Speech by Deputy Prime Minister and Coordinating Minister for National Security, Teo Chee Hean at the opening session of the Arctic Circle Singapore Forum, 12 November 2015

His Excellency Ólafur Grímsson,

President of Iceland

Madam Dorrit Moussaieff

Ladies and gentlemen,

I think we ought to thank President Grímsson for the excellent introduction. A very good morning to everyone. Let me extend a very warm welcome to President Grímsson and Mdm Moussaieff, as well as to our other speakers and delegates, who have come from many countries to join us here in Singapore, for what would have been improbable a few years ago, a Forum on the Arctic.

Today's Arctic Circle Singapore Forum marks several firsts for Singapore and Iceland. We are honoured to host the first-ever forum convened in Asia by President Grímsson's organisation, the Arctic Circle. The Forum is also being held in conjunction with President Grímsson's inaugural State Visit, the first to Singapore by a President of Iceland.

Even though Singapore is a tropical island-nation located just 1.2 degrees north of the equator, one of the five key latitudes in the world, we are keenly interested in developments in the Arctic, and have been deeply engaged since as early as 2009. We have consulted experts and conducted visits to better understand ongoing developments in the North, the challenges and concerns facing the Arctic region, and the implications for the world, and for us here in Singapore and our region. In 2013, we were privileged to be admitted as an observer state at the Arctic Council, the premier forum for inter-governmental cooperation amongst the Arctic states. It has been an exciting and busy two years for us since. Today's Forum takes a small step in bringing the international dialogue on Arctic issues to Singapore and to this part of the world.

Global Importance of the Arctic Region

There are several reasons why the Arctic has gained global prominence in recent years. I will outline a few of them today. First, the Arctic is a bellwether of global climate change. Not only is the region warming twice as fast as the rest of the planet, physical changes in the North are affecting the global climate in ways which we are only beginning to understand. For example, the seasonal loss of Arctic sea ice has lowered the reflectivity of the earth's surface, contributing to further warming.[1] In addition, the release of carbon dioxide and methane from thawing permafrost in the Arctic could further exacerbate warming caused by man-made greenhouse gases from permafrost carbon feedback[2] It is important to deepen our understanding of how changes in the Arctic could affect climate in other parts of the world.

Second, the effects of a warmer Arctic will also have far-reaching economic impacts. A recent

study by the University of Cambridge and the National Snow and Ice Data Center estimated that temperature rises from greenhouse gases released by melting permafrost in the Arctic could contribute further to agricultural losses, and the need for additional responses to climate change, especially for small countries and countries that are not doing so well economically.[3] However, the Arctic also has considerable economic potential. According to a Lloyd's of London report,[4] companies could invest as much as USD 100 billion in the Arctic over the next decade. However, we all want to ensure that resource development in the Arctic is carried out with due respect for the environment, and to the benefit of the peoples and communities of the North.

Third, changes in the Arctic will invariably change the future of maritime transport. This is an issue of importance to Singapore as a maritime nation. In particular, the Northern Sea Route, traversing the waters north of Russia and Norway and other countries of the Arctic, could reduce travel time between Northeast Asia and Europe by a third,[5] or up to two or three weeks. In the near term, the reality is that the Arctic sea routes are likely to remain challenging given the harsh and difficult conditions – freezing temperatures, limited visibility due to fog, and floating sea ice. However, they can be a seasonal complement to traditional trade routes like the Suez Canal. As the Arctic sea routes open, care will have to be taken to ensure the survival of the vulnerable marine ecosystem. Infrastructure will also have to be further developed to ensure safe shipping in the region.

Frameworks for Arctic Governance

As economic activity in the Arctic grows, it is important that there is a robust legal and institutional framework. Foremost among this is the UN Convention on the Law of the Sea, or UNCLOS. As President Grímsson said, we had a conference here three years ago on the 40th anniversary of UNCLOS, and can see where the UNCLOS has brought us, from 1973 when the discussions first started, to 1982 when it was signed.

