



# Building A People

BY SINGAPORE DEMOCRATIC PARTY

## SOUND POLICIES FOR A SECURE FUTURE



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# BUILDING A PEOPLE SOUND POLICIES FOR A SECURE FUTURE

SINGAPORE DEMOCRATIC PARTY

## EXECUTIVE SUMMARY

In 2012, Singapore registered a population of 5.31 million, with Singapore citizens making up 3.29 million. This makes us the third most densely populated country in the world. Overcrowding and the failure of our infrastructure to effectively deal with the population load has led to escalating housing prices, diminished job opportunities, an over-extended public transport system, increased stress and a general lowering of quality of life for Singaporeans. The approach of the PAP Government over the last two decades has not addressed these challenges. The Government's White Paper on Population will struggle to tackle Singapore's demographic challenges because it has not departed from the policy fundamentals which gave rise to the present situation.

The PAP Government announced its intention to increase the population to 6 million by 2020 (it had originally announced 6.9 million by 2030 but abandoned that idea due to public criticism) by bringing in nearly 500,000 more foreign workers. This will put considerable strain on our resources and infrastructure, further lowering the overall livability of this island.

A new approach is needed. A population policy that places economic growth as its main objective and GDP as its key performance indicator cannot handle the totality of factors that promote quality of life. Population management is a central feature of the total policy framework and therefore requires a more holistic, systemic and future-oriented methodology, capable of linking the various policy outcomes into a coherent whole, always with the welfare of individual Singaporeans and their families at its heart.

As such, an arbitrarily selected population figure should not be starting point of the debate. Policy making must remain dynamic to changing economic, social, demographic and global/regional conditions. The proper approach to population policy making approaches the task from the standpoint of the fundamental outcomes generated by the whole complement of national policies rather than within its own four walls.

The Singapore Democratic Party proposes such a programme. The approach to population should focus on an immigration mechanism designed to attract and retain the best talent while preserving the obligation to provide citizens with a fair and equitable labour market. It should additionally address those factors that conduce to a better quality of life, principally through ensuring that the cost of living is manageable. Supporting these objectives is an actionable programme to better manage the demographic profile should be put in place as well as enhancing the Singaporean identity. Finally, the nation should move away from GDP to more holistic measures of wellbeing and align the incentives of policymakers with the wellbeing of Singaporeans.

*1. Enact a Singaporeans First Policy.* A nation should always ensure that the wellbeing of its citizens is prioritised. To this end, a TalentTrack Scheme should be implemented, to ensure that only foreign professionals whose skills and credentials are rigorously verified may work in Singapore. Businesses seeking to hire foreign professionals will be required to demonstrate that the competencies they seek are not available within the Singaporean candidate pool. Fair employment laws will also be passed to protect the interests of workers. This policy will have

the effect of significantly reducing the number of foreign workers while maintaining a high quality workforce in Singapore.

*2. Introduce Policy Reforms to Retain Singaporean Talent and Raise the Total Fertility Rate.* The push factors which lead to significant emigration from Singapore are a good indicator of the areas of policy that are not meeting the needs of Singaporeans and their families and leads to a suppression of the Total Fertility Rate. These factors include the price of social goods such as housing and healthcare and the quality of the education system. Ensuring affordable housing and reducing the waiting time for flats, facilitating access to good healthcare through managing costs, and reforming the education system to ensure an all-rounded and creative educational experience are the principal concerns of Singaporeans that influence their loyalty to Singapore and their ability to create a family.

*3. Formulate Plans to Advance Towards a Sustainable Population Profile.* The developmental work of government requires deeper study and policy development around changing population demographics in order to ensure that Singapore crosses the demographic hump in a smooth and sustainable way.

*4. Strengthen the Singaporean Identity.* Citizens and new immigrants should feel a sense of belonging, loyalty and pride in their country. Policies that entrench our ethnic and other differences work against this. The Ethnic Integration Policy should be abolished and the race identification on the National Registration Identity Card should be removed as has been done in Malaysia.

Sensible limits to immigration will allow the Singapore culture to strengthen and flourish and facilitate an organic emergence of a Singapore Identity which new immigrants can take pride in being a part of. A population policy that leads to a majority of residents being foreigners will, on the other hand, cause the Singapore Identity to constantly remain insecure, having a detrimental effect on the loyalty and belonging of future generations

*5. Go Beyond the GDP for Measuring National Progress.* It has long been established that Gross Domestic Product (GDP) is a blunt tool that does measure the wellbeing of our citizens and their families. A new index, drawing on the Genuine Progress Indicator (GPI) methodology, facilitates a more holistic indicator of national progress by factoring in the costs (such as increased crime and vice, family breakdowns, decrease in mental health, etc.) that go into producing GDP growth.

*6. Revamp the Ministerial Pay Formula and KPIs for Senior Civil Servants.* Alongside a more coherent and comprehensive measure of wellbeing such as the GPI, the remunerative incentives of Cabinet ministers and senior administrators should be realigned to ensure that citizen wellbeing remains the essential measure of the success of policies and programmes.

Establishing a more systematic and comprehensive suite of policies which seek to ensure the holistic wellbeing of Singaporeans through better study and measurement of progress will broaden the approach to population management. The economic growth of our country and the welfare of citizens are both of great importance. The six policy measures outlined above will initiate a deeper and more meaningful policy framework directed towards achieving a better quality of life for Singaporeans, a more sustainable economic model and a resilient Singapore.

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# BUILDING A PEOPLE SOUND POLICIES FOR A SECURE FUTURE

SINGAPORE DEMOCRATIC PARTY

## INTRODUCTION

Singapore is a nation: a community and a home to its citizens. It is not a marketplace to which travellers come when times are good and depart when things turn bad. It is where we live out our lives, bring up our children, care for our elderly, and look out for our neighbours - for better or for worse. If our home becomes a pit stop for birds of passage and citizens of convenience, it is no longer a home but a hotel. Tragically, under the People's Action Party (PAP) Government's current population and immigration policies, it is rapidly becoming so.

New arrivals bring skills, energy, optimism and hope. Singapore can also benefit from exposure to different ideas, customs and traditions. However, such positive outcomes can only occur if the intake of immigrants is carefully managed.

When foreigners are indiscriminately admitted in large numbers over a short span of time, the results are often negative and even dangerous. Sudden, rapid increases in population give rise to economic and social stresses. Strains begin to show on infrastructure under stress of a heavy population; wage competition for employment heightens and depressed wages result; ethnic enclaves are formed; and the chances of an outbreak of new disease increases as does the likelihood of the recurrence of previously controlled infections. All this puts national cohesion is put at risk<sup>1</sup>.

### Early Singapore

Historically, Singapore developed as an immigrant society. Our strategic geographical location at the crossroads of international trade gifted us with a bustling market economy that attracted immigrants from all corners of the world. The mix of immigrants brought energy and verve to early modern Singapore.

But building a cohesive society with multi-ethnic and multi-religious migrant base is challenging as multiculturalism is fragile. However, we have managed to overcome division and prejudice to allow a distinctive Singaporean culture to flourish. To be sure, there are still many challenges concerning race relations to be addressed but these are not insurmountable especially if a strong cultural and national identity can be forged to bind Singaporeans together as one.

### Population Growth in Singapore

As the country progressed, the population enjoyed longer life expectancy. Unfortunately, the evolution of our culture led to a greater focus on career. Coupled with increases in the cost of living and greater uncertainty over what the future would hold for the next generation, many are having fewer children and having them later. The combination of rising life expectancy and decreasing total fertility rate (TFR), which currently stands at 1.24, presents difficulties

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<sup>1</sup> See Gordon, Travers and Whitehead (2007), Pillai (2008) and Oh et. al. (2012) for recent studies on the impact of inward migration. Charles Booth's monumental *Life and Labour of the People of London* (Booth, 2009) provides a great deal of nineteenth century data on an overcrowded industrial city.

for the economy<sup>2</sup>.

The response from the Government has been mainly to increase the intake of immigrants and foreign workers while admonishing older Singaporeans to stay in the workforce.<sup>3</sup> Its argument is that an increase in population and workforce size is needed to maintain economic growth, measured by the Gross Domestic Product (GDP) and to ensure an adequate proportion of working to elderly non-working persons. Several governmental agencies such as the National Talent and Population Division in the Prime Minister's Office, the Ministry of Trade and Industry, the Ministry of Finance and the Institute of Policy Studies have written papers defending the Government's position.

Broadly, they make the following points:

- Singapore's TFR is well below the replacement rate of 2.1. Despite pro-family policies, the government has been unable to positively affect procreation rates. As a result, population increase needs to depend on immigration.
- The increase in life expectancy from 72 years in 1980 to 82 years in 2010 has created a much smaller proportion of working people to retirees, thus increasing the burden on the employed. A small workforce will create a smaller tax base from which to support an ageing population.
- A shrinking workforce will drive away investors since the Labour Force Participation Rate is high (80.7 per cent in 2011) and there is a limit to how much further it can increase.
- To mitigate these problems the studies suggest that immigrants and foreign workers are needed to drive the economy.

Some of these reports were quick to point out, perhaps in response to mounting criticism from Singaporeans that the rate of increase of foreigners has slowed down since 2009. For instance, the Ministry of Finance in its December 2012 report, *The Singapore Public Sector Outcomes Review* (Ministry of Finance, 2012), noted that the pace of population growth slowed from 4.3 per cent in 2007 to 2.5 per cent in 2012. The reality, however, is that the overall aggregate number of foreigners coming into Singapore continues to rise.

Figure 1-1 summarizes data on Singapore's population over the past few years (National Talent and Population Division, 2012a):

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<sup>2</sup> This pattern of falling fertility is observed in most developed countries. Many have managed to deal with this demographic challenge through higher productivity and a culturally appropriate immigration policy.

<sup>3</sup> The Retirement and Reemployment Act 2012 facilitates wage cuts for older workers remaining in the workforce.

Year	Total Population	Citizens	PRs	Non-resident	New PRs	New Citizens	Overseas Singapore Citizens
2012 <sup>4</sup>	5,312,400	3,285,100	533,100	1,494,200	not published	not published	200,000
2011	5,183,700	3,257,200	532,000	1,394,400	27,251	15,777	192,300
2010	5,076,700	3,230,700	541,000	1,305,000	29,265	18,758	184,500
2009	4,987,600	3,200,700	533,200	1,253,700	59,460	19,928	180,700
2008	4,839,400	3,164,400	478,200	1,196,700	79,167	20,513	153,500
2007	4,588,600	3,133,800	449,200	1,005,500	63,627	17,334	147,500
<b><i>Increase (2007-2012)</i></b>	<b><i>723,800</i></b>	<b><i>151,300</i></b>	<b><i>83,900</i></b>	<b><i>488,700</i></b>	<b><i>(&gt;)231,519</i></b>	<b><i>(&gt;)92,310</i></b>	<b><i>52,500</i></b>

Figure 1-1: Population Growth 2007-2012  
[Source: National Population and Talent Division (2012a)]

In just under six years, Singapore experienced an enormous increase in population. A total of 488,700 non-residents (mostly foreign workers<sup>5</sup>), over 231,519 PRs, and over 92,310 new citizens were added to the country<sup>6</sup>.

The numbers show that out of the total addition of 723,800 to the population between 2007 and 2012, a high percentage comprised non-Singaporeans (488,700 non-residents, 258,770 PRs, 92,310 new citizens). In percentage terms, the number of citizens grew by 5.1 per cent (from 3.13 million in 2007 to 3.29 million in 2012) but this number is inclusive of the 92,310 new citizens. In contrast, the foreign population grew much more by 47.5 per cent (from 1.01 to 1.49 million) and PRs grew by 17.8 per cent (from 450,000 to 530,000) (Leong, 2012).

### Framing the Problem

Singapore numbers among the nations without a countryside or hinterland. Furthermore, only half of existing land may be built up (including about 12 per cent for roads). The rest of the island is occupied by military training grounds, the central catchment area, 17 reservoirs and golf courses, five airports or airfields, and two naval bases. In spite of extensive land reclamation over the last 40 years which grew the country to the present size of about 700 sq. km, Singapore remains one of the most densely populated countries in the world.

