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**KEYNOTE ADDRESS BY MR ANDREW TAN, CHIEF EXECUTIVE OF
THE MARITIME AND PORT AUTHORITY OF SINGAPORE, AT
SUSTAINABLE OCEAN SUMMIT (SOS) 2015: SUSTAINABLE
DEVELOPMENT AND GROWING THE BLUE ECONOMY – THE NEXT
50 YEARS, 9 NOVEMBER 2015, MARINA MANDARIN SINGAPORE**

Mr Paul Holthus, President and CEO, World Ocean Council

Distinguished Guests and Speakers,

Ladies and Gentlemen,

Good afternoon.

From Green to Blue Economy

2 Today, we are talking about seven tenths of the planet. Some 90% of world trade flows through it. And millions depend upon it directly or indirectly for their livelihoods. Space may be the last frontier but our oceans remain an untapped opportunity. Many of us are familiar with concepts such as “sustainable development” and the “Green Economy”. Less familiar are concepts such as the “Blue Economy”, especially where it applies to the management of our ocean resources.

3 While there is no universal definition of the “Blue Economy”, nonetheless there is growing recognition that the oceans are an

important part of that entire eco-system that supports all life forms. And when I say all life forms, I do not mean just humans but the rich marine biodiversity that we are only beginning to fathom.

4 It was the Brundtland Report in the early 1970s that popularised sustainable development and gave it a respectable definition, that is, development that meets the needs of the present without compromising the ability of future generations to meet their own needs. The “blue economy” is often seen as an extension of the green economy, albeit the same principles applied to the ocean economy.

5 Just this year, the Economist Intelligence Unit (EIU) came up with a working definition of the “Blue Economy” by characterising the “Blue Economy” this way: “A sustainable ocean economy emerges when economic activity is in balance with the long-term capacity of ocean ecosystems to support this activity and remain healthy and resilient”¹. We can see that the principles underpinning the Brundtland Report on sustainable development are encapsulated in this definition. So rather than spend time on the perfect definition, I rather focus on the principles that can guide our actions at a practical level.

¹ “The blue economy – growth, opportunity and a sustainable ocean economy”, EIU, 2015.

6 In the same way, when I was running the National Environment Agency (NEA) before taking on my current portfolio, I distilled the principles of the agency's mandate into three words that everyone would understand: Safeguard, Nurture, Cherish. These three words are now embedded in the agency's logo. They remind both those working in the agency and the general public that: 1. we have a responsibility to safeguard the environment by balancing the imperatives of growth and sustainability, without having to compromise one for the other; 2. we have a responsibility to nurture a younger generation who will look after the environment for future generations; and 3. the environment should be made accessible to all to enjoy and, most importantly, value.

Challenges & Prospects Facing the Blue Economy – Need for an Integrated Approach

7 Let me now turn to some of the key challenges and prospects facing the Blue Economy.

8 First, the growing importance of the oceans cannot be understated. If the oceans' contribution to the world's economies could be measured, then according to the same EIU report, China's ocean

economy contributed US\$962 billion or 10% of its GDP in 2014. The US valued its ocean economy at US\$258 billion or 1.8% of its GDP. Estimates for Indonesia vary, but one estimate puts it as high as 20% of its GDP. For many smaller countries with large ocean territories, the figure may even be higher, and could even make up half of their GDP. For example, in the Seychelles, part of the Small Island Developing States, coastal tourism contributes some 46-50% of its GDP.

9 Second, more and more human activities have extended to the oceans. Although much of early human civilization has developed around rivers and coasts, these developments have hastened with the rapid onset of urbanisation which now sees more than half the world's population living in cities. In the developing world, many of these megacities have developed along the coast, where unfortunately, they are vulnerable to extreme weather patterns as well as sea level rise. In recent decades, we have also seen new economic activities taking place in the oceans – from fish farming to offshore renewable energy production.

