Opening Remarks

PICES 29th Annual Governing Council Meeting

Held Virtually November 2-3, 2020

Carmel Lowe

Canada Governing Council Member

Mr. Chairman, Executive Secretary and Fellow Governing Council Members,

Canada would like to thank and commend the PICES Secretariat for their success in hosting the first, fully virtual Annual Meeting. The agility and adaptability shown by Secretariat staff to mobilize IT improvements and provide support and encouragement to PICES members to assist them in continuing with intersessional meetings, business meetings, and workshops has resulted in robust PICES virtual gatherings.

Last year in my opening remarks, I noted that the outgoing Executive Secretary Mr. Robin Brown was leaving "large boots to fill" and indeed he did – but filled they were - and I would like to congratulate and extend a special thanks to our new Executive Secretary Ms. Sonia Batten – who has ably led the activities of the Secretariat under an ever-shifting operating paradigm imposed by COVID-19.

We have focused on our changing Pacific Ocean community as a key theme for PICES research exploration. This year, more than ever, our current global pandemic serves as a reminder that we are all connected by global influences, we are all affected by them but working together we can increase resilience, adaptability and outcomes for all in the face of common challenges. This is particularly relevant now as we reflect on the advancements that were highlighted in this year's annual meeting and consider how best to support and shape the focus of the UN Decade of Ocean Science – a bold, new, global initiative.

This year's PICES programming highlighted adaptive innovations that increase our remote surveying capabilities and pave the way for us to learn more about our oceans in more cost effective, timely and safer ways. Remote sampling tools have been put to the test this year more than ever - including ocean gliders, drones and sailboats deployed to augment survey data in response to surveys that were cancelled or rescheduled, and exploration into new methods of quantifying eDNA sampling and validating against more traditional survey methods.

Some of the most exciting presentations this year provided insight into how we can engage and inspire the next generation with a robust early career scientist program – this program must remain a centerpiece of PICES activities as we move forward and include a greater emphasis on engagement with indigenous colleges and students – especially those in coastal communities around our shared ocean. To achieve the meaningful impacts we all know to be imperative, how we communicate to the public and in our communities is also of the utmost importance. This has been evident in the International Year of the Salmon we heard about at this meeting - this multinational research initiative has provided information that has relevance at global and local scales. Embracing social - ecological - environmental systems of exploration and communication positions us to be able to engage at a community level to define problems of global scale and develop adaptations and solutions that people will be willing to implement at all scales.

Canada looks forward to our continued cooperative relationships within PICES as we work together to provide leadership to the UN Decade of Ocean Science to ensure the cost-effectiveness and approachability of ocean science that is required for effective adaptation to our changing ocean environments.

Finally, on behalf of all Canadian members of PICES, I extend our sincere appreciation to Mr. Chul Park who is completing his second term as our Chairman at this meeting. Thank you for your great leadership of the organization these past four years – it has been an honour and a privilege working with you.

Thank you and regards. Carmel Lowe

Chen Danhong

Advisor to China Governing Council members

I am Chen Danhong, Deputy Director general of the Department of International Cooperation, Ministry of Natural Resources of China. It is my great pleasure to attending PICES Governing Council Meeting today.

In the year of 2020, COVID-19 epidemic has affected international cooperation, but it could not stop us from communicating. I appreciate PICES Secretariat's hard work to organize PICES scientific activities by online connection.

As an important international organization in the North Pacific region, PICES has been actively exploring interdisciplinary cooperation, responding to the initiatives of the United Nations and relevant international programs, and leading the forefront of Marine scientific research since its establishment. At present, the UN Decade of Ocean Science for Sustainable Development (UN Decade) is advancing steadily, and all countries and relevant international organizations are responding actively by formulating their own plans and implementing measures. We hope to work together with global scientists, by the framework of UN Decade, constantly enhance the level of Marine scientific research and protect ocean ecosystem.

In the process of participating in PICES, we felt the enthusiasm of Marine scientists. I would like to express my appreciation for PICES awarding 2020 Zhu-Peterson Award to Dr. Wang Pengbin from the Second Institute of Oceanography of MNR. This is an affirmation and encouragement for young scientists from China. We also nominate Dr.Qiao Fangli for the next Chairman of PICES, who is GC member and involved in PICES more than 20 years, His leadership for scientific study and management have been fully demonstrated. We hope to make more contribution for the organization development and scientific cooperation in the future.

I also would like to take this opportunity to express our appreciation for Dr. Chul Park, he will end his term of PICES chairman at the end of this meeting. Hope he will continue to join and support PICES activities in the future. Last but not least, on behalf of MNR China, I would like to invite you to attend the next Annual Meeting in Qingdao, China. Wish today's meeting a complete success and good health to all of you. Thank you.

