong residents have the highest life expectancy in the world.

How have these countries done what they have done? How has China moved from a low to median income country in less than a generation? How have Singapore and Hong Kong moved up and passed slow growth wealthy nations like New Zealand?

In March 2019, Infrastructure New Zealand led 75 senior public and private sector infrastructure leaders to Singapore, Hong Kong and China to find out how these two countries and three systems have made possible their extraordinary rise.

We wanted to understand how each government had kept pace with such rapid growth and what role infrastructure and development had played in improving national wellbeing.

How have they done it?

It is easy to assume that the success of these nations is the result of rigid political hierarchy empowering vertical decision making over and above individual rights. However, there are many less democratic systems than in Singapore, Hong Kong and China which have not delivered the same economic and liveability improvements.

What distinguishes the success of Singapore, Hong Kong and China is their single-minded approach to national outcomes.

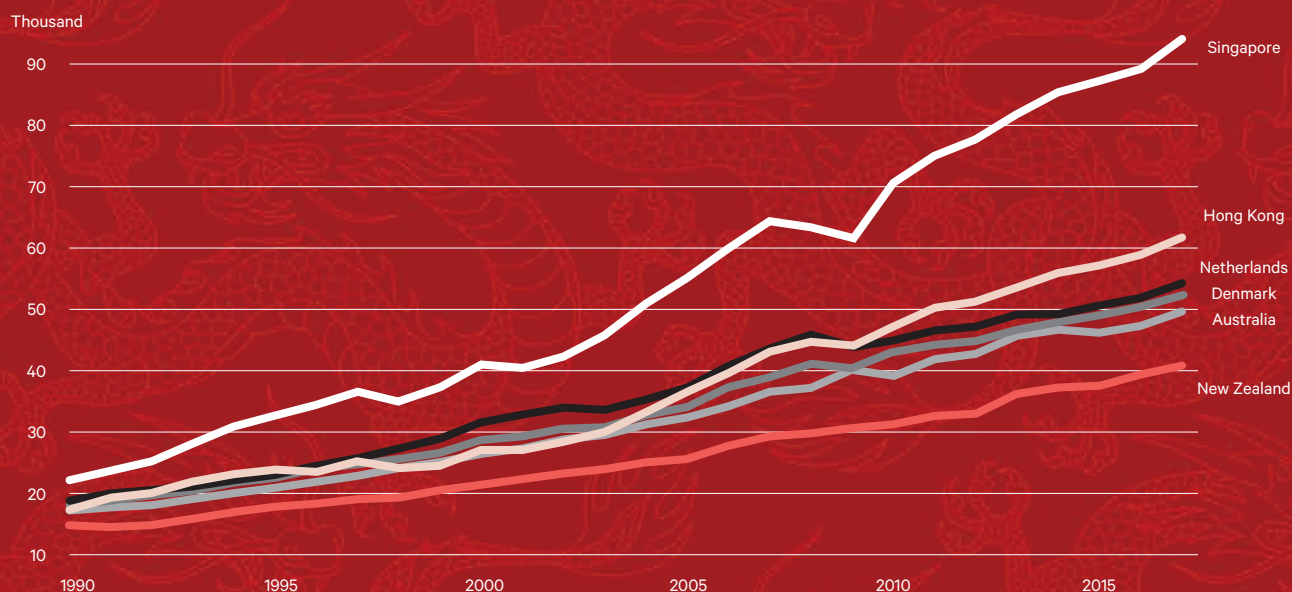
The three governments have elevated economic, social and environmental wellbeing to national priorities. They have set out a path to achieve these priorities through a well-integrated national development planning, funding and delivery system.

National strategic and spatial planning

Strategic spatial land use planning is nationalised. Central governments identify the economic, social and environmental priorities for national development. They translate these intangible outcomes into physical reality through a spatial plan for the country. From that plan the governments identify and sequence planning rules and projects which can be delivered.

Each project must contribute to the plan. By this process, infrastructure and development become the platform for social and economic growth.

Figure 1: GDP per capita, PPP (current international \$)¹



Singapore develops a 40-50 year Concept Plan which identifies the city-state's land requirements. A 10-15 year Master Plan takes the land allocations from the Concept Plan, applies a strategic framework and produces a detailed land use plan. Departments of central government deliver zoning, infrastructure and housing in accordance with the Master Plan, sequencing delivery to meet market needs.

Hong Kong 2030+ is a spatial plan. It sets the development vision for the city, outlines the role of planning and proceeds through a three step strategic process to translate the city's outcomes into a tangible spatial vision. The spatial vision identifies the major new development areas and projects required to meet national objectives.

China's Five Year Plan establishes the ruling Communist Party's priorities for implementation throughout the country at all levels of government and across the private sector for each five year period. National, provincial and municipal five year plans convert national priorities to local. National, provincial and municipal spatial plans turn priorities into land, infrastructure and housing programmes to meet growth.

National development funding

Funding for land development, housing and infrastructure which emerges from spatial and land use plans in the three territories is guaranteed by the state. There are no materially significant levels of governance separate from the government. Tax, user charges and other revenues flow to the centre, where they are consolidated and allocated to activities in accordance with national priorities.

The **Singapore** government owns 80 per cent of the country's land. Investments which enhance land use create value which is captured by the state. Land sales (in the form of leasing rights) provide revenue to the government for the next tranche of capital investment. Transport is funded from general taxes. In 2019 the Singapore transport budget is NZ\$12 billion, twice what New Zealand will spend per person across a country well under 1 per cent the size.

Property acquisition in land starved **Hong Kong** is too hard, so the government doesn't do it. It focuses on what it can do instead. Zoning changes which unlock land value carry a fee. Rail stations are located where land is publicly owned and the government sells that land to its combined rail and property developer partner, MTR. MTR integrates land use around the new station, leases the land and funds construction. Hong Kong has the best metro system in the world and the only one not reliant on public subsidy. Hong Kong will spend NZ\$2000 per capita on infrastructure this year, excluding rail – 30 per cent more than New Zealand.

National development in **China** is funded by the state through taxation. Half of taxes are levied by central government, the other half by provincial and lower level authorities. All are members of the ruling Communist Party. Two-thirds of all central revenue is transferred to lower levels of government to deliver national development. In the first nine months of 2018, China spent NZ\$500 billion on transport, the most in the world by orders of magnitude.

National development delivery

Delivery of land, infrastructure and housing in all three systems is retained by the state. Centrally-linked agencies plan land resources and provide infrastructure and housing. They participate in the conception of the plan and implement projects in accordance with it. The full weight of the nation supports implementation. Organisational priorities are subordinate to national outcomes. Each agency plays its part in delivering the plan.

Singapore's Urban Redevelopment Authority (URA) manages land use. The Land Transport Authority (LTA) oversees the transport system. The Housing and Development Board (HDB) delivers over 80 per cent of the nation's homes. The URA sequences land release to allow for growth. The LTA services land with transport to meet its target of 8 out of 10 homes within 10 minutes' walk of a train station. The HDB designs and delivers liveable, sustainable, affordable homes on URA zoned land, integrated with transport.

In contrast, **Hong Kong** leverages the market. Developers provide commercial property for employment and 70 per cent of homes. The government's role is to ensure enough land is available, that land is connected and that the city's strategic positioning as a global gateway is promoted. The publicly co-owned MTR delivers rail. The Highways Department looks after roads and the Housing Authority provides public housing. Where there isn't enough land, Hong Kong creates it. Reclaimed land is serviced and sold to meet commercial and residential demand.

Delivery in **China** is devolved. Provinces, municipalities and the country's vast network of state owned enterprises oversee land, infrastructure and housing provision. Implementation of the Five Year Plan is paramount. The one-party system stitches delivery to the plan, funding to the projects and lower levels of government to higher. China now has the most motorway in the world, most high speed rail, the longest subway, the busiest subway and has accommodated urban growth of 500 million people in the last four decades. Today, China's focus has shifted to improving environmental performance and sustainable development.

National benefits

Through this “National Development Model”, the Singapore, Hong Kong and Chinese governments have turned the fortunes of their jurisdictions around. By linking planning, which controls the supply and therefore price for land, with funding and delivery of development, authorities have been able to capture land value improvement. The revenue obtained has enabled a combination of more affordable housing (particularly in Singapore) and expansion of transport (particularly in Hong Kong and China). More affordable housing and transport reduces upward pressures on inflation. Faster and cheaper movement of people and goods makes the Asian economies more competitive.

A more competitive economy has allowed the Asian tigers to move past other OECD countries struggling with low, slow growth. Economic outcomes have improved. Residents with access to affordable housing and transport have seen their discretionary income and mobility improve, enhancing social wellbeing. Controlled land use integrated with electrified rail has protected sensitive land and lessened carbon emissions, promoting environmental wellbeing.

“Place” has been used as a common denominator to coordinate public services in pursuit of integrated outcomes. Physical development is the mechanism by which authorities implement economic, social and environmental policy.

New Zealand’s Devolved Cost-Based Model

New Zealand does not have a national development plan or framework. Instead, comprehensive powers relating to planning, funding and delivering national development are disaggregated and devolved. Priority is given to market-led development, individual civil liberties and property rights over national outcomes. The government sets the legal and regulatory framework to enable a functioning market economy and keeps a tight rein on public spending.

Funding and delivery are devolved to entities independent of the government and bundled together to minimise expenditure. National transport revenue and delivery are managed by the New Zealand Transport Agency (NZTA). Local road revenue and ownership sits with 67 territorial local authorities. Public transport funding and operation is provided by 11 regional councils. Land development is funded by the market. Property rates are owned by councils. Housing New Zealand uses the income-related rent subsidy to manage public housing. Central government receives 93 per cent of all tax, but plays a comparatively minor and indirect role in national development.

This “Devolved Cost-Based Model” has successfully contained public spending and led to one of the lowest public net debt positions in the developed world. New Zealand’s public institutions are the global benchmark and New Zealanders enjoy strong protections over their individual, community and property rights.

But institutional performance is not national performance.

The absence of a national plan means there is no mechanism to identify national priorities and translate these priorities into tangible projects or land use rules. Implementation is poor and integration of public services at the point of delivery is weak. Priority projects are tied to solving known problems, rather than enabling a national strategy. Planning horizons are short term. Urban planning is bottom up with little national guidance.

Managing costs or “cutting the cloth to suit the purse” is prioritised over creating value or lifting productive capacity. Under this approach New Zealand has seen severe infrastructure underinvestment. New Zealand’s cities have become the most congested for their size in the world. Water services in many locations fail to meet acceptable health or environmental standards. Public housing deficiency has left thousands of New Zealanders living on streets, in cars and in garages.

Without adequate infrastructure to unlock affordable land, a shortage has emerged. High resulting land prices have pushed house prices beyond the reach of median incomes. Higher mortgage and rent costs have impacted discretionary income, reducing expenditure on other goods and services. Government reactionary spending on accommodation subsidies is crowding out other public expenditure priorities. Wage increases to meet housing costs are making New Zealand less competitive.

New Zealand is locked into low per capita income growth as congestion and inappropriately priced land for development limit the speed of the economy to the pace at which public services can be delivered. Economic wellbeing is impacted. Lower productivity and higher costs are pushing up the cost of living. Social wellbeing is impacted. Urgency to deliver housing and growth is compromising elite soils and sensitive ecosystems. Environmental wellbeing is impacted.

Reforming the New Zealand Approach

There are benefits and disbenefits of both systems of government.

The Devolved Cost-Based Model provides significant advantages for individual and local outcomes. When functioning efficiently, resources are optimally allocated across society as each individual chooses where best to spend their money. Growth can be strong, if it is not held back by regulatory practices which constrain choice and public investment policy which inhibits growth.

But the Devolved Cost-Based Model will always be challenged to realise national opportunities and overcome national challenges.

The National Development Model is designed to identify national issues and opportunities and address them. However, individual choice is impacted. Comprehensive land use planning is needed to ensure demand for infrastructure aligns with investment decisions. Significant power is vested in the state, requiring consistent, strong and capable leadership.

New Zealand needs an approach which leverages the strengths of the existing Devolved Cost-Based model and the strengths of the National Development model. Interests at all levels of society need to be recognised and outcomes for New Zealand promoted.

The New Zealand Government has already initiated a major process of reform. The New Zealand Infrastructure Commission-Te Waihangā will produce a national infrastructure pipeline and strategy. The Housing and Urban Development Authority will transfer urban planning powers to a centrally guided agency with funding and delivery capability. Wider planning reform is on the horizon. The State Sector Act Review is reorienting departmental focus away from inputs and process to outcomes-focused delivery. The Provincial Growth Fund is reinvesting in the regional Heartland. The Budget is targeting wellbeing.

However, these improvements require ongoing and additional reform to materially move New Zealand away from a focus on process to one which harnesses individual enterprise and promotes national outcomes.

Recommendation:

- 1. New Zealand retains but adapts the Devolved Cost-Based approach where subnational decisions are empowered and central government focuses on enabling the market economy, minimising costs and unnecessary regulation.**

Retaining the devolved approach will best protect individual and community outcomes, promote private enterprise and prevent overextension of national powers. But national outcomes will be impeded without additional reforms.

Recommendations:

- 2. Central government shifts focus from services to outcomes. In consultation with regions, the Government sets out national outcomes, objectives, priorities, projections and targets in a statutory national plan, but does not lead the implementation of the plan.**
- 3. Subnational economic and social zones where communities live, work and play – regions – deliver the national plan.**
- 4. Central government monitors and supports regional implementation.**

Fully integrated national strategic, spatial and land use planning provides too much power to one level of government and cannot be effected within three years. Subnational governance is needed to balance national power and provide longer term delivery capability. Government performance monitoring and support provided to regions, where necessary, will facilitate implementation through the political cycle. A top down-bottom up process will ensure alignment of plans nationally, regionally and locally.

Recommendations:

- 5. Regions develop spatial plans which translate national priorities into relevant regional outcomes and, in turn, tangible projects and land use plans which deliver the outcomes.**
- 6. Regions develop minimum land use rules to align with infrastructure capacity and investment as a prerequisite for land development.**
- 7. Local councils develop maximum land use rules to align with community aspirations.**
- 8. Regional and local spatial and land use plans are signed off by central government.**

Strategic spatial planning is needed to translate intangible regional and national outcomes into tangible land use rules and projects. Strategic planning must incorporate the whole socio-economic area, linking employment to homes and people to their regular activities. Land use and infrastructure development must go hand in hand. Spatial planning without land use planning will not engage the community and will undermine implementation. Full land use planning authority in one level of governance concentrates too much power. Local communities provide valuable input. They need the opportunity to drive local economic, social and environmental outcomes and identity. Plans must give effect to national priorities.

Recommendations:

9. **Funding is devolved from central government in proportion to increases in planning powers and responsibility.**
10. **Regions receive a portion of economic taxes (GST, income and corporate tax), to incentivise and support investment in national priorities, and levy property taxes and user charges to fund infrastructure and other spatial activities.**
11. **Local councils retain local property rating powers.**
12. **Central government allocates a portion of its revenue to regions to implement national direction. Regions allocate a portion of their revenue to local councils to implement the regional spatial plan.**

Funding from activities linked to the economy needs to come from taxes linked to economic performance. Projects and plans which improve land value need to be co-funded by taxes linked to higher property values. Linked funding aligns incentives to invest. Funding from higher levels of government to lower encourages buy-in. Land and property taxes levied in proportion to value reflect the capital value impact of public activities and reduce the need for restrictive planning rules. Individual and community aspirations are better protected and national outcomes better promoted with a low level property tax rather than regulation. Funding sourced from higher levels of government helps incentivise alignment.