In 1993, under former Prime Minister Goh Chok Tong, the Singapore Government published a blueprint called *The Next Lap* in which it stated that a 4-million population was a comfortable figure (Government of Singapore, 1991). However, in 2007, former Minister for National Development, Mah Bow Tan, hinted that the Government intended to raise Singapore's population to 6.5 million (Mah, 2007):

*“A recent review of our long-term land use and transportation plan concluded that we*

<sup>4</sup> June 2012.

<sup>5</sup> See page 5, Population in Brief, 2012 (National Talent and Population Division, 2012b).

<sup>6</sup> At time of press, the total number of new PRs and new citizens in 2012 was not publicly available.

*have enough land to cater to a population of 6.5 million.”*

He was contradicted by then Minister Mentor Lee Kuan Yew in February 2008:

*“I have not quite been sold on the idea that we should have 6.5 million. I think there's an optimum size for the land that we have, to preserve the open spaces and the sense of comfort.”*

Lee stated, instead, an optimum population size of 5 to 5.5 million for Singapore (The Straits Times, 1 February 2008). Mah clarified in April 2011 that the 6.5 million figure was “*not a population target*” (Mah, 2011). In a September 2012 interview, Prime Minister Lee Hsien Loong said, “*Today our population is over 5 million. In the future, 6 million or so should not be a problem.*” (Yahoo! Newsroom, 23 September 2012.) In the White Paper, *A Sustainable Population For A Dynamic Singapore*, released in January 2013, the Government hinted at its intention to raise the population to 6.9 million by 2030 (National Talent and Population Division, 2013). The lack of coherence at the heart of Government is concerning.

In the population White Paper, the Government cites three pillars on which its policy rests: (1) maintain a strong Singaporean core, (2) create good jobs for Singaporeans, and (3) provide Singaporeans a higher quality of life. These pillars were previously used to defend the increase of the population to the current level of 5.3 million, and they have been re-packaged for the present White Paper. However, reality denies these stated intentions:

*A strong Singaporean core.* According to the World Bank, in 2010 the emigrant population in Singapore was 6.1 per cent of the total population of about 5 million people (The World Bank, 2010). A survey conducted by Mindshare in 2012 found that 56 per cent of the 2,000 Singaporeans polled agreed or strongly agreed that, “*given a choice, I would like to migrate*” (The Business Times, 6 October 2012). Between 2000 and 2010, an average of 1,000 Singaporeans renounced their citizenship every year (Twelfth Parliament of Singapore, 28 February 2012). The PAP's population policy has, therefore, not succeeded in maintaining a strong Singaporean core with the current level of 38 per cent foreigners in the population. Achieving this objective by increasing the population to 6.9 million where 50 per cent are foreigners is even less likely to be successful in the absence of comprehensive reforms.

*Creating good jobs.* According to a survey conducted by the International Labor Organization (ILO) in 2009, Singaporeans work the longest hours among 12 countries at a similar level of development (International Labor Organization, 2009). The same study reported that real incomes have declined in the same timeframe. Singaporean workers have also been found to be among the unhappiest in the world (The Straits Times, 30 May 2011). In a survey of 14 economies, Singaporean workers were found to enjoy going to work the least, are the least loyal to their employers and have the least supportive workplaces. Only 19 per cent of those polled looked forward to their work each day; the global average was 30 per cent.

Two further obstacles to achieving this second objective exist. Almost half of the economy is concentrated in the lower-skilled work. A central plank of the population policy is to maintain this concentration. Therefore, the increase in population indicated in the White Paper may in fact entrench the current employment structure rather than transform it.

Additionally, transformation of the economy requires some creative thinking to boost stagnant productivity levels. In January 2013, Deputy Prime Minister Tharman Shanmugaratnam took the view that productivity is much lower than developed countries. He



stated that fundamental and sustainable job transformation is required including attention to salary, training, skills, and respect for workers (The Straits Times, 14 January 2013). However, the government's policy programmes over the last decade have not addressed economic transformation in the concerted manner which he correctly identified.

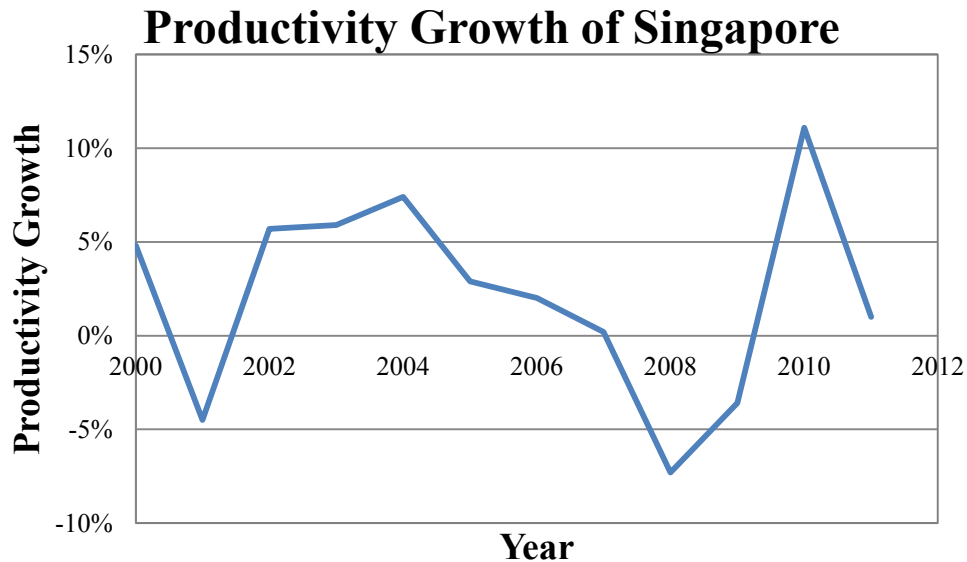


Figure 1-2: Time Series of Productivity Growth of Singapore  
[Data Source: Ministry of Manpower (2012) and Department of Statistics (2013)]

*Higher quality of life.* The Purchasing Power Parity (PPP) of Singaporeans is one of the weakest. A UBS study showed that Singaporeans' PPP was 39.9 compared to Zurich (106.9), Sydney (95.9), Luxembourg (95.4), Tokyo (82.2), Auckland (68.9), Taipei (58.9), Hong Kong (58.1) and Seoul (57.4) (UBS, 2009). This means that in 2009<sup>7</sup>, Singaporean's domestic purchasing power was around 37% that of residents of Zurich, 42% that of Sydney or Luxembourg residents, 49% that of Tokyo residents, 68% that of Taipei residents, 69% that of Hong Kong residents and 70% those of residents of Seoul.

Additionally, according to a Gallup poll of over 150,000 people worldwide, Singaporeans were found to be among the unhappiest people in the world (The Straits Times, 20 December 2012).

Previous strategies for labour force expansion through immigration have failed to achieve similar goals to those outlined in the 2013 White Paper. Indeed, the Singaporean core has been further eroded by the emigration of citizens and the widespread unease of those remaining behind that their interests are being undercut. Overcrowding on public transport, longer waiting times for flats, rising prices of public goods, heightened competition for school places and the additional space demands on leisure and consumer facilities have decreased the quality of life for all residents on our island.

### **The Impact of Rapid Population Increases and Overcrowding**

The effects of overpopulation can be extremely detrimental to a community. A study by John Calhoun is particularly instructive. Calhoun studied rats in an overpopulated habitat, and

<sup>7</sup> Singapore is excluded from UBS's 2012 *Prices and Earnings* report though every single city from the last (2009) study was featured and no new ones were added (UBS, 2012). The *Prices and Earnings* report is published every three years by UBS CIO WM Research.

identified a range of negative consequences arising from overcrowding (Calhoun, 1962). As population density increased, social behaviour degenerated. The rats grew withdrawn and passive, suffered from infectious diseases, became violent (even forming gangs) and even became less fertile.

While caution must be exercised when drawing inferences from studies on behaviour of rats for that of human beings, striking sociological similarities do occur in many overcrowded human populations: the breakdown of social and family ties, poor hygiene, the formation of slums, poor upbringing, the neglect of children, child-abuse, anti-social behaviour, aggression, disregard for law and order, loss of fertility, higher infant mortality, violence and criminal behaviour.

Over-population affects Singapore in a variety of ways:

*Infrastructure.* Increased strain has been placed on our transport system, the overcrowding of which causes additional stress to commuters. Our Mass Rapid Transit system has been breaking down on a regular basis. The malfunctions have been, in part, attributed to a system unable to cope with the massive increase in usage (Ministry of Transport, 2012). Such breakdowns exact a heavy economic toll due to the loss of man hours and the cost of repairs. As the number of public transport journeys quickly grew from 3.39 million in 2007 to 3.99 million in 2011, it was accompanied by increased commuter dissatisfaction over service disruptions and lengthy travel and waiting time (Ministry of Finance, 2012).

Housing has also become problematic with the sudden, rapid population increase. Increasing demand for housing, coupled with the shortage of available units, has led to increased housing prices and longer waiting times.

Provision of public goods has lagged behind the increase in population. As housing and transportation are fundamental needs, the lack of adequate infrastructural planning has become a source of dissatisfaction for Singaporeans. In 2008, then Minister for Foreign Affairs, George Yeo, revealed how unprepared the administration was when he said that the Government needed to come up with a “*master plan*” to give “*some idea of how many foreigners we can accommodate in a sustainable, organic way*”. The statement came after Mr Mah announced in 2007 that his ministry had done a review and found that we could accommodate 6.5 million people (Mah, 2007).

*Mental wellbeing.* Overcrowding also results in less space for fun and recreation, both crucial elements in mental wellbeing. Singapore used to have excellent beaches. Places like Changi Point, *Mata Ikan*, Labrador Park, Coney Island, Sisters Islands and Sentosa where we went for quiet outings and fishing. We have lost many of these idyllic places. Public facilities nowadays are overcrowded. With further increases in our population, the demand on these places will negate the benefits to citizens.

Dr Howard Rusk, an authority on Human Rehabilitation, once noted that, “*Recreation is more than just having fun. It is fundamental to physical and mental wellbeing.*” Recreation is not just good for the development of children (Hewes, 2006); it is also found to keep old people mentally and physically healthy (Fourie, Meyer and Wilders, 2004).

*Economy and employment.* Singapore's economic policy places a priority on the employment of cheap labour. Such a strategy is aided by the availability of large numbers of people from our neighbouring countries who are willing to accept low wages. These reserves of labour

exert heavy downward pressure on wages of local Singaporeans<sup>8</sup>. Under such competition, lower-income workers struggle to meet the costs of daily goods while higher-income workers experience the resentment of not being remunerated fairly in their native land. Older citizens will remember this scenario existing during the colonial era.

Moreover, an overcrowded and stressful living environment will push Singaporeans with higher training and qualifications to emigrate, exacerbating the already unhealthy foreigner to citizen ratio.

