McGuinness Institute title: [DEV-19-SUB-0239] Approval of a Government Strategy for Aquaculture

In Confidence

Office of the Minister of Fisheries
Chair, Cabinet Economic Development Committee

Approval of a Government strategy for aquaculture

Proposal

1. This paper seeks your agreement to a Government strategy for aquaculture.

2. It identifies actions that the Government will take over the next seven years to ensure New Zealand is globally recognised as world leading in sustainable and innovative aquaculture management across the value chain.

Executive Summary

3. Aquaculture contributes significantly to regional development. It generated over $600 million in annual sales in 2018 and employed over 3,000 people, including in regions where other job opportunities can be limited.

4. Aquaculture can enrich our economy and our global reputation, strengthening New Zealand's brand on the world stage. It has the potential to grow without causing environmental harm, and could play a more significant role in our economy to help our transition to net carbon zero by 2050.

5. The previous Government agreed a strategy for aquaculture in 2012. This set out the Government's role and work programme to achieve sustainable aquaculture growth. The resulting co-investment between industry, research providers and the Government has enabled growth towards the industry's goal of $1 billion in annual sales by 2025.

6. Seven years on from the previous strategy, the sector faces new challenges and opportunities. A clear statement of intent and government leadership will ensure challenges are effectively addressed and the opportunities are realised.

7. I propose issuing a new aquaculture strategy for the next seven years. This will focus efforts on development of sustainable open ocean and land-based farming; increasing farm efficiency, product value and environmental performance in existing inshore farming; building resilience to environmental change; and supporting new technologies and practices to reduce the industry's waste and emissions.

8. The proposed strategy includes a new ambition that "New Zealand is globally recognised as world leading in sustainable and innovative aquaculture management across the value chain." It sets a goal for the industry to reach $3 billion in annual sales by 2035.

9. The proposed strategy sets out four outcomes, aligned with the Government's economic vision, toward a *sustainable*, *productive* and *inclusive* aquaculture industry that is *resilient* to environmental change.

10. Fisheries New Zealand developed the strategy in consultation with other government agencies, tangata whenua, the aquaculture industry, environmental organisations, and councils in aquaculture regions.

11. Fisheries New Zealand and the wider Ministry for Primary Industries, the Department of Conservation and the Ministry for the Environment are the primary central government agencies responsible for delivering the strategy. These agencies will collaborate with other government agencies and councils (which are the primary regulators of aquaculture under the Resource Management Act 1991) to deliver the strategy.

12. The proposed strategy does not bind the Government to any specific decisions. Any policy, legislative or regulatory undertakings would still be subject to normal decision-making processes.

13. Approving the strategy would have no Budget implications. While some actions outlined could ultimately be delivered more effectively with new investment, any such proposals would be subject to normal budgetary processes.

14. The proposed strategy is not a statutory instrument. It would be implemented consistently with existing regulations (such as regional coastal plans) and statutory policies (such as the New Zealand Coastal Policy Statement).

Background

15. Aquaculture contributes to the social and economic wellbeing of our towns, communities and regions. In 2018, the sector generated over $600 million in annual sales and provided employment to over 3,000 people in farming and processing. Aquaculture has been growing at 7% per annum and much of this growth is attributable to increased value, rather than volume.

16. Aquaculture is particularly important in areas such as Northland, Coromandel, the Bay of Plenty, Marlborough, Tasman, and Southland. There are opportunities for further aquaculture growth in regions challenged by high rates of unemployment.

17. Three main species are farmed commercially– green-lipped mussels, Pacific oysters and chinook king salmon. **Table One** shows the species farmed by major growing regions, volumes and values. Other species such as pāua and kōura (freshwater crayfish) are farmed on a smaller scale. New Zealand research institutes and the aquaculture industry are also investigating opportunities to farm other species including snapper, hāpuku, kingfish, and algae.

Table One. Major New Zealand aquaculture species and growing regions, production volumes and revenue (domestic and export) for 2018.

Species	Major growing regions	Volume	Revenue
Mussels	Marlborough (60%) Coromandel (26%) Tasman & Golden Bay (5%)	86,176 t	$312.2 m
Salmon	Marlborough (63%) Southland (22%) Canterbury (15%)	14,339 t	$251.6 m
Oysters	Northland (38%) Auckland (37%) Coromandel (24%)	1,992 t	$37 m
Total revenue in 2018			$600.8 m

18. Māori participation in aquaculture is significant, both in terms of iwi-owned businesses and as individual Māori owners, operators and staff. The Māori Commercial Aquaculture Claims Settlement Act 2004 has further contributed to iwi ownership of aquaculture assets.