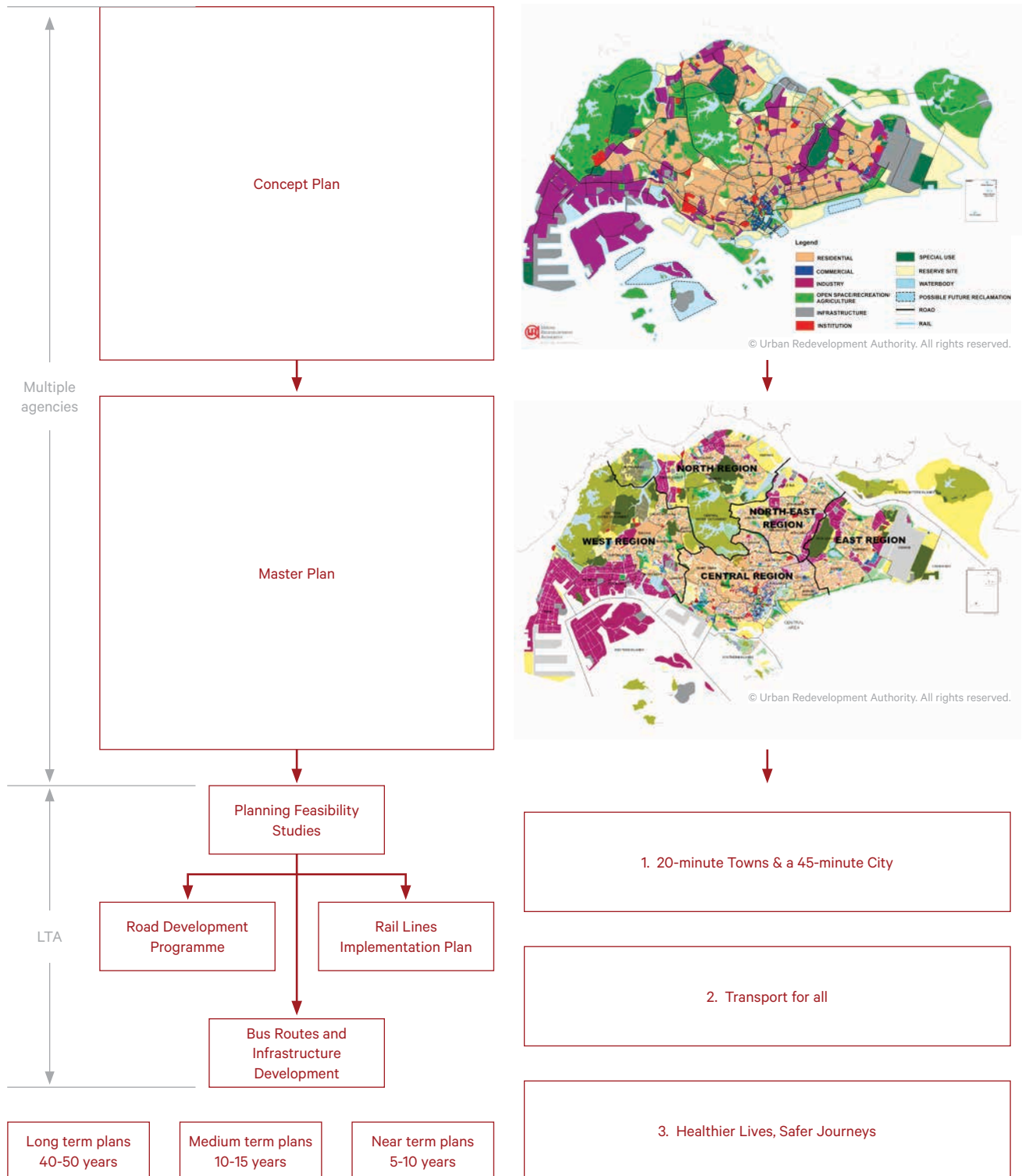
Recommendations:

13. **Delivery of transport, including fuel levies and charges, is delegated to regions. Central government provides an allocation from the consolidated account to fund economic, social or environmental public good outcomes.**
14. **Delivery of water is corporatised and funded through volumetric charging. Water service provision sits off local, regional and central balance sheets, enabling financing.**
15. **Delivery of public housing is delegated to regions and funded from regional taxes.**
16. **Delivery of market housing remains private.**
17. **Third party delivery of growth infrastructure not included in regional plans is permitted. Funding and financing is enabled through long term targeted property rates and user charges.**

Specialised delivery of public services is effective where funding is not ringfenced but linked to value created. Activities providing services to a defined area should be delivered by that area, allowing integration into spatial plans. Central government is the only entity capable of monitoring performance against national outcomes and is conflicted when monitoring its own agencies. The public housing costs of market housing failure should remain with the authority responsible for growth planning. Individual and local outcomes will not always be represented by regional plans. Local communities need development alternatives where regional planning and investment does not meet need.

These changes to the planning, funding and delivery of public services will promote national outcomes, whilst enabling an open market economy, and supporting individual and local aspirations.

Singapore's Integrated Planning and Transport System

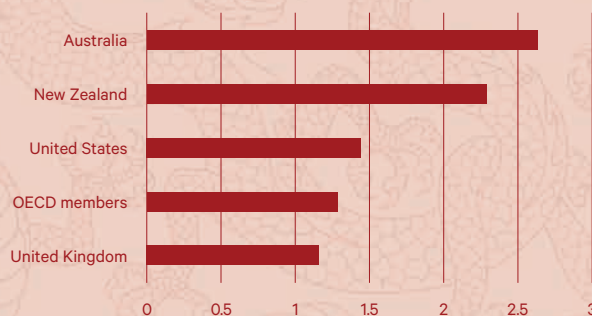


INTRODUCTION

New Zealand's headline indicators are solid

The economy is growing. Average GDP growth of 2.3 per cent per annum over the last decade is above average for the OECD and higher than most of the countries we compare ourselves against. Unemployment is below 5 per cent and inflation is under control. Government finances are in order, with operational surpluses projected as far as the eye can see. Net debt at 20 per cent of GDP is low for a developed nation, and no change is forecast.

Figure 1: New Zealand's headline economic performance: Average GDP growth 2008-2017¹



Society is stable. After income inequality increased from the mid-1980s to the mid-1990s, there has been no substantive movement since.² Migrants continue to seek residency in New Zealand, despite lower incomes than much of the rest of the OECD, indicating our lifestyle remains highly attractive. Life expectancy is above the OECD median, as is educational attainment.³

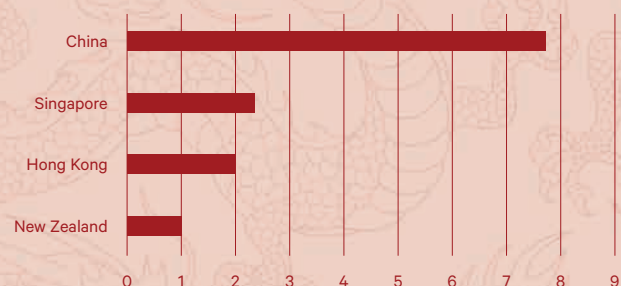
And in relation to the rest of the world, New Zealand's environment remains relatively pristine. New Zealand is famous for clear air, plentiful water and the most accessible natural environment on the planet.

All is not as it seems

But dig a little deeper and New Zealand's performance across its economy, its people and its environment is more mixed.

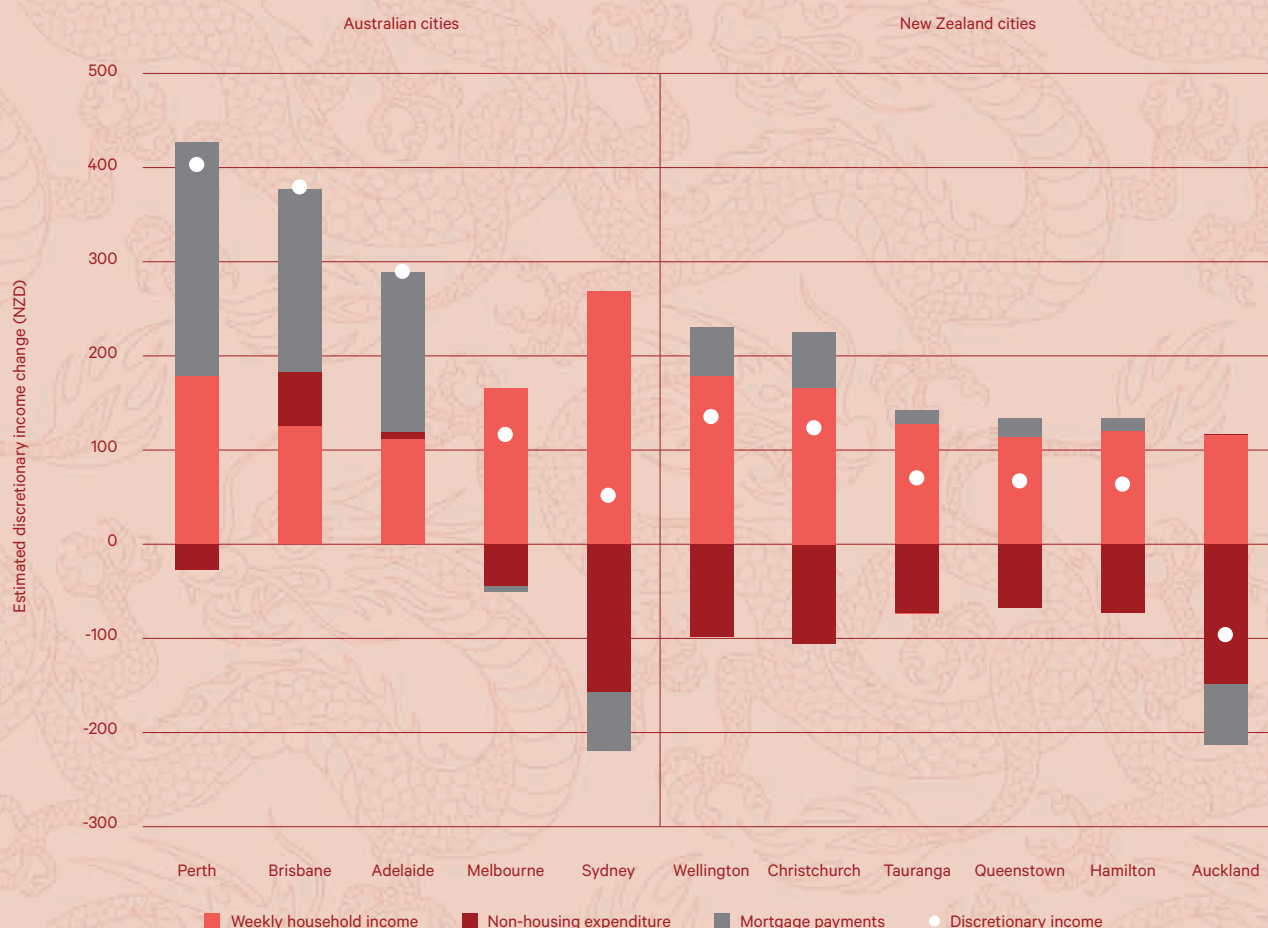
New Zealand's economic performance over the last decade is only strong when compared to countries struggling with the after-effects of the Global Financial Crisis. High performing countries, such as those in Asia are seeing much greater improvements in economic performance. New Zealand's 1 per cent per annum per capita economic growth over the past decade is dwarfed by Singapore and Hong Kong's 2+ per cent per capita growth, let alone China's 7+ per cent.⁴

Figure 2: GDP per capita growth: New Zealand vs Asian achievers 2008-2017⁵



What income growth there has been as a result of a growing economy has, for many people, been exceeded by increases in the cost of living. Auckland households in 2018 had almost \$100 fewer dollars per week to spend on discretionary items than they did a decade before. Hamilton, Tauranga and Queenstown households only saw marginal improvements. Nowhere in New Zealand witnessed anything close to the \$400 per week discretionary spending windfall households in Perth and Brisbane experienced over the same period, despite similar economic performance (see Figure 3).

Figure 3: Discretionary income growth across Australasian growth cities⁶



Increasing mortgage costs, most evident in Auckland (Figure 3 above), indicate that land price inflation has exceeded the reduction in interest rates since 2008, raising questions of equity. An average 2008 property owner has seen the value of their property increase significantly, generating wealth. An average 2018 homebuyer has locked in high debt and incurred downside risk, while tenants have seen growth in median rents exceed wage increases.⁷

Poor data on wealth has concealed the extent of the trend, but available evidence suggests that New Zealand wealth is twice as concentrated in the top decile as incomes.⁸ Wealth inequality is not just concentrated at the top end, it is far less concentrated at the bottom. The lowest two deciles receive 8 per cent of all New Zealand income, but own less than 1 per cent of assets.⁹

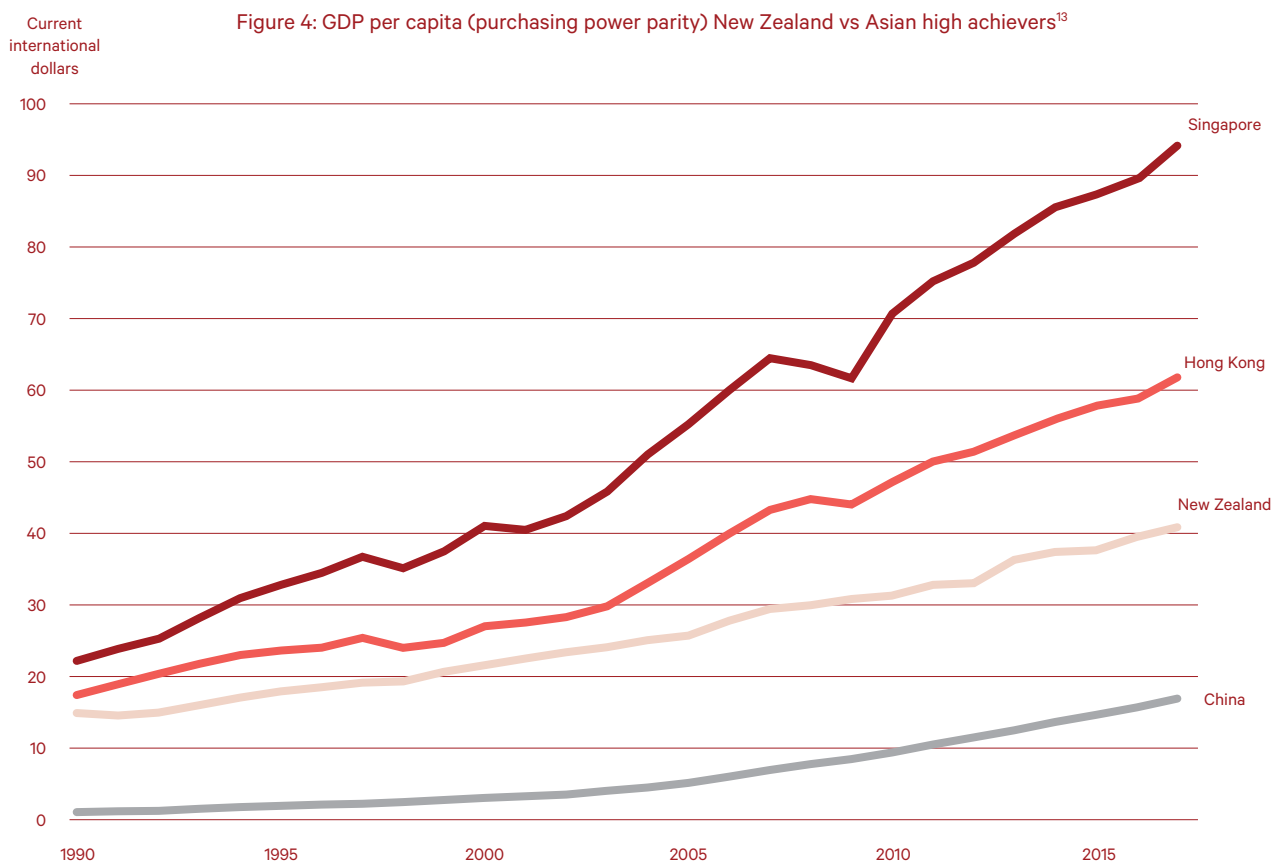
The overrepresentation of Maori, Pacific people and children in lower socio-economic demographics suggests changes in inequality have disproportionately affected certain groups. There are now a quarter of a million children living in poverty in New Zealand, after housing costs, equivalent to one in five.¹⁰

New Zealand's mixed record of economic and social progression is replicated in the environment. The Ministry for the Environment's latest assessment of New Zealand's environment found that extinction risk over the past decade had improved for 26 species, but deteriorated for 86. Net greenhouse gas emissions are high and not declining. Other indicators, including for water quality, would likely show significant declines in performance if adequate data was available.¹¹

High performing Asian economies have long since surpassed us

New Zealand's mediocre economic, social and environmental performance in recent decades has seen the country overtaken by formerly poor, uncompetitive economies which now boast higher incomes, lower costs of living and rapidly improving liveability.

Two of the highest performing such economies are Singapore and Hong Kong. The glass ceiling which appears to set a limit to how far or fast western economies can grow relative to others does not seem to apply to Hong Kong and Singapore. Wealthy by the turn of the millennium, both have continued to grow up and past most OECD economies. The two economies are ranked by IMD as the two most competitive in the world¹² and rank at or near the top on indices relating to starting a business, infrastructure and other key metrics.



Success is not limited to the highly efficient city states. Continuing its rapid rise beyond all expectations is the economic titan of China. Still in an earlier phase of development nationally, China's leading cities are now as wealthy as many in the west and growing faster.

Looking beyond economic performance, Singapore, Hong Kong and China have been exceptionally successful at improving overall liveability. The cost of living has been kept comparatively low, allowing wage increases to materialise as higher disposable income at all levels of society.¹⁴ Hong Kong now boasts one of the highest life expectancies in the world and Singapore was recently rated the best place in the world to raise children.¹⁵

DELEGATION TO SINGAPORE AND CHINA

How is it that the economic systems of Singapore, Hong Kong and China have managed to not only drag their populations out of poverty, but grow up and passed formerly wealthy developed nations like New Zealand? Have they permanently sacrificed non-pecuniary outcomes in a single minded pursuit of economic growth? How do we break the cycle of mediocrity and accelerate up and passed slow growth OECD nations, equitably and sustainably?

From March 17-22, 2019, Infrastructure New Zealand led a delegation of 50 senior public and private sector representatives including Infrastructure Minister Shane Jones to Singapore and Hong Kong. The following week, a second delegation of 50 representatives (including both existing and new delegates) visited Beijing and Shanghai.

The purpose of the two week programme was to investigate how these cities and the regions and nations they belong to have managed, supported and leveraged rapid urban, economic and social growth and development. We wanted to understand how the top-down approach employed in each system works in practice, what the strengths and weaknesses are and whether successful components of the “Asian approach” can be applied in New Zealand.

Briefings with key national and city development, transport and planning leaders were requested via Infrastructure New Zealand’s global infrastructure network. Providing extensive cooperation and support was the Auckland Consulate of the People’s Republic of China and New Zealand’s Ministry of Foreign Affairs and Trade. The full list of briefings and site visits are included in Table 1 below.