*Health.* Infectious diseases in a densely populated area spread more easily and are harder to control. Overcrowding also reduces fertility and causes stress-related diseases like ulcers, enlarged adrenals, chronic heart disease and mental illness. Furthermore, overpopulation can cause health problems through overcrowding, poor sanitation and pollution. Disease spreads faster in denser populations. To quote world renowned epidemiologist, Dr Nathan Wolfe of the Global Viral Forecasting Initiative, “*Viruses actually need population density as fuel.*” (CNN, 24 April 2010)

A large epidemiological study in Britain looked at mortality and morbidity among three income levels in relation to their access to green open space. The study examined about 360,000 deaths in a population of about 41 million and found that, controlling for income, there was an improvement in health in proportion to their access to green space. (See Figure 1-3 below.) Furthermore, lower socioeconomic groups obtain more benefit from exposure to green spaces. In other words, green spaces not only reduce health disparities between income groups, they also promote general health and wellbeing in everyone (Mitchell and Popham, 2008)

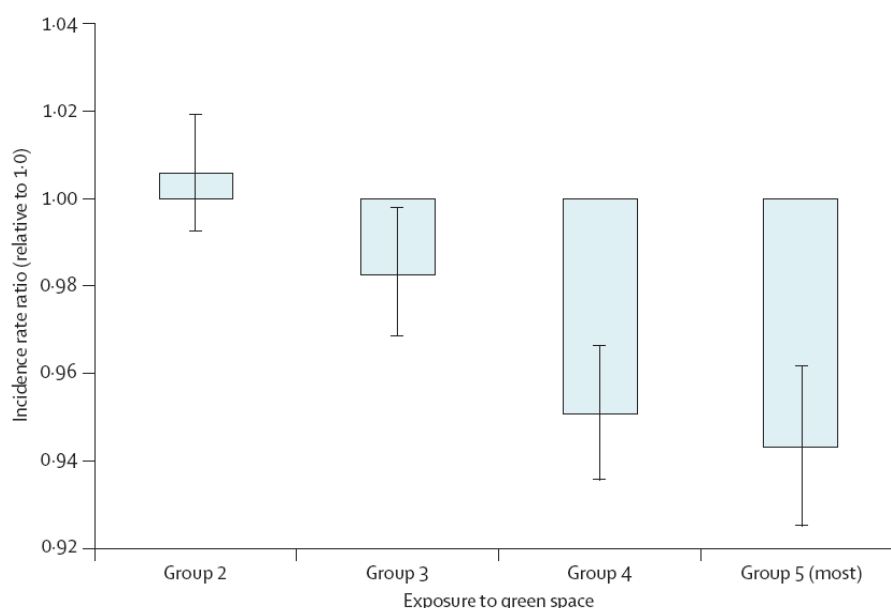


Figure 1-3: Relative mortality rates vs. exposure to green space (ratio to group with least exposure to greenery; error bars are 95% confidence intervals) [Source: Mitchell and Popham (2008)]

<sup>8</sup> Development economist and Nobel Laureate, Sir Authur Lewis, once puzzled over the problem of why real wages in Britain remained more or less constant during the first fifty years of the industrial revolution while profits and savings soared. This could not be squared with the neoclassical framework, in which a rise in investment should raise wages and depress the rate of return on capital. He came to realize that the problem was the (faulty) assumption that the quantity of labor was a (binding or close to binding) constraint on output (Lewis, 1992).

Another epidemiological study of 17,000 people in the Netherlands also found that residents living in neighbourhoods with abundant green space were healthier. This correlation was strong in the general population but was even more pronounced among seniors, housewives and low-income people. Also significant was the correlation between health and the total amount of green space (de Vries et. al., 2003).

A third study took place in Tokyo which is known for its very high building density. This was a longitudinal study that followed 3,000 70-year old citizens over five years. The presence of plentiful green space in a neighbourhood was associated with a lower mortality risk (Takano, Nakamura and Watanabe, 2003).

Many studies point to the beneficial effects of green spaces for mood; concentration; self-discipline; stress reduction; recovering from mental and physical fatigue; and recovery from illnesses. The science is readily supported by anecdote: overcrowding is indeed a serious impediment to high quality of life.<sup>9</sup>

*Society.* While the data is mixed, it is generally accepted that as the density of population increases so does the crime rate. This is exacerbated by the transience of the population. Such a phenomenon may result from poverty and the increase in anti-social behaviour following from low commitment to shared values. The loss of personal and community identification may also contribute. Additionally, with increased competition for space and resources such as employment, or food and water, hostility increases.

The problem is worsened by decreased communication among city dwellers. A study led by a University of California (Irvine) economist found that urbanites who are wedged in side-by-side have fewer friends, poorer community involvement and less frequent contact with their neighbours than people who live in more spaced out, suburban environments (Brueckner and Largey, 2008).

The health and life of a city is not in its number of people but the quality of life of its inhabitants. When people become apprehensive, apathetic and hostile (all outcomes of living in overcrowded conditions), the city loses its vibrancy and begins to stagnate, and even decline. Shared values, mores and a shared history reduce, as do their influence on good behaviour and neighbourliness. A city needs to rejuvenate, transform and recreate itself continually. Overpopulation has a deleterious effect on such rejuvenation. In Singapore, there is the added problem of a controlled political climate which has led to apathy and disinterestedness.

The lax immigration programmes implemented by the Government over the past two decades threaten to undo the bonds that Singaporeans share with each other. These policies have caused Singaporeans to be placed in a state of disorientation and fragmentation, precipitating a crisis of national identity and prompting many to ask: What does it mean to be Singaporean? Just when Singaporeans were beginning to become more confident of our place in the world and of our identity as a people, the mass inflow of foreign nationals over the past two decades has visited upon us a fresh crisis of identity.

*National security.* Nearly 40 per cent of the inhabitants in Singapore are not Singaporeans.

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<sup>9</sup> Other studies from Singapore highlighting the impact of income inequality on the health of Singaporeans are referenced in the SDP's *National Healthcare Plan: Caring For All Singaporeans* (Singapore Democratic Party 2012a).

There is an extraordinarily large proportion of nationals from other countries who live in Singapore but remain distinct and separate from the community. Many new immigrants cannot communicate, either socially or linguistically, with Singaporeans. The social and language barriers cause new immigrants to keep to themselves and their original nationalities, isolating them from the wider community. This weakens, or at the very least, does not strengthen the social fabric. Such a development has additional national security implications. Local and geopolitical developments may trigger a situation which stirs up strong emotions among those of a particular nationality leading to instability in Singapore. The recent industrial action by some SMRT bus drivers and the anxieties it prompted beyond the realm of public transport remind us that this is a distinct possibility.

### **Is Bigger Necessarily Better?**

A bigger population means a bigger economy and a bigger economy means greater prosperity for everyone. This seems to be the message of the PAP. But is it true? Is population size an advantage for economic growth? Echoing an insight of the philosopher, Aristotle<sup>10</sup>, Professor Leopold Kohr, a German economist and political scientist, says there is a limit to population size beyond which effects to society become counter-productive. In his classic *The Breakdown of Nations*, Professor Kohr noted that small nations and small economies (or small organisations/companies) are more peaceful, more prosperous and more creative than great powers or superstates (Kohr, 1957). They are better able to weather economic storms by being more flexible, less aggressive and more accountable to their people. When they exceed a certain size, the functionality of a nation or organisations diminishes over time. A good case in point is the big banks in the US which grew too big and, through mismanagement, went bankrupt or nearly bankrupt in 2008, causing the financial meltdown that rocked the world.

Joseph Chamie, former director of the United Nations Population Division, once likened population growth to a Ponzi scheme (Chamie, 2010). A Ponzi scheme depends on making more money for the few who control it by adding on more and more members to an organisation. Similarly, Chamie points out, governments advocate population growth so that they can gain financially – while the going is good. But what happens when the economy slows down? Chamie writes:

*According to Ponzi demography, population growth – through natural increase and immigration – means more people leading to increased demands for goods and services, more material consumption, more borrowing, more on credit and of course more profits. Everything seems fantastic for a while – but like all Ponzi schemes, Ponzi demography is unsustainable.*

*When the bubble eventually bursts and the economy sours, the scheme spirals downward with higher unemployment, depressed wages, falling incomes, more people sinking into debt, more homeless families – and more men, women and children on public assistance.*

*That is the stage when the advocates of Ponzi demography – notably enterprises in construction, manufacturing, finance, agriculture and food processing – consolidate their excess profits and gains. That leaves the general public to pick up the tab for the mounting costs from increased population growth (e.g., education, health, housing and basic public services).*

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<sup>10</sup> See Book 7, Part 4 of *The Politics* by Aristotle.

In Singapore, Cabinet ministers' remuneration is significantly dependent on GDP growth. This growth is substantially achieved through the large-scale immigration of foreign workers. The giant Government-Linked Companies (GLCs) and a number of Multinational Corporations have evolved to be over-reliant on huge numbers of cheap foreign labour. The big question: Is this sustainable? Will our social scaffolding give way and if so, what would the consequences be?

### **The Politics of Population Growth**

There is the added suspicion among Singaporeans that the population growth objective for the PAP is to maintain its political hegemony. With its vote share declining over the years, the party needs to shore up its support with new voters. From 1984 to 1991, the PAP saw its support amongst the electorate reduced. While the 1997 and 2001 election results saw improvement in its percentage votes because of the financial crisis and the spectre of terrorism, the decline in support showed a return to form in the 2006 and 2011 general elections. The path to electoral dominance by way of adding new citizens would be an attractive one for the PAP.

It is instructive to note that in the last five years, 52,000 Singaporeans left Singapore, bringing the total number of citizens living abroad to 200,000. Between 2001 and 2011, about 1,000 Singaporeans renounced their citizenship each year; of these, 300 were new citizens (Twelfth Parliament of Singapore, 28 February 2012). The statistics raise the possibility that there are foreigners who seek Singaporean citizenship as a stepping stone to gain citizenship in another country.

### **The Policy Challenges Ahead**

The foregoing analysis highlights a range of policy outcomes that have raised significant problems for population policy. These are backed up by reputable global studies. Immigration push and pull factors have led to a rapidly increasing transient population. Immigration policies have sought to capitalise on individualistic goals at the cost of national cohesion. More and more Singaporeans have left in desperation at the inability to build a good life for themselves and their families.

To stem the amplification of these demographic problems over the next period, to enhance the quality and capability of our people, and to implement credible and sensible progress indicators, these are the challenges that must be addressed if our children and grandchildren are not to experience a nation without stability and moorings.

To sum up, our population challenges necessitate initiatives to:

- Tighten lax immigration policies
- Reduce the high emigration rate
- Raise the total fertility rate
- Create and use sensible indicators for progress
- Slow and reverse the erosion of national identity and social cohesiveness

The following sections of this paper will address these areas and propose a suite of policy remedies. These policy remedies do not hinge upon an arbitrary population figure as the

starting point of the debate. Indeed identifying such an arbitrary figure does not provide the correct basis on which to engage with our population challenges because it does not acknowledge that economic, sociological and demographic features change and alter over time. Policy making must remain dynamic and responsive to current conditions and an arbitrarily chosen population figure that does not interact with other historical and socio-economic developments will quickly become obsolete as a planning parameter unless all other factors remain constant.

In light of this, this policy paper does not propose an ideal population figure. Instead, it has mounted a comprehensive study of social and economic conditions and identified the key pressures on the population. The policy recommendations made below are intended to relieve these pressures and create the conditions in which the desired population outcomes may be generated.

## RECOMMENDATIONS

There have been repeated cautions against the indiscriminate inflow of foreigners to fulfil the need for cheap labour and reverse the declining fertility rate since such a policy approach was first proposed by the PAP Government in the 1990s. It is now strongly established that the need for immigrants and foreign workers to boost our economy must be balanced with the wellbeing of Singaporeans and equally strongly that overcrowding creates deep-seated social problems.

A fresh methodology is required which addresses the push factors that create widespread emigration of citizens and the reluctance of those who remain to build larger families.

The indiscriminate option of selecting an arbitrary population figure as being the goal to be worked towards must be avoided in favour of a policy framework that addresses the accurate causes of our population challenges. The proposals offered in this policy paper are therefore geared towards:

- Maintaining immigration at a sustainable rate that would support economic development and enhance the wellbeing of Singaporeans;
- Encouraging organic and sustainable population growth;
- Minimizing the emigration rate of Singapore citizens;
- Ensuring Singaporeans do not suffer from unfair wage competition in employment with foreigners;
- Incentivising policymakers to focus on the wellbeing of Singaporeans by aligning their personal incentives with the interests of Singaporeans; and
- Strengthening the Singaporean identity.