10 In this regard, many of you might be interested to know that the UN has produced its first World Ocean Assessment this year, which was

just presented to the UN General Assembly in September. This is the first time in its history that the General Assembly has received a comprehensive scientific and socio-economic assessment that may serve as a baseline for future policy making. For those unfamiliar with this document, the Assessment is the work of a panel of 25 eminent experts, and it is a report on the state of the marine environment, including its socio-economic aspects, based on available scientific evidence. I would encourage all of you to read the Assessment.

11 Against the changes taking place to our oceans over the last few decades mentioned in the Assessment, namely the growing impact of climate change, rising sea levels, the over-exploitation of ocean resources in some regions, the impact of human activities arising from urbanisation, coastal tourism as well as maritime transport, including risks of pollution, there is an urgent call for policy action.

12 While the Assessment does not prescribe what needs to be done, it is apparent that actions at both national and international levels are required. In doing so, there is a need for better awareness, capacity building and coordinated action given the many interdependent variables. Indeed, as with many of the complex issues of our time, an

integrated approach is required, one that brings together all the key stakeholders in joint solutioning and problem solving.

13 Creating new platforms for cooperation, as well as strengthening existing ones, will be crucial going forward. Much can be learnt from examples around the world in averting the tragedy of the commons. Right here in Southeast Asia, we have the Co-operative Mechanism to promote safety of navigation and protection of the marine environment, involving the littoral States of Indonesia, Malaysia and Singapore, and the user states of the Straits of Malacca and Singapore (SOMS). This Mechanism is a good example of international cooperation that respects the sovereignty of the littoral States while recognising the rights and obligations of user states.

14 Many of the challenges confronting our oceans also present opportunities for governments, businesses and communities to offer new solutions, leverage on new and emerging technologies and innovative partnerships. Platforms such as this – the Sustainable Ocean Summit, and NGOs such the World Ocean Council, can provide the bases for the generation of new ideas and approaches based on win-win partnerships and collaborations.

Singapore's Approach to Sustainable Development and the Blue Economy

15 Every country has the primary responsibility for its own sustainable development. But the extent to which sustainable development is embedded in its developmental strategies often hinges on a complex interplay of factors – the level of its socio-economic and political development, its national priorities, its regulatory framework and its institutional capabilities among others. The same applies to sustainable ocean governance.

16 Let me now touch briefly on Singapore's approach. Like many other countries, we have to balance our growth with preserving the environment. Well before the term sustainable development became popular, our founding prime minister, Mr Lee Kuan Yew, believed that the only way Singapore could survive was to differentiate itself from the region, by being a first world "oasis" in a then third world region.

17 When we became independent in 1965, one of first things we embarked upon was the greening of Singapore, planting trees around the island with the prime minister embarking on tree planting day in

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1971, which to this day continues to be done by the prime minister at the annual Clean and Green Singapore. Then-PM Lee believed that trees would not only make our urban spaces more habitable, but that greenery would also make the country more attractive to foreign investors. Indeed, beautifying the city also shows that we could make things work. As we all know, it is easy to plant trees. Many have attempted to do so. But keeping them alive, ensuring they thrive in our climate, are skills not easy to replicate. And most recently, the Singapore Botanic Gardens was recognised as a UNESCO World Heritage Site. I hope you have a chance to visit this, along with Gardens by the Bay, where our planners essentially turned the concept of a “garden in the city” to a “city in a garden”. Literally, a paradigm shift.

18 Besides greening the island, we also developed our own self-sufficiency in water, and transformed that expertise into water management where we now harvest rainwater, as well as create “new” water through reverse osmosis, leveraging on membrane technology. Today, the entire island is a water catchment area, including new reservoirs such as the Marina Barrage. We are also recognised as a hub of innovation for water. So from solving our own wicked problems, we

are now able to export solutions to other parts of the world as companies such as Hyflux have done.