19. With good farming, environmental, and biosecurity practices, aquaculture can be sustainable and, relative to other primary industries, an efficient way to produce protein and other high value products. Aquaculture has the potential to grow without causing environmental harm, and could play a more significant role in our economy and help our transition to net carbon zero by 2050.

Previous aquaculture strategy

20. The previous Government approved a strategy for aquaculture in 2012. That strategy set out coordinated government actions to support well-planned and sustainable aquaculture growth. It aimed to build a strong regulatory foundation for aquaculture growth and effective research and innovation systems. The strategy supported the industry's goal of $1 billion in annual sales by 2025.

21. The 2012 strategy was successful in delivering more coordinated government actions to drive aquaculture growth. At its current 7% average annual growth rate, and based on new marine farms that are consented but have not yet started production, the industry is on track to reach that $1 billion target.

22. New challenges and opportunities have emerged over the last seven years. It is timely to review the work programme and ensure coordinated action to continue to grow the industry for the next seven years to 2025.

Drivers for a new Government strategy for aquaculture

Challenges to aquaculture's development and resilience

Limits on inshore development

23. Marine aquaculture development has traditionally taken place in relatively sheltered and accessible bays and harbours. Nearly all areas that are biophysically suitable for aquaculture have now been subject to council strategic planning processes, and identified as appropriate or inappropriate for aquaculture having regard to social, cultural, ecological and other factors.

24. There are few inshore areas where processes to determine appropriateness for aquaculture are ongoing. Beyond these few areas, further significant inshore growth is unlikely. While continuing to build the value derived from its existing farming footprint, the industry is now looking to open ocean and land-based farming to achieve its aspirations to increase production volumes.

Implications of climate change

25. Climate change presents challenges for all primary industries. Ocean acidification, warmer sea temperatures, and increased frequency and severity of storms could all impact aquaculture. For example, warmer sea temperatures are already constraining salmon farming operations in the Marlborough Sounds.

26. Ensuring a resilient aquaculture industry requires further research to understand the potential effects of climate change, and to develop farming practices to mitigate those effects. Land-based aquaculture may become increasingly important if warmer sea temperatures, ocean acidification and other climate change impacts fundamentally affect traditional marine aquaculture.

Increasing biosecurity risks

27. Robust biosecurity management is needed to protect indigenous biodiversity, the industry, and other users from pests and diseases.

28. Biosecurity management must become more sophisticated to manage activities in the aquatic environment in a coordinated way, through both on-farm biosecurity practice, and specific pest and pathways management. Emerging opportunities for land-based and open ocean aquaculture will need effective biosecurity risk management.

Emergent opportunities for aquaculture growth

29. A growing global population of wealthy and discerning consumers is increasing demand for safe, ethical and nutritious seafood products. Our aquaculture industry is well placed to help meet this demand, and do so sustainably. There are several technology-driven opportunities for the aquaculture industry to develop sustainably and move to net carbon zero.

Open ocean aquaculture

30. In response to spatial limits on further inshore expansion, marine farmers are looking to the open ocean as the primary opportunity for new aquaculture space. Open ocean aquaculture means farming in exposed areas, further from the coast and where wave energy is greater than inshore areas.

31. The technology for open ocean farming is developing worldwide, and carries significant technical and investment challenges and risks. However, technology is incrementally enabling farming in more exposed locations. There are already several world-leading open ocean mussel farms in New Zealand. The first application for open ocean finfish farming has now been made in Marlborough.

32. Open ocean aquaculture is also a regulatory challenge. It is important that it is integrated with other users of open ocean water space. The Government has a role to ensure regulatory settings provide confidence to invest in this development, while also recognising and providing for other values and interests in the open ocean, such as fishing and shipping. How we deliver on Māori aspirations and settlement in this area will be important.

Land-based aquaculture systems

33. Land-based aquaculture systems will grow to both support marine farming as hatcheries, and as a farming system in their own right. Like open ocean farming, land-based farming requires significant investment to develop emerging technologies. Regulatory frameworks need to manage risks and encourage investment.

Greater value in the existing footprint

34. There are significant opportunities for productivity gains within the existing farm footprint. These may arise from increasing farming efficiency, developing new high value products, and farming more valuable species.

Supporting sustainable aquaculture development

35. Responding to these challenges and opportunities requires significant investment by industry. This investment requires some level of certainty in how aquaculture will be managed into the future.

36. The Government has a role to ensure regulatory frameworks encourage investment and that development happens within culturally, socially and environmentally acceptable parameters. The Government must also ensure biosecurity management, food safety and animal welfare standards are met.