To achieve holistic national development, we present the following measures:

- Enact a Singaporeans-First Policy
- Introduce Policy Reforms to Retain Singaporean Talent and Raise the Total Fertility Rate
- Formulate Plans to Advance Towards a Sustainable Population Profile
- Strengthen the Singaporean Identity
- Go Beyond the GDP for Measuring National Progress
- Revamp the Ministerial Pay Formula and KPIs for Senior Civil Servants

### **1. Enact the Singaporeans First Policy**

This policy was first proposed in the late 1990s and formally introduced in the SDP's election campaign in the 2001 general elections. As an alternative to the current foreign manpower policies, this proposal is a broad shift of the manpower policy to a focus on productivity and innovation. Our proposal also ensures that foreign workers are not used to unfairly suppress



wages. Under this policy, businesses will be required to:

- Demonstrate that the skills their companies require are not available among Singaporeans before they are allowed to hire a foreign worker;
- Hire foreign workers from a pool of shortlisted applicants who are assessed based on a rigorous merit-based framework; and
- Retrench non-Singaporeans before locals (should retrenchment be necessary, given similar work-performance).

In addition to the above, legislation of fair employment laws are proposed:

- Equal work for equal pay;
- Minimum (hourly) wage for all workers; and
- Employee protections from unjust dismissal.

The Singaporeans First Policy will benefit both local employers and Singaporean employees. Talent infusion will make our economy genuinely competitive while ensuring that Singaporeans do not compete unfairly with cheap labour from abroad. This is in keeping with the SDP's belief that competition between workers should form a race to the top on the basis of skill and innovation, as opposed to a perverse race to the bottom on how low a wage one is willing to accept. Fair employment laws will make employment more just across the board and remove the adverse incentives for businesses to favour foreign workers over Singaporeans.

### *1.1 The TalentTrack Scheme*

Having a high quality workforce would allow Singapore's economy to become more productive and innovative. To achieve this, Singapore must be an attractive place to live and to work. Potential foreign professionals should be rigorously screened to ensure that they are able to contribute to building such a high quality workforce. (Similar principles apply to the award of Permanent Resident status and the grant of Singapore Citizenship.)

To facilitate the implementation of such a policy, the TalentTrack scheme will be introduced. The scheme is a simple yet rigorous merit-based system to screen foreigners seeking employment in Singapore. Factors such as age, number of dependents, qualifications, work experience and skill sets will be used to assess potential foreign workers. Such a system will ensure that migrant talent entering Singapore meets the economic needs of our country. It will assist the Government in managing the work visa approval process. Clear and transparent guidelines will ensure that the Immigration and Customs Authority (ICA) can effectively identify the skilled migrants that Singapore needs.

TalentTrack will invite applications from foreigners seeking employment in Singapore. Foreigners who are already working in Singapore will be allowed to continue with their employment until their existing work visa expires. These foreign workers already in Singapore are free to apply to the TalentTrack Scheme. Otherwise, they will be required to leave the country upon the expiration of their visa. After the TalentTrack Scheme is implemented, no further visas will be issued under the old scheme.

Applications under the TalentTrack scheme will be decided on a points-based system that

will reflect the prevailing needs of the various sectors and industries of the economy. Applicants who do not have an existing PEP (i.e.: those who are not renewing an existing PEP) and who meet a point cut-off will be granted a Provisional Employment Pass (PEP) valid for a period of 12 months<sup>11</sup>. All applicants with PEPs will be placed on a shortlist from which potential employers may hire them.

It is important to recognise that an applicant to the TalentTrack Scheme may be suitable for hiring in a certain job role or roles but not in others. Therefore, each PEP will be associated with a list of job roles, and an applicant may only be hired to work in the roles listed in his or her PEP. How this list is determined will be elaborated upon below.

When the holder of a new PEP (one that has not been previously renewed) accepts a job offer to work in Singapore, his or her PEP will be automatically renewed such that it will be valid up to 24 months<sup>12</sup> from the date of renewal. He or she will then be granted an Employment Pass (EP) which will be tied to the firm that employs him. An EP will act as the visa to enter and remain in Singapore for the duration. Both a PEP and an EP are needed to work in Singapore.

A PEP may be renewed at any time, the success of renewal depending on prevailing economic conditions and industry demands. Each time a PEP is successfully renewed, it will be valid up to 24 months from the date of renewal. The onus will be on applicants to renew their PEPs, failing which they will not be allowed to continue to work in Singapore. An EP will automatically be revoked once the holder's PEP expires or the holder ceases to be employed with the firm the EP is associated with.

As each PEP is not tied to any specific firm, a PEP holder may get a new job within the list of job roles applicable for his or her PEP while his or her PEP remains valid. Foreign professionals will be allowed to remain in Singapore for up to two months to find a new job<sup>13</sup>, if they are retrenched or resign, failing which they will have to return to their home countries and resume their job search from there.

Applicants will be evaluated with a merit-based point system based on factors determined by an Employment Visa Commission (EVC) consisting of senior representatives of the Ministry of Trade and Industry, Ministry of Manpower, Economic Development Board, trade unions, Singapore National Employers' Federation and other professional organisations. The EVC would be charged with reviewing the factors going into the selection of applicants and the weight each factor would carry. (See Figure 2-1 below.)

In addition, the EVC will set up industry-level sub-committees in charge of working with professional organizations to develop competency frameworks which will contain organised lists of the possible job roles in various industries and the requisite skills and experience for each of them. These competency frameworks will guide the award of points to applicants. In particular, applicants will be considered for job roles and evaluated on the component skills.

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<sup>11</sup> A PEP does not entitle its holder to remain in Singapore for its duration. But it will facilitate the application for a Short Term Visit Pass for the purpose of attending interviews.

<sup>12</sup> The reason for this is to give an applicant only 12 months for his or her initial job search.

<sup>13</sup> An applicant who gets a job with a new firm at a point when his or her PEP remains valid for about a year or less is free to seek renewal.

To match the supply of foreign talent to the current and/or projected demand for skilled labour in the Singapore economy, regular inputs from MTI's manpower planners will be used to regularly review and revise the maximum attainable points for each job role and the detailed scoring methodology.

To rigorously verify that applicants actually possess the skills they claim they have, applicants will have to take on-site tests administered by Singapore-based test centres at the applicants' expense. These test centres will be created under the auspices of a new Statutory Board called the Council for Skills Evaluation (CSE) and run in collaboration with professional organizations<sup>14</sup>. For PMETs, applicants must arrange to have their transcripts sent directly from the relevant institutions of training or higher learning to TalentTrack for verification.

To facilitate the hiring process, a web-based platform will be set up for the use of applicants and potential employers. Firms that are interested in hiring foreigners may apply to be listed as approved employers. To be approved, employers must demonstrate, for instance through published advertisements, that there is a shortage of the desired skill set among Singaporeans on the job market. Such approvals will be processed by a sub-committee that reports to the EVC, and will be valid for a predetermined duration. TalentTrack applicants will be able to indicate their interest to firms directly through the TalentTrack website and potential employers may track the progress of interested applicants and hire those who have been awarded PEPs.

We make a subsidiary observation by way of analogy that high quality evaluation processes have had beneficial side effects on Singapore's defence procurement front<sup>15</sup>. The TalentTrack Scheme can also help to attract global talent by leveraging its high quality assessment process. Foreign professionals who have worked in a given job role in Singapore may seek broader global exposure by applying for jobs in other countries. Such individuals will be designated as having been "Work-Accredited" for a job role<sup>16</sup> if they have worked in that role for at least 30 months. If they so wish, TalentTrack will act as a job reference<sup>17</sup> for them, which signals that they have passed the initial and subsequent TalentTrack assessments and that their contributions to their respective companies generated value. This accreditation will be a boost for their job search in an increasingly competitive international job market. In time, the TalentTrack Scheme will create and support a network effect of drawing increasingly highly skilled foreign professionals due to the prestige of selection and the

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<sup>14</sup> While these test centres are ostensibly set up to assess the skills of foreigners seeking work in Singapore, they may serve a similar function to verify the skills possessed by Singaporean graduates from "non-accredited" institutions of higher learning.

<sup>15</sup> In defence procurement, Singapore has gained a reputation as a "reference customer", one of a handful of countries that carry weight because of the stringency and transparency of our defence procurement processes (The Financial Times, 2003). As winning a Singapore contract, even for a small order, would be regarded internationally as a kind of certificate of quality, it is often said, within the Singapore defence procurement community, that defence contractors may be willing to offer us better terms to increase their chances of being awarded (bigger) contracts elsewhere.

<sup>16</sup> "Work-Accreditations" will be graduated according to duration. For instance, "two years", "three years", "four years" and so on.

<sup>17</sup> This will be achieved via allowing foreign professionals to provide prospective employers and immigration authorities overseas with a TalentTrack identifier and password for viewing information about their skills.

pleasure of working with other effective professionals. This, in turn, will enable TalentTrack to be even more selective and, hence, even more successful.

## 1.2 The TalentTrack Points System

Point-based systems to assess the qualifications of foreign workers have been used effectively by countries such as Australia. The Singapore economy would benefit from a stringent and transparent system to align high-quality global talent to our manpower needs.

Our proposed points-system is adapted from the Australian Points Test of Certain Skilled Migration (Australian Government, 2011), and tailored to support the identification of skilled foreign workers. The adaptation in the TalentTrack Scheme serves the economic interests of Singapore by providing greater resolution on skills and job roles and accounting for the demographic realities of Singapore. Furthermore, the verification of skills is required. An applicant will provide all relevant information and a score will be computed for every job role that he/she is interested in. For each category, unless otherwise stated, the accurate description with the highest points will be applied.

Figure 2-1 below shows the Main Point Table of the TalentTrack system. The numbers therein are provided for illustration and will be revised by the EVC once it is constituted.

Factor	Description	Points (Provisional Employment Pass Application)	Points (Permanent Residency Application)	Points (Singapore Citizenship Application)
Age	18–24	0	20	30
	25–32	0	15	20
	33–39	0	5	5
	40–44	-5	-5	-5
	45 and above	-10	-10	-10
Dependents <sup>18</sup> (* total over all applicable instances)	Parent/Parent-in-law*	-20	-20	-15
	Spouse*	-15	-15	0
	Dependent child under 16 not assuming Singapore Citizenship*	-15	-15	-10
	Dependent child under 16 assuming Singapore Citizenship*	-	-	10
English Language (** or equivalent standard)	Competent English - IELTS 6**	0	0	0
	Proficient English - IELTS 7**	10	10	10
	Superior English - IELTS 8**	20	20	20
	English is post-secondary medium of education	10	10	10
	None of the above	Application rejected		
Qualifications (from recognized institutions)	Bachelor's Degree	15	15	15
	Master's Degree	25	25	25
	Doctorate	30	30	30
Skilled Employment in Job Role	At least one year in Singapore	5	5	5
	At least two years in Singapore	10	10	10
	At least four years in Singapore	15	15	15
	At least two years overseas	5	5	5
	At least four years overseas	10	10	10
	At least eight years overseas in at least two countries in different continents	15	20	25
Skill in Job Role	Based on tests at Council for Skills Evaluation Test Centres	Up to 100 points (See below)		
Proposed Cut-off:		100	120	140

Figure 2-1: The TalentTrack Main Point Table

<sup>18</sup> A household with two approved PWPs may distribute dependents among themselves. Also, double counting of positive contributions will be allowed.

Before an employer is permitted to hire from the pool of successful migrant applicants, the company must demonstrate that it has made an effort in good faith to hire from the local workforce. For instance, evidence of advertisements taken in the media for the position and a log of the potential Singaporean employees that the company has interviewed should be furnished. Once these requirements are met, the employer may extend job offers to and employ from the pool of foreign workers with PEPs. Detailed guidelines will be developed by the EVC once it is constituted. Employers may also apply to TalentTrack on behalf of a potential hire for a senior position. (See sub-section 1.4 for details.)

### 1.3 Competency Frameworks, Job Roles and Skills

At a very general level, a competency framework begins from a list of “job roles”, where a “job role” is a set of functions that an employee in that role performs to support the larger goals of a business. To perform effectively in a “job role”, an employee needs to have a set of skills associated with that role and be proficient in them. Therefore, a competency framework also contains a list of “skills”, and describes the “skills” that are relevant to each “job role” and their relative importance. Under the TalentTrack Scheme, these competency frameworks will guide the award of points to applicants. Applicants will be considered for job roles and evaluated on the component skills.

