When train services on the North-South Line broke down on Dec 15 of 2011, crippling the network for five hours, and again for seven hours two days later, the reputation of Singapore's public transport took a big hit overnight.

Those two breakdowns, followed by a flurry of six disruptions in a six-week span from March 2012, swiftly turned public focus from congestion to how unreliable Singapore's rail network had become.

Luckily for the ruling party, these embarrassing episodes did not happen before the elections, or they might well have narrowed its winning margin further, say some experts.

Crowded trains had emerged as one of the sore points among voters during the General Election in May 2011. Opposition parties jumped on how overburdened the transport system had become, even as the Prime Minister apologised for the shortfall in infrastructure.

When the elections were over, newly-appointed Transport Minister Lui Tuck Yew, who took over from Mr Raymond Lim, wasted no time in rolling out a slew of measures aimed at easing the peak-hour crush.

Along with that, the Government also tackled the issue of the influx of foreign workers, which had been blamed for the overcrowding problem on public transport.

Recognising that new trains and new MRT lines would take years to come into effect, the Government pushed for a billion-dollar bus programme to increase bus capacity.

That programme put four new parallel bus services and seven new City Direct routes on the road, to offer commuters an alternative to the MRT. The services had a combined daily ridership of about 2,700 as of March.

"These are commuters who would have otherwise taken the trains," said Land Transport Authority (LTA) group director for public transport Yeo Teck Guan.

The full opening of the Circle Line in October 2011 helped decant commuters from other lines, said observers. About 70 per cent of Circle Line ridership comes from commuters who transfer from other lines.

The LTA also spent $9.7 million to remove grab poles and add more handrails on trains to increase standing space.

And in a first, it set aside $10 million to fund free rides for commuters who exit at 18 stations in the city area by 7.45am. This has led to about 6 to 7 per cent of commuters shifting their journeys.

Another travel demand management scheme that provides incentives to commuters that change their travel times, Insinc, has nudged some commuters to travel outside of the peak hour as well.
The scheme has grown from 8,000 members in March 2012 to 170,000 last month, and close to 10 per cent of participants have shifted out of the crowded 7.30am to 8.30am window.

Meanwhile, operators SMRT and SBS Transit have also injected more than 2,000 train trips a week since 2011, though a majority of trips added to the North-South and East-West lines are outside of peak hours due to an aged signalling system which can run trains no closer than two minutes apart.

The system is being overhauled for $195 million so six trains, instead of the current five, can run every 10 minutes but it will be ready only in 2016 for the North-South Line and 2018 for the East-West Line. This upgrade is more than 10 years late, said veteran transport consultant Bruno Wildermuth, who was involved in building the North-South Line.

The original signalling system had a maximum life span of 15 years, but SMRT did not appoint a contractor to replace it until 2012 when it was 25 years old, he said.

Quite aside from these technical concerns, the big picture is that population has grown but transport infrastructure did not keep pace, said transport researcher Alexander Erath from the Singapore-ETH Centre. "There is a mismatch of supply and demand."

Although measures such as free travel have moved some people from the peak period, their impact has ultimately been muted by steady ridership growth. There were 2.62 million train rides a day last year, up from 2.29 million in 2011.

Non-constituency MP Gerald Giam agreed peak hour train frequency has increased slightly, but maintained trains are often still not arriving fast enough to clear the continuous stream of people entering the station platforms.

"Once there is even a slight delay, the platforms would be overflowing with people," he noted.

Bukit Panjang resident Chan Mun Tong, 42, feels the congestion has eased since 2011, but not by much. He still has to take the train from Choa Chu Kang in the reverse direction to Yew Tee before doubling back two to three times a month when it gets too crowded. "I thought the free rides are supposed to reduce the crowds, but it doesn't feel like it."

The Straits Times observed the peak-hour situation over several weeks, and found it is still common for commuters at stations such as Ang Mo Kio, Bukit Batok and Clementi to wait for multiple trains to pass before they can board during the morning peak period. On the North-East Line, for instance, trains have become more crowded each year as ridership grows. However, the additional 18 trains coming on stream from next year should ease peak-hour congestion.

Observers, including Government Parliamentary Committee (GPC) for Transport member Ang Hin Kee, reckon the congestion issue will be alleviated only from 2016, after the North-South Line signalling upgrade is ready and Downtown Line 2 opens.

**Tackling breakdowns**

But even as overcrowding eases somewhat, a new problem has emerged and proved more challenging: making sure trains do not stall and leave commuters stranded.
Heavier ridership only means the impact of each disruption is magnified, especially because those affected do not seem to have good alternatives.

After the 2011 breakdowns - the worst since the MRT began operating in 1987 - the authorities moved in quickly to fix the problem, starting with a high-level Committee of Inquiry (COI).

Former SMRT chief executive Saw Phaik Hwa resigned after the two disruptions, and was eventually replaced by former chief of defence force Desmond Kuek. The senior management at SMRT also went through a major shakeup, with new hires with military and engineering backgrounds coming on board.

In the aftermath of the COI, the LTA tightened its oversight of SMRT while the operator embarked on an extensive overhaul of its ageing North-South and East-West lines. This includes replacing 188,000 timber sleepers, the entire third-rail system and refurbishing older trains.

