The title of my talk today is, “The Second Long March”. It is inspired by the Long March of the Chinese communists in 1935.

The Long March began in October 1934 at the South-eastern corner of China, and ended one year later, in another corner in the North-west, a distance of about 10,000 kilometres.

The communists, led by Mao Zedong, trekked over endless expanses of very harsh terrain — raging rivers, snow-capped mountains and treacherous marshes. At one point, where there was no water they survived by drinking their own urine.

Of the 90,000 men and women who set out, only 7,000 survived the March. Most of them died through sickness and exhaustion. Only a few were actually killed in battle.

For those who survived, it was a real triumph of human endurance and spirit.

One may disagree with the political ideology of Mao Zedong and his comrades. Yet, one cannot help but marvel at the triumph of their spirit over impossible odds.

I feel that the problems we are facing are so complex and immense that they will require strong qualities like those exhibited by the Long Marchers.

These are physical and moral courage, perseverance, discipline, dedication, resolution and teamwork.
But when I tested the title on some of my colleagues, they were not the least enthusiastic.

They thought the Long March metaphor suggested that I was an admirer of the Chinese communists.

They also pointed out that the Long March was not an all-conquering march, but was, in fact, a hasty retreat of the Red Army.

I looked for alternative titles, like “The Tasks Ahead” and “Certainties and Uncertainties”.

In the end I felt “The Second Long March” was still the most apt. It captures the spirit of determination and toughness of purpose most vividly.

**SINGAPORE’S FIRST LONG MARCH**

My Long March metaphor may be inspired by the Chinese communists but the numerical order is not.

I use the word “Second” not after the Long March in China but after a Long March in Singapore.

For, in my view, the struggle for survival of Singapore as an independent nation, is also a triumph of the human spirit, a victory of conviction and determination, over impossible odds.

The PAP Old Guard fought the communists, and defeated them.

Our Prime Minister has no doubt that had the communists won they would have pulled out his finger-nails.

Singapore’s survival as an independent nation was also a hard struggle. To begin with, Singapore’s birth was not a normal one. It was a painful Caesarian operation done without anaesthesia. Older Singaporeans were convinced that the new-born Singapore was not meant to survive. But, like a Spartan baby left overnight under a cold open sky, it did.

It is now, of course, history how the Prime Minister and the PAP Old Guard rallied the people, struggled and kept new born Singapore warm and alive. In retrospect, it looks easy. But at that point of time, nothing was certain.

I remember how the Government flattened the hills and filled up the swamps in Jurong, to turn it into an instant industrial estate. I was working in the Economic Planning Unit then. Success was far from certain. For years, Jurong sprouted only a few factories and
Jurong Industrial Estate became known as “Goh’s folly” (not this Goh, but Dr Goh).

**THE SECOND LONG MARCH**

We have grown up. We will be 21 years old in a few days’ time. It is an opportune time for us to reassess and reaffirm certain basic facts and premises before we plunge into adulthood. Where are we heading? What is the landscape like before us?

Singapore is unique as a nation — small, no natural resources, a city-state, a country without a countryside, a nation of many different races and religions.

Given these basic facts, Singapore will always be vulnerable to internal and external forces.

Take, for example, the vulnerability of our economic prosperity.

I was made vividly aware of this when I first started work in 1964. Trade with Indonesia came to a sudden standstill because of Soekarno’s Confrontation against Malaysia. Jobs were suddenly lost. The bumboats were all tied up along the Singapore River. The large number of unemployed youths was described as “the army of the unemployed”.

When Confrontation ended, and with independence, Singapore grew. It grew rapidly until 1985, when we suddenly plunged into recession. Our economy shrank.

Workers became unemployed again. A new army of the unemployed? Of mainly officer grades? We have to worry about creating jobs all over again.

Creating jobs and economic growth is, therefore, like climbing mountains. The mountains are always there.

**MOUNTAIN RANGES**

Looking ahead, I can see several other peaks we have to scale. You may say that once you have successfully conquered a mountain peak, there is nothing to climbing the next one.