Points for the “Skill in Job Role” heading will be assigned based on the skills and job roles in the competency frameworks. The figures below provides an initial schema of the information contained in the competency frameworks previously described and how they are used to allocate points. Figure 2-2 below presents a schema of a description for a number of skill headings and Figure 2-3 below presents how these are used to give an applicant a score for the “Skill in Job Role” heading for a particular job role.

Skills	Description
Basic Operations Analysis	<ul style="list-style-type: none"> <li>• Able to identify the salient aspects in business problems and model them as optimization problems/simulations</li> <li>• “Proficiency” in Basic Data Visualization and Reporting</li> <li>• Etc.</li> </ul>
Basic Mathematical Optimization	<ul style="list-style-type: none"> <li>• Able to describe optimization models with scripting languages</li> <li>• Able to embed optimization capabilities in applications using callable libraries</li> <li>• Etc.</li> </ul>
Basic Stochastic Simulation	<ul style="list-style-type: none"> <li>• Discrete event simulation (knowledge of theory and tools)</li> <li>• Etc.</li> </ul>
Basic Data Analysis	<ul style="list-style-type: none"> <li>• Able to use a data query language to obtain data from databases for analysis</li> <li>• Able to use regression modelling or structural modelling to perform parametric inference</li> <li>• Etc.</li> </ul>
Basic Constraint Satisfaction and Heuristics	<ul style="list-style-type: none"> <li>• Knowledge of and the ability to implement heuristics to solve computationally hard problems.</li> <li>• Able to describe constraint satisfaction models with scripting languages</li> <li>• Able to embed constraint satisfaction capabilities in applications using callable libraries</li> <li>• Etc.</li> </ul>
Basic Software Development	<ul style="list-style-type: none"> <li>• Intermediate knowledge of a programming language (See list of required concepts*)</li> <li>• Able to use a version control system</li> <li>• Knowledge of good team coding practices</li> <li>• Etc.</li> </ul>
Basic Data Visualization and Reporting	<ul style="list-style-type: none"> <li>• Knowledge of appropriate types of diagrams for presenting various types of data (See list of types of data sets and appropriate diagrams*)</li> <li>• Etc.</li> </ul>

\* Not included.

Figure 2-2: Listing of Skills Relevant to an “Entry Level Data Scientist”

The required skills which Figure 2-2 depicts will eventually be (partially) pegged to the syllabi of tertiary level courses at local tertiary institutions. This would enable the EVC to more efficiently determine if there is a shortage of Singaporeans able to take on a job role.

Furthermore, this would help students design their course of study in support of their career aspirations, and also encourage collaboration between industry and academy on course offerings.

<b>Points for Skills in “Entry Level Data Scientist” Role</b>		
<b>Category</b>	<b>Assessment</b>	<b>Points</b>
Requirements*	“Competence” in Basic Operations Analysis	-
Operations Analysis Skills	“Proficiency” in Basic Operations Analysis	5
	“Comprehensive Mastery” of Basic Operations Analysis	10
Solution Development	“Competence” in Basic Software Development	5
	“Proficiency” in Basic Software Development	10
	“Comprehensive Mastery” of Basic Software Development	20
Best two scores attained in any of the following skill domains: - Basic Mathematical Optimization - Basic Stochastic Simulation - Basic Data Analysis - Basic Constraint Satisfaction and Heuristics	“Competence”	5
	“Proficiency”	15
	“Comprehensive Mastery”	35
Maximum possible score:		100

\* Requirements must be met otherwise total score for this job role will be 0.

Figure 2-3: Point Determination Table for Skill in an “Entry Level Data Scientist” Role

The competency frameworks of TalentTrack will be detailed but will not be able to comprehensively cover all possible skill gradations, especially at advanced levels, in a dynamic global economy where the state of the art is constantly advancing. Furthermore, evaluating an applicant for advanced skills is inherently difficult. As such, the job roles in TalentTrack will typically include only entry level and mid-level roles. (The hiring of foreign professionals for senior positions is addressed in subsection 1.4 below.)

Figure 2-4 presents the point allocation for a mid-level job role. It should be noted the kind of skills required for the mid-level job role in the table reveal the kind interdisciplinary skill set that would benefit the Singapore economy.

<b>Points for Skills in “Mid-Level Data Scientist” Role</b>		
<b>Category</b>	<b>Assessment</b>	<b>Points</b>
Requirements*	“Comprehensive Mastery” in Basic Operations Analysis “Competence” in Business Process Reengineering “Competence” in Intermediate Data Visualization and Reporting “Proficiency” in at least three of the following skill domains: - Basic Mathematical Optimization - Basic Stochastic Simulation - Basic Data Analysis - Basic Constraint Satisfaction and Heuristics	-
Intermediate Data Visualization	“Proficiency” in Intermediate Data Visualization	10
	“Comprehensive Mastery” of Intermediate Data Visualization	20
Business Process Reengineering	“Proficiency” in Business Process Reengineering	5
	“Comprehensive Mastery” of Business Process Reengineering	20
Best two scores attained in any of the following skill domains: - Intermediate Mathematical Optimization - Intermediate Stochastic Simulation - Intermediate Data Analysis - Intermediate Constraint Satisfaction and Heuristics	“Competence”	5
	“Proficiency”	10
	“Comprehensive Mastery”	30
Maximum possible score:		100

\* Requirements must be met otherwise total score for this job role will be 0.

Figure 2-4: Point Determination Table for Skill in a “Mid-Level Data Scientist” Role

Details of how applicants are evaluated will be assigned to the Council for Skills Evaluation and the professional bodies they work with. As suggested in the above figures, competency levels in skills will take on three broad grades: “Competence”, “Proficiency” and “Comprehensive Mastery”. Should the knowledge and capabilities associated with the various skills be (partially) pegged to the syllabi of tertiary courses at local institutions, it stands to reason that these grades be similarly pegged to grading schemes of the same local institutions. This will provide a basis for comparison.

While the “Skill in Job Role” heading for the job roles depicted in Figure 2-3 and Figure 2-4 have a maximum possible score of 100, the maximum possible score for a given job role need may be less than 100. Manpower planners from MTI will set the maximum possible scores for various job roles to any number from 70 to 100.

Based on what is outlined above, it is clear that the TalentTrack Scheme orients our foreign manpower policies towards ever higher skills and capabilities, and ameliorates the deleterious effects of a wage race to the bottom.

#### *1.4 Hiring of Senior Executives and Highly Skilled Professionals*

Special provisions will be made for the hiring of senior executives and highly skilled professionals as evaluating skills at that level is inherently difficult, and subjecting the candidates to the skills evaluation process might dissuade them from working in Singapore.

Such professionals are separated into two categories: hires for top level positions (such as C-suite positions) and others. For the former category, companies may apply to the EVC to exempt highly exceptional professionals for senior positions entirely from evaluation. The EVC itself will consider these applications on a case-by-case basis and will be highly selective. Professionals under consideration for exemptions will have to have accepted a conditional job offer<sup>19</sup> from the company. Companies will have to furnish a detailed justification for exemption (including why a Singaporean was not considered for the position) and information on the dependents accompanying the job candidate.

For the latter category, we propose a market-based approach to hiring such professionals. Companies seeking to hire someone at a fixed monthly salary<sup>20</sup> of at least \$10,000 may apply to TalentTrack on the applicant’s behalf, and such an applicant will be taken to have provisionally achieved the maximum score under the Skill in Job Role heading and also the minimum required standard for the English Language heading. However, if they have worked in a country where English is the medium of business, they would be provisionally awarded the maximum score for the English Language heading. While these professionals are essentially exempted from testing under Skill in Job Role heading and the English Language heading, they will still be subject to holistic evaluation on the basis of the rest of the criteria spelled out in the TalentTrack Main Point Table in Figure 2-1. Similarly, companies will be required to furnish justification for exemption.

#### *1.5 Lower-skilled and Semi-skilled Workers*

Quotas will continue to apply for lower-skilled and semi-skilled workers in the current Work

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<sup>19</sup> Conditional on approval of exemption by the EVC.

<sup>20</sup> Fixed monthly salary is defined as one’s basic salary and fixed allowances. It excludes bonuses and commissions.

Permit category (that is, for jobs attracting a salary of below S\$2,000.00 per month). However, in jobs where foreign workers do not comprise the majority of the workforce, the interests of Singaporeans will be protected by fair employment laws.

It is necessary to explain why TalentTrack is implemented for foreign professionals and not lower skilled and semi-skilled workers. Presently, the latter group of workers are trained to do their jobs and then put to work after they complete their training. On the other hand, a PMET who is not competent enough to do his job represents a net transfer out of the Singapore economy as opposed to a contribution. Furthermore, a typical foreign professional and his or her dependents each place greater demands on public infrastructure than a typical lower-skilled or semi-skilled worker. The TalentTrack Scheme will enable the Singapore economy to shed net negatives and make space for those that would contribute positively to benefit Singapore's economy.

The matter of the transformation of our economy from one that is heavily dependent on low-cost foreign labour is a matter for the SDP's policy paper on the economy which is in the process of being drawn up and will be presented in due course.

### *1.6 Fair Employment Laws*

Under these proposals, a minimum wage of S\$7.00 per hour<sup>21 22</sup> will be introduced to ensure that workers are not exploited. How the minimum wage will be phased in and the actual time horizon<sup>23</sup> will be discussed in greater detail in our upcoming policy paper on the economy. In addition, wage parity for Singaporean and non-Singaporean workers will be legislated. In other words, other than the individual performance component of pay, the pay-out by employers as salary to workers performing the same type of work must be equal regardless of whether they are Singaporeans or foreigners.

Foreign worker levies for professionals (applicants to the TalentTrack Scheme) will be abolished and replaced with an additional tax on their income at a rate of 13.8%<sup>24</sup>, which matches the top rate of the employer CPF contribution<sup>25</sup>. Foreign worker levies for lower-skilled and semi-skilled workers will be replaced by an equivalent tax<sup>26</sup> on their wage. Such a policy will also ensure that Singaporeans are not unfairly discriminated against.

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<sup>21</sup> In 2010, the SDP proposed a minimum wage of \$6.80 (Singapore Democratic Party, 2010).

<sup>22</sup> As a point of reference, Hong Kong has recently approved a hike its minimum wage to S\$4.80 per hour (Reuters, 6 February 2013). However, purchasing power in Hong Kong, based on a 2009 UBS study on prices and earnings (UBS, 2009) (Singapore was not featured in the most recent study in 2012), is 46% higher than in Singapore, making the equivalent minimum wage for parity in purchasing power \$6.99 per hour.

<sup>23</sup> We propose a phased implementation to give businesses time to restructure. The details will be developed by an independently chaired commission comprising representatives from MTI, SMEs, MNCs, the various chambers of commerce and unions.

<sup>24</sup> This tax may be offset from the worker's income tax bill.

<sup>25</sup> The current top rate of employer CPF contribution is 16%. To determine the matching additional tax,  $16\% / (100\% + 16\%) = 13.8\%$ .

<sup>26</sup> For example, a \$450 levy will be replaced by a tax of \$450. This, too, may be offset from the worker's income tax bill.



The employment legislation will be amended to require businesses to adhere to a more stringent statutory process for discipline, retraining, and dismissal of employees — both local and foreign. Current provisions provide wide leeway for employers and insufficient redress for workers. The Manpower Ministry establishment will be reviewed to ensure there is sufficient manpower to enforce these laws fairly and equitably.

## **2. Introduce Policy Reforms to Retain Singaporean Talent and to Raise the Total Fertility Rate**

In addition to being more judicious in deciding who we allow into Singapore to work, we must also work to retain as much of our home-grown talent as possible. To do otherwise would mean a hollowing out of our talent pool.