Table 1: List of government briefings and site visits in the four city-regions

SINGAPORE	HONG KONG	BEIJING	SHANGHAI
Land Transport Authority	InvestHK	National Development and Reform Commission	Shanghai Hongqiao Business District Administration Committee
Building and Construction	Highways Department	Ministry of Finance	Shanghai Municipal Planning and Natural Resource Bureau
Housing and Development Board	Planning Department	China Academy of Urban Planning and Design	Shanghai Municipal Transportation Commission
Urban Redevelopment Authority	West Kowloon Cultural District Authority	Beijing MTR Construction Administration Corporation	Shanghai West Bund Development Group
		China International Engineering Consulting Corporation	Lingang Shanghai Economic Development Group
		Hebei Province Xiong'an New Area Management Committee	

Infrastructure New Zealand members who facilitated briefings and site visits:

AECOM

ARUP

Beca

CadeNZA

CCB



HSBC

ICBC

wsp

DIFFERENT POLITICAL SYSTEMS

The Asian political systems are different

Each of the three Asian systems supports varying degrees of democratic decision making, but none are democratic in the western sense. Leaders are not elected via a popular vote, but through controlled processes participated in by senior party and other officials.

Singapore governance

The Republic of Singapore is an independent sovereign nation fully separate from both Britain and Malaysia since 1965. An elected president occupies the largely ceremonial role of head of state with the prime minister head of government.

Parliament is composed of a mix of elected and non-elected representatives and the prime minister is head of the governing party. One party has been in power since 1959 and there have been a total of three prime ministers. There is no other significant level of government in Singapore.

Hong Kong governance

Hong Kong Special Administrative Region (SAR) is a semi-independent city-state of the People's Republic of China. Since governance was transferred from Britain to China in 1997, the area has been ruled under a "one country-two systems" framework. The principal institutions and laws present in Hong Kong before 1997 have been retained, leaving major infrastructure and development decisions in the hands of Hong Kong's executive.

The city is governed by a Chief Executive, appointed by China upon nomination by an Executive Council, comprised of leading members of Hong Kong business and community. Laws in Hong Kong are enacted by the Legislative Council, which is half democratically elected and half indirectly elected. There is no material lower level of government. The territory's 18 districts and elected representatives provide an advisory function to the Chief Executive and Legislative Council.

China governance

The People's Republic of China is an independent sovereign state constitutionally governed by the Chinese Communist Party. Ultimate power resides with the General Secretary of the party (who is usually the President). The President is the head of state and is elected by the National Peoples' Congress (parliament). The premier is the head of government.

There are multiple levels of governance in China, each ruled by the Chinese Communist Party. Below the national government exist provinces, five autonomous regions and two special administrative regions (SARs). SARs (Hong Kong and Macau) have the most autonomy, followed by autonomous regions and finally the provinces.

Below the provincial level of government are prefecture-level municipalities (city councils with a population above 250,000) and below prefectures are counties, then townships then villages. While it is important to note that individual infrastructure and development decisions are often made at provincial government level, decisions flow from the centre and the top through the party to the lowest levels of government.

Table 2: Singapore, Hong Kong, China and New Zealand in 2017¹⁶

	SINGAPORE	HONG KONG	CHINA	NEW ZEALAND
Population	5.6 million	7.4 million	1,386 million	4.8 million
Population growth 2007-2017	22%	6.9%	5.2%	13.5%
Land area	722 km ²	1,108 km ²	9,596,961 km ²	268,021 km ²
Density (persons/km ²)	7,756	6,678	144	18
GDP	US\$324 billion	US\$341 billion	US\$12,240 billion	US\$206 billion
GDP per capita	US\$58,000	US\$46,000	US\$9,000	US\$43,000
GDP growth	3.6%	3.8%	6.9%	3.0%

Are they successful because they are less democratic?

In part, yes.

The absence of an open and contested electoral process has enabled extremely consistent policy making over long periods in each system. There have been isolated moments of political uncertainty, but otherwise policy makers have been confident enough in their long term position to plan and invest intergenerationally. Short term decision making at the expense of long term public outcomes has been avoided and decision makers have benefitted from a long career in public management.

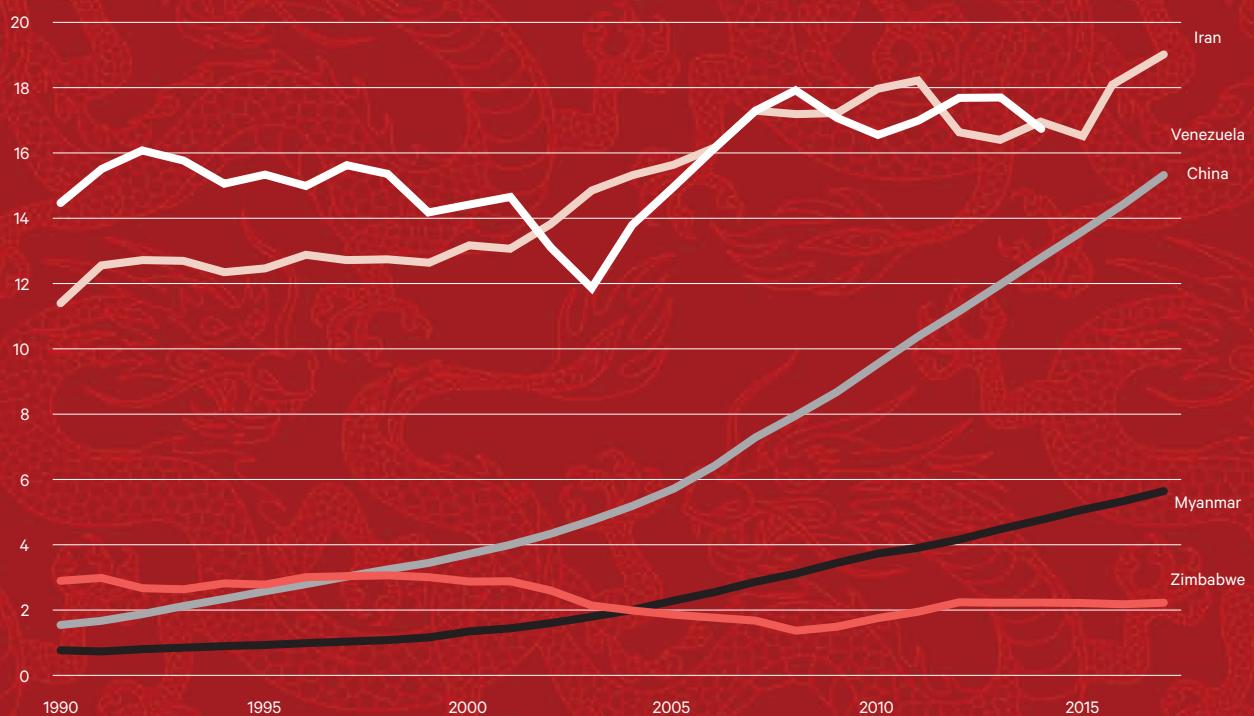
In addition, the concentration of power in the centre of each system has enabled the full force and weight of the state to commit to policy implementation. Disagreements over policy are managed internally before initiatives are committed, preventing disruption to delivery programmes.

The combination of long term policy consistency and single-minded delivery capability has enabled the three systems to pursue an economic and social development model which may otherwise have been impossible. This model, defined below as the National Development Model, has successfully pulled each system out of poverty and enabled Hong Kong and especially Singapore to overtake almost all other countries in per capita national income.

However, if the concentration of power is the reason for their success, then all centralised systems should be growing quickly, reducing poverty and improving public wellbeing. Figure 5 below uses GDP per capita by purchasing power parity (PPP)¹⁷ to compare the economic and social progress of China versus four other centrally-led economies.

Constant 2011
international
\$ ('000)

Figure 5: GDP per capita (PPP) China, Venezuela, Iran, Zimbabwe and Myanmar¹⁸



China's rapid economic expansion over the last three decades has separated it from the lower two performing economies and lifted incomes to the equivalent of the two oil-producing nations. Iran and Venezuela, meanwhile, have seen very marginal improvements in GDP, arguably all of which has been undermined by declining wellbeing in other areas.

China, Singapore and Hong Kong are all doing something different from other comparable governance systems to support long term economic, social and, increasingly, environmental wellbeing.

THE NATIONAL DEVELOPMENT MODEL

The success of Singapore, Hong Kong and China over recent decades has been enabled by a particular approach the three systems have taken to national development. This approach, described here as the National Development Model, sees each government proactively manage the state's natural activities in three essential functions to promote national objectives. It has three main components:

- 1 National land use planning
- 2 National infrastructure and development funding
- 3 National project delivery

National Planning

Each of the three governments have “nationalised” spatial and more detailed land use planning. This allows each government to set the strategic priorities for the nation and then influence the availability and price of land to promote policy. Rules, restrictions and aspirations over how and when land can be used are elevated to a national level of importance where national economic, social and environmental objectives are prioritised.

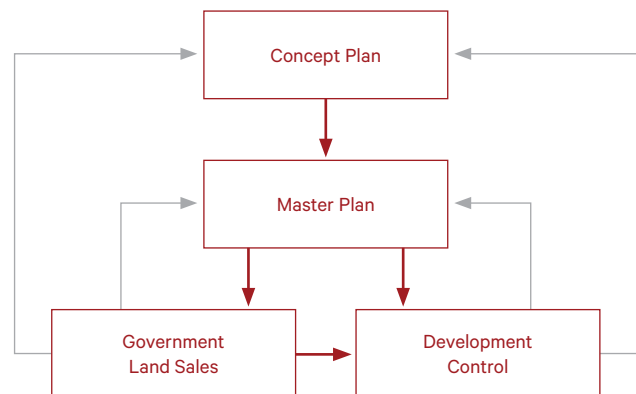
Although each government ultimately uses planning to achieve the same end goal, there is great diversity in the approach used.

Singapore's planning system

In Singapore, where the city is the state and where land is so limited that it must be scrupulously planned, the state's role in land use planning has been entrenched since before independence. The Singapore Government exercises its land use planning powers principally through a single integrated spatial and land use plan, the Master Plan.

First developed in 1958, the Master Plan is reviewed every five years and has a comparatively modest planning horizon of 10-15 years. Longer term planning is provided for via another plan, the Land Use Plan 2030.

Figure 6: Singapore's Planning System¹⁹

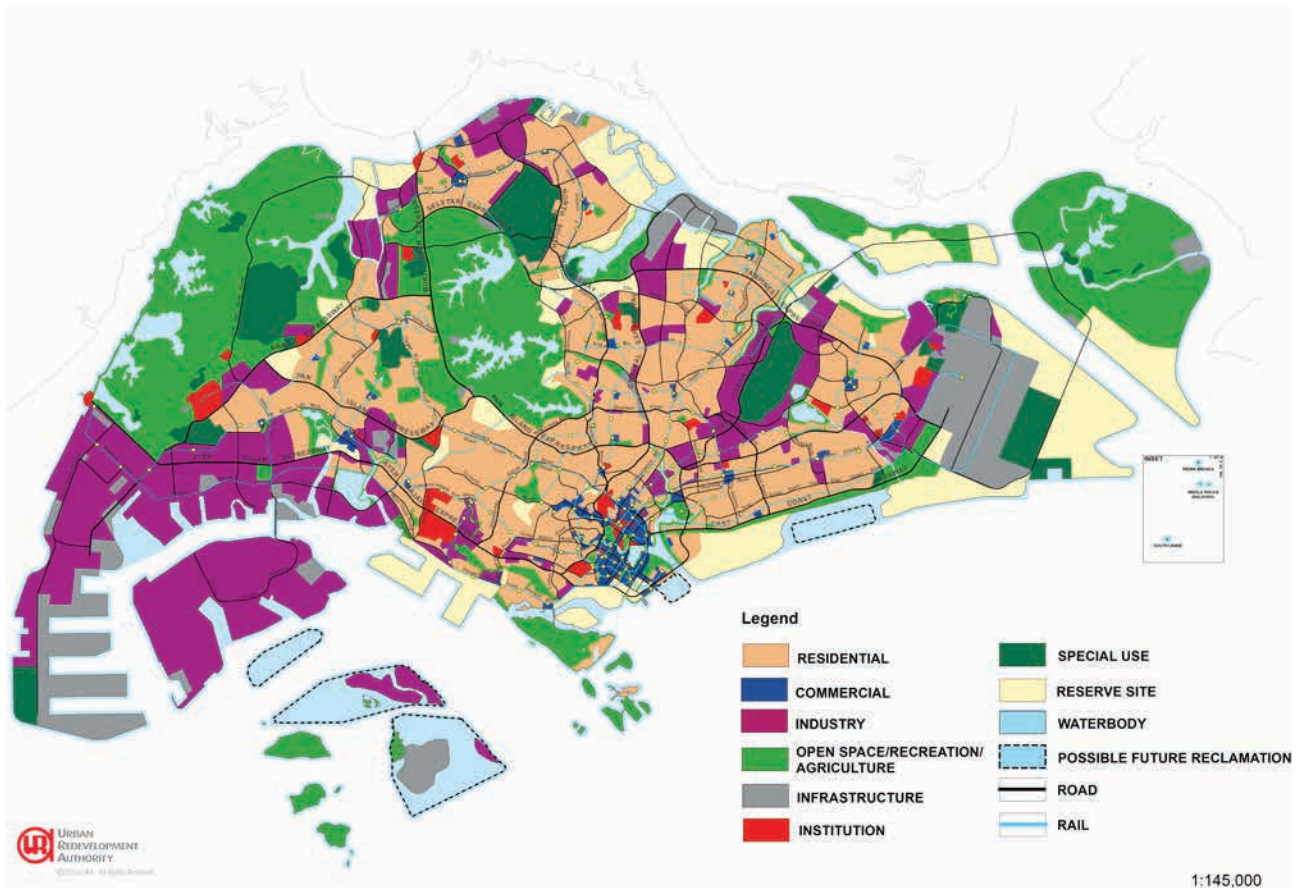


Land Use Plan 2030

The Concept Plan is a unique Singaporean innovation to deal with the country's nearly-unique land scarcity. The current iteration, the Land Use Plan 2030, sits “above” the Master Plan in a traditional planning hierarchy, being longer term and setting the parameters within which the Master Plan must operate. However, the Concept Plan is practical and empirical, not strategic. It looks forward 40-50 years into the future and makes quantitative judgements about how much land will be required to deliver the projected number of homes, jobs, recreational facilities and infrastructure to meet the city's needs.

Reviewed every 10 years, the main purpose of the Concept Plan is to ensure that sufficient land is provided for development. Where land designated for projected growth in homes and employment is inadequate, the Concept Plan is able to inform decisions about reclamation, or the conversion of defence or other land to more critical uses.

Figure 7: Singapore's Land Use Plan 2030²⁰



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The Master Plan

It is the role of the Master Plan to take the allocations for different land use activities identified in the Concept Plan and turn them into a single detailed structure plan for the entire city. Where the Concept Plan says where housing, for example, will be, the Master Plan says what the housing typologies will be. The Master Plan achieves this by integrating strategic and land use planning.

The Master Plan is guided by the vision of its ultimate controlling authority, the Ministry of National Development (MND). The MND vision for Singapore is “An endearing home and a distinctive global city”. It seeks to promote this vision through three priorities:

- 1 Develop world class infrastructure
- 2 Create a vibrant and sustainable living environment
- 3 Build rooted and cohesive communities

The Draft Master Plan 2019, produced by the Urban Redevelopment Authority (a statutory board of the MND) expresses these priorities spatially via five themes:

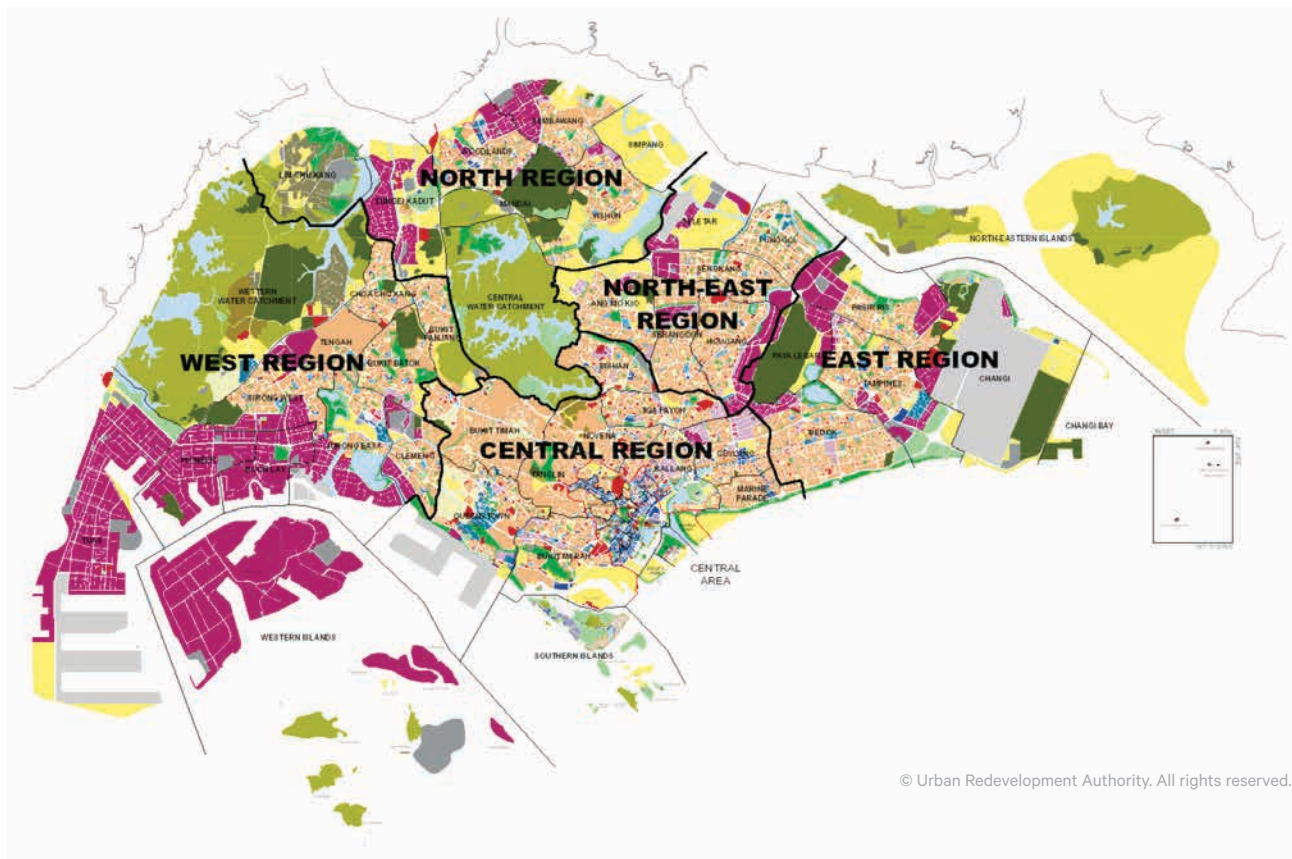
- 1 Liveable and inclusive communities
- 2 Local hubs, global gateways
- 3 Convenient and sustainable mobility
- 4 Rejuvenating familiar places
- 5 Sustainable and resilient city of the future

Under each theme, the Master Plan identifies a series of objectives and priorities that will be promoted via the rules set out in the land use plan and through wider planning and governance decision making.