But these mountains are permanently covered with snow, and scaling them is always dangerous, even for the most experienced mountaineer.
At this point of time we may not be able to plan in detail how to climb since we do not have full information on the topography. But at least we are better equipped than Mao Zedong.

What I aim to do in my speech is not to tell you how to climb the mountains, but to outline the obstacles we are likely to encounter. Then I would like to hear your views, after my speech, on how to climb them.

After all, the group of Singaporeans who have to participate most actively in the Second Long March will be the young men and women like you.

**PHYSICAL CONSTRAINTS OF GROWTH**

Our immediate problem is to pull ourselves out of the current economic recession. Our longer term problem is how to overcome the many constraints on our growth.

For example, our land, water and manpower resources are finite, and we are almost reaching their limits. I have spoken on these issues at a similar forum in NUS last year.

The Acting Minister for Trade and Industry has also spoken to you on Recession and Economic Recovery. I shall, therefore, not elaborate on this point tonight.

But I want to reiterate that we should go easy on wage increases for another year at least, and to advise you to learn to live with slower economic growth, which means lowering your income expectation.

**HUMAN PROBLEMS**

The constraint of physical resources is not as difficult to overcome as the human resource problem. This type of problem requires us to change attitudes and tread on sensitivities. It concerns people directly.

When we deal with people, we are basically dealing with emotions, their hopes and fears, their pride and prejudices, their joys and sorrows.

The human resource problem cannot, therefore, be tackled in the same efficient, computerized manner as we can the non-human ones.
Unless they are properly handled, any attempt to solve them can itself cause further problems.

People are what make Singapore. They are our most valuable resource.

I think the most serious challenge we are going to face is how to cope with the changing demographic profile — its size, composition and age distribution.

I know this is a longer-term problem but if we do not address it now, it can only become more serious.

Our population now stands at 2.6 million. It will grow to three million in the year 2020, and then decline.

Our population will decline because the number of babies born each year in the last 10 years falls short of the number required.

Professor Saw Swee Hock, professor of statistics at the National University of Singapore, has calculated that for our population to replace itself, ie, one person for one person, we required 56,000 babies for 1985.

But only 42,000 babies were born last year. There was, therefore, a shortfall of 14,000 babies.

You may think producing babies is the most natural thing to do. But apparently the facts seem to indicate otherwise. It seems that the more we educate our girls, the more reluctant they are to have babies. I do not know whether the reluctance is theirs alone, or whether the boys must also share the blame.

This not a joke. It is a fact.

The girls who have only a PSLE education have no problems. They are reproducing themselves, one for one.

For a population to replace itself, on average, each girl must produce another girl. The girls with an ‘O’ level certificate and above are not doing that. They are under-producing by as much as 40 per cent.

So, here we have the nub of the problem.

**PROSPERITY**

We have to pay close attention to the trend and pattern of births because of their consequences on our prosperity and security, in fact, on our survival as a nation.
You may be puzzled why having fewer babies can result in a less prosperous nation.

Let me explain.

Economic growth comes from two sources — growth in the size of the workforce and growth in its productivity. Productivity itself depends on the ability of the population. If the workforce does not increase, then productivity must increase to generate economic growth.

But there is a limit to productivity growth as the economy becomes more developed.

The Japanese are a highly productive people. Yet in the last twenty years, their growth in productivity has not exceeded four per cent per annum.

The Japanese are good. Do you think we can do better? I doubt it. It would be extremely difficult to do better than the Japanese people.

**NOT ENOUGH YOUNG WORKERS**

Economic growth will slacken for another related reason. With fewer babies each year, the proportion of younger people in the population will become smaller. Put in another way, our workforce will become increasingly older.

Today, the average or median age of our workforce is 31, ie, half the workforce is above this age, and half below it. It will go up to 35 years by the year 2000, and then 43 years by the year 2030.

Will our workforce be vigorous and dynamic? Will investors be attracted to a country which does not have enough young workers? Even now, you can see that many companies prefer to employ younger workers. Not only are they cheaper to employ, but they are also more nimble with their hands, and are more up-to-date in their skills and training.

