

**KEYNOTE ADDRESS BY MR MASAGOS ZULKIFLI, MINISTER FOR THE ENVIRONMENT AND WATER RESOURCES, AT THE IPCC SCOPING MEETING FOR THE SYNTHESIS REPORT OF THE SIXTH ASSESSMENT REPORT  
OPENING CEREMONY, 21 OCTOBER 2019**

Dr Lee Hoesung, Chair of the IPCC

Distinguished Guests

1. Good morning, and a warm welcome to Singapore. This is the first time that Singapore is hosting a meeting of the Intergovernmental Panel on Climate Change (IPCC), and we are honoured to do so. This Scoping Meeting is an important session that will lay the foundation for drafting the next Synthesis Report of the Sixth Assessment Report (AR6). This meeting, as with recent IPCC meetings, is carbon neutral. I would like to commend the IPCC for practising what you advocate.
2. This meeting takes place at a time of turbulent change. We are seeing geopolitical shifts, rapid and disruptive technological advancements, and changing trade patterns that are forcing us to rethink traditional models and practices.
3. To effectively address any global issue, including climate change, we need a strong united global response. However, the multilateral system is under strain, with the rise of nationalist, isolationist and protectionist sentiments. Despite awareness and concern about climate change being at its highest, some governments at one end of the spectrum allow forests to be burned to clear land for economic development, and use coal for energy generation. At the other end, other governments respond to green demands, and threaten to impose green border taxes and trade barriers.
4. We all have to work together to counter these forces and strengthen the support for multilateral cooperative frameworks. We must not take our eyes off the long-term, existential challenge of climate change. Otherwise, citizens will take their cause to the streets and reason will fail to rule.
5. Citizens around the world have come to recognise climate change for what it is – the defining issue of our times. We saw last month many climate strikes and rallies held by young people all over the world demanding urgent and ambitious climate action. Young people echo each other very quickly. In Singapore too, our youth turned out for the first ever Climate Rally. Young people are rightly concerned about climate change and how this impacts their future. We have to give them the confidence that we are taking their concerns seriously. It is our responsibility to work together with them to address this challenge.

6. We are pleased that the UN Secretary-General convened the Climate Action Summit last month. It has helped to galvanise global climate action. But we need to work to sustain the momentum and widen the circle of support for the many initiatives launched at the Summit. Everyone, every country, matters.

7. So, even though Singapore contributes only 0.11 per cent of global emissions, we will demonstrate our commitment to support the global effort to address climate change. This is why at the UN Climate Action Summit, Prime Minister Lee reiterated our commitment to do our full share. It is not going to be easy for countries to deliver on their Paris pledge. Singapore too needs to work hard to curb our carbon emissions growth so that we can peak and stabilise our emissions around 2030. This is a stretch target as we have limited access to clean energy – we are a small and highly urbanised city state – but we will not let up.

### **TACKLING CLIMATE CHANGE**

8. Of late, like many countries, Singapore is experiencing the effects of climate change. Last month was our hottest and driest September on record. The highest mean daily maximum temperature reached 33 degrees, exceeding the previous record of 32.2 degrees set in September 1997. Our weather is getting warmer, our rainstorms heavier, and dry spells more pronounced. Sea level rise threatens our island nation.

9. Nevertheless, we are not paralysed by despair. Since our early days as a fledgling nation facing great odds, Singapore has always faced our problems squarely. We even found ways to turn a challenge into an opportunity. It is with this resolve that we must tackle climate change. It means we will act with the boldness and vision that is part of our Singapore DNA. Let me share three key ways in which we are planning ahead and taking decisive action.

### **TAKING EARLY, DECISIVE ACTION FOR MITIGATION AND ADAPTATION**

10. First, we have been taking early action and stepping up efforts to mitigate and adapt to climate change. The IPCC Special Report on Global Warming of 1.5 degrees Celsius (SR1.5) highlighted that global warming could reach 1.5 degrees Celsius above pre-industrial levels by as early as 2030, should we continue along today's trajectory. We knew early on we cannot continue with business-as-usual.

