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Aquaculture transformation in Asia and the Pacific region

1. The current world population of 7.6 billion is expected to reach 8.6 billion in 2030 and 9.8 billion in 2050, an upward trend that is expected to continue for some time, even as birth rates decline. This future population requires an increase in food production by 60–70 percent from current levels to meet projected demand in 2050 and fish and other aquatic animals and plants are a key part of future food and nutrition supply. There are many challenges to developing and sustainable aquatic food systems capable of meeting future needs.

2. Sustainable aquaculture has the potential to contribute more to the achievement of the 2030 Agenda for Sustainable Development across multiple goals ranging from ending hunger, improving health and nutrition, responding to climate change, wealth creation and poverty reduction, gender equality, and decent work. Well-managed aquaculture can be an environmentally responsible, low carbon-footprint form of food production, but there are environmental and social risks that require remediation or mitigation.

3. Sustainable aquaculture represents an exciting, timely and unique opportunity for aquatic foods and is at a critical point in its development. Having equalled wild fisheries as the major supplier of aquatic foods globally, the world's fastest growing food production sector needs to be put on a pathway towards sustainable and resilient development. There is an increasingly and obvious need for innovation in aquaculture systems, investments and partnerships if sustainable aquaculture is to be truly sustainable and resilient. There is a need to take risks, in research and development, as well as investment, to realize the goal of sustainable aquaculture.

4. 'Blue Transformation' is a vision for FAO's work on aquatic food systems for fish and other aquatic foods to help achieve the objectives of the 2030 Agenda for Sustainable Development. The aspiration is the transformation to more efficient, inclusive, resilient and sustainable agrifood systems for better production, better nutrition, better environment, and a better life, leaving no one behind. Blue Transformation requires action across three major areas:

- i. Promoting the sustainable intensification and expansion of aquaculture to respond to the growing global demand for aquatic foods;
- ii. Ensuring the sustainable management of all fisheries to deliver healthy stocks, restore ecosystems and secure equitable livelihoods for all; and
- iii. Supporting the upgrading of aquatic value chains to improve the social, economic, and environmental outcomes of aquatic food systems.

5. Aquaculture Transformation through sustainable intensification and expansion of aquaculture is widely recognised as a priority for the future of sustainable agrifood systems in Asia and the Pacific region. The region is the world's aquaculture leader and its progress in aquaculture transformation has global implications for the Blue Transformation agenda.

6. The FAO Regional Office for Asia and the Pacific (FAORAP) in collaboration with the Network of Aquaculture Centres in Asia-Pacific (NACA) convened a virtual High Level Meeting on *Aquaculture Transformation in Asia and the Pacific Region*, 22 – 23 November 2022 (High Level Meeting), as a forum for government, private sector and development partners to identify policy, innovation and investment priorities for aquaculture transformation in the region by 2030.

7. The High Level Meeting brought together 66 high level participants, including senior government policy makers; senior FAO and NACA officials; private sector business leaders; development banks and investors; and other development partners with common interests in aquaculture innovation and investment. The specific objectives of the High Level Meeting were to:

- i. Engage senior policy makers and business leaders in the process of defining regional targets, action areas and initiatives for aquaculture transformation in the region by 2030;
- ii. Identify strategies and mechanisms to stimulate innovation and investment, and enhance collaboration in the defined action areas;
- iii. Recommend follow up actions and commit to put aquaculture transformation in the region as a main contribution to the global targets;
- iv. Give special attention to the opportunities for enhancing regional cooperation and partnerships to progress aquaculture transformation at the scale needed.

8. As a background document to inform the High Level Meeting, FAORAP and NACA also developed a White Paper on “*Aquaculture transformation: innovations and investment for sustainable intensification and expansion of aquaculture in Asia and the Pacific region*” (APFIC/23/Inf-07). This was informed by a series of country analyses, regional synthesis and an aquaculture investment paper, as well as contributions from consultation with regional stakeholders in September 2022.

9. The diverse participation in the High Level Meeting reflected the different roles of government and industry responsibility, and the need to shift all key players towards to sustainability, using the background policy paper as a guide.