19 Over on the maritime front, Singapore also ensures we do not neglect our coastal and territorial waters. As a small country, the rule of international law and conventions, such as the UN Convention on Law of the Sea, or UNCLOS, are key to ensuring that our interests are safeguarded. Singapore is committed to supporting the work of the International Maritime Organization (IMO) – the UN expert body regulating international shipping.

20 In fact, I just returned from the Republic of Korea last week having attended the 3rd Busan International Port Conference where Mr Lim Ki-tack, the IMO Secretary-General-elect, highlighted the IMO's role in sustainable development of the ocean, in areas of improving safety, environment protection and security. I fully concur and Singapore will do its part. We can bring a unique perspective and value-add through our multiple roles of being a major port state, flag state and littoral State straddling one of the world's busiest waterways, the Straits of Malacca and Singapore. As an active Council member of the IMO, Singapore is not only working with the IMO to balance environmental protection and

maritime safety with the need for efficient shipping, we are also providing capacity building for members of the international maritime community through our various training programmes.

21 Likewise, as an observer on the Arctic Council, we are contributing our expertise in areas of marine environmental protection and oil spill response. At the Arctic Council's Task Force on Arctic Marine Oil Pollution Prevention (TFOPP), Singapore has shared our measures for oil pollution prevention in the marine environment. Though conditions in the Arctic and the Straits of Malacca and Singapore differ widely, the lessons and best practices on collaboration and collective governance in key shipping lanes are worth sharing.

22 Although Singapore is one of the world's largest container transshipment hubs and bunkering port, we have maintained a clean and safe track record. Marine accidents are at their lowest in recent years, at 0.003 incidents per 1,000 vessel movements. At any one time, we have 1,000 vessels in our port. So this is no small feat. But it requires hard work and continued vigilance.

23 To spur the industry, the Maritime and Port Authority of Singapore (MPA) has invested S\$100 million in the Maritime Singapore Green Initiative (MGSI) comprising the Green Shipping, Green Port and Green Technology programme. The Initiative seeks to reduce the environmental impact of shipping activities around our port, by providing incentives to companies that adopt clean and green shipping practices over and above the minimum requirements set by the IMO.

24 Technology and innovation are key levers for a more sustainable future. We have established the S\$150 million Maritime Innovation & Technology (MINT) Fund which offers grants for companies to undertake maritime technology development activities. One key development supported under the MINT Fund includes research on bio-fouling – a global maritime issue that has severe economic and environmental consequences. I am glad this important issue will be discussed later in the Summit to tease out the synergies across Science, Government and Industry for the development of a common platform on the causes, prevention and removal of bio-fouling.

25 Finally, despite our tight and congested water space, we have created opportunities for marine biodiversity to thrive, through our new

marine biodiversity parks at St John's and Sisters' Islands. Even here, an unlikely partner, but the MPA played a part when we relocated some coral colonies from the western part of the island where the new Tuas mega-port will be built to cater to the needs of the future. Last but not least, Semakau Island, our one and only offshore landfill, is not only an operational landfill, but it co-exists with a thriving mangrove swamp that hosts many interesting species of flora and fauna, as well as marine life. They also act as a bio-indicator in case of any leachate. What these examples show are that it is possible to balance growth with development if we apply our ingenuity, put in place the right policies and allow Mother Nature to do the rest.

26 Call this the "Singapore way". It works for us. But I will not claim it works for others nor will I claim that the work is done; it is still work in progress and I daresay, work that never ends. We have seen this partnership between the government, industry and people grow and evolve over the decades because an essential element – trust and mutual respect – has allowed all parties to work together for the common good.

Four Key Principles for Sustainable Ocean Governance

27 I believe the starting point for sustainable ocean governance is to have a good understanding of the oceans itself. This requires bringing together the science, the research, technology and different disciplines to understand the various eco-systems within the oceans and uncover more of the nexus between land and sea and how one affects the other. In short, robust science and knowledge of the oceans is a pre-requisite of making the Blue Economy, green.