11. Although we have very limited sources of renewables apart from solar, we are pushing the boundaries and developing innovative ways to transition to a low-carbon future.

12. Singapore is the first country in Southeast Asia to put a price on carbon. Our carbon tax came into force this year, without exemptions for any industry or sector.

The carbon tax sends a crucial economy-wide price signal to reduce emissions. The tax is not raised for fiscal purposes and we are prepared to spend more than the estimated \$1 billion in carbon tax revenues collected in the initial years, to incentivise and support companies in their transition towards green, carbon-efficient technologies.

13. We are making hefty investments into research and development for longer-term solutions to decarbonise our grid, industries, and even our buildings. \$900 million has been set aside for the Urban Solutions and Sustainability domain under our national Research, Innovation and Enterprise plan. We welcome multi-disciplinary collaboration to discover new knowledge and solutions across areas such as water and food supply resilience, urban mobility, energy and land management. For example, we are driving the adoption of super-low energy and zero-energy buildings. We are also studying the potential of “clean fuels”, such as hydrogen, and carbon capture, utilisation and storage.

14. Because water has always been a matter of national security concern, we have diversified into weather-resilient sources like NEWater and desalinated water. Energy has become central to our water resilience. PUB – Singapore’s National Water Agency – is therefore studying the potential of generating energy through water. Blue energy, or osmotic energy, arises from the salinity gradient across water streams. With the co-location of our NEWater and desalination plants, we could recover blue energy from the plants’ waste brine streams. The pilot projects will demonstrate the potential in harnessing water-waste- and energy synergies. If PUB succeeds, we will one day be producing energy from water even whilst we produce water from energy.

15. We have rightly put mitigation action as a key focus of our contribution against climate change. But we are also mindful that we are unable to reverse climate change completely. So adaptation must take equal importance. As Singapore is vulnerable to sea level rise, our Prime Minister recently announced a comprehensive nation-wide effort to further protect our coasts, low-lying areas and communities. As a low-lying island, this will be a huge but necessary undertaking, even while the world works towards climate change mitigation. This will possibly cost Singapore \$100 billion or more over the next 50 to 100 years.

16. To adapt to climate change, our plans will incorporate nature-based solutions. To boost our natural defences such as mangroves, we take both hard and soft engineering approaches to mitigate coastal erosion and actively restore our mangrove areas. Beyond coastal protection, we integrate nature-based solutions into our city planning. Over the years, we have planted here in tiny Singapore over 2 million trees, and built more than 350 parks and four nature reserves, including our UNESCO-listed Botanic Gardens right in the heart of the city. Under the Forest Restoration Action Plan, additional 250,000 native trees and shrubs will be planted.

The benefits are multi-fold – this will support our biodiversity, and importantly, further drive climate mitigation and strengthen our resilience.

## **OUR ACTIONS MUST BE BASED ON ROBUST SCIENCE**

17. Second, our policies must be evidence-based, even as we harness science and technology, both to take a measured approach against climate change as well as to develop meaningful solutions to tackle climate change problems. This is why Singapore is supportive of the IPCC.

18. The IPCC is regarded as the authoritative voice on climate science, and IPCC's Assessment Reports and publications are widely used by policy- and decision-makers, including in Singapore, in developing our climate change projections and policy responses. The IPCC plays an important role as an independent body that provides robust, objective and transparent scientific assessments. In today's world where the discourse on climate change has become politically heightened, the IPCC's role is even more critical in imbuing greater objectivity and scientific rigour in our dialogues and policy choices.

19. The three Special Reports released over the past two years have significantly shaped our thinking on climate change and sea level rise. The SR 1.5 was a landmark report that made clear that deep emissions cuts are needed to achieve the Paris Agreement goals. The two Reports released this year brought to the forefront our planet's natural defences to climate change – our land, oceans, and cryosphere. The Special Report on Ocean and Cryosphere in a Changing Climate tells us in no uncertain terms that global mean sea levels are rising and this may happen more quickly than previously thought, due to increasing rates of ice loss, as well as ocean thermal expansion.