A World Bank Factbook recorded that the stock of emigrants from Singapore in 2010 was 6.1 per cent of the total population of 5 million at the time (The World Bank, 2010). This translates into approximately 750% the number of live births<sup>27</sup> per year. The same publication also quoted an older (2000) figure that put the rate at which skilled tertiary-educated Singaporeans were leaving at 15.2 per cent with a slightly higher rate for medical doctors of 15.5 per cent (The World Bank, 2010). Furthermore, between 2000 and 2010, an average of 1,000 Singaporeans renounced their citizenship every year (Twelfth Parliament of Singapore, 28 February 2012).

A survey conducted by Mindshare in 2012 found that 56 per cent of the 2,000 Singaporeans polled agreed or strongly agreed that, “*given a choice, I would like to migrate*” (The Business Times, 6 October 2012). In a study conducted by the Institute of Policy Studies that looked into reasons for Singaporeans wanting to emigrate, several reasons were cited, including work-life balance<sup>28</sup>, education, economic and social threats from immigrants (Leong and Soon, 2011). The study also found that the “*overarching area of pace and progress in Singapore as it concerned stress, pace of life and cost of living was the most consistent source of dissatisfaction...*”

In order to retain these Singaporeans, urgent reforms are proposed to current policies, including alternative policies to make housing and healthcare affordable, and the rationalisation of our foreign manpower policies.

### *2.1 Make Housing Affordable and Reduce Waits*

A major part of a family's budget is housing. In our policy paper *Housing a Nation: Holistic Policies for Affordable Homes* (Singapore Democratic Party, 2012b), we pointed out that since 2006 the price of public housing has nearly doubled due to the rapid rise in population. This is the result of a limited supply HDB flats and the use of public housing for property

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<sup>27</sup> Total live births over recent years: 42,600 in 2012, 39,654 in 2011, 37,967 in 2010, 39,570 in 2009, 39,826 in 2008, and 39,490 in 2007. (Note that 2010 was the “Year of the Metal Tiger” of the Chinese Zodiac, and 2012 was the “Year of the Water Dragon” of the Chinese Zodiac.)

<sup>28</sup> We believe that communications technology is an enabler for effective work-from-home arrangements, which in turn bypasses the problem of congestion (on roads, buses and trains) and also the addresses challenges of achieving economic growth and improving work-life balance simultaneously. Investments in broadband connectivity (such as fibre broadband) enable high bandwidth point-to-point communications within Singapore, co-workers to collaborate seamlessly without the need to be co-located. To support the national productivity effort, Government bodies like SPRING should develop templates for work-from-home processes that firms may adopt and adapt for their own use.

speculation.

In the paper, we proposed that housing prices be made affordable again by introducing the Non-Open Market Scheme wherein land costs, essentially a speculative component, are removed from HDB flat prices, enabling households to pay for their flats over a reasonable payment horizon with non-onerous instalments. In addition, we proposed the build-up of a buffer stock which will reduce waits from three to five years to several months. The creation of a buffer stock represents a sensible rebalancing of risk sharing between state and citizen, reversing a perverse policy that would see the state benefit a little from the reduction of inventory risk, while most citizens are forced to wait three to five years longer to start a family. We also proposed a novel conversion scheme which acts as a stabilizing mechanism for resale flat prices, allowing a gradual transition away from a dominantly speculative public housing system.

We note that the Parenthood Priority Scheme (PPS) introduced by the Government at the end of January 2013 is similar to the Young Families Priority Scheme (YFPS) that we proposed in May 2012 and included in our policy paper on housing. We believe that schemes like the PPS and YFPS will be useful efforts to raise the Total Fertility Rate and encourage new citizens, who have gone through the rigorous TalentTrack selection process, to integrate.

## *2.2 Make Healthcare Affordable*

In *The SDP National Healthcare Plan: Caring For All Singaporeans* (Singapore Democratic Party, 2012a), we proposed a series of measures to reduce healthcare costs for patients. This is achieved by rebalancing the burden of healthcare expenditure risks to a more sensible configuration. Currently, while the Singapore Government registers savings by spending a substantially smaller fraction of GDP on healthcare as compared with other developed nations, for citizens, the challenges associated with severe illness are compounded by a horrific financial burden. Under the SDP Plan, national risk pooling and a greater government contribution would allow patients to typically pay only 10 per cent of their hospital bills should affliction strike, a sensible rebalancing of risk.

## *2.3 Reform the Education System*

Many Singaporeans cite the stressful education system as a major reason to emigrate. This is due to the emphasis on high-stakes testing which places enormous pressure on children. The volume of the school syllabus means teachers do not have enough time to comprehensively teach the subjects. Parents who can afford to send their children for private tuition, leaving the children from less well-off families in an even more disadvantaged position. The SDP is in the process of drawing up a policy paper on the educational system and will be presenting it in due course.

# **3. Formulate Plans to Advance Towards a Sustainable Demographic Profile**

Ideally, we should move towards a sustainable demographic profile which is rectangular with tapering at the top. While a nation might reap the benefits of a demographic bulge when that bulge hovers around the economically active in the resident population, this sets the scene for future demographic challenges. The nation will eventually have to pay the price of an increased ratio of dependents to working adults. At least one generation will bear the brunt of the demographic burden. Singapore's current demographic profile is shown in Figure 2-5 and it suggests the toddlers and lower-primary schoolers of today will bear the responsibility of supporting the current generation of middle-aged Singaporeans in a two and a half decades. We must now take measures to prepare for the impending demographic changes.

## Resident Population of Singapore (Jun 2012)

Data Source: Department of Statistics

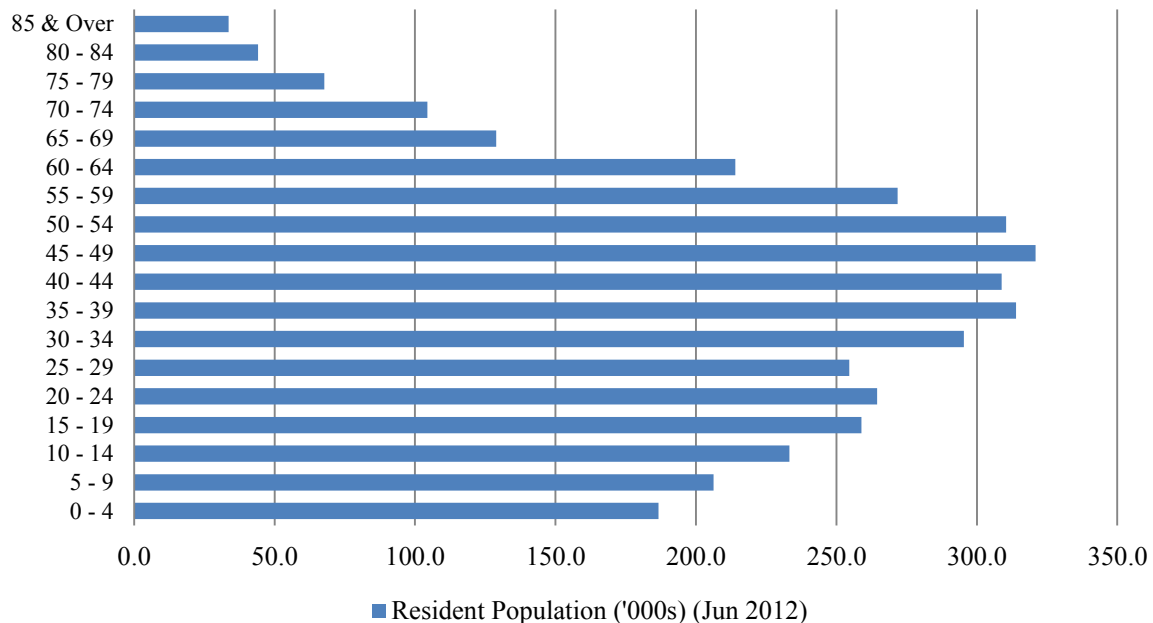


Figure 2-5: Resident Population of Singapore as of June 2012

We must cross this demographic chasm without triggering the flight of young Singaporeans. This necessitates addressing current push factors that induce Singaporeans to emigrate and cultivating a strong Singaporean identity.

We must also begin preparing for the future demand for elder-care services and elder-friendly infrastructure. Studies should be commissioned in advance to develop efficient workflows for aged care that ensure the wellbeing and dignity of our senior citizens. We should also make timely elder-care investments based on the clarity of the future demand profile that knowledge of our population demographics affords us.

On the economic front, the shrinking ratio of working adults to dependents may be partially ameliorated by increasing our labour force participation through making it more attractive for older workers to remain productive. However, more importantly, Singapore needs real productivity improvements which can only result from a transformation of foreign manpower policy<sup>29 30</sup>.

<sup>29</sup> As a result of the PAP Government's Manpower policy, Singapore's productivity growth has been weak because of weak incentives for innovation arising from the ready availability of cheap foreign labour. In fact, on 11 September 2012, Acting Minister for Manpower Tan Chuan-Jin admitted in Parliament that "*employment has grown much faster than GDP*", meaning that productivity growth over the first three quarters of 2012 was negative (Twelfth Parliament of Singapore, 11 September 2012). This reality leads one to question the "*stretch target*" of 2% to 3% productivity growth outlined in the Government White Paper on Population (National Talent and Population Division, 2013).

<sup>30</sup> Such productivity increases are supported by the TalentTrack Scheme described above and will be elaborated upon in a future policy paper on the economy.

#### **4. Strengthen the Singaporean Identity**

Many Singaporeans leave in search of a home elsewhere because they do not feel a sense of belonging. There is a distinct lack of identification towards their country. Such emotional dislocation from one's home country is exacerbated by the huge importation of foreigners. When done en masse and over a short period, there is little time for new citizens to assimilate into the resident culture. Many of these immigrants and migrant workers congregate among themselves and form their own enclaves, raising barriers to social integration. This is perceived by locals as a threat to social development and presents problems to the fostering of cohesion and the national identity. In times of crisis, society's ability to react as a collective and cohesive whole will be hampered.

A necessary step to strengthen a Singaporean identity is to abolish the Ethnic Integration Policy (EIP). This will be a step forward in our effort to foster the development of a national identity rather than members of different ethnic groups.

The PAP Government introduced the EIP in 1989 purportedly to promote racial integration and harmony and prevent the formation of racial enclaves by ensuring a balanced ethnic mix among the various ethnic communities living in public housing estates. Essentially, the EIP stipulates that HDB estates have to maintain a racial quota of residents. Each block of flats are sold to families from ethnicities that roughly mirror the percentages across the nation. In practice, however, this policy has served only to reduce the political influence of minority races in Singapore. Furthermore, the EIP makes it harder for ethnic minorities to sell their flats in the open market because of the restrictions of the quota system.

There are other factors involved in a family's decision of where to set up their home other than ethnic considerations. Proximity to work, local amenities and children's schools are major factors that families take into consideration when deciding where to live. Living within one's ethnic community is less of a pull factor in the current socioeconomic environment.

Singaporeans, especially those in the younger generations, are increasingly more cosmopolitan in their outlook. Barriers to ethnic integration are slowly being broken down both in the professional and social lives of Singaporeans. Interracial marriages are more common, leading to the implementation of the dual-race classification on our National Registration Identity Cards (NRIC). Indeed, the practice of requiring citizens to state their race on their NRIC no longer holds meaning and we should be discontinued.

The rate of immigration will be paced based on Singapore's economic needs and with integration as a major consideration. This may mean a hard cap on the number of additional foreign workers, new Permanent Residents and new Singapore Citizens each year. Studies on the efficacy of integration will continue to be conducted to determine reasonable limits to immigration, and the EVC will be charged with making biennial recommendations on this matter. Sensible limits to immigration would allow the Singaporean identity to develop and take root even as the population grows in size through immigration. More locals will feel at ease and not have to take the drastic step of emigrating to other countries.