For example, a major priority of the Draft Master Plan is to deliver more housing options. It will do this by lifting development controls in a variety of new areas. Another priority, to ensure the efficient movement of people and goods, will be promoted through consolidation of logistics via the establishment of dispersion points.

The Master Plan both allocates land resource to allow the implementation of these initiatives and signals a commitment from other agencies, such as the Housing and Development Board (another statutory board of the MND) and Land Transport Authority, to implement the plan.

Figure 8: Singapore's Master Plan 2014



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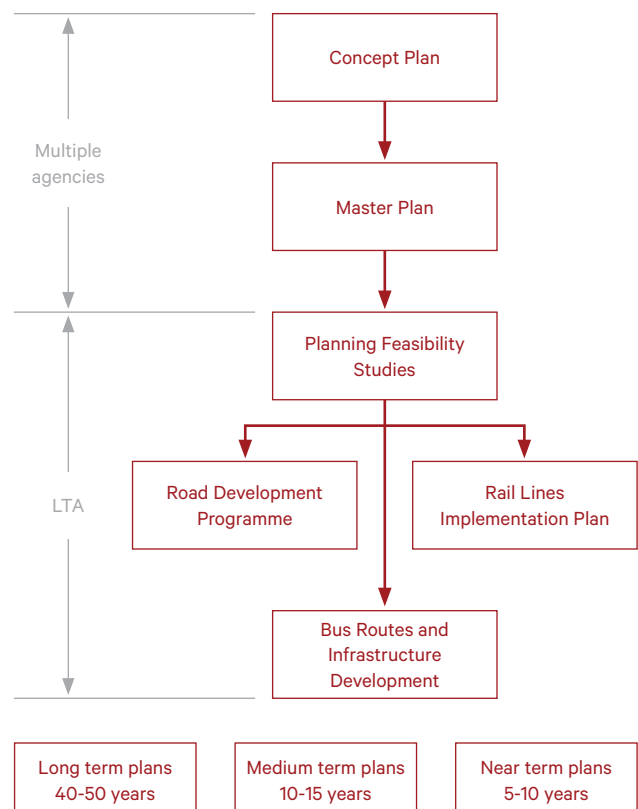
Land sales and development control

The final phase of the planning system in Singapore sees the land use provisions of the Master Plan sequenced for delivery. This often involves the state, which owns around 80 per cent of all land in Singapore, releasing land to the market when commercial indicators, such as vacancy rates, signal need. Development control (consent to build) is issued in accordance with the Master Plan vision and objectives.

Transport planning in Singapore

Transport planning in Singapore takes its lead from the Master Plan. Singapore's transport planning and delivery agency, the Land Transport Authority, works with the URA and other parties to agree the key corridors and upgrades necessary to meet growth. These are cemented in the Master Plan. The role of subsequent transport planning is to sequence transport improvements to ensure access and mobility are maintained across the island.

Figure 9: Transport Planning System²¹



Hong Kong's planning system

Hong Kong's planning system is very different from Singapore's, in spite of similar geographies, economies and history. It is also very different from China's, of which it is a part. Hong Kong's planning system is more similar to New Zealand's. It is less prescriptive, consistent with the traditional British-based planning model, and an entrenched system of property rights reduces the state's flexibility to control land use.

What aligns the Hong Kong planning model more closely with the other Asian systems is the targeted use of planning. Operating within the parameters of the British model, the Hong Kong Government has focused land use and spatial planning on areas where it has control – public and reclaimed land and infrastructure.

Hong Kong 2030+

Hong Kong anticipates and plans for long term land use via a territorial development strategy – a spatial plan. The current strategy is HK2030+, a 2018 revision of the 2007 document HK2030. It looks at the period “beyond 2030” and devises a way for the city to continue to grow and prosper.

As a strategy, HK2030+ follows a format comparable to other spatial plans globally. It provides an agreed evidence base for opportunities, challenges and projections into the future and sets a vision for the city:

Our vision is to become a liveable, competitive and sustainable “Asia's World City”.

What makes HK2030+ unique is its identification of a “planning goal” and subsequent injection of urban planning into the strategy:

Our planning goal is to champion sustainable development with a view to meeting our present and future social, environmental and economic needs and aspirations.

To promote the planning goal, three building blocks are identified:

- 1 Planning for a Liveable High-density City
- 2 Embracing New Economic Challenges and Opportunities
- 3 Creating Capacity for Sustainable Growth

Rather than the three building blocks serving as high level strategic guides for each of economic, social and environmental wellbeing, as per international convention, the building blocks instead provide a bridge from intangible strategy to tangible development. Building Block 1 highlights common urban goals – a compact, diverse, integrated, vibrant, healthy city.

Building Block 2 turns the focus to facilitating economic development and, specifically, the planning system's contribution to economic development. It identifies pressures on land requirements for different industries as well as the innovation, employment and productivity opportunities of securing land for growth into the future.

Building Block 3 takes the final planning step towards implementation and identifies the long term (beyond 2040) land requirements for housing, employment, recreation and infrastructure. Its analysis found new land supply from existing projects to equal 3600 hectares while the total required land supply was 4800 hectares. Building Block 3 also highlights the infrastructure, environment and other projects planned to support wellbeing.

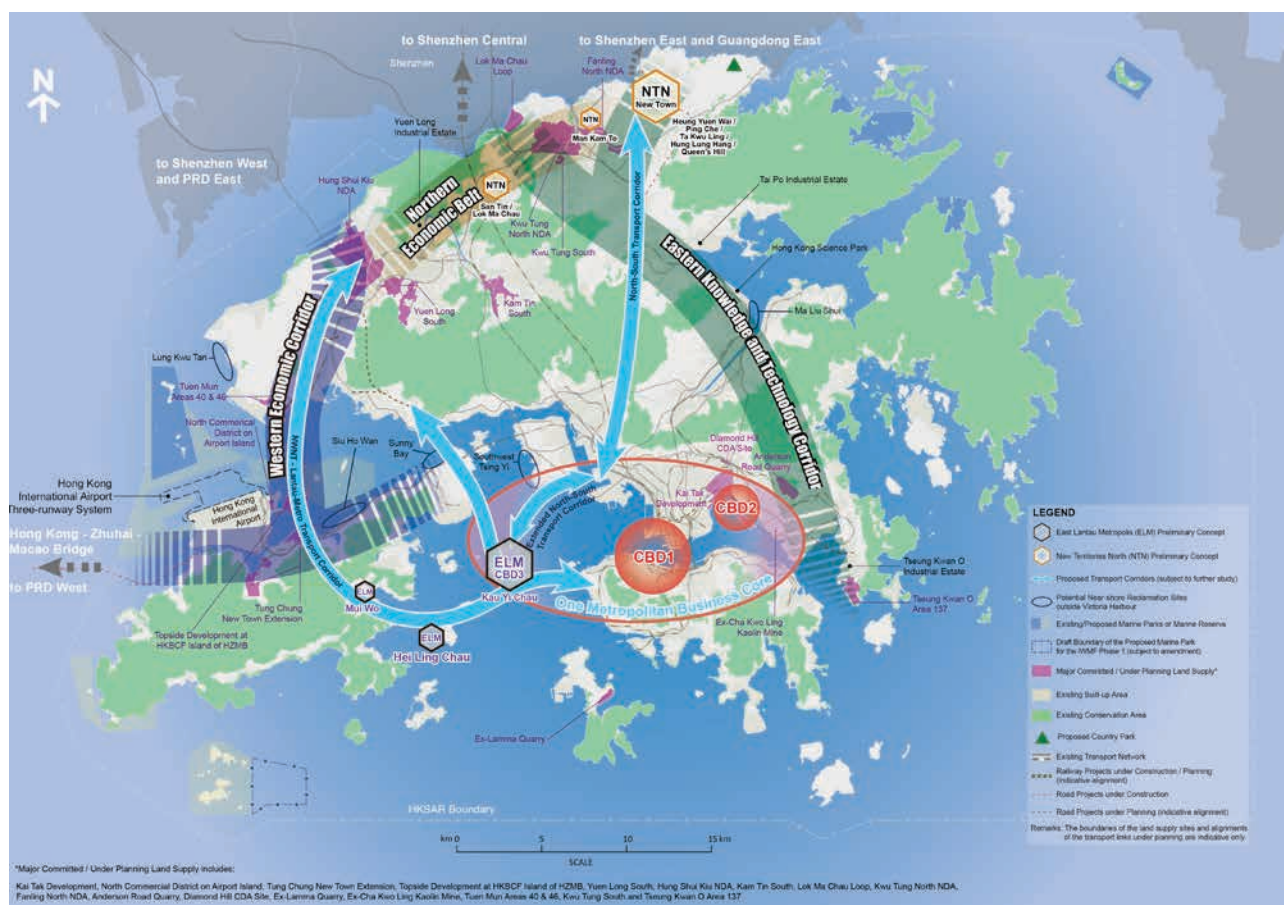
Finally, HK2030+ translates the building blocks into a conceptual spatial framework. The framework identifies three major strategic spatial priorities for the city:

- 1 Metropolitan business core – focused employment development around the traditional centre of Hong Kong
- 2 Two new strategic growth areas – a new 1000 hectare island reclamation called the East Lantau Metropolis for up to 700,000 residents and 200,000 new jobs and a new town in the north of the territory for up to 350,000 residents and 215,000 jobs.
- 3 Three axes – a Western Economic Corridor focusing on access to the port and airport; an Eastern Knowledge and Technology Corridor focusing on existing tertiary, knowledge and hi-tech industry; and a Northern Economic Belt focusing on the last remaining holdings of undeveloped land for logistics, warehousing and research.

Lower level planning

To implement the strategic land use priorities identified in HK2030+, planning processes familiar to New Zealand are used. The Department of Planning of the Hong Kong Government will develop detailed land use plans and sign off consent for all projects and initiatives. Transport, land use and other strategies and plans will sequence reclamation, rezoning and infrastructure delivery.

Figure 10: Hong Kong 2030+ Spatial Concept



China's planning system

China is a planned society. Land is owned by either the state or rural collectives, not individuals. All land uses must be signed off through the appropriate processes giving the state, or its delegated authorities, material influence over development. To manage the release and use of land, the Communist Party has developed a comprehensive hierarchy of strategic and land use plans, led from the top, which are implemented at all levels of government.

The structure of the Chinese planning hierarchy is quite different to that seen in Singapore and Hong Kong. At the highest level is not a strategy, but a manifesto outlining in significant detail all the priorities and commitments of the Communist Party. Strategic and land use planning is used to implement the manifesto.

The Thirteenth Five Year Plan 2016-2020

The Five Year Plan is the Chinese Communist Party's lead document for national and social development. It is a much more comprehensive – and directive – plan than seen in either Singapore or Hong Kong. It is a manifesto of everything the Chinese Communist Party will prioritise over the coming five years. It serves as a guide to not only all subsequent levels of government but also the private sector.

The current iteration, the Thirteenth Five Year Plan, identifies national targets, directives and priorities across all areas of national importance, not only physical and spatial activities. Responding to climate change, addressing inequality, modernising agriculture and tax reform are among the 80 chapters and 200 pages of commitments from the Party.

The physical growth and development of China, including the delivery of transport systems, provision of housing and supply of urban land are major components of the Thirteenth Five Year Plan. However, as a genuinely national plan, the Five Year Plan does not heavily focus on specific locations, projects or land uses. These are dealt with at lower levels of government.

It focuses on more general objectives relevant across China. Key planning priorities for this five year period relate to a 'new' urbanisation to be pursued in China. Mega cities are to be decongested, urban areas made more sustainable and liveable, city clusters supported and spatial planning and governance rolled out across the country.

Shanghai Master Plan 2017-35

One of the first subnational spatial plans to be delivered in China is Shanghai's Master Plan. Consistent with conventional spatial plans, it sets a vision for the city. However, rather than articulating a strategy to achieve an identified spatial vision, its emphasis is much more on consolidating existing plans into a single overarching document.

Its objective is to ensure that Shanghai fulfils its nationally directed mission to be China's leading international city. Its ultimate vision is that Shanghai will be an excellent global city and a modern socialist international metropolis with world influence. To assist the progression towards this vision, it adopts a three horizon framework:

- 1 In 2020: Shanghai will establish the fundamental framework of an innovation centre of science and technology with global influence and basically build itself into an international centre of economy, finance, trade and shipping as well as a modern socialist international metropolis.
- 2 In 2035: Shanghai will basically build itself into an excellent global city, an admirable city of innovation, humanity and sustainability as well as a modern socialist international metropolis with world influence.
- 3 In 2050: Shanghai will complete the building of an excellent global city, an admirable city of innovation, humanity and sustainability in all respects as well as a modern socialist international metropolis with world influence.

To achieve the vision, the Master Plan prioritises three goals consistent with economic, social and environmental wellbeing:

- 1 A more dynamic innovation city
- 2 A more attractive humanistic city
- 3 A more sustainable eco city

Each of the goals is promoted via a series of initiatives, related to conventional urban planning objectives such as resilience, innovation and accessibility. In addition, it implements key directives from the central government, including population growth management for mega-cities.



Credit: Shanghai Municipal Transportation Commission

Wider planning

As a manifesto of action, the Five Year Plan is neither a conventional strategic plan, setting a vision and outcomes, nor a land use plan. These functions are performed via other processes, building off the commitments in the Five Year Plan.

At both the provincial and city levels of governance, five year plans are developed. These plans translate national priorities into local priorities and are signed off at the national level. National, provincial and city spatial plans are completed to physically express the directives of the economic and social development plans, also signed off centrally. Land use and urban planning then translate spatial plans into rules and regulations for infrastructure, development and other land use activities.

Likewise in transport, the priorities emerging from the Five Year Plan, which include improvements to high speed rail, expressways, airports and technology, are handed to other state institutions for lower level transport planning. This includes other central agencies, such as the Ministry of Transport, and provincial and city transport bodies, such as municipal transportation organisations.

The end result is an overall spatial planning system which is surprisingly simple, given the size and complexity of the country it serves.