KEY MESSAGES OF THE HIGH LEVEL MEETING AND WHITE PAPER

10. Keynote speakers and a High Level panel of public and private participants during the first day of the High Level Meeting presented and discussed strategies and mechanisms for stimulating innovations and investment and enhancing collaboration for progressing aquaculture transformation in the region. Key highlights from these sessions were that:

- i. Governments and industry were already taking action to make aquaculture more sustainable, with examples provided from China, India, Thailand, and Australia. The knowledge and practical experiences emerging will help all countries in aquaculture transformation.
- ii. Innovation and entrepreneurship must be encouraged; along with promoting socioeconomic and climate resilience; de-risking research and development investment; and ensuring equitable benefit sharing.
- iii. Digitalization provides important opportunities to reach wide geographies and farmers. Data from the diversity of aquaculture stakeholders in the region has the power to inform inclusive investment.
- iv. There were considerable benefits from purposeful aquaculture company collaboration; pre-competitive collaboration has advantages in terms of speed and scaling of solutions; stimulating industry ambition for change; engaging with communities; improving technology transfer; and driving efficiencies in aquaculture and investment.

- i. Financing for sustainable aquaculture is becoming available in Ocean, Climate and Food Security funds, but governments need to create the policies to de-risk investment, such as through aquaculture zoning and supportive policies. Business enterprises need to come up with investable businesses that responded to these “big” challenges.
- v. Aquaculture MSMEs – farming and value chain enterprises - needed particular attention. MSMEs were the largest group of aquaculture businesses with the Asia-Pacific region. The uptake of more sustainable practices in an inclusive way among this group promises substantial social, economic and environment outcomes.
- vi. There are important complementary roles of government and private sector.

RECOMMENDATIONS OF THE HIGH LEVEL MEETING

11. The High Level Meeting made various suggestions for follow up actions on the way forward:
 - i. National Innovation and Investment Plans for Aquaculture Transformation are an entry point to develop more specific national strategies for aquaculture transformation and to build an investment case. Such plans needed to be tailored to country contexts and partnerships mobilised to assist their preparation.
 - ii. FAO and NACA are available to support countries, upon request, to provide guidelines, actively mobilise partners, and cooperation that supports national aquaculture transformation plans.
 - iii. Regional and international cooperation around the White Paper agenda should be enhanced. NACA as a regional platform should integrate aquaculture transformation in its regional programmes, stimulating collaboration within and among government, industry, and other development partners.
 - iv. Regional cooperation should be enhanced around White Paper Action Areas. Policy and regulations, finance and investment, agroecology, energy and climate, seaweed, new sustainable feed ingredients, energy use, circular economy and SMEs were all identified as priorities for active regional collaboration.
 - v. Financial resources must be mobilised to progress aquaculture transformation. Funding mechanisms should be established to take risks in R&D, stimulate innovation and entrepreneurship, and build the pipeline of investments in sustainable aquaculture enterprises to transform in an inclusive way.
 - vi. FAO and NACA should engage with national, regional, and international partners – including Banks and investment funds - to establish or strengthen mechanisms to improve access to investment funds and partnerships that enhance R&D, innovation, entrepreneurship, and investable businesses.
 - vii. FAO and NACA should monitor progress and share learning in aquaculture transformation. Guidance on indicators should be provided to assess progress in aquaculture transformation.
 - viii. Industry partners should be mobilised for collaboration in aquaculture transformation, such as through pre-competitive private sector platforms and other public-private partnership mechanisms.
 - ix. FAO and NACA have made commitment to convene partners again in November 2023 to review progress.
 - x. FAO and NACA have made commitments to stimulate and continue momentum in aquaculture transformation and it is hoped that all participants – in one way or another – will continue to contribute to transforming aquaculture into a sustainable and resilient future.

SUGGESTED ACTION BY THE COMMISSION

12. The Commission is invited to comment on the White Paper and outcomes and recommendations of the High Level Meeting
13. The Commission is invited to recommend a few Action Areas around the White Paper to be piloted and developed further as regional investment pipelines for aquaculture transformation in the region.