Hideki Uezono

Japan Governing Council Member

Mr. Chairman,

Distinguished Governing Council members,

It is a great pleasure to attend the virtual PICES Governing Council Meeting. On behalf of the Japanese delegation, I would like to express my sincere appreciation to the Secretariat for convening this annual meeting. All members of the Japanese delegation are impressed by how effectively and efficiently PICES Secretariat organized this series of virtual PICES meetings. Thank you also for kindly setting a schedule, considering the time differences among member states. I strongly hope the situation improves as soon as possible so that we can all have face-to-face meetings in the near future.

The recent pandemic reminded us that every country has to tackle the issues hand in hand with each other, in order to make our life safer and more comfortable. Not only the pandemic, but also climate change and devastating natural disasters affect people across the world every year. Marine ecosystem is the foundation of the balanced natural ecosystem gifted by the Earth. The ocean plays a crucial role in absorbing atmospheric heat and carbon dioxide, and serves as a vital buffer against climate change.

According to the "IPCC Special Report on the Ocean and Cryosphere in a Changing Climate", published in September 2019, the ocean will be facing a devastating transformation in this century, including rising water temperature, accelerating acidification, oxygen decrease and so on. In the waters around Japan, we are concerned that the catch of pacific saury, squid and salmon has been declining, and farming of oysters and scallops are facing to problems.

These phenomena can be seen worldwide, and these are considered to have a linkage with global warming. In order to tackle these issues, it is vital to cooperate beyond the borders of countries and disciplines, and shed light on the correlation between marine environmental change and bio-response. That is why I believe that the activities of PICES and the research outcomes are highly valuable.

PICES has been continuing to play an important role in a wide range of topics, conducting valuable research on marine science. Japan expresses its respect and appreciation to all those who have been working for the activities of PICES. I hope that today and tomorrow's discussions will further promote the mutual understanding among the member states and that all the member countries will reach a common understanding on enhancing various processes to ensure the activities of PICES.

Lastly, Japan would like to extend its heartfelt gratitude and acknowledgement to Dr. Chul, the Chair of the Governing Council, for his long-lasting contributions and enormous efforts to make the PICES meetings exceptional and fruitful.

Thank you very much.

Eun-Won Yu

Korea Governing Council Member

This is Director Eun-Won Yu of the Ministry of Oceans and Fisheries Marine Development Division, as the National Delegate for the Republic of Korea.

Despite an exceptional situation due to the spread of COVID-19, I am delighted to meet everyone through video conference. In this difficult condition, I send my sincere gratitude to Chairman Chul Park and the PICES Secretariat for their continuous efforts.

Over the past few months, we have been experiencing an unprecedented crisis due to the COVID-19 pandemic. The pandemic has certainly changed the world, highlighting the importance of science and knowledge once more. Scientists have warned that if proper actions are not taken in short time, climate change will also become a serious threat to the world.

Ocean science can help resolve the crisis we are encountering, and promote sustainable development. We need to expand our understanding on marine environment, climate change, ocean biology and ecosystem, so that we can make a meaningful contribution to the post COVID-19 recovery efforts and sustainable growth of the ocean.

I believe PICES will play a decisive role, through scientific cooperation in the North Pacific region, at global efforts for ocean sustainability like UN Ocean Decade project. For this, the Korean Government is willing to assist PICES with its greatest interest.

Korea is well aware that partnership between Korea and PICES is essential within the field of ocean science. For this reason, we have expanded support to PICES for the past years.

We will continue to explore additional joint special projects other than the SEATURTLE project, as well as maintaining the PICES internship program. We are ready to help PICES to carry out its mission of sustainable development of the North Pacific Ocean.

I take this moment to acknowledge the four years of heartfelt passion given by Chairman Chul Park, for that his dedication has unquestionably secured the position of PICES as a prominent organization within the worldwide scientific community.

His involvement in settling the financial issues, providing a platform for joint work between PICES and ICES, and focusing on prospective issues such as the UN Decade of Ocean Science ran by IOC are not to be forgotten.

Once again, I appreciate the dedication given by the PICES Secretariat and Chairman Chul Park, and wish for a successful conclusion of the 2020 PICES Annual Meeting.

Aleksei Baitaliuk

Dear Mr. Chairman, national delegates from member-countries, ladies and gentlemen!

On behalf of the Russian Federation I would like to greet you all and express sincere thanks to PICES Secretariat and our new Executive Secretary Dr. Sonia Batten for organizing and hosting the 29th PICES Annual Meeting, which is conducted in the format of Video Conference for the first time in the history of PICES.