Figure 11: China's Spatial Planning system²²

Policy Area		Socioeconomic Development Plans	National Spatial Plans (Land Use Plans)	Urban and Rural Plans
Authority		National Development and Reform Commission	Ministry of Land and Resources	Ministry of Housing and Urban-Rural Development
Administrative Divisions	National Level	The Five-Year Plan for National Economic and Social Development	National Spatial Plan	National Urban System Plan
		National Core Function Area Plan	Overall Land Use Plan	
	Areas Level		Priority Areas Spatial Plan	
	Province Level	The Five-Year Plan for Provincial Economic and Social Development	Provincial Spatial Plan	Provincial Urban System Plan
		Provincial Core Function Area Plan	Provincial Land Use Plan	Provincial Urban and Rural Plan
	Prefecture County Level	The Five-Year Plan for Prefectural Economic and Social Development	Prefectural Spatial Plan	Prefectural Urban System Plan
			Prefectural Land Use Plan	Prefectural Urban and Rural Plans
	Township Level		Township Land Use Plan	Township Urban and Rural Plans





Xiong'an

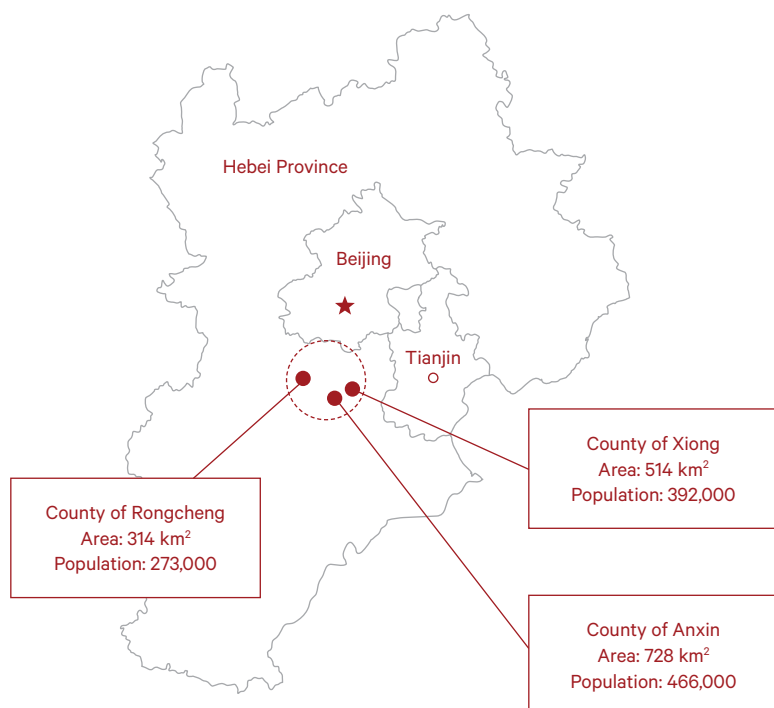
Xiong'an is one of the most ambitious urban projects in history. China has recently pursued a strategy of decongesting its largest cities as they become difficult to manage. The Thirteenth Five-Year Plan prioritises lowering Beijing's population density in main districts and to do this "non-capital" functions will be moved out of the city and into a new "capital".

Xiong'an, a combination of two of the three regions where the city will be located, is being delivered for four reasons:

- 1 To take over the non-capital functions of Beijing, as the capital is getting crowded.
- 2 To facilitate the economic integration of the Beijing-Hebei-Tianjin region.
- 3 To explore a new model of development and optimisation for densely populated areas and build a world-class, green, modern and smart city.
- 4 To push for structural and institutional reforms to stimulate market vitality.²³

The new area was established in 2017 and is still under planning, though government offices and other critical infrastructure have been delivered. The new city is already served with two motorways and a rail corridor and estimates are that US\$90 billion will be spent on transport infrastructure alone by 2020 to enable development.²⁴

Efforts are underway to turn Xiong'an into a tech hub and a liveable and sustainable city. Authorities are targeting a higher standard of living as a means to entice residents away from Beijing and extensive master planning is underway to ensure the city is a success.



National Development Funding

A consolidated and nationalised revenue and expenditure system is the second critical leg of the National Development Model. The Singapore, Hong Kong and Chinese governments commit the full weight of national resources to infrastructure – particularly transport – to promote the national outcomes set out in plans.

Funding to implement policy and plans across the three systems is collected by, and allocated from, the central government. General taxation is used to fund major growth decisions like metro rail or land reclamation, not separate revenue streams.

There is limited use made of discrete taxation tools to fund distinct activities. For example, property and fuel taxes are not ringfenced for parks or transport. Taxation is instead used as a tool to promote strategy. Revenue generated is consolidated into the central account for redistribution and allocated in promotion of national strategic priorities.

General taxation policy is applied differently across the three systems, consistent with individual national strategic positioning. In all cases, the strong hierarchical structure of each system results in a similar taxation framework. Revenue flows from individuals and business to the centre where the money is dispersed consistent with national priorities and direction. This system applies as strongly for infrastructure and development as it does for education, defence and other public services.

National Development Funding in Singapore

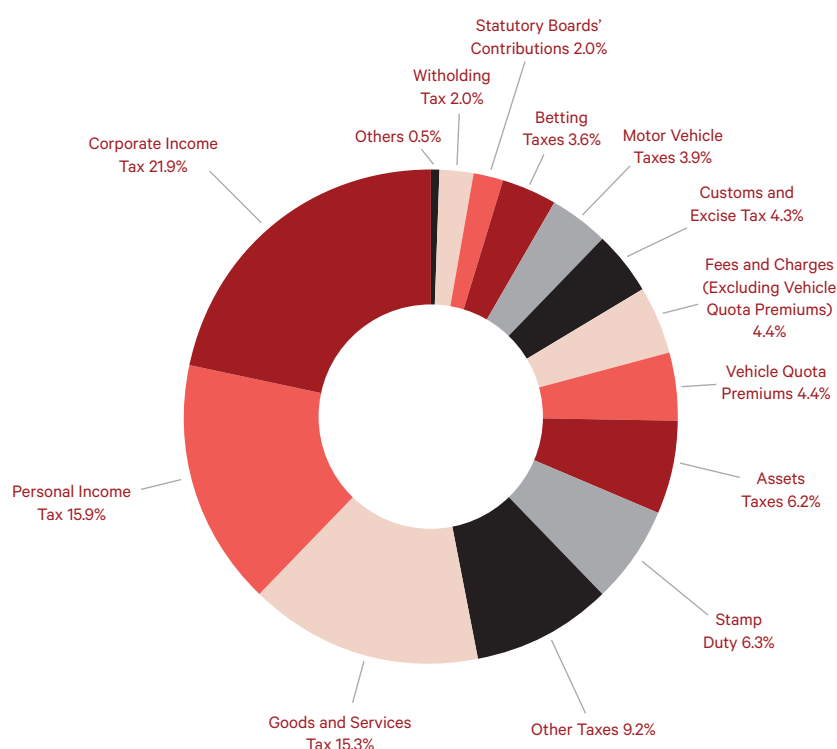
Singaporean government revenues are consolidated and managed by the Minister of Finance. Revenues from the vehicle quota system, tolling and fuel taxes are not ringfenced for transport. Nor are land and house sales income ringfenced for land development. These activities are simply part of the wider tax system. Transport, housing, land and other development needs must compete with education, health and other priorities for the same pool of money.²⁵

Tax in Singapore

Singapore is a low tax jurisdiction. The main sources of taxation revenue are corporate tax, income tax and GST. Income tax is capped at a maximum of 22 per cent of annual income (above S\$320,000 p/a), GST is levied at 7 per cent and corporate profit tax at 17 per cent. However, corporate tax is only applied to profit earned in Singapore. The result is a very low corporate tax burden for global corporations (and the country sometimes attracting criticism as a tax haven).

The Singaporean government also deducts social security from wages and salaries of up to 20 per cent which are additional to the headline income tax rate. Singapore does not charge a capital gains tax, but the Singapore government does own around 80 per cent of the country's land area and monopolises land reclamation. The state is thus able to capture the great majority of land value improvement from public activities, helping to fund major infrastructure and development.

Figure 12: Singapore government operating revenue 2019²⁶



National Development Funding in Hong Kong

With Hong Kong governance responsibilities fully delegated by Beijing there is no requirement to fund, or be funded by, the People's Republic of China. Like Singapore, there is no notable lower level of government with whom to share revenues. Government revenue flows to the centre where it is allocated, ultimately by the CEO.

However, Hong Kong makes much greater use of targeted hypothecation, ringfencing specific revenue streams to specific activities. This has included, for example, the use of toll-backed public-private partnerships to fund road improvements. But much more significant in terms of overall revenue generation are Hong Kong's value creation and capture models.

Hong Kong uses value uplift from land rights to the greatest extent possible to fund growth. The state fully exploits its opportunities to create value from land reclamation, rezoning and redevelopment, taking advantage of improved values to fund infrastructure. Most famous of these models is Hong Kong's property + rail model, which has enabled the territory to operate one of the most efficient mass transit systems in the world at a profit.



Property + Rail Model

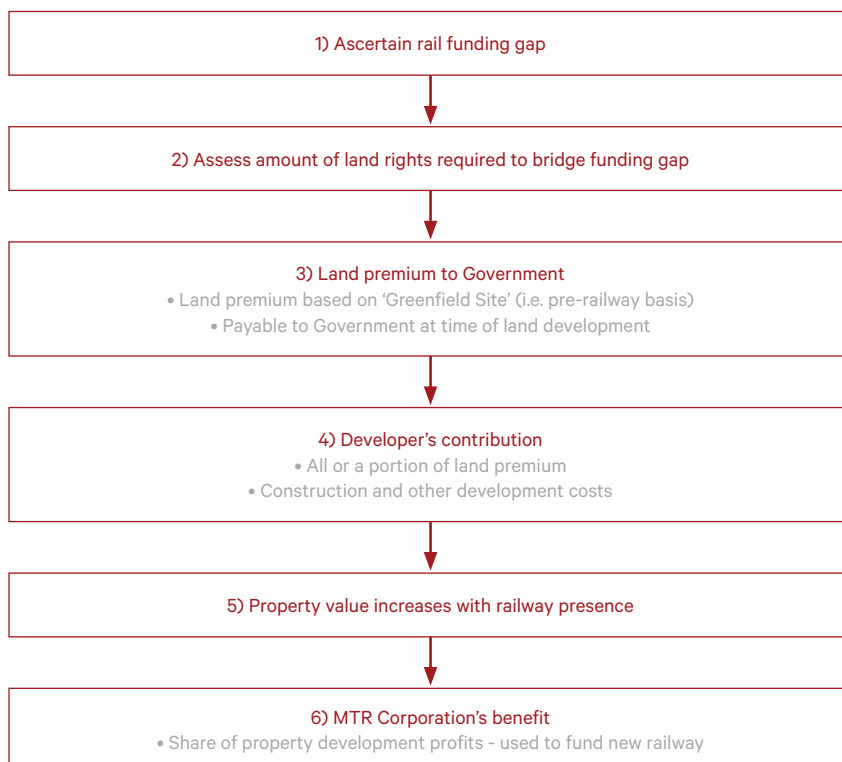
Approximately 90 per cent of all trips in Hong Kong are provided by public transport and half of these are provided by rail. Demand for land, both commercial and residential, is therefore very high around rail stations. The property + rail model exploits demand to locate near rail by capturing a portion of the value created by new station delivery.

The first key to the property + rail model is surprisingly simple. The location of stations is selected based on the presence of publicly owned land. By owning the land, the Government does not need to pursue contentious compulsory acquisition to capture value.

The second key is the integrated delivery of development and rail. The Government sells development rights to its monopoly rail provider, MTR. It is responsible for both constructing and operating Hong Kong's rail network and is also the property developer. Both property and rail considerations are managed internally as a single project.

The third key is highly successful value creation resulting from expert site master planning and development. Value which is not created cannot be captured. As a private, listed company (but majority owned by the Hong Kong government), MTR takes a commercial approach which the rail + property model skilfully aligns with public outcomes. MTR's financial success is dependent on delivering attractive and desirable developments which enhance property values. The end result for the Hong Kong government is that it is able to provide rail services across its territory at a profit.

Figure 13: Property + rail funding process²⁷



Land premium

Land premium is a charge the Hong Kong government places on properties applying for modification to their lease.

A developer wishing to redevelop land at higher density or extend their lease is subject to the charge. The premium is calculated as a proportion of the land value improvement and is designed to recover the infrastructure costs of a planning change.

Land sales

The property + rail model is highly efficient for funding expansion of the rail network and offsetting redevelopment costs of existing land. For funding services to new land, the Government uses land premium and land sales.

Land premium is a charge placed on rezoned or re-leased land. It is the second largest revenue item recorded by the government, exceeded only by corporate tax. Land premium captures the additional value rezoning or extending the lease on land provides.

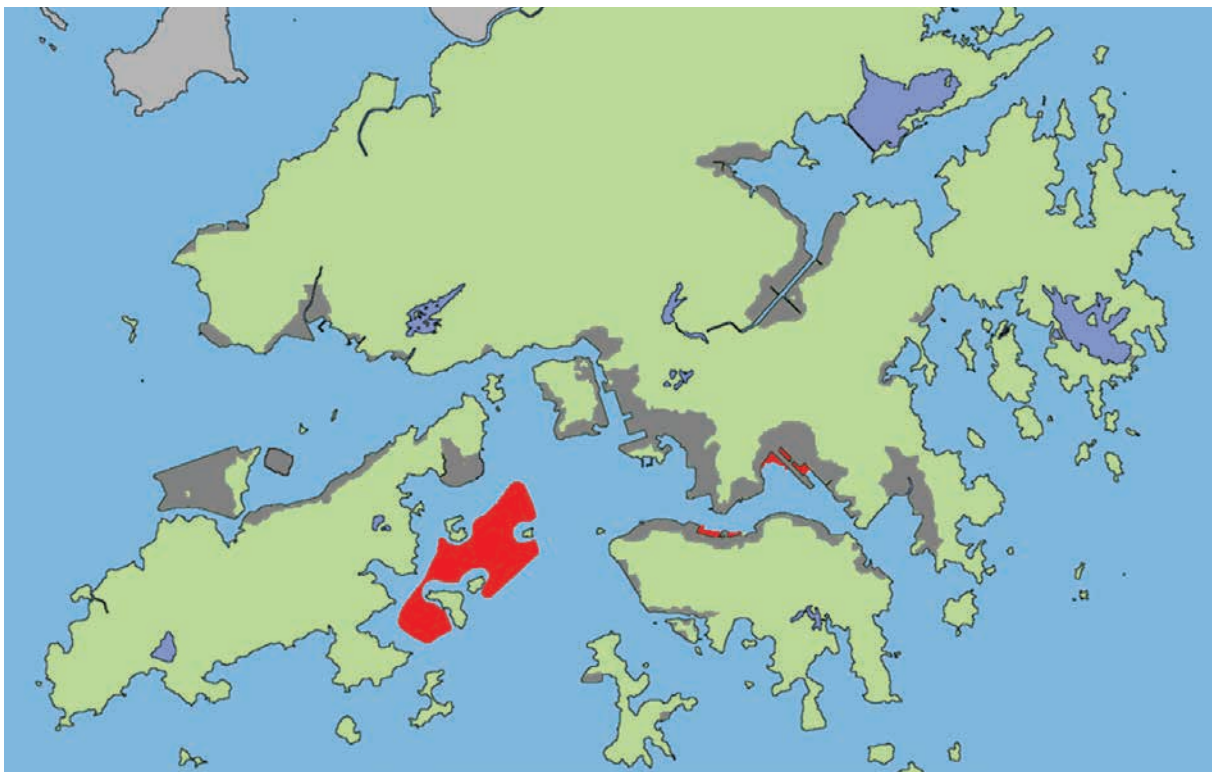
Land sales are especially relevant for reclamation. The demand for strategically located reclaimed land in land-starved Hong Kong is extremely high. The government leverages this demand to fund the works and infrastructure needed to create and service new land.

Hong Kong's land sales windfall

The East Lantau vision identified in HK2030 proposes reclamation of around 1000 hectares. The cost to create this much land and service it with transport connections is estimated at a massive HK\$624 billion (NZ\$120 billion). However, even by committing 70 per cent of enabled housing to lower value public housing delivery, the project is expected to return between HK\$1 trillion and HK\$1.15 trillion (almost NZ\$200 billion) in land sales.

This money is returned to the state and can be used to pay off debt. In addition, the Government reaps the benefit of economic activity related to the development through its general tax take, and estimates that HK\$141 billion will be created annually in value added from a third CBD.

Figure 14: Past (grey) and future (red) land reclamation in Hong Kong²⁸





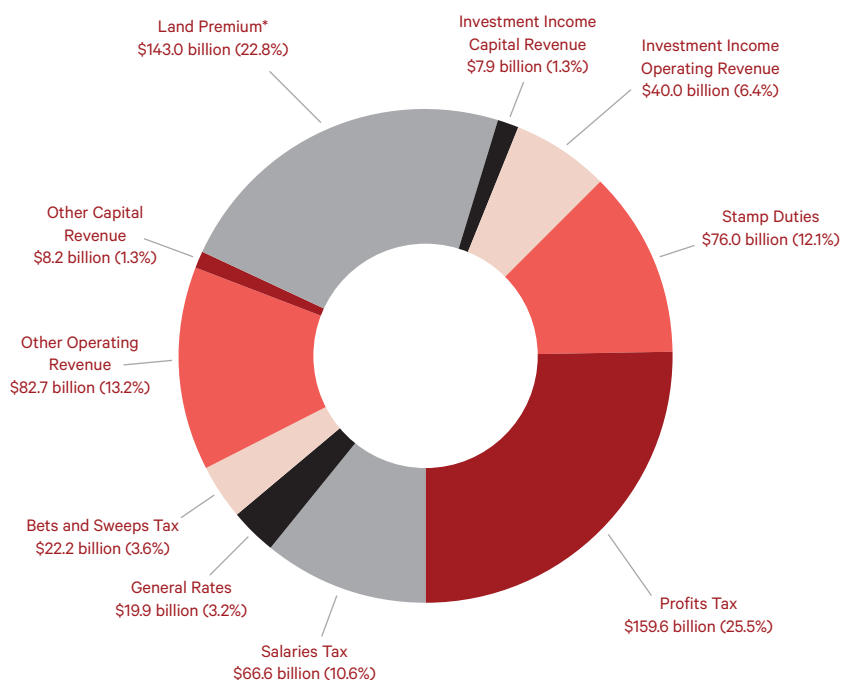
Tax in Hong Kong

For national development priorities which cannot be funded through commercial means, the Hong Kong government uses tax. Tax collection and government expenditure in Hong Kong is fully independent of China. Hong Kong taxpayers do not contribute to any national functions, even defence, and Chinese tax payers do not fund Hong Kong infrastructure or services. For shared projects, like the new Hong Kong-Zhuhai-Macau Bridge, the Hong Kong government funds works within the Hong Kong boundary, while other cities cover the cost of works within their boundaries.