37. The National Environmental Standard for Marine Aquaculture, which Cabinet agreed to progress in July 2019, will provide greater certainty and increased confidence to invest in relation to existing marine farms. However, there is a need to consider the suitability of our regulatory frameworks for the capital intensive opportunities of open ocean and land-based farming, and whether they provide the confidence needed for industry to invest.

Proposed new Government strategy for aquaculture

38. I propose a new Government strategy for aquaculture to ensure New Zealand derives the greatest possible benefits from sustainable development.

39. The proposed strategy (**Appendix One**) sets a new ambition that "New Zealand is globally recognised as world leading in sustainable and innovative aquaculture management across the value chain."

40. The strategy sets a goal for aquaculture to reach $3 billion in sales by 2035. This is ambitious, but not unrealistic:

40.1. The existing industry is on track to achieve $1 billion in sales by 2025, based on its average annual growth rate of 7%. This has been predominantly delivered through value growth and building on our competitive advantage for providing value added, premium products.

40.2. Innovation through selective breeding for greater productivity, increased efficiency and improved product attributes will drive value growth.

40.3. Development of 3,000 hectares of consented but undeveloped space, would increase production by $250 million.

40.4. Ten hectares of open ocean salmon farms could produce 10,000 tonnes and be worth up to $140 million. Twelve open ocean farms developed over the next 15 years could alone realise around $1.7 billion.

41. The proposed strategy was developed by Fisheries New Zealand working closely with the Ministry for the Environment and Department of Conservation. Targeted consultation has occurred with a broader group of government agencies, aquaculture industry representatives, a strategic iwi working group convened by Te Ohu Kaimoana Trustee Limited, councils in aquaculture regions, and environmental groups.

42. The proposed strategy would be active until 2025, and includes an all-of-government work plan to achieve the ambition. The strategy outlines objectives and actions across four outcomes:

42.1. *Sustainable*: "A primary industry leading in environmentally sustainable practices across the value chain."

42.2. *Productive*: "Aquaculture growth supports regional prosperity."

42.3. *Resilient*: "Aquaculture is protected from biological harm and supported in adapting to climate change."

42.4. *Inclusive*: "Partnering with Māori and communities on opportunities to realise meaningful jobs, wellbeing, and prosperity."

43. Some key actions in the strategy are to:

43.1. Work with councils, industry, Māori and communities to determine a fit for purpose management framework to support open ocean farming.

43.2. Support the industry to adapt to climate change and strengthen biosecurity management.

43.3. Develop indicators of overall aquatic health and a coastal occupation charging system to improve monitoring.

43.4. Support industry to reduce net emissions and waste.

43.5. Support an industry led spat strategy to build resilience and productivity.

43.6. Support the industry to build its brand and market provenance.

43.7. Continue to support and drive innovation in farming practices and product development across the industry.

43.8. Work with industry and partners to identify and plan the infrastructure required to enable growth.

Implementing the Strategy

Central Government's role in delivering the Aquaculture Strategy

44. Fisheries New Zealand and the wider Ministry for Primary Industries, the Department of Conservation and the Ministry for the Environment are the primary central government agencies responsible for delivering the strategy.

45. These agencies will collaborate with other agencies – particularly Te Puni Kōkiri, the Office for Māori Crown Relations - Te Arawhiti, the Ministry of Business, Innovation and Employment, and New Zealand Trade and Enterprise to deliver the strategy.

46. An annual strategy implementation plan will be developed and agreed between agencies, led by Fisheries New Zealand, to confirm tasks and responsibilities.

Councils' role

47. Regional councils are the key regulators of aquaculture through their regional coastal plans under the Resource Management Act 1991. Councils are also responsible for managing biosecurity risks in each region, through pest and pathways management plans under the Biosecurity Act 1993. The strategy proposes that agencies work with councils to strengthen strategic coastal and catchment planning.

48. Achieving outcomes under the proposed strategy will require a strong working relationship between central government and councils. This would build on strong relationships established through developing the National Environmental Standard for Marine Aquaculture.

Industry's role

49. The industry is primarily responsible for leading its own growth. Aquaculture New Zealand, the industry representative body, supports the proposed strategy. Maintaining the strong existing and effective relationship with industry will be important, particularly in respect of co-investment in new opportunities.