**AGING POPULATION**

Our changing demographic profile will throw up another grave problem — how to cope with a fast aging population.
At present, there are about 200,000 people aged 60 and above. The number will quickly increase to over 300,000 in 15 years' time. It will balloon over to 800,000 30 years later.

You will be among those 800,000 people.

How are you going to support yourselves when you are no longer working?

You may say that your children can support you, but bear in mind, at the rate we are going, many Singaporeans will have only one or even not a single child in their life time.

The older population that is without a steady income will need medical care, housing and to move around. These services will have to be paid for, not by the Government, but by those who are working.

Singapore has no natural wealth. The only way for the Government to raise the required revenue to take care of the older population is to levy more taxes on those who are working. And they will squeal.

The tax burden can be extremely heavy if it has to support some 30 percent of the population who are over 60 years old.

How do we reconcile the interest of the young and the needs of the old? How do we solve the dilemma? I hope you will tell me later.

**SECURITY**

I now move on to explain the effect of fewer and fewer births on security.

Put simply, there will not be enough young men to defend the country.

We have already extended reserve service to 13 years. Do we extend it to 20? Does it really solve our problems even if we do? Do we enlist girls for national service?

Security is a perennial problem. It is another one of those perennially snow-capped mountains.

You cannot assume that once you are born a Singaporean, you will always remain a Singaporean.

Let me illustrate this point by giving you a bit of my personal history.
I have changed nationality many times.

I was born a British subject. Before I could even walk, the Japanese dropped their bombs on Singapore. Soon Singapore fell, and I became, I suppose, a Japanese subject. The Japanese lost the war in 1945. Singapore was returned to the British, and I became a British subject again. In 1959, when I was still in school, I became a Singapore citizen. In 1963, when I was in the university, I became a Malaysian when Singapore became part of Malaysia. Two years later, soon after I started work, I reverted to Singapore citizenship.

So, all in all, I have changed nationality five times! I hope there will not be a sixth time.

What I am talking about is our ability to defend ourselves in the future. You may not realize it, but it takes 20 years to produce a soldier — 18 years to grow him and two years to train him.

**WHAT CAN BE DONE?**

What can be done? What should be done?

Does the solution lie simply in exhorting our people to produce more babies? Who should do the producing?

How do we get those who can afford and should have at least two children to have at least two children? Do we change our family planning policy of "Two Is Enough" to "Three Is Better"?

This matter has to be carefully considered, because by trying to check the anticipated population decline, we may overshoot the target. Then we will have the reverse problem of having too many people on too small a piece of land.

**NATIONAL HARMONY**

The problems I have raised today are not really new. But like the mountain ranges in front of Mao, we have to cross them, again and again.

Each crossing is always difficult, always tricky, always perilous. It requires unity of mind and singleness of purpose. It requires us to work in harmony.

National harmony is absolutely crucial for us to conquer our problems.
A country at peace with itself can achieve many things. A country at odds with itself will lose everything.

I can think of no better example to illustrate this point than Sri Lanka.

I have been to Sri Lanka several times. I have some friends there. It is, therefore, with some concern that I see what is taking place there.

Some years ago, when I was in Colombo, they showed me their proposed economic zone. They were going to model it after Jurong Industrial Estate. As recently as a year ago, Air Lanka advertised in our press and on SBC: Come to Sri Lanka for “A Taste of Paradise”. Today, investors are not going. Neither are the tourists. The violent disharmony between Tamils and Sinhalese is keeping them away.

The Sri Lankans are not an unintelligent people. Our Senior Minister came from Sri Lanka. Their Minister of National Security (Mr Lallith Athulathmudali) taught law in Singapore. He has also taught my wife.

They have a high rate of literacy. They also practise democracy.

It is not that they do not know that national harmony is important. Everybody knows that national harmony is crucial to progress. But it does not follow that just because you know that it is important that there will be national harmony. It depends ultimately on the politics of the country, its government, and its ability to get the people to work together.

**OUR MISSION**

The time has come for our generation to work together, to face the future together, to shoulder the responsibilities of state, and to keep Singapore going.