The Hong Kong government has a long standing policy to keep public spending at or below 20 per cent of GDP (New Zealand government spending is around 30 per cent of GDP), enabling more competitive tax rates. Income tax rates are low, with a maximum level of 15 per cent. There is a modest additional deduction for social security of 5 per cent, but there is no GST/VAT in Hong Kong.

Despite rates as low as 8.25 per cent and characteristics which suggest the city is used as a tax haven, nearly one-third of all government revenue is obtained from corporate taxes. While this is the largest single revenue item, in total, land and property-related taxes generate more income. Land premium (a charge applied to all applications to modify a lease or land use condition), stamp duties and rates together comprise well over a third of all government revenue.

Figure 15: Hong Kong government revenue 2019²⁹



National Development Funding in China

China's funding of national development is quite different to the two city states. China is not a low-tax jurisdiction and different levels of government possess their own revenue streams. Nevertheless, the same fundamental result is achieved: revenue for national development is consolidated by the centre and allocated nationwide in pursuit of national outcomes.

The mechanism to consolidate taxation in a multi-tiered governance arrangement is the one-party system. Officials at all levels of government are members of the same organisation – the Chinese Communist Party. Provincial and city leaders are accountable to the leadership of the Communist Party, rather than their local constituents, and success is measured in how well officials implement national direction.

The machinery of the one-party system extends beyond political leaders and into state institutions. Hypothecation is largely notional with all tax revenue collected by local bureaus of the centrally managed State Administration of Taxation. The effect of this arrangement is equivalent to the consolidation of tax revenue by the Singapore and Hong Kong governments.

Tax in China

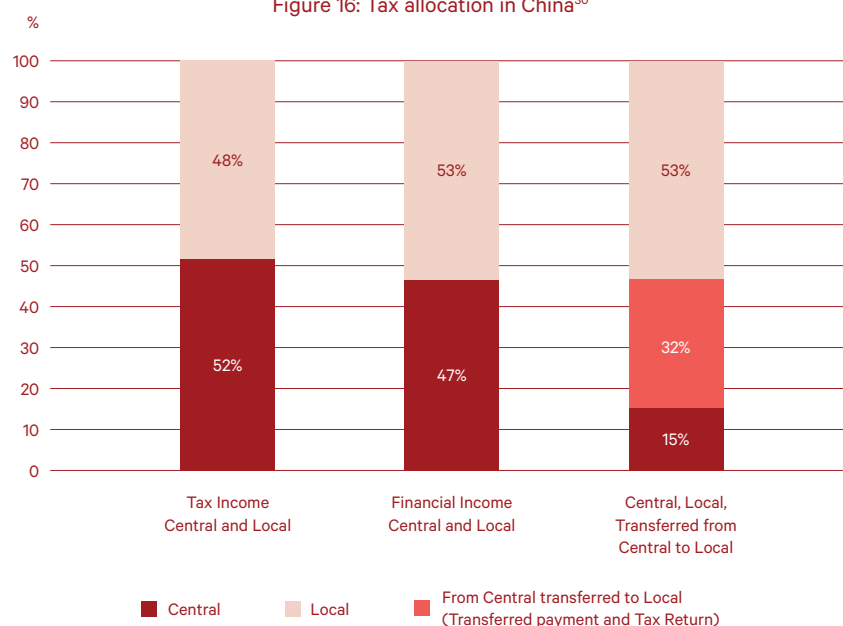
Tax revenue generation in China is shared in roughly equal proportions between central and local government (provinces and their subsidiaries). However, although central government receives half of all revenue, it allocates the majority of its share back to the provinces. This process encourages local and central funding alignment and enhances national influence over the prioritisation of local projects. Furthermore, tax policy is set in Beijing, so provinces and municipalities do not necessarily have the ability to levy new or higher taxes.

The flow of funding, prioritisation and revenue is not just from the centre outwards. Internal Communist Party processes, most importantly the National People's Congress, provide frequent opportunities for provincial and other local leaders to influence wider national policy. Once agreed through these processes, policy becomes national, and state institutions ensure implementation.

Income tax in China can be high – as much as 45 per cent. In practice, however, income tax only generates around a quarter as much revenue as the largest source, VAT (GST). VAT is levied at up to 16 per cent and generates over a third of all tax income. In addition, excise taxes on tobacco, alcohol, fuel and other items generate almost as much revenue as income tax.

Corporate taxes vary in application and collection, but are the second biggest revenue source, generating a little over half the revenue of VAT. Land and property related taxes are not individually significant, but collectively generate as much revenue as income tax.

Figure 16: Tax allocation in China³⁰



National Development Delivery

With nationally committed spatial and land use plans signalling the location and sequencing for growth, and a national funding pool ready to support implementation, the Singapore, Hong Kong and Chinese governments can move into the third and final phase of the National Development Model: delivery. All three systems have an exceptional record for delivering on plans. Complex and contentious projects like road pricing, reclamation and the Hong Kong-Zhuhai-Macau Bridge have become operational despite significant challenges.

Delivery under the National Development Model is retained by the state. The key agencies involved in developing land and building infrastructure are state-owned and influenced, usually under the direct oversight of a ministry. Delivery functions are not delegated to independent lower levels of government or the market. This can include housing, as well as transport and the basic provision of land.

The scale, accountability, integration and imperative that state delivery provides ensures projects reach the finish line in accordance with the plan. It also allows the state to influence the costs of housing and movement to promote economic and social performance.

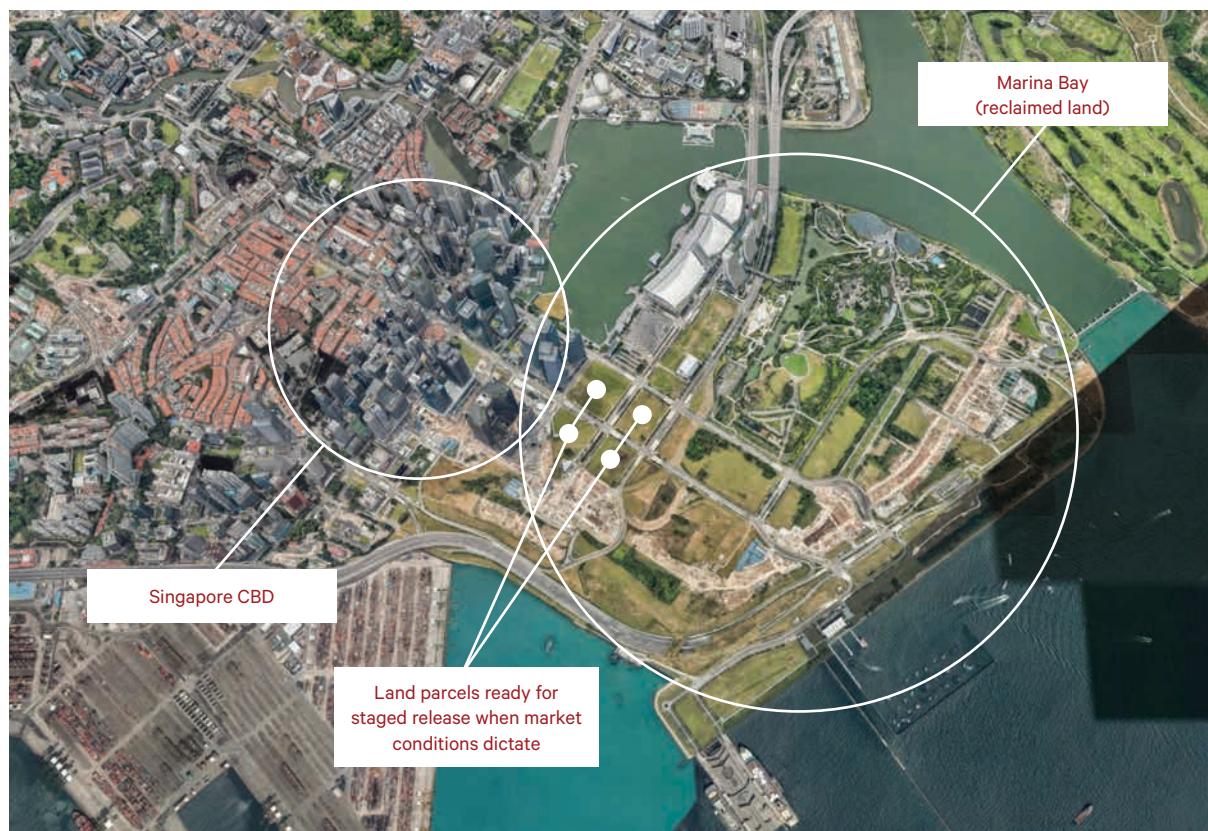
National Development Delivery in Singapore

With only one level of governance across a single urban area, the Singapore government has not had a need or even an option to separate governance responsibilities. The state has retained responsibility for services delivered elsewhere by lower levels of government, such as planning, infrastructure, parks and housing.

Nor has the Singaporean government divested key responsibilities to the private sector. Some activities, such as mobile phone services are privatised,³¹ but key development responsibilities are not. The state owns, operates and delivers core land development, transport and housing services.

Marina Bay

Marina Bay is a large 360 hectare reclamation project adjacent to Singapore's CBD. Famous for the iconic Marina Bay Sands three-legged tower, the Marina Bay development is more impressive for the long term staged release of commercial property in the heart of Singapore.



Land Management in Singapore

Through the Urban Redevelopment Authority, the government monopolises new land supply. The government owns some 80 per cent of all land in Singapore and this number is increasing, not decreasing, as the government exercises acquisition rights across a fixed area and reclaims land from the sea.

Land is sold (which usually involves a right to lease for 99 years) for development and redevelopment as and when market forces require and the Master Plan permits. Infrastructure, land release and development must be signed off by the Development Control Department of the state, to ensure they are in accordance with the outcomes aspired to in the Master Plan.

The URA exercises significant influence over the type of activity undertaken on new land, including the design of the final product. This has allowed, among other things, Singapore to lead the world in green building technology, as requirements for construction are tied to the land purchase.

Since the state receives the revenue from the sale (long term lease) of the land, there is an imperative on the URA to ensure its requirements are realistic and its programme delivered. Sale price recovers the state's cost, allowing the next plot of land to be prepared for development.

Singapore housing

The state's monopoly over land is supported by a near monopoly over housing supply. Over 80 per cent of all housing in Singapore is provided by the Housing and Development Board, a sister organisation of the URA under the Ministry of National Development.

HDB not only oversees the development, redevelopment and construction of public residential housing, it manages neighbourhoods and communities. It is able to plan, design and deliver suburbs, including recreational spaces, walkways and other services which support housing. In this way, the aspirations of the Master Plan relating to rejuvenation, sustainability and other social and economic outcomes can be physically delivered by an aligned agency.

Housing in Singapore

Less than 20 per cent of housing in Singapore is provided by the market. The remainder is provided by the HDB via a public-private arrangement. Through this model, the HDB builds homes using one of several layouts depending on household size. Homes are then made available to Singaporean citizens at a price heavily discounted from the market rate, but sufficient to recover a large proportion of the HDB's cost. Singaporeans can buy the home, with ownership expiring after (usually) 99 years.

This model has enabled Singapore to maintain comparably affordable housing. The median home price is just 4.8 times median income, roughly half of Auckland's and a quarter of the much more comparable city of Hong Kong. Singapore homes are also larger than those in Hong Kong and active HDB management ensures quality is maintained.

The HDB model carries some social benefits and disbenefits. Waiting lists can be several years for an HDB home and the units are not always accessible to non-traditional family typologies. Failure to meet standards of behaviour can impact access to housing and decisions about when homes can and should be replaced are made centrally, impacting property rights.

Singapore transport

The Land Transport Authority (LTA) is Singapore's fully integrated transport service provider. It oversees all transport modes, including Singapore's heavy and light rail, bus operations and road network. It is also involved in each step of the transport process, from transport planning, to funding, construction, operation and regulation.

Although overseen by the Ministry of Transport, the LTA works closely with the Ministry of National Development and its statutory board, the URA. The LTA has an active role in the Master Plan process to ensure that transport corridors are adequately provided for through long term land use planning.

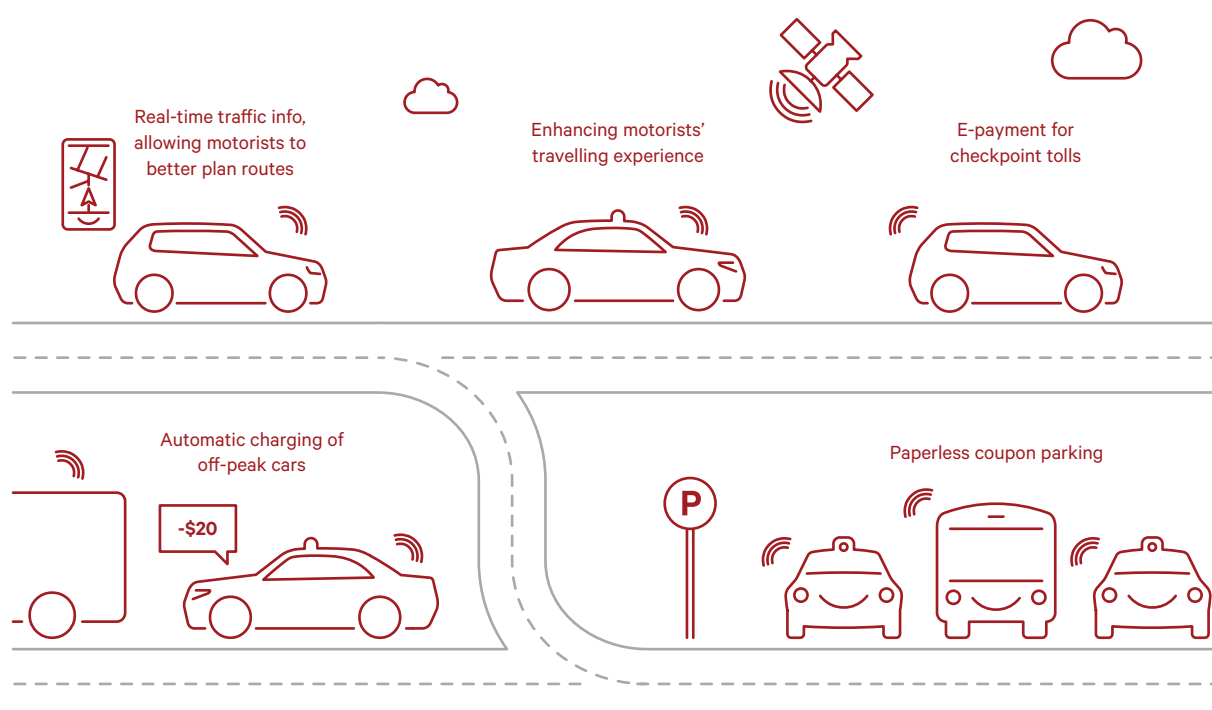
Once confirmed, the LTA operates within the scope of the Master Plan to enable movement around Singapore. LTA oversees the procurement of all transport services, helping it not only to evolve into a highly intelligent buyer but also to manage the transport network as a single system.



Road pricing

Singapore already operates the world's most advanced electronic road pricing system, but by 2020 will replace it with a comprehensive Global Navigation Satellite System. The new system will use satellite tracking to dynamically charge road use by time of day and distance travelled. It will be more responsive to managing congestion, less reliant on large roadside infrastructure (camera gantries) and will provide more accurate information.

Figure 17: Next-Gen ERP System Key Capabilities



Credit: Land Transport Authority

The LTA's integrated model combined with controlled land use has enabled successful delivery of some of the world's most ambitious transport initiatives. The LTA operates a unique vehicle quota system, limiting car availability on the island. It successfully rolled out the world's first major road pricing system, which is now being replaced with the world's most advanced dynamic congestion management system. The LTA is currently undertaking a major extension of heavy rail, is revising bus operations and setting ambitious targets for active transport.

Singapore's first major transport decision

Singapore has a long history of successful delivery of complex transport projects. The first, and arguably most ambitious, was the 1982 decision to roll out heavy rail across the island. Long term planning had identified that, as a fast-growing land constrained island, private vehicle use could not support transport needs. The Government was left with a choice between an affordable bus system or a much more expensive rail option costing a staggering 20 per cent of GDP. Buses were a better transport option, but rail could allow open space at Marina Bay to be redeveloped. Rail proceeded and land sales linked to rail subsequently raised S\$12 billion over six years.³²

National Development Delivery in Hong Kong

Hong Kong's economic and social progress over many decades has been a result of successful delivery in an extremely challenging urban environment. However, in contrast to the comprehensively managed Singaporean system, the Hong Kong government has had to be much more targeted and investment-oriented in its approach.

The Hong Kong government does not control land. It plays a lesser (though still significant) role in housing and is committed to minimal infringement on civil liberties (making a vehicle quota system, for example, untenable). The Government's achievement has been to make the best of what it has, delivering results in areas like housing which are in some ways less impressive than Singapore, but without equivalent trade-offs in property and other rights.

Hong Kong land management

Land ownership in Hong Kong is more closely aligned to the New Zealand model than that of Singapore. Although the People's Republic of China technically owns all land in Hong Kong, administering it through the Hong Kong government, most land is "owned" privately on long term lease. It is bought and sold like freehold property and property rights are strongly protected. The government is challenged to acquire land and cannot easily capture value improvement.