#### **5. Go beyond the GDP for Measuring National Progress**

##### *5.1 GDP and its Shortcomings*

At the fundamental level, the PAP's notion of economic development is GDP growth at all cost. Increased immigration takes pole position among the Government's economic growth strategies. This is a myopic and counter-productive way of sustaining the economy. The

SDP's position is that the growth and development of our country should occur holistically. We cannot look at GDP figures to the exclusion of other progress and wellbeing indicators. The people's quality of life, standard of living, social cohesion, citizenship rights and sense of nationhood are equally important factors.

GDP growth is the most prominent and widely used indicator of economic progress as well as a major key performance indicator (KPI) for political office holders and senior civil servants. However, it is not an effective measure of economic wellbeing or of the standard of living in a community. GDP is a tally of all the goods and services produced and transacted in an economy in a given period. Similarly, GDP per capita is not a measure of personal income.

If one were to (mistakenly) consider GDP growth as a measure of improvement in wellbeing between the years, one would have to admit that it places too much weight on the income gains of the top earners and next to no weight on the income gains of the least well off. That is to say, GDP growth is skewed as a measure of improvement in wellbeing. Simon Kuznets, the Nobel Prize winning economist who articulated the concept of the GDP in 1934, warned against using the index as an indicator of an economy's health or a nation's wellbeing.

GDP overlooks sustainability as a factor in policy making by failing to offset the money spent on new production and on repairing the negative consequence of production and consumerism such as crime, pollution, depleting natural resources divorce and delinquency rates. Conversely, GDP does not capture desirable but "non-productive" activities like parents taking time off to care for their children or aged parents. Fathers out entertaining their clients are looked on favourably as far as GDP growth is concerned, whereas those who stay home and read to their children are not. Given that many families require both parents to work in order to meet household expenses (which help notch up the GDP), the socioeconomic cost of neglecting children is not factored in.

Much has also been debated about the equitable distribution of our economic growth. The GDP does not indicate how equitably wealth is distributed in our economy. Singapore's (per capita) GDP is impressive but income inequality, as measured by the Gini coefficient<sup>31</sup>, is at Third World levels.

In spite of impressive GDP growth, the quality of life of Singaporean workers is one of the worst in Asia with stress, depression and fatigue ranking high in our lives. According to a Gallup poll based on a poll of nearly 150,000 people worldwide conducted in 2011, Singaporeans came out at the top for people expressing the lowest number of positive emotions, suggesting, farfetched as it might sound, that we are even unhappier than the Iraqis, the Afghans and the Haitians. In the Happy Planet Index, which measures satisfaction in life as a function of our demands on the ecosystem, we polled 90th position out of 151 countries in 2012. What this speaks of is a measurement gap that should be bridged if we are to be able to manage the negative side-effects of growth.

Whether society can bear the social, economic and environmental costs that comes with the blind pursuit of GDP growth is a question worth posing. From a systems perspective, it is important to ask whether self-interested decision-making processes result in planners pushing the envelope on GDP growth through whatever means necessary while registering mere pass

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<sup>31</sup> The GINI coefficient, developed by the statistician, Corrado Gini, measures inequality. A GINI measure of zero indicates perfect equality (where everybody has the same income) and 100 measures total inequality (where only one person has all the income).

grades on wellbeing indicators, and even planners viewing wellbeing as an impediment to achieving ever higher levels of short-term GDP growth.

When the management and control system places economic value on more of the things that matter, governance becomes more holistic and inclusive. This paper proposes the development and use of a suite of alternative measures of wellbeing and progress that takes into account economic, social, environmental and security considerations.

### 5.2 The Genuine Progress Indicator: A Holistic Alternative

An index that is rapidly gaining traction as an alternative to the GDP is the Genuine Progress Indicator (GPI). The GPI tracks economic growth, that is, the level of the production of goods and services, and how this expansion results in the improvement of the welfare and wellbeing of the people in the country. It has come to be considered as a replacement to the more well-known GDP indicator. Since 1995, the GPI indicator has grown in stature and is increasingly used in Canada and the United States.

The GPI methodology incorporates GDP factors but also adds other components that identify the cost of the negative effects related to economic activity (such as rising crime, natural resource depletion, pollution, stress-related health problems, and broken families) and those that carry positive benefits (such as volunteerism). GPI balances the positive and negative results of economic growth to ascertain its overall impact. Thus, GPI is a net measure of the impact of economic activity and provides citizens and policymakers with a more holistic weatherglass on progress, providing the tools for sustainable long-term policy making decisions.

GDP and GPI are both measured in monetary terms and hence can be conveniently compared on the same scale. A 2006 report by Redefining Progress published GDP and GPI per capita data of the United States (Talberth, Cobb, and Slattery, 2006). The report showed that while GDP per capita has more than doubled from the 1950s to 2004 with an annual growth rate of 3.81 per cent, the growth in GPI did not paint such a rosy picture. GPI in the United States grew in the 1950s to mid-1970s but since 1978, it has stagnated with a slower annual growth rate of 1.33 per cent. (See Figure 2-6 below.)

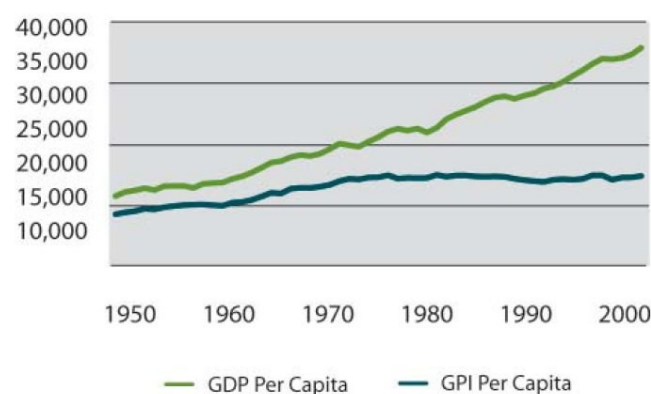


Figure 2-6: Real GDP per capita and GPI per capita of the United States in 2000 Dollars  
[Source: Talberth, Cobb, and Slattery (2006)]

By paying attentive to the deviation between the growth in GDP (per capita) and that of GPI (per capita) planners will have a clearer picture of whether economic development is sustainable. By examining the component indicators of GPI, the cost of the selected mode of economic development becomes clear.

Unfortunately, a look at the components of GPI in Figure 2-7 below reveals that the original GPI indicator contains elements that are less relevant to Singapore and omits some that are. Furthermore, it omits the entire category of security. Thus, in order to holistically measure Singapore's national progress, it becomes necessary for Singapore to develop its own version of the GPI — a Singapore GPI (GPI(S)).

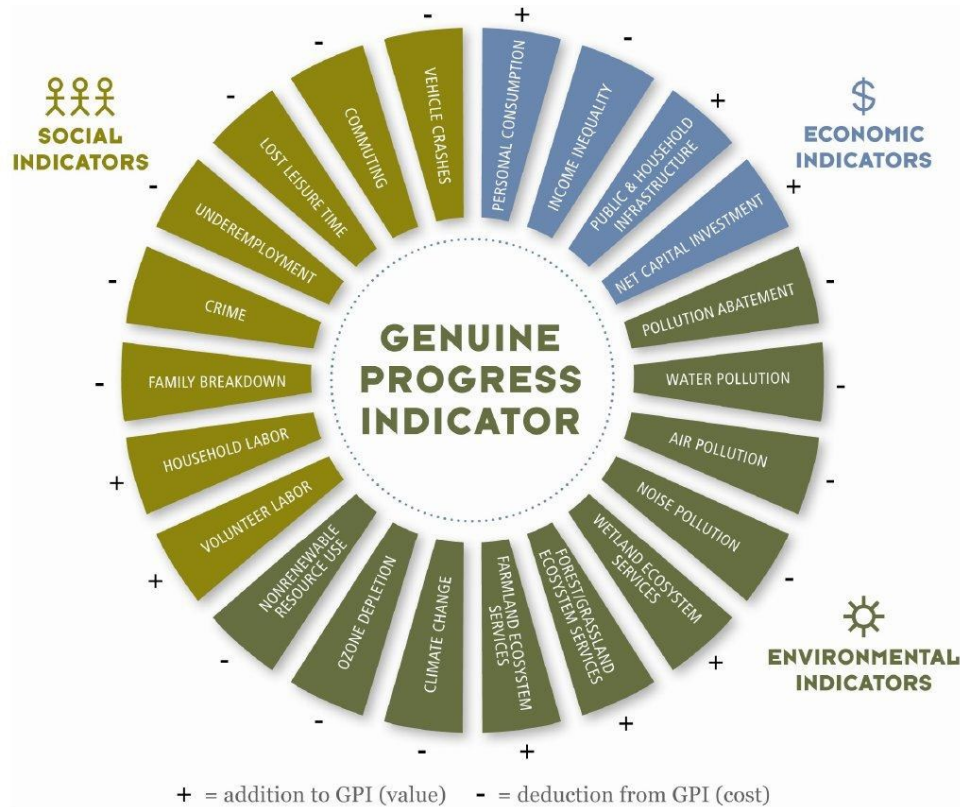


Figure 2-7: Components of the GPI (Positive and negative signs indicate whether a component typically makes a positive or negative contribution) [Source: Berik and Gaddis (2011)]

### 5.3 The GPI(S): A Proposal

To support sustainable national development, it is imperative that wide representations from other social partners and stakeholder organizations such as businesses, academies, civil and non-governmental organizations are involved. When citizens participate in national dialogue on how they can shape their own lives, their sense of belonging to the community and country is deepened.

Figure 2-8 below summarizes the proposed items to be measured in the GPI(S), spanning four domains: social, economic, environmental<sup>32</sup> and security. By tracking these components,

<sup>32</sup> According to the World Wildlife Fund (WWF) we have the largest carbon footprint per head in the Asia-Pacific. Our \$40,000 GDP per capita drives our voracious consumption habits. The high carbon emission is also fuelled by the corporate sector. WWF President Yolanda Kakabadse commented that when it comes to good ecological practices "Singapore... is a society that maybe is one of the best examples of what we should not do." (AFP, 5 March 2012.)

In another study, researchers at the University of British Columbia developed and measured the Eco2 Index of 152 countries around the world. This index, compiled by comparing financial indicators (such as budget deficits, national debt and GDP) with ecological indices (such as resource consumption and waste produced), is a measure of a country's ecological health. Over the course of the decade under study, the Eco2 Index showed that scores fell steadily for all the countries. But of the 152 countries, Singapore ranked last. Lead researcher Rashid Sumaila said that despite recording a surplus of 28 percent of GDP in 2007, Singapore's "ecological deficits are



we will obtain greater resolution on our progress in resolving hot button issues such as the maintenance of public transport, the affordability and availability of public housing, the quality of healthcare, and so on. This being a broad based indicator, we can base our national performance on some of these key indicators, revising the list as our nation evolves. The factors that go into the GPI(S) computation will be put up for national as well as international review so that consensus in the most accurate calculation of the best basket of goods for Singapore can be achieved. A task force will be commissioned to conduct this work.