28 With knowledge of the oceans as the starting point, how then do we leverage on it to ensure an enduring Blue Economy? How do we combine that knowledge with the opportunities and challenges of sustainable development to ensure a Blue Economy that fulfills the twin imperatives of growth and sustainability? Drawing from our experience, I suggest four principles that can guide our collective action.

29 First, **good governance** is a principle which has helped Singapore to overcome many of our intrinsic challenges. With good governance, a country, whether big or small, wherever located, however blessed with

natural resources, can succeed. Without good governance, a country will fail, even if it is holding all the trump cards.

30 Second, the importance of a **long-term vision**. I had earlier touched on Hyflux. Although our leaders had the foresight to sign a 100-year water agreement with Malaysia in 1961, they were nonetheless aware of the inherent vulnerability of relying on others for such a critical resource. Therefore, we invested in ways to obtain our own multiple sources of water. Having a long-term vision, and I daresay combined with a sense of urgency, provides us the path to look beyond short-term gains, to create a sustainable solution.

31 Third, **good execution** is needed to follow through on the vision. One can have carefully-crafted policies and the most robust table-top plans. But without proper execution, the vision will amount to naught. The successful transformation of policies into the desired action and impact on the ground requires strong political will, good institutions, and trust between the government and the people.

32 Today, technological advancements open up new opportunities for governments, NGOs and even communities to play a more effective role

in governance. For example, MPA leverages on technology to plan and manage our port. Examples of some of these technologies are simulation and modelling to evaluate scenarios or operating conditions, sensors and vessel monitoring systems to manage the heavy marine traffic in the port waters, data analytics and sense making technology to detect unusual activities, anomalies, and non-compliant vessels, Unmanned Aerial Vehicles or drones could be deployed for the management and monitoring of marine incidents, such as oil spill, grounding and collisions, and even surveillance and inspections.

33 Fourth and last, is our belief in **strong partnerships**. This is even more so for sustainable development issues cannot be addressed unilaterally. As highlighted earlier, we need more integrated approaches involving all key stakeholders – by that I mean governments, civil society and business, or the 3Ps – People, Public and Private – to work towards the common cause. This is why the Sustainable Ocean Summit (SOS) is so relevant.

Sustainable Oceans Summit 2015 – Charting the Course Ahead

34 In this regard, I congratulate the World Ocean Council for organising this very important Summit in Singapore. SOS 2015 is a meeting of minds and brings together 150+ senior executives from a wide range of ocean industries around the conference theme of “Sustainable Development and Growing the Blue Economy – the Next 50 Years”.

35 We have a rich agenda ahead of us. I look forward to the Ocean + 50 Plenary Session which will present long term projections for all major ocean industries, encompassing ocean use trends, locations, opportunities, risks, and constraints for the coming 50 years. The Ocean Executive Forum taking place tomorrow will convene, what Paul has informed me, an unprecedented gathering of CEOs from a range of ocean industries. They will come together to foster discussion on the future of ocean industry activities and what this means for the ocean business community, sustainable development and the ocean itself. The closing Plenary Session on Investment and Innovation for Ocean Sustainable Development is a call to action where investors will meet to

discuss and accelerate innovative solutions to ocean sustainable development.

36 The discussions will no doubt touch on the need for long-term vision, good governance, strong institutions and effective partnerships. They may even run up against the traditional divide between developed and developing countries over differing values and national priorities, the definition of property rights as well as the need for capacity building and knowledge transfer. All these are important considerations and the key is to find neutral platforms and common spaces where these issues can be discussed openly with mutual respect. Singapore hopes that we can, in a small way, contribute to the discourse on the Blue Economy.

37 I would therefore like to thank the World Ocean Council for choosing Singapore as the location for this Summit. We are a small country but our maritime heritage stretches back for centuries. We have come this far only because we have continued to adapt as the world changes and most importantly stayed relevant. We will certainly do our part for the Blue Economy as well as foster stronger cooperation amongst the international community. That is because our success hinges upon the success of the rest of the world.

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38 I wish you a very successful and fruitful conference.

39 Thank you.