Ministry of Sustainability and the Environment
SINGAPORE

Singapore Food Agency

MEDIA FACTSHEET

SINGAPORE AQUACULTURE PLAN TO UPLIFT LOCAL AQUACULTURE SECTOR

Co-creating a shared vision and roadmap for productive and sustainable aquaculture

4 March 2024 - Singapore imports more than 90 per cent of our food, which makes us vulnerable to food supply disruptions due to factors like climate change, geopolitical decisions, and disease outbreaks. To ensure our food resilience, we have set our "30 by 30" vision to build the capability and capacity of our agri-food industry to sustainably produce 30 percent of our nutritional needs by 2030.

2 We are working to transform our aquaculture sector, given its potential to contribute to Singapore's protein needs through seafood production. In 2022, the Singapore Food Agency (SFA) announced plans to uplift the aquaculture sector via the Singapore Aquaculture Plan (SAP) by increasing and optimising spaces for aquaculture, encouraging farms to adopt better farming practices, and investing in R&D. These SAP strategies are supported by efforts to increase demand offtake for locally produced seafood. Please refer to the **Annex** for details.

Transforming the aquaculture sector is a collective effort

3 While we foster ecosystem growth through the existing SAP strategies, it is also important that we help our farmers scale up production sustainably to have the best chance at succeeding. We will need to do so in a coordinated manner given the many other competing sea space uses. This is why SFA brought together key stakeholders from the industry, academia, nature groups and various government agencies in Oct 2023, to discuss how we can collectively achieve sustainable and productive aquaculture in Singapore.

4 Two sub-committees were formed to look into sustainable and productive aquaculture respectively. The first considers how we can balance the needs and trade-offs of the industry and the marine environment, while the second focuses on transforming and upgrading the capabilities of the local industry and increasing demand offtake as our aquaculture industry scales up. The sub-committees are midway into their discussions, and have started to converge on some key principles to develop the sector:

i. **Support the industry to scale up through enabling regulation, technology and infrastructure.**

   Key efforts include the (a) proactive review of regulations to support resilient and sustainable aquaculture production, which contributes to Singapore's food security, (b) facilitate the adoption of sustainable and productive technologies such as closed-containment aquaculture systems (CCAS) that will help sea farms become more resilient against environmental risks and better safeguard our environment while also supporting open-cage farms to adopt more sustainable farming practices and methods, and (c) develop critical infrastructure to help farms scale-up sustainable

and productive technologies. The Government will phase our efforts to help the industry grow at a manageable pace and manage its transformation risks.

ii. Upfront considerations of competing sea space uses and ecological sensitivity as factors in identifying aquaculture sites.

Depending on the site conditions, site-specific mitigation measures will be implemented to enable farms to scale up production sustainably. Existing sites will also be optimised even as new potential sites are being explored.

iii. Outcome-based and science-based in ensuring sustainable production.

Farming technologies must be proven to be highly productive and sustainable if they are to be deployed in our waters. They must also be commercially viable if we want our aquaculture sector to flourish. CCAS has emerged as a potential farming method that can be productive and sustainable but may take time to mature and prove viable in our local context. The tender launch at Pulau Bukom in January 2024 is an opportunity to bring the first CCAS farm into the Southern Waters and serve as a demonstrative development to help establish the viability of a large-scale CCAS locally.

In the near term, the industry will likely comprise a mix of open-cage farms and CCAS. That said, we will work with the industry to put in place appropriate monitoring and mitigating measures catered to different farming methods, to ensure the sector remains productive and sustainable.

iv. Collaborate as an ecosystem to develop solutions for sustainability and growth.

As the aquaculture industry undergoes transformation, there will be new opportunities for collaboration across farms, and with stakeholders including academics and retailers. We will double down on existing efforts and explore new opportunities for synergistic development through shared facilities and infrastructure such as the R&D facilities at the Marine Aquaculture Centre (MAC) and electrical substations. The Government will also work with stakeholders to facilitate platforms that enable greater coordination between stakeholders for collaborative solutioning for issues on the environment, sustainable production and demand offtake.