Reclaimed land and development control, however, are owned and monopolised by the Hong Kong government. The Development Bureau under the Secretary for Development is responsible for both. It is able to revise development rights to existing land, with the government receiving the land premium benefit. It is also able to reclaim land to add to commercial or residential supply, depending on demand.

The revenue benefit that the Hong Kong government receives from strategic land management incentivises delivery. Failure to deliver sufficient land to meet growth will result in higher housing and social costs for the government, reinforcing the imperative to act.

Housing in Hong Kong

Hong Kong has topped the Demographia survey of least affordable housing every year since inception.³³ Homes are very small, nearly half being less than 40m²,³⁴ yet median home prices sit at around 20 times median household income.

However, as in Singapore, these numbers are misleading. Through the Housing Authority, the Hong Kong government directly provides around 30 per cent of Hong Kong's housing units. Another 15 per cent are publicly subsidised. This leaves only around half the population (the higher income half) exposed to the market.

Through the provision of public housing and subsidies, the government is able to provide affordable accommodation for workers. Affordable housing substitutes for higher wages, keeping the economy competitive. Further, unlike welfare payments, housing sits on the government's balance sheet as an asset.



Hong Kong Transport

Hong Kong's transport system is among the best in the world. All modes are supported and land use is carefully integrated into major investment decisions. What is particularly remarkable is that this performance has been delivered by a highly fragmented system overseen by multiple agencies. Policy, regulation and delivery are all performed by separate government departments. In addition, MTR operates the rail network.

The property + rail model (described earlier), which integrates the property development of stations with rail construction and operation, is one major reason for successful delivery. The dedicated and combined provision of public property development with major new access increases ridership and offsets major public capital requirements. By avoiding what would be otherwise large financial injections to operate the subway network, the government is able to invest in other parts of the network.

It is not just the rail network which is well managed. Hong Kong's highways, ports, airports and other key transport infrastructure are world leading. The key is the Government's strategic commitment to excellent transport services. A central tenet of Hong Kong's overall economic strategy is to position the territory as a global gateway and logistics hub. Transport is the lynchpin of the Government's wider economic strategy, reinforced in HK2030+ and other strategic documents.

The consolidation of both economic revenue and responsibilities for transport, as well as of transport and land use, has enabled a fully integrated approach to moving people and goods. Where transport can be self-funded, it is, but where it cannot, the government invests. And it invests at a scale and pace which is unrecognisable in New Zealand.

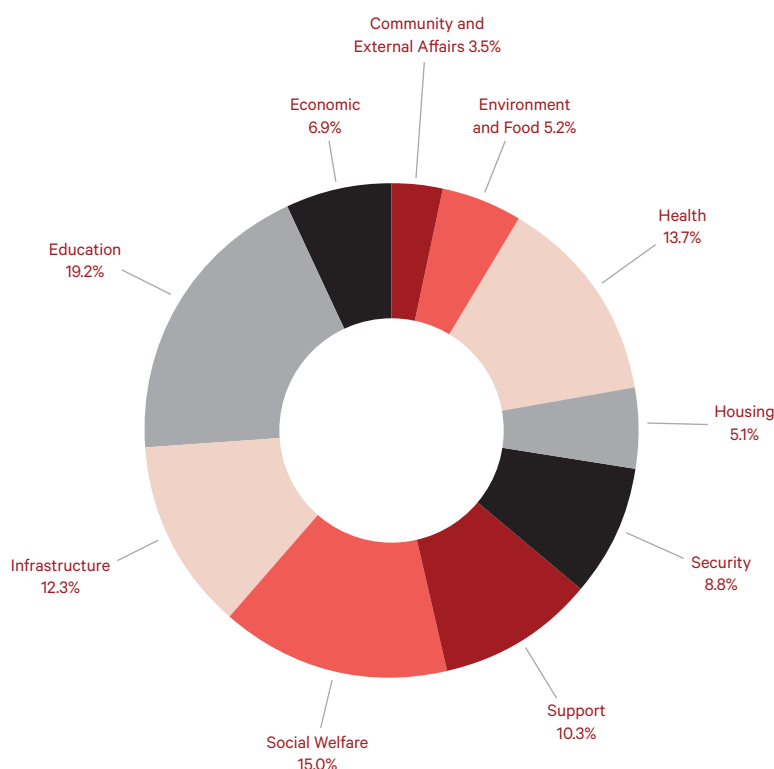
Government capital investment in Hong Kong

The Hong Kong government is investment-led. The 2019 Budget estimates total public expenditure for the coming year will be \$650 billion (NZ\$120 billion). Infrastructure spending will comprise 12.3 per cent, or around \$80 billion (NZ\$15.5 billion), of this spending. Housing will comprise another 5.1 per cent.

In the 2019 financial year, the Hong Kong government expects to initiate works on \$90 billion (NZ\$17 billion) of projects. Works include activities which in New Zealand are delegated to local authorities, including land development and water services, but does not include rail.

Hong Kong's NZ\$15.5 billion infrastructure spend this year is equivalent to around NZ\$2000 per person. The equivalent estimate for New Zealand infrastructure investment this year is around \$7 billion, or \$1500 per person.³⁵ In addition, New Zealand's population growth is around three times Hong Kong's level.

Figure 18: Total public expenditure Hong Kong Budget 2019-20³⁶



National Development Delivery in China

China's delivery of homes and infrastructure in the decades since opening up has dwarfed that of the rest of the world. Its urban population has grown by half a billion, all requiring new homes and services.³⁷ China now has more kilometres of motorway than New Zealand per person. Two-thirds of all high speed rail in the world is now located in China. Shanghai Metro is now the world's longest, Beijing the busiest.³⁸

The ability for the Chinese state to provide the land, infrastructure and housing to support its growth has been made possible via state retention of delivery responsibility. The Communist Party system has been able to acquire and rezone land, build infrastructure and provide homes.

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Delivery has been largely the responsibility of sub-national governments. Provinces and municipalities have, working to the direction of central government, rolled out the infrastructure and services needed to support massive urbanisation and growth.

A unique aspect of the Chinese approach is that the state has also retained a controlling interest in normally privately owned companies involved in the construction and operation of critical services.

China land management

Land in China is all publicly owned. However, while urban land is owned by the state, rural land is owned by local collectives. There is no individual or corporate ownership of land, but, as in Hong Kong and Singapore, land can be leased long term and traded as if it was owned.

In urban areas, national, provincial and municipal authorities are able to readily acquire, rezone and activate land. This has facilitated major urban growth and intensification, helping to drive the government's economic agenda while delivering new or regenerated land for hundreds of millions of urban migrants.

State land control is now facilitating de-intensification in support of social and environmental outcomes. Consistent with the five year plan, China's public authorities have recently undertaken to acquire urban residential land and replace homes with other services or activities. Major centres benefit from reduced congestion and air pollution. Newer, usually larger and more modern, homes are rebuilt in new cities on the urban fringe which are master planned to maximise urban outcomes.

Acquiring land in rural areas is more challenging. Land must be acquired from the relevant rural collective. This is not always straight forward, as the land is likely to be used for both housing and employment (i.e. farming). Land acquisition must therefore provide sufficient payment to compensate for the loss of community and income and may include provision of a new home or shares in the new development.



Nanhui new city and Lingang Industrial Area

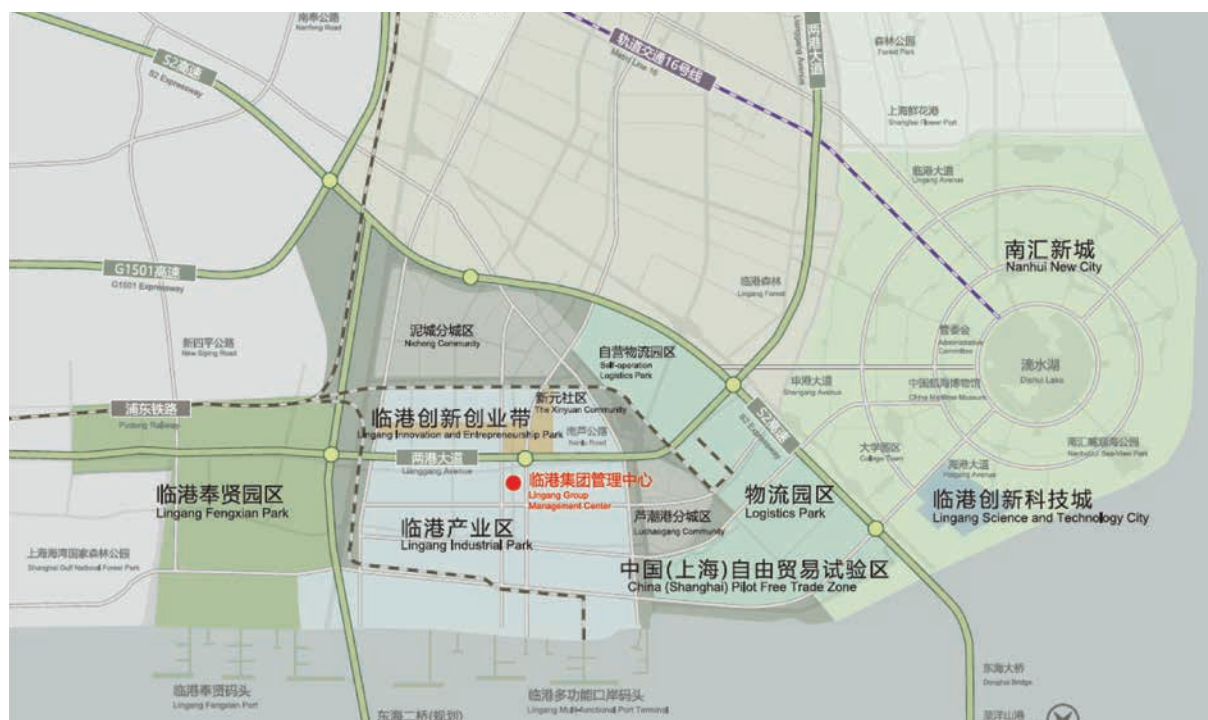
Nanhui is a new city located in the Lingang area 50 km from downtown Shanghai. Planned for 800,000 people, Nanhui is a university town situated beside a new greenfield industrial park. The whole site has been master planned to locate employment beside housing and ease pressure on the megapolis of Shanghai.

The area is made up of roughly one-third each of collective, state and reclaimed land. It is situated between the busiest container port in the world and the third busiest cargo airport in the world, Pudong International Airport.

Nanhui city is planned around a major manmade lake to enhance liveability. Lingang industrial park is designed to attract high-tech manufacturing pushed out of Shanghai by rising land prices, congestion and other urban challenges.

Development of both the city and the industrial park is being overseen by municipal-backed entities. Governing authorities acquire the land, approve the plan and fund the infrastructure. Shanghai Lingang Economic Development Group, a state owned enterprise of the Shanghai city government, master plans land use and infrastructure and attracts investment to deliver the industrial area.

Figure 19: Nanhui new city and Lingang Industrial Area³⁹



China housing

Since opening up, China has promoted home ownership as a national development priority (homes, unlike land, can be privately owned). Between 1980 and 2010 the rate of home ownership increased from 20 per cent to 70 per cent.⁴⁰ It now stands at 90 per cent.⁴¹ This rapid transition from largely state-provided to largely privately-owned housing has been made possible via strong national leadership and direction setting.

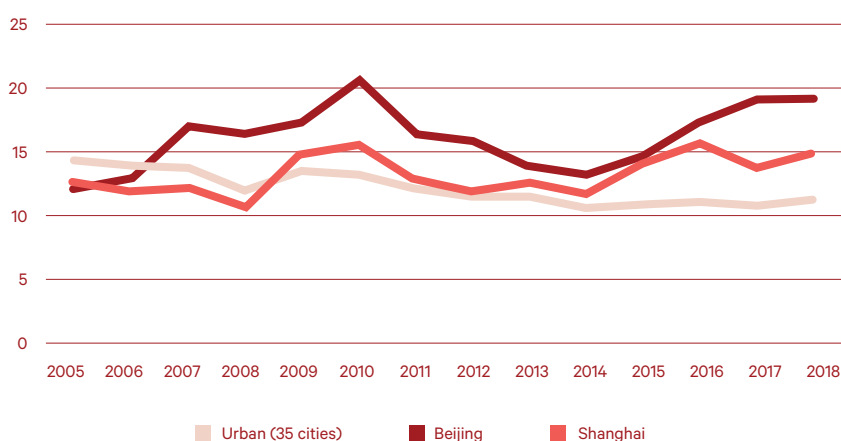
Home ownership has been viewed as a positive driver for economic growth. Vast development and home building initiatives have provided stimulus to the economy and employment. Compulsory savings initiatives have enabled residents to accumulate sufficient capital to buy market homes, removing the financial and fiscal cost from public balance sheets. Socially, the policy has provided newer and better homes, improving liveability. Per capita living space in China grew from 4m² to 29m² between 1980 and 2010 – a seven fold increase.⁴²

Enabling such rapid construction of not just homes but cities has been China's integrated governance arrangement. National priorities for housing have flowed down and through lower levels of government, ensuring land, zoning, infrastructure and other services needed for housing are delivered at pace.

Of critical importance is China's state owned enterprise model. Many of the major corporates involved in the planning, design and construction of residential development are state owned. While competing against one another, these companies also follow the guidance laid out in five year plans and other governing documents. Their financing is enabled by major banks, each of whom are partially owned by public authorities. Access to capital is used to manage economic performance through different parts of the cycle.

However, policies put in place to facilitate home ownership have also led to pressures on the system. China now has some of the most expensive housing in the world. Home prices in Chinese cities are 10-20 times household income, as much as double Auckland's. High prices have spurred construction and speculation. There are now reportedly 50 million homes (one-fifth of all housing stock) unoccupied across the country.⁴³

Figure 20: Home price to income ratio in China⁴⁴



For the comparatively small proportion of the population unable to own their own home, the Government assists with subsidised rent. But there are gaps in the system. Migration around China is restricted and the country maintains a resident registration system, helping it to manage urban growth. Unauthorised residents living outside their registered areas can struggle to access public housing and other services.





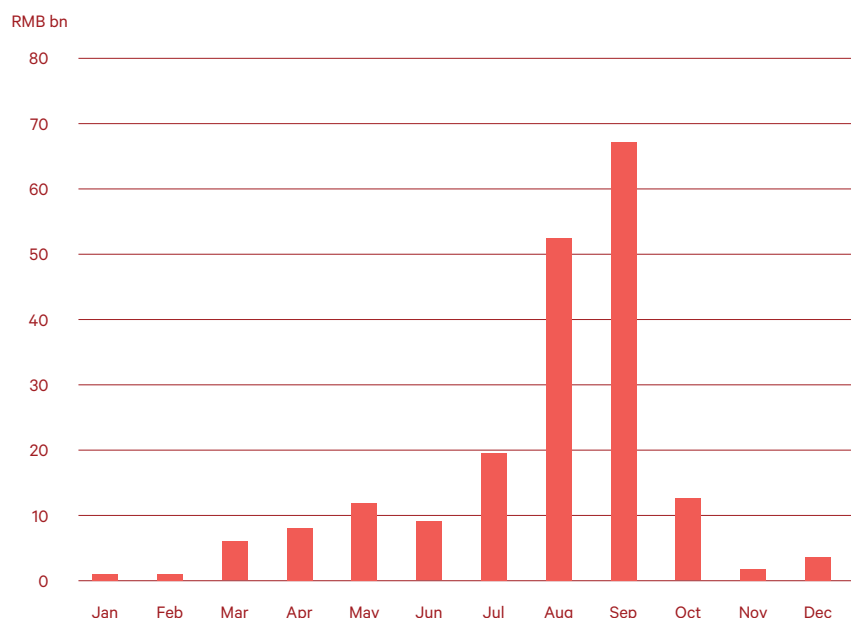
China transport and infrastructure

Transport and wider infrastructure delivery is managed similarly to housing, but with greater state influence. Infrastructure is almost all publicly owned and operated in China. Either through large state owned enterprises, or in their own right, national, provincial and municipal authorities design, build, finance and operate core road, rail, electricity, water, telecommunications and other services.

This approach has been central both to China's ability to deliver massive infrastructure works and manage economic, social and environmental development. Public funds and financing enabled through publicly owned banks have ensured sufficient capital for visionary strategic projects. Large state owned enterprises maintain their own debt programmes and can borrow extensively to finance priority initiatives. Publicly owned banks can respond to national direction and ensure capital is available for projects of public significance.

Importantly, the role of infrastructure (and more general development) in the Chinese system goes beyond simply providing the critical services for growth. Infrastructure finance and construction is used to moderate impacts on the wider economy, counteracting slowing or overheating. In August and September 2018 alone, local government bond issuance spiked by some NZ\$200 billion in response to a desire to stimulate the economy (Figure 21).

Figure 21: Local government special bond issuance in 2018⁴⁵



NEW ZEALAND'S DEVOLVED COST-BASED MODEL

National development planning in New Zealand

The National Development Model employed in Singapore, Hong Kong and China is fundamentally different to the model applied in New Zealand. The New Zealand Government does not proactively seek to achieve national outcomes through the state's natural activities in land use planning, transport and development.

Rather, it operates a permissive and delegated system, purposely taking a “back seat” approach to economic management. The Devolved Cost-Based Model is designed to enable markets to efficiently allocate resources across society. The Government supports development with critical public services and provides a net to catch individuals and communities slipping through the market-led system.