Signed in 1982, UNCLOS has stood the test of time as a comprehensive legal regime governing the oceans and seas, including in the Arctic. Singapore's long-standing commitment to UNCLOS is well-known. Our diplomats were involved in the negotiations, and even chaired sessions. As a small island state that has always depended on sea-borne trade as our economic lifeline, we believe it is in the interest of all states to preserve the freedom of navigation and rights to safe passage through the Straits of Malacca and Singapore and other waters, as provided for by UNCLOS. In September 2015, Singapore and the International Tribunal for the Law of the Sea signed a joint declaration allowing Singapore to be a neutral venue in Asia for the peaceful settlement of disputes relating to the Law of the Sea. We hope that will also make a contribution.

A second important element of this framework is the Polar Code, adopted at the International Maritime Organisation (IMO) in May 2015 just a few months ago.[6] As a long-time member of the IMO, and a member of the IMO Council since 1993, Singapore has participated actively in the development of this Polar Code. The formal adoption of the Polar Code is a positive step toward safe and sustainable shipping in the vicinity of the poles. Among other things, the Code imposes stringent design and operation requirements on ships operating in polar waters. As a responsible flag state with a sizeable ship registry, Singapore recognises the importance of high standards for shipping activities in polar waters. Ships flagged under the Singapore Registry of Ships have to undergo regular inspections by reputable classification societies to certify that they comply with the requirements of IMO Conventions and regulations, including the Polar Code.[7]

A third piece of this framework is the Arctic Council's efforts for emergency preparedness and response within the Arctic region. The work of the Arctic Council has yielded two binding agreements among the Arctic states – in 2011, the Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic, and in 2013, the Agreement on Cooperation on Marine Oil Pollution, Preparedness and Response in the Arctic. These are both very important frameworks for emergency response and coordination in the region.

Singapore's Arctic Engagement

Singapore recognises that the eight sovereign Arctic states and their inhabitants are the key players and stewards of the region. At the same time, we believe that countries which are geographically remote from the Arctic can contribute too, and indeed should contribute. We all live in one inter-connected world. Since our admission as an observer at the Arctic Council in 2013, we have been striving to contribute actively to the Council's work, and engage like-minded parties as a serious and constructive player on Arctic affairs.

Climate Change

First, on climate change. As a responsible member of the international community, Singapore is committed to taking action to slow the pace of global warming and guard against its effects. We are working with other countries to conclude a new global climate agreement at the end of this year; and our officials will be in Paris with other officials to work towards the goal. This will help to alleviate the effects of global warming in the Arctic.

Singapore contributes 0.11% of global emissions, but we are taking action to contain our greenhouse gas emissions nevertheless. In July 2015, Singapore submitted our Intended Nationally Determined Contribution for the post-2020 global climate agreement. We have been an early adopter of green development strategies, and our emissions intensity is currently among the best 20% of countries in the world. Emissions intensity being emissions per GDP. We intend to improve our emissions intensity further, by 36% from 2005 levels by 2030, and to stabilise emissions with the aim of peaking around 2030. This is not an easy target for a small country with very limited alternative energy options.

As a low-lying island nation, Singapore is also very vulnerable to the effects of climate change. Since 2011, to pre-empt the projected rise in sea levels, we have raised the minimum level of newly reclaimed land by an additional metre, to 2.25 metres above the highest ever recorded tide levels. So by President Grímsson’s calculations, we have 0.25 metres to play around with. We also have shore protection works covering more than 70% of our coastline to guard against erosion.

Pooling Relevant Expertise

Second, pooling relevant expertise to support responsible development and good governance of the Arctic region. Although weather and sea conditions in Singapore are quite different from those in the Arctic, Singapore has shared some of our practices on emergency preparedness and response with the Arctic states through the Arctic Council's Emergency Prevention, Preparedness and Response (EPPR) Working Group. These include our approach to inter-agency coordination when managing oil spills in our region, and our trials of using drones in combatting oil spills.

We have also initiated meaningful exchanges on issues such as adapting to change, with the Arctic Council Permanent Participants, representing the Arctic indigenous peoples. Leaders of the Permanent Participants visited Singapore last November and had exchanges with our officials on various aspects of public policy, from sustainable development to cultural preservation. In September this year, we welcomed leaders from the Arctic Athabaskan Council who participated in a short course on climate change adaptation strategies, conducted under the Singapore Cooperation Programme.