5 The ideas and recommendations from the subcommittee discussions will be consolidated into an updated version of the SAP, targeted to be launched in the 2nd half of this year. The new SAP will embody stakeholders' collective vision for the sector and serve as a roadmap for aquaculture development.

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About Singapore Food Agency

As Singapore's lead agency for food-related matters, the Singapore Food Agency (SFA)'s mission is to ensure and secure a supply of safe food for Singapore. To safeguard Singapore's food security, SFA adopts a multi-pronged approach which includes diversifying food import sources and increasing local production. SFA works closely with government agencies, businesses and consumers to manage food security risks, and transform the agri-food sector to be more productive, climate resilient and resource efficient.

As there is no food security without food safety, SFA has in place an integrated farm-to-fork food safety system which adopts a risk-based approach that is guided by science and aligned with international standards. SFA also keeps abreast of the latest scientific developments to further strengthen food safety capabilities and ensure that food for sale in Singapore is safe for consumption. As food safety is a joint responsibility between the government, food industry, and consumers, SFA continuously strives to foster an enabling environment that supports all stakeholders to play their part.

Strategies to uplift the aquaculture sector

i. Increase and optimise spaces for aquaculture

In the next few years, SFA intends to launch new sea spaces on 20+10-year leases to allow farmers a longer runway to amortise their investments in productive, and sustainable farming systems. For instance, we recently launched our first sea space tender at Pulau Bukom in January 2024 for the first Closed Containment Aquaculture System (CCAS) farm at Southern Waters.

ii. Transform industry with technology and better farm practices

In November 2022, SFA launched an industry guide for sea-based farms, to give farmers an overview of the procedures and regulatory requirements involved in setting up a sea-based farm in Singapore. SFA proceeded to conduct its first workshop for sea-based farms on 27 October 2023 to better prepare prospective farmers on the processes and requirements to set up sea-based farms, where key regulatory agencies provided briefings for the attendees. In August 2023, SFA launched the Aquatic Animal Health Services (AAHS) to help farms strengthen biosecurity for prevention and control of diseases.

iii. Invest in research and innovation

SFA will continue to invest in research and innovation for sustainable tropical agriculture. Over $300 million has been made available under the Singapore Food Story R&D Programme to drive research in the aquaculture, agriculture, future foods, and food safety domains.

In November 2022, the AquaPolis Programme, an initiative under Singapore Food Story R&D Programme 2.0, was introduced to transform the aquaculture research landscape, by bringing together local and overseas research institutes, Institutions of Higher Learning (IHL) and industry partners to reap strategic synergies in developing innovative and sustainable aquaculture solutions, while cultivating talent for the industry's workforce. The AquaPolis Programme will also foster international collaboration and strengthen translation of R&D outcomes.

On 1st November 2023, SFA, National University of Singapore (NUS) and Temasek Life Sciences Laboratory signed the AquaPolis Agreement which formalises the structure of the AquaPolis Board to operationalise and set strategic directions in alignment with SFA's '30 by 30' vision for the AquaPolis R&D Programme. This agreement demonstrates the shared commitment of SFA, NUS, and TLL in R&D collaboration and exchanges with industry partners and academia to co-develop innovative and sustainable aquaculture solutions and help Singapore become a leading research and innovation cluster for sustainable tropical aquaculture.

iv. Encouraging offtake for local produce

SFA has also been actively supporting the increase in demand offtake of locally grown fish, as consumer demand is an important factor in improving the commercial viability of our farms. In Feb 2023, an Alliance for Action (AfA) was formed to bring stakeholders from across the food value chain together to co-create practical solutions to increase the commercial demand of local produce and encourage more consumers to support local produce. The AfA has since formed a supply and demand aggregator, spearheaded by the Singapore Agro-Food Enterprises Federation

(SAFEF) to help producers secure longer-term purchasing contracts to facilitate offtake from farms and to assure retailers of a consistent supply of good quality produce. In Oct 2023, SAFEF signed a Memorandum of Understanding (MOU) with At Fresh Pte Ltd and Seafood Industries Association Singapore (SIAS) to collate the commercial supply of fresh and processed vegetables and fish from our farms and distribute them to local offtakers.