

Opening Remarks

Climate Change Adaptation and Mitigation towards Sustainable Fisheries Resources Along Kuroshio Region

Dr. Milagros C. Morales, CESE
BFAR-RO2 Regional Director



Our partners in this very worthwhile and productive symposium, Dr. Urduja Tejada, President of the Cagayan State University, represented by the equally abled Vice President for Academic Affairs, Dr. Mariden V. Caulan, Dr. Teruyuki Shinbo, Head of the Kuroshio Science Unit, Kochi University, our ever supportive father of the Province, Gov. Manuel Mamba represented by his Chief of Staff Atty. Maria Rosario Mamba-Villaflor, our Keynote Speaker, Dr. Yoshinori Morooka, guests from different partners State Universities and Colleges, Plenary Speakers, presenters, participants, ladies and gentlemen, good morning!

Thank you for coming and for joining us to this very momentous event despite this kind of weather. Indeed, climate change is so evident. How typhoon Ramon moves is so different from the usual movement of a typhoon. Even his characteristics are so unpredictable. And so, we have no way, but to push through. If we have some shortcomings and flaws, please bear with us. But with the concerted efforts of everyone, we will make sure that this will be a success!

Nevertheless, we take pride with overwhelming feeling of happiness, that finally after 12 years as a member institution of the Kuroshio Science Network, we are hosting this symposium. We thank the Kochi University, the lead institution of the network, for the trust and confidence that we will and we can be able to carry this kind of endeavour.

This international symposium is now on its fourth cycle, with Japan, Taiwan and the Philippines, taking turns in hosting. And this year's symposium will focus on the theme "Climate Change Adaptation and Mitigation Towards Sustainable Fisheries Resources Along the Kuroshio Region" and will highlight topics on climate change under the plenary session and feature topics on the following subthemes on its concurrent sessions to include: (1) Fisheries Biology and Oceanography, (2) Ecological Habitats and Climate Sciences, (3) Fisheries Resource Management and (4) Fisheries Socio-economics, Seafood Safety and Processing Technology. We hope to bring together scientists, researchers and experts to present outcomes of the joint studies on Kuroshio Triangle conducted by the participating universities and agencies in Japan, Taiwan and the Philippines; to create a forum for each paper presented to provide better mutual understanding of

Kuroshio Region through the exchange of information and discussion of issues and challenges encountered; and to contribute to the enhancement of public awareness of Kuroshio-related studies. As of last count, we have received confirmation for 59 papers for oral presentations and 16 poster presentations coming from different State Colleges and Universities as well as Government Institutions.

During the next two days we will hear many studies along the Kuroshio Region. This region has been referred to as Typhoon Alley because of the severe tropical storms that follow its warm-water energy path and we have one now. For this reason, Kuroshio, together with the current broad scale phenomenon of global warming have tremendously influenced the way of life of the people living in coastal areas including the terrestrial and marine resources upon which their economy depend on. We hope that some if not all of the researches to be presented will provide answers to the changing climatic conditions which we now have.

And so, without so much ado, I am grateful to the many experts, who have come to share their knowledge with us today and tomorrow. I am confident that we will all profit from these discussions. And so, I wish you a successful symposium, and look forward to hearing about the outcome of our discussions.

Thank you very much and Mabuhay tayong lahat.

Climate Change Adaptation and Mitigation toward Sustainable Fisheries Resource along Kuroshio Region

Teruyuki Shinbo

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We would like to celebrate the 13th International Kuroshio Science Symposium is held at Tuguegarao by BFAR R02 and Cagayan State University. We already held this symposium for three times in the Philippines, then Bicol University held.

This time firstly BFAR and CSU hold this symposium in Cagayan, North part of Luzon, Philippines. I appreciate very much their effort sincerely.

This year marks a significant milestone between the Bureau of Fisheries and Aquatic Resources Region02 (BFAR R02) and Kochi University as we celebrate the 12th year anniversary of our academic cooperation. Our Graduate School of Kuroshio Science, which was established in 2004,

has engaged the Academic Cooperation with BFAR R02 in August 2007. This engagement was enriched by the collaborations with the University of the Philippines, and Bicol University, in 2005 and 2006, respectively. From the beginning, the Philippines has provided us the attractive and important research fields.