To get the rail network back in shape, even the newer North-East and Circle Lines had to undergo major surgery to address the root cause of major breakdowns.

SBS Transit is replacing all stainless steel components of its overhead power supply system with galvanised steel, while SMRT has replaced all 120km of power cables on the Circle Line with higher-grade ones.

SMRT also increased its annual repair and maintenance expenditure for its two rail lines by about 65 per cent, with $64.5 million spent in its 2013 financial year compared to $38.3 million in 2011.

The various measures have brought the number of delays above five minutes across the network down from a high of 396 in 2012 to 311 last year.

The number of trains withdrawn from service has also fallen across the various lines. For instance, there were 2.25 trains withdrawn per 100,000km travelled last year, down from 3.32 in 2012.

Transport GPC member Lim Biow Chuan believes the Government and operators are on the right track, but said there is still room to intensify maintenance and reduce the number of train disruptions further.

Mr Giam from the Workers' Party noted, however, that the number of delays last year was still higher than 2010 and 2009, so "it is still too early to declare victory".

He also cited instances of trains stopping many times for less than five minutes along the way, resulting in a significant delay overall. "Sometimes the statistics that the Government looks at don't tell the whole story."

To clamp down on breakdowns further, the Government raised the maximum fine for each disruption to 10 per cent of the annual fare revenue of the affected line in February. This means the operators could face fines many times higher than previously.

Despite all these efforts, commuters have not been appeased.
In a recent survey of 500 citizens commissioned by The Straits Times, 45 per cent of those polled dubbed transport the Government's worst failure since the 2011 General Election.

More than half of the regular train commuters felt services have declined since 2011. Only 21 per cent said it had improved.

To be fair, while 28 per cent of respondents rated public transport as "bad" or "very bad", a tad more - 31 per cent - say the system is "good" or "very good". The remaining 41 per cent rated it as satisfactory.

Done by market research firm Asia Insight over a week in March, The Straits Times poll surveyed commuters on how satisfied they are with government policies.

In an annual survey of 4,200 commuters by UniSIM, overall satisfaction with the public transport system slipped to 88.5 per cent, the lowest score since 2007.

Hot-button issue

What does this all mean for the ruling party as it works to address this hot-button issue ahead of the next General Election, which must be held by January 2017.

Well, the implementation of various big-bang initiatives - including a slew of concessions to address commuter concerns over higher fares - clearly shows the Government knows land transport is an area of great concern to the public and has spared no effort to solve it, said Institute of Policy Studies (IPS) senior research fellow Gillian Koh.

Also, the general view among more than 10 transport experts The Straits Times spoke to is that the rail system, and public transport in general, will improve in the coming years as more projects are completed.

In the long term, more attention should be devoted to improving existing train stations, providing more exits for new stations and making Singapore more walkable, said Mr Wildermuth, who wants to see more street-level crossings, and fewer overhead bridges or underpasses.

He said: "If you want people to use public transport, then naturally you have to prioritise people over vehicular traffic. At the moment, Singapore is a city for cars and not a city for people."

Yet with dissatisfaction over public transport still high halfway through its current term, the Government may be running out of time to address commuter woes.

Former Nominated MP Siew Kum Hong said that, like it or not, transport will be a prominent issue in the next elections if Singaporeans do not believe it has improved.

So what more can be done?

Mr Cedric Foo, who chairs the Transport GPC, said SMRT should report progress made on the COI's recommendations to signal that "no effort has been spared" and restore confidence.
He also suggests giving commuters fare credits, based on how badly they were affected by a disruption and for how long.

"We need to do more for commuters. Currently all penalties go to the LTA, and this doesn't square with affected passengers."

Mr Siew argued that despite the many reviews and announcements it had made, the Government has not taken any radical reform in transport, unlike areas such as housing.

The failure to review whether any fundamental changes are required to solve public transport problems means that there is a real chance Singaporeans will continue to be dissatisfied with transport policies and outcomes, Mr Siew said.

One reform could come from having a different operating, funding and regulatory model for bus and the rail system, suggested Dr Koh from IPS. Under the current model, public transport operators are pulled in all directions by its multiple stakeholders including commuters, shareholders and the Government, she said.

The Government is moving towards a contracts model for buses, but has only made tentative steps in that direction to date.

But it has long had to defend its decision to allow private operators to run public transport, as opposed to a nationalised model which it has dismissed as being inefficient.

The way forward, perhaps, is for the Government to conduct a "no sacred cows" review that is public, transparent and rigorous, argued Mr Siew.

While it is possible that the existing operating model of private, profit-driven operators continues to be the best one moving forward, Singaporeans will not have confidence in it till there is a proper discussion involving all stakeholders, including transport experts and academics, he said.

"We will also not know if we have made all the changes that we should make," he added.

He also listed three key areas to watch: public transport reliability and service standards, certificate of entitlement (COE) prices and the reliability of point-to-point transportation such as taxis.

"Unfortunately, to date Singaporeans do not think the Government has done anywhere near enough in any of these areas."