

Report of the Working Group on Assessment of Marine Environmental Quality of Radiation around the North Pacific

The first business meeting of Working Group (WG 30) on *Assessment of Marine Environmental Quality of Radiation around the North Pacific (AMR)* was held in Nanaimo, Canada, on October 13, 2013. Interim Chairman, Dr. Yusheng Zhang (ys.zhang@163.com), welcomed 18 members and observers (*WG 30 Endnote 1*) and formally declared the first meeting of WG 30 was opened (at 18:00). The agenda (*WG 30 Endnote 2*) included an introduction to the establishment and objectives of WG 30 by Dr. Yusheng Zhang. Participants gave a brief overview of their activities. Discussion then moved to selecting co-chairmen and plans and schedule of future activities.

AGENDA ITEM 1

Establishment of WG 30

The Chairman noted that WG 30 was formally established on August 14, 2013, for a three-year term after being approved by Governing Council. The proposal to set up the WG was made by the People's Republic of China during the PICES-2012 in Hiroshima, Japan.

AGENDA ITEM 2

Working Group members

Dr. Yusheng Zhang noted that WG members from five member countries including Canada, People's Republic of China, Japan, Republic of Korea and the United States of America were present, as were observers from PICES secretariat and member countries. The Chair of WG 30's parent Committee (MEQ), Mr. Chuanlin Huo, was also in attendance.

AGENDA ITEM 3

Recommendation of Co-Chairs

The recommendation of co-chairs for the WG was discussed and Drs. Yusheng Zhang (China) and Kathryn Higley (USA, Kathryn.Higley@oregonstate.edu) were recommended by the WG members.

AGENDA ITEM 4

Review of Work Plan

WG members were invited to review the Work Plan through brief presentations given by each member country. After discussion, the members agreed to revise the Work Plan according to the Terms of Reference (*WG 30 Endnote 3*) in the coming months.

AGENDA ITEM 5

Goals for the coming year

Members discussed several goals which needed to be met by WG 30 during the next year. They agreed that the next WG 30 business meeting should take place in advance of PICES-2014 in Yeosu, Korea. They also agreed that this WG meeting should be at least of 1.5 days duration and occur at the location of the 2014 meeting. The purpose of the meeting will be for members to share data, compile results, and begin preparation of draft reports required under the Work Plan. In addition, the WG members will revisit the Work Plan to

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assess compliance with goals of the Plan and the Terms of Reference. WG 30 members want to be given the opportunity to present data at the Annual Meeting. The Co-Chairs will remind members, several months before the meeting, of the need to submit abstracts for the 2014 meeting, most likely within the MEQ paper session. A decision whether or not to hold a workshop or topic session at PICES-2015 will be determined through correspondence between WG members prior to PICES-2014. Members agreed to establish a means to share data during the next year – through email or a web-based method. This will be determined in the next three months. Members also agreed to provide a description of their organization's research activities that relate to the Work Plan. This information will be shared between all WG members during the next year. Finally, WG 30 will discuss the Work Plan via email during the next 6 months and identify any issues or concerns that need to be addressed with the PICES Secretariat.

AGENDA ITEM 6

Actions requested of MEQ/Science Board

The Co-Chairs request support for a meeting of WG 30 at PICES-2014 of 1.5 days (total) to be scheduled right before the 2014 meeting (Friday/Saturday)

AGENDA ITEM 7

Closing remarks and announcements

The meeting was recessed at 18:30 on October 13, 2013, and reconvened at 18:00 on October 15, 2013. It was adjourned at 19:00 on October 15, 2013 by the Co-Chairs after announcements related to logistics of the next WG 30 meeting were made.

WG 30 Endnote 1**WG 30 participation list**Members

Kathryn Higley (USA, Co-Chairman)
 Suk Hyun Kim (Korea)
 John N. Smith (Canada)
 Tomowo Watanabe (Japan)
 Yusheng Zhang (China, Co-Chairman)

Observers

Keyseok Choe (PICES Secretariat)
 Jinqiu Du (China)
 In-Seong Han (Korea)
 Chuanlin Huo (China, MEQ Chairman)
 Dong-Woon Hwang (Korea)
 Shigeru Itakura (Japan)
 Peter J. Kershaw (UK)
 Jung-No Kwon (Korea)
 Wu Men (China)
 Delvan Neville (USA)
 Hiroyuki Shimada (Japan)
 Atsushi Tsuda (Japan)
 He Wu (China)



Participants at WG 30's first meeting, at PICES-2013 in Nanaimo, Canada. Front row (left to right): Peter J. Kershaw, Tomowo Watanabe, Yusheng Zhang, Kathryn A. Higley, Suk Hyun Kim, John Smith; back row (left to right): In-Seong Han, Hiroyuki Shimada, Jinqiu Du, Wu Men, Delvan Neville.

WG 30 Endnote 2**WG 30 meeting agenda**

1. Establishment of WG 30
2. Working Group members
3. Recommendation of Co-Chairs
4. Review of Work Plan
5. Goals for the coming year
6. Actions requested of MEQ/Science Board by WG 30
7. Closing remarks and announcements

WG 30 Endnote 3

Terms of Reference

1. Determine and compare radiological doses to North Pacific marine organisms, where data are available, from natural and anthropogenic radionuclides using existing data bases, newly acquired post-Fukushima monitoring results, and state of the art dosimetric approaches.
2. Examine the utility of applying natural and artificial (Fukushima and other sources) radionuclides as tracers of circulation, ecological transfers, biogeochemical cycling and consequences of climate change in the North Pacific, including the downstream interconnectivity, with establishing link to POC or WG 29 *etc.*
3. Determine the state of the science relative to assessment and mitigation of radiological impacts to marine organisms from natural and anthropogenic releases of radionuclides into the North Pacific marine environment, including a summary of peer reviewed literature and an overview of major sources and types of radiological releases into the marine environment.
4. Foster collaboration with other expert groups, especially physical oceanographers and climate modellers, to achieve the item 1-3 goals.
5. Identify priority research requirements for knowledge gap identified in item 1-3, the impacts on marine environment from the planned expansion of nuclear facilities, other emerging nuclear issues and other sources of radionuclides in the PICES region.
6. Promote collaboration in oceanographic studies using radio-tracer distribution and exchanging available information on environmental radioactivity, and encourage joint surveys/research among PICES member countries and international organizations.
7. Contribute to FUTURE by producing report on whether radioactive pollution is an additional stressor to marine ecosystem in North Pacific Ocean.