On behalf of Kochi University, again I would like to express my sincere appreciation for BFAR R02 and Cagayan State University for hosting the 13th International Kuroshio Science Symposium, which was made meaningful by the presence of other Universities and Institutions along the Kuroshio Current represented by the University of the Philippines, Bicol University, Partido State University, and Catanduanes State University. We are also very happy that many researchers from many other universities/institutions/organizations in the Philippines join this symposium, e. g., Batangas State University, Cagayan State University, Isabela State University, Central Luzon State University, Central Bicol State University of Agriculture, Visayas State University, Western Philippines University, Cavite State University, BFAR's representatives from all 16 regions of the Philippines, Local Government Units: MLGU Tuguegarao and Sabtang, Batanes; PLGU Cagayan, Cagayan Economic Zone Authority (CEZA), Bureau of Agricultural Research and National Fisheries Research and Development Institute. I would like to say thank you to all participants.

Now 13th symposium at Tuguegarao reminds us of our years of successful collaborations.

I can vividly remember, it was the early spring of 2005 when I first came to the Philippines. With the introduction of Dr. Morooka and together with my colleagues, we visited UP, BU, and BFAR02 at that time.

From that time on, I have mainly studied the marine protected areas in the Philippines from the perspective of social science, collaborating with various Filipino researchers, under the kind support of BFAR02, BU, PSU, and other related institutions. In this process, I learned many things about the conservation and sustainable use of various coastal/marine resources such as coral reefs, seaweed beds, mangrove areas in the Philippines.

Firstly, it is necessary to continuously conduct scientific research about those resources from the viewpoint of natural science like ecology, biology, and so on. Secondly, in addition to the natural science viewpoints, it is important that the people of the local communities who use these natural resources on a daily basis manage those resources by themselves, using the knowledge from our research. Thirdly, such challenges are being done by several experts of many marine protected areas in diverse ways. These are unintended

social experiments that can be used to identify best practices in the management of MPAs and we have to accumulate wisdom from these. In Japan, many kinds of efforts for conservation and sustainable use of natural resources have been put into practice in various forms, but I believe that we can learn many things from the experiences in the Philippine as well, and we consolidate them with our experiences in the Kuroshio region.

Japanese universities are now urged by the government to deliver their own unique characteristics.

Now Kochi University proceeded some researches under the keyword "ocean" or "marine." We, Kuroshio Science Unit, are also setting up a project related to "Integrated Coastal and Ocean Management."

There are various backgrounds that contributed to the development of the concept of "Integrated Management of Coastal Resources" or "Integrated Coastal Resources Management (ICRM)". I think the conclusion in 1982 and the effectuation in 1994 of the United Nations Convention on the Law of the Sea are very essential. Under this treaty, the international legal order of the oceans was comprehensively established and the rights and responsibilities of nations with respect to their use of the world's oceans were defined. Then, the path was opened for the development and utilization of marine natural resources overall.

Under the United Nations Convention on the Law of the Sea of 1994, internationally, nations have to bear the responsibility for the conservation of the marine environment clearly.

"Integrated Coastal Resources Management" will be emphasized in such a context. The Coastal/terrestrial area and the marine area should be considered as a single unit, and we have to manage them to keep the balance between development/utilization and environmental conservation by an integrated approach. How should we proceed it concretely? It is still necessary to investigate many things theoretically and empirically. It is the motivation of this theme to think about preferable ways of Integrated Coastal Resources Management from the case studies of the marine protected area initiatives in the Philippine.

Last but not least, I guess around the "ocean management" we feel a burned smell accompanying the rivalry between the nations in recent years. However, we believe that deepening the exchanges in education and research as well as nurturing friendships at the grassroots level internationally among researchers and university/institution members will brew the power to suppress the tension before its emergence. I will finish my greetings with prayers for the tranquility of the sea around the Kuroshio region.