Consultation

50. The following government agencies were consulted on the proposed strategy: Department of Conservation, Ministry for the Environment, Te Puni Kōkiri, the Office for Māori Crown Relations - Te Arawhiti, Ministry of Business, Innovation and Employment (including the Provincial Development Unit), the Treasury, Maritime New Zealand, Department of Internal Affairs, and New Zealand Trade and Enterprise. The Department of the Prime Minister and Cabinet and Environmental Protection Authority were informed.

51. Tangata whenua were engaged through a strategic iwi working group convened by Te Ohu Kaimoana Trustee Limited. Fisheries New Zealand also discussed the proposed strategy with selected councils (Northland, Auckland, Bay of Plenty, Waikato, Tasman, Marlborough, Canterbury and Southland), selected environmental organisations (Environmental Defence Society, The Nature Conservancy, World Wildlife Fund), and Aquaculture New Zealand.

52. Consultation has been undertaken with the key parties with an interest in aquaculture. I am not proposing public consultation on the strategy.

Financial Implications

53. There are no financial implications from the proposed strategy. As outlined, agencies will develop annual implementation plans to progress the initiatives in the strategy. Some initiatives are well aligned and can be supported through existing Government investment programmes, particularly with respect to research and development. Other initiatives, when developed, may benefit from new Government investment. I will work with other Ministers through the Budget process to address any investment opportunities for Government that arise.

54. The strategy does not create any actions or financial implications for councils outside of their existing legislative responsibilities. It promotes a closer working relationship between agencies and councils to discharge those responsibilities. The Ministry for Primary Industries' existing Aquaculture Planning Fund will assist councils with planning for aquaculture.

Treaty implications

55. The proposed strategy promotes a broader Māori-Crown relationship, and recognises Māori values and aspirations. This includes partnering with Māori on aquaculture opportunities. It does not alter the existing statutory obligations in relation to the Māori Commercial Aquaculture Claims Settlement Act 2004. An important action under the strategy is to commission an independent evaluation

of the benefits of this settlement to date, to ensure it is delivering the best possible outcomes.

Legislative Implications

56. The proposed strategy is not a statutory instrument. It would be implemented consistent with existing regulations (such as regional council coastal plans) and statutory policy (such as the New Zealand Coastal Policy Statement).

57. This proposed strategy also has no direct legislative implications. It notes that the regulatory frameworks to manage open ocean and land-based farming need to be assessed to ensure they are fit for purpose and encourage investment. Ministerial and Cabinet approval would be sought before proceeding with these reviews. If progressed, any aspects of this work that fall under the Resource Management Act would occur in the context of the ongoing reviews of that Act.

Impact Analysis

58. An impact analysis is not required. The paper does not propose any regulations.

Human Rights

59. The proposals are consistent with the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Publicity

60. I propose to launch the strategy at the annual New Zealand Aquaculture Conference on 18 September 2019 in Blenheim.

Proactive Release

61. Following Cabinet consideration I will consider releasing this paper in full.

Recommendations

The Minister of Fisheries recommends that the Committee:

1. **Note** aquaculture contributes significantly to regional economies, and there is potential for increased productivity and value while transitioning to a low emissions economy.

2. **Note** aquaculture development faces challenges due to inshore aquaculture having largely reached its limits, and the implications of climate change and biosecurity risks.

3. **Note** the Government aquaculture strategy promotes sector-led aquaculture growth, with an emphasis on open ocean and land-based farm development as avenues for future growth.

4. **Note** the strategy is an all-of-government action plan, with the primary responsible agencies being Fisheries New Zealand, the Department of Conservation and the Ministry for the Environment. Other agencies with responsibilities have been consulted on the proposed strategy.

5. **Note** the strategy aligns with the Government's vision for a sustainable, productive and inclusive economy.

6. **Note** there are no financial implications from the proposed strategy. An annual implementation plan will be developed and agreed between agencies, led by Fisheries New Zealand, and any resourcing implications arising would be addressed through normal budgetary processes**.**

7. **Note** the strategy promotes a broader Māori-Crown relationship and recognises Māori values and aspirations across the Government's aquaculture work programme, but would not alter existing obligations under the Māori Commercial Aquaculture Claims Settlement Act 2004.

8. **Note** that the strategy is not a statutory instrument and would be subject to existing regulatory requirements.

9. **Note** any regulatory change needed to support the strategy would follow ordinary legislative and Cabinet decision-making processes.

10. **Approve** the attached Government Aquaculture Strategy.

11. **Agree** that the Minister of Fisheries approve any final amendments to the strategy, as may be required.

12. **Note** that the Minister of Fisheries will launch the strategy at the annual New Zealand Aquaculture Conference in Blenheim on 18 September 2019.

Authorised for lodgement

Hon Stuart Nash
Minister of Fisheries