Developing Industry Capabilities

Third, Singapore companies are also developing Arctic capabilities to see how they can contribute to sustainable resource development in the Arctic. Over the years, our maritime industry has built up strong credentials in shipbuilding and repair, offshore engineering, and marine support services. Our companies may be able to provide enabling technology to help the Arctic tap its growth potential. For instance, in 2008, Keppel Singmarine completed its first two icebreakers, and has since delivered a total of 10 ice-class vessels. Keppel Offshore and Marine is currently collaborating with oil majors and drilling contractors to develop the world's first Arctic-grade, environmentally-friendly "green" rig.

We continue to develop such capabilities through partnerships between academia and industry. One example is Keppel's collaboration with the National University of Singapore to set up a Corporate Lab, which I opened in 2013. The Lab is studying the interaction between ice and man-made structures, a critical factor in Arctic engineering. Our universities are also developing new links with their counterparts in the Arctic region: NUS and the University of Alaska Fairbanks have just finalised a Memorandum of Understanding to collaborate in areas of mutual interest including Arctic climate change, sustainable development, oil spill research, and cold regions engineering. NUS' Centre for International Law and the University of Tromsø's Jebsen Centre for the Law of the Sea, in Norway, are also jointly organising a conference in Singapore next month for international law experts to discuss the governance of Arctic shipping.

Conclusion

So ladies and gentlemen, as a small country, it is in Singapore's interest to remain plugged into the world and to understand how environmental and economic developments, even in a seemingly distant region like the Arctic, can impact Singapore – perhaps not immediately, but 20, 50, or even 100 years, later. We also seek to make friends and work together with like-minded countries. We are therefore grateful for the many new friendships that we have forged with the Arctic states, not least through President Grímsson's Arctic Circle. President Grímsson's State Visit to Singapore marks a milestone in the bilateral relations between Singapore and Iceland, and we look forward to strengthening our collaboration in the future. I would also like to make special mention of the opening yesterday, of an exhibition, "Explore the Arctic – Past, Present and Future", organised by the Norwegian Embassy at the Singapore Science Centre. I encourage everyone to visit the exhibition and learn more about the history of polar exploration, the Arctic region today, and its significance to Singapore.

Singapore is still learning when it comes to Arctic issues. We are committed to deepening our understanding of the region and its people, and exploring how we can make useful contributions. We hope that this Arctic Circle Forum here in Singapore provides a good platform for knowledge-sharing about the Arctic by and with participants from beyond the immediate Arctic region.

I wish all of you a very fruitful Forum. Thank you.

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1 This refers to the lowering of the Earth's albedo, the fraction of solar energy (shortwave radiation) reflected from the Earth back into space. Ice, especially with snow on top of it, has a high albedo; most sunlight hitting the surface bounces back towards space. See Perovich, D. et al. "Increasing Solar Heating of the Arctic Ocean and Adjacent Seas, 1979-2005: Attribution and Role in the Ice-Albedo Feedback". Geophysical Research Letters 34 (October 11, 2007). DOI: 10.1029/2007GL031480

2 Schaefer, K., Lantuit, H., Romanovsky, V., and Schuur, E. Policy Implications of Warming Permafrost (UN Environmental Programme, 2012). Accessed at: http://www.unep.org/pdf/permafrost.pdf

3 Hope, C. and Schaefer, K. "Economic impacts of carbon dioxide and methane released from thawing permafrost". Nature Climate Change (2015). DOI: 10.1038/nclimate2807

4 Emmerson, C. and Lahn, G. Arctic Opening: Opportunity and Risk in the High North (Lloyd's of London/Chatham House, 2012). Accessed at: https://www.chathamhouse.org/publications/papers/view/182839

5 Farré, A.B., et al. "Commercial Arctic Shipping Through the Northeast Passage: Routes, Resources, Governance, Technology, and Infrastructure." Polar Geography 37:4, 298-324 (2014). DOI: 10.1080/1088937X.2014.965769

6 International Maritime Organisation. "Adoption of an International Code of Safety for Ships Operating in Polar Waters (Polar Code)". Accessed at http://www.imo.org/en/MediaCentre/HotTopics/polar/Pages/default.aspx

7 MPA has recognised eight classification societies to carry out the appropriate surveys and certifications: American Bureau of Shipping, Bureau Veritas, China Classification Society, DNV-GL, Korean Register of Shipping, Lloyd's Register, Nippon Kaiji Kyokai, and Registro Italiano Navale.

Source: Ministry of Foreign Affairs