20. The upcoming release of the AR6 is thus timely – at this juncture where governments and other stakeholders around the world are re-assessing their climate commitments and developing their long-term emissions plans. AR6 will provide critical scientific evidence for governments to step up our commitments under the Paris Agreement and to assess if the adaptation plans that we have put in place are adequate.

21. In Singapore, robust, credible and objective scientific assessments form the cornerstone of our climate change strategy. We took early action and established the Centre for Climate Research Singapore (CCRS) in 2013. CCRS is one of the few dedicated centres in the region that focuses on research in tropical weather and climate. We are expanding CCRS and will set up a new Programme Office in CCRS next year. The Programme Office will drive the formulation and implementation of our national climate science research masterplan and systematically build up our

climate science capabilities in Singapore. CCRS and our research institutes and universities, together, will pursue cutting-edge, inter-disciplinary climate science research.

22. The Programme Office will oversee the recently-launched National Sea Level Research Programme. This \$10 million Programme will, over the next five years, fund pioneering proposals and collaborations, to help us better understand long-term sea level rise and its variability, regional patterns, and extreme weather events. I am pleased to share that CCRS has launched a grant call for proposals, and I look forward to learning about the projects.

23. CCRS will be updating our climate projections in Singapore's Third National Climate Change Study, which will be delivered in 2022. Our scientists have already begun work on this. The study will take into account findings from the international scientific community, including the IPCC AR6 when it is published, the latest Global Climate Models, as well as the National Sea Level Research Programme.

24. Climate science tailored to the tropics is still a nascent area of research. Through our efforts, we hope to work more closely with the IPCC to further strengthen and advance the understanding of tropical climates. We will share our knowledge and expertise with countries in our region and work with them to enhance capacity to tackle climate change.

## **EVERYONE HAS A PART TO PLAY IN CLIMATE ACTION**

25. Third, we are strengthening partnerships at all levels, with businesses, individuals, communities and organisations. Ultimately, people are at the core of our sustainability efforts. We are doing this so that our people, and our young people in particular, are assured of a good future. But Governments alone will not be able to tackle climate change. We need to work together and galvanise collective action, both locally and internationally.

26. I am heartened to see many initiatives in every sector. Let me highlight a few:

a. In the community sector, Repair Kopitiam, a ground-up initiative in Singapore, brings together and teaches the community how to repair damaged household items. To date, they have given more than 3,000 items a second lease of life, and are cultivating a more sustainable lifestyle amongst Singaporeans.

b. Industry too is doing its part. Ricoh Asia Pacific is contributing to a circular economy at every stage of their operations, such as by employing more recycled materials, and making their products lighter, more compact and

durable. Not forgetting the community, Ricoh organises the annual Eco Action Day in Singapore to drive awareness and action for the environment.

c. My Ministry also works closely with the Monetary Authority of Singapore, Singapore's central bank, to promote green financing. By spurring climate-friendly investments and lending, the financial sector plays a unique role in catalysing the adoption of sustainability practices in the economy.

d. On the regional and international front, Singapore hosts the World Meteorological Organisation's (WMO) Regional Office for Asia and South-West Pacific, as well as the ASEAN Specialised Meteorological Centre (ASMC). Through the WMO Regional Office, we are collaborating to implement WMO programmes and capacity development initiatives. We have also committed \$5 million to the ASMC for a five-year regional capability development programme for Southeast Asia. This will strengthen regional cooperation through the sharing of technical knowledge and skills in weather and climate prediction.

27. No action is too small. I therefore encourage the scientists and experts gathered here to share and communicate climate science to the public, to spur the growing global movement for climate action. As for young people, let us put into the hands of our youth the tools of science, to take on the environmental challenges of tomorrow.

## **CONCLUSION**

28. Let me conclude. The UN Secretary-General Antonio Guterres has declared that "climate change is still running faster than we are".

29. Singapore is clear-eyed about our vulnerabilities; but we can face the future with confidence, for we know we are taking early, decisive action that is underpinned by robust science. This is why Singapore strongly supports the work of the IPCC, as the leading international body for the scientific assessment of climate change.

30. I wish you all a fruitful meeting. Thank you.