Under this approach, the Government focuses its activities on the inputs of national development, not the outcomes. The Government delegates responsibility for delivering public services to government departments and councils with their own Budget allocations or funding streams. This facilitates specialisation and encourages officials to manage public resources responsibly.

The Government plays an overall system management role, not a national development leadership role. The underlying assumption is that, if the Government manages its costs down, taxes and transaction costs will be lower, and businesses and consumers will allocate their income optimally. The implication for national development is that land use planning, transport, housing and other development-related activities are each performed by delegated entities outside of the direct control of the Government.

The New Zealand Government does not produce a comprehensive national plan – spatial, strategic or otherwise. Government economic, social and environmental priorities are articulated across multiple documents, including governing party pre-election manifestos, Budget documents and ministerial speeches.

The Government has produced a National Infrastructure Plan. This, however, is not a statutory plan or a “master” plan. It does not set out the current Government's priorities for national economic, social and environmental progress. It is a consolidated strategy for infrastructure across New Zealand and collates, rather than informs, more detailed plans, evidence and decisions.

Other national plans are produced on a portfolio-basis and set out the priorities and direction of the Government across a specific activity. For the key national development activities of land use planning, transport and housing, different planning systems apply.

Spatial and land use planning

New Zealand's planning system is governed by the Resource Management Act 1991 (RMA). The purpose of the RMA is to promote the sustainable management of natural and physical resources and the Act sets out a clear planning hierarchy to achieve its purpose.

The RMA does not provide a framework for identifying national economic, social and environmental priorities, translating these into strategic spatial plans or identifying and sequencing tangible projects. Often described as taking an “effects-based” approach, the RMA simply provides a framework for managing growth within the capacity of the environment.

There is no clear role for strategic national spatial planning under an effects-oriented planning system. In fact, the RMA largely delegates planning down to the subnational level. The Government does seek to influence local detailed land use planning via National Policy Statements, which sit above local and regional plans in the RMA hierarchy. Again, however, these relate to specific policy areas like national development capacity and coastal environments.

Land use planning is instead performed by regional councils, principally through Regional Policy Statements, and territorial authorities through city and district (town) plans. Conceptually, Regional Policy Statements provide the wider strategic framework within which detailed district plans specify what activities can occur where. However, the effects-based approach ensures that all plans are oriented towards managing the negative environmental impacts of growth and development, not facilitating positive economic and social outcomes.

Transport planning

Transport and land use planning, which in the Asian systems is combined to support growth and development, is disaggregated in the New Zealand Devolved Cost-Based model. Transport planning is set out in the Land Transport Management Act 2003, not the RMA. Transport plans have different statutory requirements for publication, different planning horizons and are performed by different organisations, thwarting recent efforts to integrate land use.

National land transport planning is delegated to an independent Crown entity, the New Zealand Transport Agency (NZTA). Every three years it produces a National Land Transport Programme to deliver the Government's transport objectives. The Government publishes its priorities in a Transport Government Policy Statement, but only at the strategic level. Decisions around the actual scoping, sequencing and prioritisation of transport solutions is devolved to NZTA.

NZTA manages national land transport funding and state highway operation. Other functions it shares. State owned rail provider KiwiRail owns and operates the rail network. Local roads, which carry roughly half of all traffic, are owned and operated by 67 city, district and unitary authorities. Public transport is operated by distinct regional councils.

Regional councils must, working with territorial authorities, produce regional transport plans. These must be consistent with the Government Policy Statement, but are also subject to local consultation. Regional and local councils are responsible to local communities, not the Government. Priorities are not always aligned. Long term investment is challenged by three-year election cycles.

Transport planning is statutorily separate from land use planning. All planned transport projects must pass through the RMA consenting process. National, regional and local priorities are inputs into consenting decisions for major transport projects and can be denied, creating serious impacts on long term transport policy.

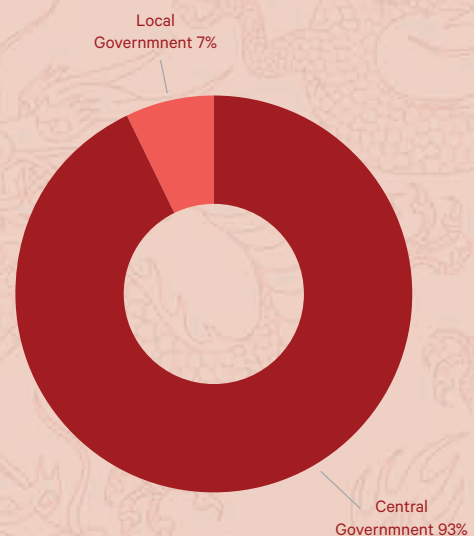
National development funding and delivery in New Zealand

It is not only planning which is different under the Devolved Cost-Based Model. Funding and delivery are bundled together to facilitate cost-efficiency and enhance specialisation. Individual transport, land development and housing services are distanced from direct governmental oversight. Ringfenced funding is used to manage expenditure and sustain dedicated and independent delivery entities. Major funding sources are retained by the Government, not allocated to national development.

Tax allocation in New Zealand

"Economic taxes" which rise and fall with growth in the economy – GST, income and corporate tax – are monopolised by central government. In the year to April 2019, the Government received a total of \$78 billion in tax revenue.⁴⁶ Around \$4 billion of this amount is ringfenced for transport. Just over \$1 billion is ringfenced for housing. Local government, which has delegated authority to levy property rates, raised under \$6 billion in 2018.⁴⁷

Figure 22: Tax revenue in New Zealand



Transport funding and delivery

Land transport is majority funded through the National Land Transport Fund administered by NZTA. The fund derives its revenue from fuel levies, road user charges and vehicle licensing fees. It currently generates around \$4 billion per annum. A further \$1 billion is contributed to transport by councils using property rates. The Government over the coming three years will inject a further \$200 million per annum from the consolidated fund.⁴⁸

This amount is low compared to Singapore, Hong Kong and China. Singapore will spend NZ\$12 billion this financial year on transport.⁴⁹ This is equivalent to over NZ\$2100 per resident. New Zealand will spend \$5.6 billion, under NZ\$1200 per resident. China spent NZ\$500 billion in the first nine months of 2018 alone on transport.⁵⁰ This is a modest NZ\$450 per capita (annualised) but, when considered alongside China's flat population growth, is equivalent to NZ\$100,000 per additional resident, roughly double New Zealand's spending.

Lack of funding under the Devolved Cost-Based Model is not the only issue. Funding is ringfenced to certain activities to facilitate a focus on cost-efficiency. NZTA must manage its expenditure within the limits of the national fund. There is only a small margin to borrow outside the \$4 billion hypothecated revenue stream. Major projects with high capital demands must be delivered within the limits of the fund. Where capital requirements exceed fund reserves, projects may be delayed or repackaged into smaller, more easily fundable components regardless of the impact on outcomes.

Local government funding is similarly affected. Council rates operate under a cost-recovery methodology. Councils estimate costs each year and set property rates according to need. Transport (and water and other critical services) expenditure is managed to meet cost, not maximise benefit. Council rates revenues are guaranteed, regardless of economic performance or costs transferred to other parties, creating poor incentives across the system.

Almost all transport investment requires coordination. NZTA co-funds public transport and local roads. Local roads are required to take traffic to and from state highways. Funding shortfalls across either NZTA or the relevant council can lead to project delay or cost cutting, regardless of the wider economic impact.

Land development funding and delivery

The Government has also devolved responsibility for opening and servicing land for residential and commercial development. Developers are expected to cover the on-site costs of transport, water and other services. Off-site costs, including provision of arterial roads and trunk water, are carried by territorial authorities.

Councils seek to pass costs on to developers, resulting in high development charges. High charges encourage incremental development which undermines scale. Smaller scale reduces the flexibility of land supply, pushing costs up further. Demand for new land reduces in response to higher prices, even if residential and commercial land supply is inadequate to meet growth. Lower income households are disproportionately affected while wealthier homeowners experience property value improvement, driving inequality. Land development and construction activity contribute less to the economy.

Public housing funding and delivery

It is not just the private marketplace which carries additional costs from poor land management. Through Housing New Zealand/Kāinga Ora-Homes and Communities, the Government maintains the great majority of the responsibility for housing people who cannot afford market accommodation. Housing New Zealand receives a ringfenced income-related rent subsidy from the Government on behalf of public housing tenants. In 2018, Housing New Zealand received \$813 million to maintain and operate public housing from the Government and a further \$391 million from tenants.⁵¹

Under the Devolved Cost-Based Model, public housing has historically been viewed as an expense, not as an investment or tool to improve wellbeing. Costs have been minimised, resulting in poor quality homes and transferred liability to the health and education system. Rising public housing needs from inadequate market supply have exceeded allocations to Housing New Zealand, leading to stricter criteria for accommodation. Individuals and families who do not meet criteria are challenged to find stable, suitable housing.

Undersupply of public housing has increased government operational spending on subsidised market housing. The Government now spends around \$2 billion per annum on the accommodation supplement.⁵² Perversely, the supplement reinforces high rental prices, increasing demand for subsidies and placing upward pressure on the cost of living.

INSIGHTS AND RECOMMENDATIONS

The Devolved Cost-Based Model has achieved its primary objective.

New Zealanders enjoy strong protections of their individual, community and property rights. Our public institutions are the global benchmark for efficiency and transparency. Public spending and national borrowing have been contained.

But institutional performance is not national performance. New Zealand's wider national outcomes have not been promoted.

The absence of a national plan means there is no mechanism to identify national priorities and translate these priorities into tangible projects or land use rules. Implementation is poor and integration of public services at the point of delivery is weak. Priority projects are tied to solving known problems, rather than enabling a national strategy. Planning horizons are short term. Urban planning is bottom up with little national guidance.

Managing costs or “cutting the cloth to suit the purse” is prioritised over creating value or lifting productive capacity. Under this approach New Zealand has seen severe infrastructure underinvestment. New Zealand's cities have become the most congested for their size in the world. Water services in many locations fail to meet acceptable health or environmental standards. Public housing deficiency has left thousands of New Zealanders living on streets, in cars and in garages.

Without adequate infrastructure to unlock affordable land, a shortage has emerged. High resulting land prices have pushed house prices beyond the reach of median incomes. Higher mortgage and rent costs have impacted discretionary income, reducing expenditure on other goods and services. Government reactionary spending on accommodation subsidies is crowding out other public expenditure priorities. Wage increases to meet housing costs are making New Zealand less competitive.

New Zealand is locked into low per capita income growth as congestion and inappropriately priced land for development limit the speed of the economy to the pace at which public services can be delivered. Economic wellbeing is impacted. Lower productivity and higher costs are pushing up the cost of living. Social wellbeing is impacted. Urgency to deliver housing and growth is compromising elite soils and sensitive ecosystems. Environmental wellbeing is impacted.

System benefits of the National Development Model

Through the National Development Model, the Singapore, Hong Kong and Chinese governments have turned the fortunes of their jurisdictions around. By linking planning, which controls the supply and therefore price for land, with funding and delivery of development, authorities have been able to capture land value improvement. The revenue obtained has enabled a combination of more affordable housing (particularly in Singapore) and expansion of transport (particularly in Hong Kong and China). More affordable housing and transport reduces upward pressures on inflation. Faster and cheaper movement of people and goods makes the Asian economies more competitive.

A more competitive economy has allowed the Asian tigers to move past other OECD countries struggling with low, slow growth. Economic outcomes have improved. Residents with access to affordable housing and transport have seen their discretionary income and mobility improve, enhancing social wellbeing. Controlled land use integrated with electrified rail has protected sensitive land and lessened carbon emissions, promoting environmental wellbeing.

“Place” has been used as a common denominator to coordinate public services in pursuit of integrated outcomes. Physical development is the mechanism by which authorities implement economic, social and environmental policy.

Reforming the New Zealand Approach

There are benefits and disbenefits of both systems of government.

The Devolved Cost-Based Model provides significant advantages for individual and local outcomes. When functioning efficiently, resources are optimally allocated across society as each individual chooses where best to spend their money. Growth can be strong, if it is not held back by regulatory practices which constrain choice and public investment policy which inhibits growth.

But the Devolved Cost-Based Model will always be challenged to realise national opportunities and overcome national challenges.

The National Development Model is designed to identify national issues and opportunities and address them. However, individual choice is impacted. Comprehensive land use planning is needed to ensure demand for infrastructure aligns with investment decisions. Significant power is vested in the state, requiring consistent, strong and capable leadership.

New Zealand needs an approach which leverages the strengths of the existing Devolved Cost-Based model and the strengths of the National Development model. Interests at all levels of society need to be recognised and outcomes for New Zealand promoted.

The New Zealand Government has already initiated a major process of reform. The New Zealand Infrastructure Commission-Te Waihangā will produce a national infrastructure pipeline and strategy. The Housing and Urban Development Authority will transfer urban planning powers to a centrally guided agency with funding and delivery capability. Wider planning reform is on the horizon. The State Sector Act Review is reorienting departmental focus away from inputs and process to outcomes-focused delivery. The Provincial Growth Fund is reinvesting in the regional Heartland. The Budget is targeting wellbeing.

However, these improvements require ongoing and additional reform to materially move New Zealand away from a focus on process to one on outcomes.

Recommendation:

- 1. New Zealand retains the Devolved Cost-Based approach where subnational decisions are empowered and central government focuses on enabling the market economy, minimising costs and unnecessary regulation.**

Retaining the devolved approach will best protect individual and community outcomes, promote private enterprise and prevent overextension of national powers. But national outcomes will be impeded without additional reforms.

Recommendations:

- 2. Central government shifts focus from services to outcomes. In consultation with regions, the Government sets out national outcomes, objectives, priorities, projections and targets in a statutory national plan, but does not lead the implementation of the plan.**
- 3. Subnational economic and social zones where communities live, work and play – regions – deliver the national plan.**
- 4. Central government monitors regional implementation.**

Fully integrated national strategic, spatial and land use planning provides too much power to one level of government and cannot be effected within three years. Subnational governance is needed to balance national power and provide longer term delivery capability. Government performance monitoring and support provided to regions, where necessary, will facilitate implementation through the political cycle. A top down-bottom up process will ensure alignment of plans nationally, regionally and locally.

Recommendations:

- 5. Regions develop spatial plans which translate national priorities into relevant regional outcomes and, in turn, tangible projects and land use plans which deliver the outcomes.**
- 6. Regions develop minimum land use rules to align with infrastructure capacity and investment as a prerequisite for land development.**
- 7. Local councils develop maximum land use rules to align with community aspirations.**
- 8. Regional and local spatial and land use plans are signed off by central government.**

Strategic spatial planning is needed to translate intangible regional and national outcomes into tangible land use rules and projects. Strategic planning must incorporate the whole socio-economic area, linking employment to homes and people to their regular activities. Land use and infrastructure development must go hand in hand. Spatial planning without land use planning will not engage the community and will undermine implementation. Full land use planning authority in one level of governance concentrates too much power. Local communities provide valuable input. They need the opportunity to drive local economic, social and environmental outcomes and identity. Plans must give effect to national priorities.

Recommendations:

9. **Funding is devolved from central government in proportion to increases in planning powers and responsibility.**
10. **Regions receive a portion of economic taxes (GST, income and corporate tax), to incentivise and support investment in national priorities, and levy property taxes and user charges to fund infrastructure and other spatial activities.**
11. **Local councils retain local property rating powers.**
12. **Central government allocates a portion of its revenue to regions to implement national direction. Regions allocate a portion of their revenue to local councils to implement the regional spatial plan.**

Funding from activities linked to the economy needs to come from taxes linked to economic performance. Projects and plans which improve land value need to be co-funded by taxes linked to higher property values. Linked funding aligns incentives to invest. Funding from higher levels of government to lower encourages buy-in. Land and property taxes levied in proportion to value reflect the capital value impact of public activities and reduce the need for restrictive planning rules. Individual and community aspirations are better protected and national outcomes better promoted with a low level property tax rather than regulation. Funding sourced from higher levels of government helps incentivise alignment.

Recommendations:

13. **Delivery of transport, including fuel levies and charges, is delegated to regions. Central government provides an allocation from the consolidated account to fund economic, social or environmental public good outcomes.**
14. **Delivery of water is corporatised and funded through volumetric charging. Water service provision sits off local, regional and central balance sheets, enabling financing.**
15. **Delivery of public housing is delegated to regions and funded from regional taxes.**
16. **Delivery of market housing remains private.**
17. **Third party delivery of growth infrastructure not included in regional plans is permitted. Funding and financing is enabled through long term targeted property rates.**

Specialised delivery of public services is effective where funding is not ringfenced but linked to value created. Activities providing services to a defined area should be delivered by that area, allowing integration into spatial plans. Central government is the only entity capable of monitoring performance against national outcomes and is conflicted when monitoring its own agencies. The public housing costs of market housing failure should remain with the authority responsible for growth planning. Individual and local outcomes will not always be represented by regional plans. Local communities need development alternatives where regional planning and investment does not meet need.

These changes to the planning, funding and delivery of public services will promote national outcomes, whilst enabling an open market economy, and supporting individual and local aspirations.



**Scale model of Toa
Payoh Town, Singapore
as presented at the
Singapore City Gallery**

Singapore, Hong Kong, Beijing and Shanghai all operate public city galleries. The public are invited to the galleries to visualise the future growth of their city. Galleries facilitate public engagement, provide an opportunity to explain and inform and help build understanding of city direction.

**TOA
TO**

**PAYOH
DOWN**



ENDNOTES

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