We have already begun our Long March. We will face our share of adversaries and our own mountains. We have to call on our own skill, resolve and courage to overcome them.

The problems are great because, besides the basic internal problems I have discussed there will be external pressures and uncertainties. For one, the world is becoming more protectionist and more competitive. Making a living is going to be tougher. For
another, the whole South-east Asian region is undergoing a political change. And change invariably means uncertainty.

The older generation of Singaporeans has marched together to overcome its problems. Our generation must likewise march together to overcome ours. Only then can we cross our mountains successfully.

I have discussed only some of the problems today, such as physical resource limitations, declining number of births, particularly by the better-educated girls, and ageing population. There are many more. Besides mountains, there are ravines, gorges, landslides, flash floods, and swamps we have to contend with.

Singapore’s problems are unique.

We can look at other countries which are facing similar problems and get some ideas on how we can approach or tackle ours.

But, finally, because of our unique circumstances, we will still have to find our own unique solution to our own set of problems.

You will notice I did not attempt to offer any solution. The reason for my not doing so is simple. When you go mountaineering, every climber must play his part. You know it is a risky venture. You have to take precautions, such as linking the climbers with a rope tied round their waists, for mutual support in case one slips. If one slips or stumbles, he will be saved by the others. The climbers work as a team. They place their trust in one another. We are going to climb the mountains together, and I want to know how you think we can conquer them.
APPENDIX D.1
Education and Fertility

<table>
<thead>
<tr>
<th>Educational qualification</th>
<th>GRR *</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSLE certificate and below</td>
<td>0.93</td>
</tr>
<tr>
<td>‘O’ Level certificate</td>
<td>0.58</td>
</tr>
<tr>
<td>‘A’ Level certificate and above</td>
<td>0.66</td>
</tr>
</tbody>
</table>

Notes: *Explanatory note on GRR
GRR (gross reproduction rate) is a measure of fertility. It refers to the average number of daughters a woman will produce during her child-bearing years, provided that she lives during the entire period. However, since not all women live until the end of their child-bearing period, the actual average number of daughters born to women in the population is lower than the GRR. The GRR minus the death rate of women in this age group gives the net reproduction rate (NRR).

If the NRR is exactly 1 (commonly referred to as the two-child family level, since each woman has one son and one daughter on the average), we can expect the population to replace itself in the future.

If it is less than 1, too few daughters are being born for the population to replace itself.

If it is more than 1, the size of the population will grow, since there will be more daughters than mothers.

When the NRR is exactly 1 in Singapore, the GRR will be about 1.025. This is the replacement fertility level.

APPENDIX D.2
Population by Age
(in thousands)

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>2000</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 15</td>
<td>624</td>
<td>586</td>
<td>399</td>
</tr>
<tr>
<td>15–59</td>
<td>1735</td>
<td>1989</td>
<td>1681</td>
</tr>
<tr>
<td>60 &amp; over</td>
<td>199</td>
<td>327</td>
<td>841</td>
</tr>
<tr>
<td>Total</td>
<td>2558</td>
<td>2902</td>
<td>2921</td>
</tr>
</tbody>
</table>

APPENDIX D.3
Old Dependency Ratio
(%)

<table>
<thead>
<tr>
<th></th>
<th>1985</th>
<th>2000</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
APPENDIX D.1
Educational Profile of Older Singles
(Percentage of those in 40–44 years age group)

APPENDIX D.2
Who Will Remain Unmarried Each Year in Future
APPENDIX D.3
Distribution of Population by Age and Sex

1985:
Younger adults of the baby-boom period outnumber others

2000:
Baby boomers become middle-aged
APPENDIX D.3 (continued)

Distribution of Population by Age and Sex

2030:
More senior citizens now than ever before

Males

Females

Population (in thousands)

(yrs)

80+
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0

180 150 120 90 60 30 0

180 150 120 90 60 30 0
APPENDIX D.4

The Ageing Labour Force

% of total population

- 60 & over
- 15-59
- 0-14

Median age of labour force
1985: 27 years
2000: 35 years
2030: 43 years