

Speech by Mr Lim Chuan Poh, Chairman of Singapore Food Agency at the Global Food Summit on 29 April 2021

Greetings from Singapore. Let me thank Mr Stephan Becker-Sonnenschein for organising and inviting me to speak at this year's Global Food Summit.

2 It is interesting that Singapore should be asked to speak today. We are a small city-state with significant land constraints. In fact, we depend on imports for over 90% of our food! Diversifying our sources of food imports has therefore been our primary food security strategy thus far. We work through the food industry, leveraging on the global free trade environment to access many overseas food sources.

3 This approach will continue to work for us as long as there is adequate and stable supply of food globally to meet the growing demand. However, I believe, it is what Singapore is doing beyond the diversification strategy that may be of greater interest to this audience and I shall focus on this in my remarks.

4 Today, we are meeting virtually because of the COVID-19 pandemic. This pandemic has significantly impacted the world both in lives and livelihoods and there are still some challenges ahead before we return to near normalcy as we remember it. From a food security perspective, COVID-19 is just the latest global challenge we face, and a timely reminder of the impact that disruptions in access to labour, materials and markets can have on the food supply chain.

5 Indeed, just prior to COVID-19, the food industry had to grapple with the outbreak of African Swine Fever (ASF), which has wiped out about a quarter of the world's pigs. On top of these, trends in climate change are also obliging us to review our food security strategies.

6 The world's food supply will face increasing pressure as the global population is expected to grow by more than 25 percent to almost 10 billion by 2050. At the same time, there is already broad consensus within the Intergovernmental Panel on Climate Change (IPCC) that climate change, especially rising temperatures, will lead to negative impact on yield.

7 On their own, each trend already poses a challenge to the global food security situation. However, these trends become significantly more complex and challenging when compounded. And while these trends impact all of us, they do not affect everyone equally. Asia, which is experiencing a far-reaching demographic change and has a higher population density, will feel the impact more keenly.

8 Singapore itself is not spared from these trends. This sunny island is heating up twice as fast as the rest of the world. Furthermore, we have been ranked as one of the most water-stressed countries in the world.

9 Against this backdrop, it will clearly be more challenging for Singapore to ensure there is enough food for everyone. On the other hand, it is precisely this challenge that spurs us to transform the way food is grown and produced to enhance our food security.

10 So how can we do this given that we are constrained by our small physical size of 700 sq km to support a 5.7m population? On top of that, with competing demands for land, we can only set aside about 1% of the land for food production. The answer lies in innovation, fully leveraging on advancements in science and technology to develop highly productive solutions.

11 The Singapore Government has set a goal to produce 30% of our nutritional needs locally by 2030 (or “30 by 30”), and to do so in a sustainable manner. Let me now expand on how we plan to do this in the farming and alternative proteins sectors.

12 In farming technologies, indoor multi-storey LED lighting vegetable farms and multi-storey Recirculating Aquaculture Systems can produce 10 to 15 times more vegetables and fish per hectare than traditional vegetable and land-based fish farms. This intensifies the use of our limited area to produce as much as we can. Apart from being highly productive, such technologies also offer the benefit of being climate resilient and pesticide free.

13 While Singapore is currently not a major contributor to global food security, there is potential for us to become an urban hub or exporter of urban agri-tech solutions and contribute to global food security in the future. These food solutions can be used in any urban environment as they require small footprints while reducing the food miles from production to consumption. There are several promising examples of high-tech farming in Singapore. Sustenir Agriculture, an indoor vegetable farm, adopts technology that could allow it to produce beyond 100x more yield than traditional farms per unit area. Likewise, we also have land-based aquaculture farms that are just as highly productive.

14 Beyond agriculture, we have seen alternative proteins gaining traction as a more sustainable solution to our food challenge. In Singapore, the agri-food ecosystem has seen an important addition with the upcoming plant protein production facility by US company Eat Just and a consortium led by Proterra Asia. Another US firm, Perfect Day, will also be setting up its R&D centre in Singapore.

15 Most notably, Singapore became the first country to allow the sale of a cultured meat product as food last December. Our overriding consideration for this was safety. As cultured meat does not have a history of being consumed as food, its safety has to be carefully assessed. We consulted with members of the scientific community and food businesses and introduced a regulatory framework for novel food. We also established a Novel Food Safety Expert Working Group to ensure that the safety assessments of such novel food products are rigorous.

16 At the same time, we are fully cognisant of the need to create an environment that would facilitate innovation to help us tackle our challenges. That is why we ensure that our regulatory framework is robust and kept pace with the latest developments in the rapidly evolving field of novel food. A colleague of mine will be speaking on this topic later in this Summit.

17 Moving forward, Singapore is clear and focused on our goals for food security and production. To support the transformation of the agri-food industry, the Singapore Government has set aside \$60 million over the next five years to support technology adoption in the sector. It is also investing \$144 million for food-related R&D

programmes under a five-year Research, Innovation and Enterprise (RIE) 2020 Plan. In addition, we want to attract more agri-food companies to set up in Singapore, and we also want to partner institutions and companies around the world to explore new technologies and solutions for food.

18 We are also master planning and developing our land holistically to achieve productivity, circularity, sustainability and synergy in farming. Efforts are already underway to establish the Agri-Food Innovation Park, which seeks to attract best-in-class agri-food tech companies as a pilot cluster to develop new agri-food technologies and solutions in Singapore.

19 All these are on top of a vibrant and well-developed eco-system for innovation in Singapore with access to financing; a clear and robust IP framework; availability of research capabilities and technical talent; as well as government incentives to promote innovation in the food sector.

20 Based on the progress so far, we are confident of achieving our 30 by 30 goal and perhaps more. More importantly, our aspiration is that food production in Singapore can feed not just the next generation of Singaporeans, but also contribute to urban food solutions for the world, strengthening the world's food baskets.