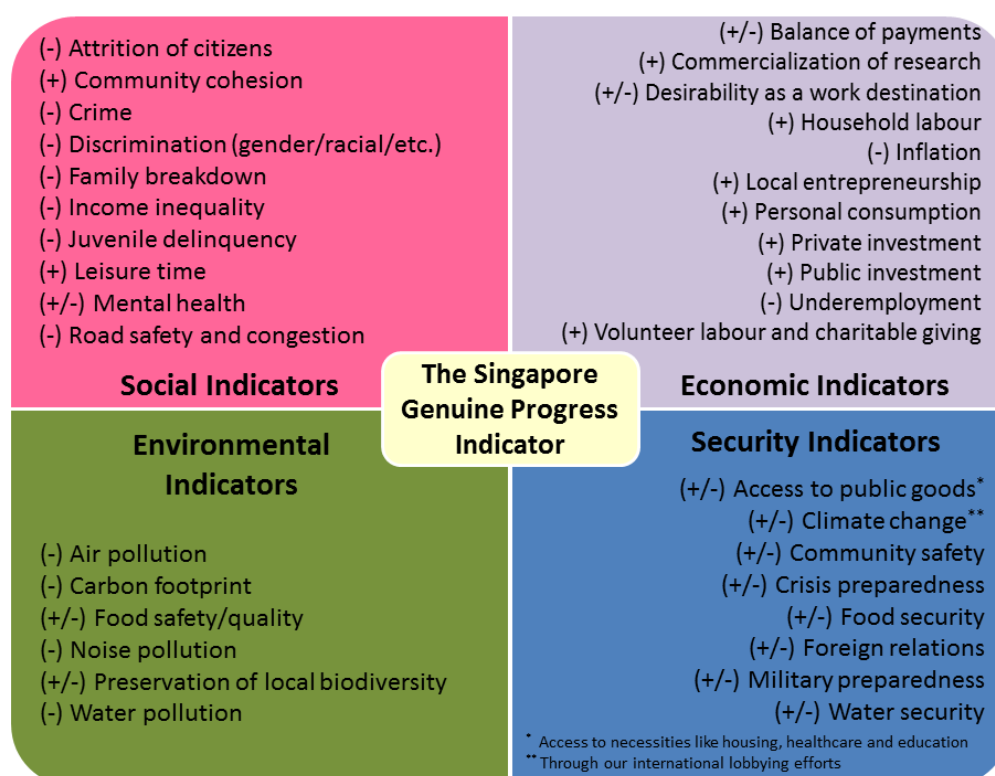


Figure 2-8: Proposed Components of the GPI(S) (Positive and negative signs indicate whether a component typically makes a positive or negative contribution)

Unlike the GDP, the GPI(S) takes into account the wellbeing effects of a broad array of factors and thus enables us to make a distinction between “high quality growth” and growth where Peter is robbed to pay Paul. If the GPI(S) grows in tandem with GDP, it means that our economic growth is sustainable and benefiting society as whole. On the other hand, a stagnating GPI(S) in the face of a rising GDP implies that our growth trajectory has to be revised as some sectors of society are benefiting at the expense of others. The component indicators of GPI(S) will be instrumental in helping planners, businesses and civil society to identify gaps in our economy and take action to ameliorate them.

The GPI(S) is intended to be a measure of Singapore’s progress and not a vanity metric. As such, the difficulty of comparing the GPI(S) across nations is not a problem. However, many of the component indicators of the GPI(S) lend themselves to international comparison.

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*the worst in the world.”* (Global News, 20 February 2012; Zeenews.com, 21 February 2012.) A spokesperson from the Ministry of the Environment and Water Resources responded, “*As a city-state, it would have been more relevant if Singapore was benchmarked against other cities, which typically are also import-dependent for energy, food and water, rather than countries.*” However, the spokesperson agreed that all segments of society “*will need to take collective actions to minimize our resource use and waste generated.*” (WSJ Southeast Asia Real Time, 13 March 2012.)



#### 5.4 The Road Ahead

GDP will remain as an important national indicator, it being a well-established indicator that is readily comparable across countries. However, in time to come, GPI(S) values will be used in tandem with GDP to measure our progress. No one measure will be a perfect indicator of wellbeing. In fact, there are other national wellbeing indices such as the Gross National Happiness (GNH) framework which is used in Bhutan<sup>33</sup>. The New Zealand Government has also drawn up a set of measures that tracks the quality of life for New Zealanders<sup>34</sup>. Singapore should also devise a set of measures that would provide an accurate picture of the quality of life for our citizens which will be aggregated to form the GPI(S).

We propose a five year road map towards the full implementation of the GPI(S). A task force will be formed to develop methodologies for measuring the component indicators and deal with common methodological considerations such as double counting. The task force will take the first year for methodology development, and over the next four years, the various indicators will be monitored and the methodologies developed in the first year reviewed. By the end of five years, government agencies will have experience in the measurement and tracking of the various indicators. At that time, the GPI(S) will be a full-fledged measure of national performance that can be used to create positive incentive structures to align the interests of policy makers with those of Singaporeans.

In the interim, we propose the use of an alternative measure of national progress to reward public servants based on average real income growth. This metric is developed in Annex A.

#### 6. Revamp the Ministerial Pay Formula and KPIs for Senior Civil Servants

The current formula for ministerial bonuses is tied to GDP growth, which is a statistic that is easy for planners to manipulate. One way to achieve this is to increase the labour supply will cause GDP to inflate. There is thus the risk of a Government manipulating GDP growth to raise their own salaries to the detriment of Singaporeans.

In our paper *Ethical Salaries for a Public Service Centred Government* (Singapore Democratic Party, 2011), we recommended that ministerial salary bonuses linked to GDP growth be removed and that their salaries be pegged to the bottom 20 per cent of income earners in Singapore. Similarly, the national performance component of bonuses for senior civil servants should be linked to more broad-based measures of the economy such as the GPI(S) or a measure of average real income growth. (See Annex A.) This removal of adverse incentives will make population and immigration policy more aligned with public benefit.

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<sup>33</sup> GNH was developed by the King of Bhutan in 1972. He coined the phrase to signal a commitment to building an open economy that would honour Bhutan's culture and its Buddhist spiritual values. Oxford-trained economist, Karma Ura, at the Centre for Bhutan Studies developed a sophisticated survey instrument to measure the population's general level of wellbeing. The index has since been used, both as a detailed interviewing technique and a general survey, in Canada and Brazil. Canadian theoreticians collaborated with Ura to produce a policy lens which is used by the Bhutanese government to conduct policy impact studies in the kingdom.

<sup>34</sup> New Zealand reports 68 key quality of life indicators across 11 domain areas that include social connectedness, safety and civil and political rights.

## **ANNEX A: WEIGHTED AVERAGE REAL HOUSEHOLD INCOME IMPROVEMENT**

Income and consumption are better measures of well wellbeing than GDP, which is a measure of production (Stiglitz, Sen and Fitoussi, 2011). While some might argue that basic macroeconomics informs us that, in equilibrium, GDP equals total income, there is a glaring flaw with GDP growth as a measure of improvement in wellbeing.

No economist pretends that GDP growth measures wellbeing. However, we believe that wellbeing of citizens should be the basis on which national progress is measured, and in so far as GDP growth is misaligned from wellbeing, it is a poor indicator of national progress.

Real income is a reasonable proxy to wellbeing, and the percentage change in real income is a better measure of change in wellbeing than the change in the absolute figure. For example, the news of an additional \$100 per month for a low income blue-collar worker might be greeted with joy, but a multi-millionaire would be unmoved by a similar income gain. This is consistent with well-accepted theories of stimulus-response from physical psychology. In view of this, GDP growth overweighs the happiness due to income change of top earners while essentially ignoring wellbeing improvement at the lower ends of the income ladder. Unless we accept that government policy should favour the highest income group over all the others, GDP growth is a flawed measure of change in national wellbeing and, for the reason mentioned in the previous paragraph, national progress.

In this annex, we propose an alternate metric to GDP growth, based real household income, that measures improvement in wellbeing more fairly and takes into account psychological realities. A fairer measure of overall wellbeing is achieved by treating percentage income growth for households in each income percentile the same way, though more weight may be placed on income growth for lower income households to damp the accelerating growth of inequality. The second property is achieved by accounting for the fact that a decrease in income causes a greater loss of wellbeing than an equal increase in income increases wellbeing. This phenomenon is a key element of Prospect Theory and is sometimes called the Endowment Effect. It is an integral element of human psychology that is well documented in numerous experiments (Carmon and Ariely, 2000; The Economist, 14 January 2010; Hoffman and Spitzer, 1993; Kahneman, Knetsch and Thaler, 2009) and is sometimes framed as a cognitive fallacy. But fallacy or no, it is an integral aspect of human psychology.

To this end, we propose a measure, that:

- More evenly weighs income improvement across households of various income levels while retaining the flexibility to place slightly more weight on the gains of lower income households to incentivize planners to help this more needy group, and
- Accounts for the psychological reality that losses and gains are viewed asymmetrically, with a loss in income being more painful than an equal gain in income.

The metric, Weighted Average Real Household Income Improvement (WARHII), is defined as follows<sup>35</sup>:

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<sup>35</sup> Readers may skip to the next paragraph for an explanation in words.

$$WARHII(Y) = \sum_{k=L+1}^{100} w_k f\left(\frac{1}{1 + r_{infl}^Y} \frac{I_k^Y}{I_k^{Y-1}} - 1\right)$$

where  $L$  is the lowest percentile to be used in the measure<sup>36</sup>,  $w_k$  is the weight<sup>37</sup> assigned to the set of households with incomes between the  $(k-1)$ -th to the  $k$ -th percentile,  $r_{infl}^Y$  is the inflation rate in year  $Y$ ,  $I_k^Y$  is the average income of the households with incomes between the  $(k-1)$ -th to the  $k$ -th percentile in year  $Y$  and  $f$  is a function that measures “income improvement”, giving the metric its name.  $f$  is an increasing function where  $f(0)=0$  and  $f$  is “kinked” about 0 such that it satisfies the second property<sup>38</sup>.

The metric is a weighted average of the “improvement” in real household income. The role of  $f$  is to penalize the contraction of income more heavily than it rewards the growth of income so as to reflect the psychological reality that a contraction in income hurts more than an equal gain in income.  $f$  then serves to translate growth to what we call “improvement”. We propose, for simplicity, that income contraction be penalized twice as heavily as income gains are rewarded<sup>39</sup>:

$$f(x) = x \text{ if } x \geq 0 \text{ and } f(x) = 2x \text{ if } x < 0$$

which is diagrammed in Figure A-1.

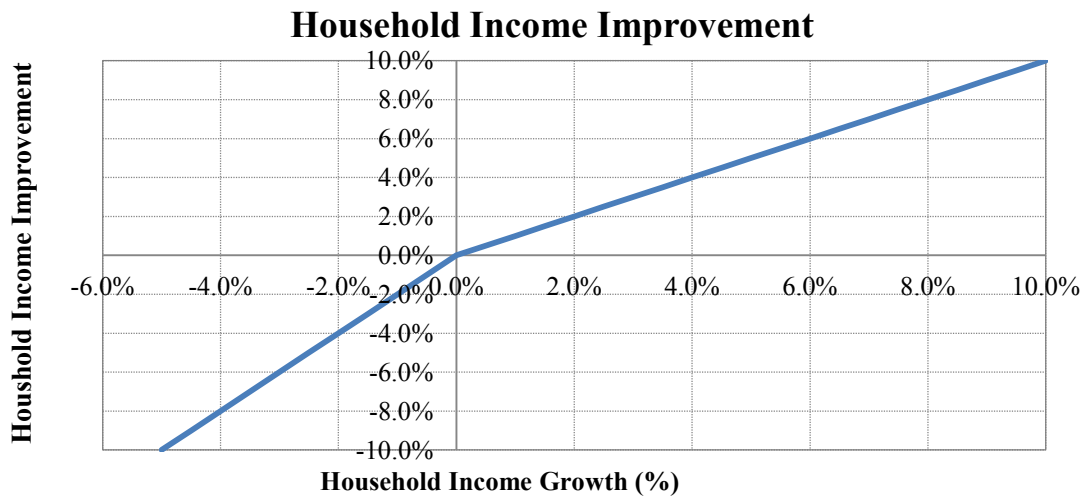


Figure A-1: Proposed Household Income Improvement Function

<sup>36</sup> We propose to use  $L=12$  as the percentage of households with “No Working Person” has historically hovered around (and usually below) 10%.

<sup>37</sup> As weights, the  $w_k$ ’s are positive and sum to 1. For the social purposes, we propose that the  $w_k$ ’s be decreasing in  $k$ , placing greater weight on lower income groups.

<sup>38</sup> If we would like  $f$  to also incentivize planners to prefer across-the-board income improvement to concentrated income improvement, and to prefer even burden sharing to concentrated income declines, we may set  $f$  to exhibit “diminishing returns” and “accelerating losses”. For simplicity, we do not include this feature in the proposed metric.

<sup>39</sup> Naturally, the detailed form of  $f$  may be finalized after further study.

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