PICES has expanded its activities, and we are now ready to issue the THIRD version of the North Pacific Ecosystem Status Report. Our flagship Scientific Program FUTURE successfully integrates a wide variety of PICES scientific activities. PICES plans to make its valuable input into the UN Decade of Ocean Science for Sustainable Development. Our cooperation with numerous scientific and fisheries organizations in the North Pacific Ocean and beyond is expanding. Traditionally PICES pays a great deal of attention to capacity building and raising future generations of young ocean professionals.

I would also like to acknowledge Dr. Chul Park who is stepping down as a Chair at this meeting. Thanks to his efforts our Organization works smoothly and successfully. And I hope that we will continue to function productively under the leadership of a new PICES Chair.

We are now living in rather difficult times under COVID-19 pandemic. However, I believe that, in spite of all the difficulties, we will move forward and continue to do our best to promote cooperation among PICES parties for the benefit of our countries and towards the safe, sustainable and productive environment and the Ocean!

Enrique Curchitser and Michael Seki USA Governing Council Members

Mr. Chairman, Madam Secretary and fellow Governing Council members:

We typically begin our remarks by acknowledging the professional job of the PICES Secretariat and the organizing committees for the hard work, which requires months of planning, of organizing and convening our annual meetings. We were expecting to be in Qingdao this year; unfortunately, events dictate otherwise. Nevertheless, we recognize that preparations were already on the way and we hope to be there next year. This year, we want to especially recognize and thank the Secretariat staff and its new

Executive Secretary for the tremendous job in adapting to the difficult circumstances and ushering the work of the organization forward—seemingly without missing a beat. To date, we had the remote intersessional Science Board meeting, Working Groups, F&A and the 2020 annual meeting. Our work continues!

Last year, we spoke about a devastating typhoon in Japan, fires in California and a heatwave in the Northeast Pacific Ocean. A year later, we are experiencing a record-breaking hurricane season in the Atlantic, continued effects of the marine heatwave in the Northeast Pacific, emergence of marine heatwaves in other oceans and ever more devastating fires in North America. *Extreme events* are becoming common occurrences with measurable impacts on marine ecosystems and human lives. We also note a heightened awareness of pollution and plastics in the oceans and the challenges and opportunities that arise from changes in the Arctic. PICES, as one of the premier science organizations in the North Pacific, continues to have a significant role in guiding and synthesizing the science necessary for the sustainability and health of the communities around the North Pacific. We remain committed to working with our partners here to keep PICES at the forefront of the science needed to reach our shared goals.

New opportunities are on the horizon. The UN Decade of Ocean Science will help focus the attention of the global community to the importance of the oceans in the lives of people. From the role of the ocean in Earth's climate, to issues of food security, novel medicines, energy generation and of course weather and coastal flooding, prompts us to continue the work that this organization has been leading. We hope to see PICES continue work that will lead to more accurate predictions of marine ecosystems, weather and climate for the benefit of our coastal communities. We also note our increasing collaboration with our North Atlantic sister organization, ICES. The aforementioned changes in the Arctic has given us the impetus to extend our traditional reach and leverage knowledge across the northern hemisphere. To that end the United States, a member of both organizations, have proposed and offered to host a joint PICES-ICES meeting in 2023 with its turn in the rotation.

PICES must continue, and improve, the communication of our knowledge. Through its publications and special projects, PICES already contributes to scientific and governmental organizations. It can, and must, extend its reach to stakeholders increasingly in need of relevant information to steward our ocean resources. As we are finding out this year, electronic communication can be effective and PICES should consider embracing a range of methods in the benefit of all our constituents.

We want to make a special note about the continued success of the PICES science program, FUTURE, and highlight the work of Science Board, the steering committee and working group members in ensuring it. From papers in scientific literature to the outreach material on various social-media outlets, FUTURE affirms the quality of the work being carried out by PICES and set the stage for future activities in the organization. Additionally, the PICES Early Career Ocean Professionals (ECOP) program demonstrates the commitment to the future of ocean science and we applaud this focused priority investment.

We take this opportunity to thank Dr. Chul Park for his *outstanding* leadership as Chair of PICES. His commitment and work for the organization were tireless. As we say in English, "he leaves big shoes to fill". We wish him the best in his next endeavors and look forward to expressing our appreciation for his contributions in person.

On behalf of the entire US delegation, we again thank the Secretariat for their resilience and

dedication during these difficult times and for successfully adapting and carrying forward the work of this organization.

Sincerely, Enrique Curchitser and Michael Seki

US Governing Council Delegates to PICES