FOREWORD FROM THE CHAIR PERSON OF THE 4th ICTCRED 2018

Assalamu’alaikum Warahmatullohi Wabarokatuh

On behalf of the Organizing Committee, I would like to extend our warmest welcome to you at the International Conference on Tropical and Coastal Region Eco Development (ICTCRED) 2018. This annual conference is the fourth event after the third has been successfully conducted in 2017 at Yogyakarta. This conference is organized by Faculty of Fisheries and Marine Science starting this year as previously organized by Research and Community Services Institute (LPPM), Diponegoro University. The conference aims to provide a forum for researchers, academicians, professionals, and industries to expose and exchange innovative ideas, methods, and experience in the areas related to tropical life sciences and coastal development. This conference also provides forum for researchers and scientists to exchange ideas and their current achievements.

We have accepted 170 abstracts for oral and poster presentation coming from different universities and research centers from many countries. In addition, we cordially invite five highly respected researchers as keynote speakers with different field, to share their knowledge and expertise. I am grateful of each one of them for setting aside their valuable time to participate in this conference.

Moreover, I would like to announce that the ICTCRED 2018 Committee has signed an agreement with the Institute of Physics (IOP) to publish the conference proceeding in their Scopus-indexed IOP Conference Series: Earth and Environmental Sciences (EES) after a series of review. We also offer some selected paper to be published in Biodiversitas (Scopus-indexed journal). We do hope that the collaboration with IOP and Biodiversitas will increase the visibility of this conference papers to international levels which also give benefits to authors and also their institutions.

The committee extent very kind thank to all participants for the success of the conference. They are Rector of Diponegoro University, Dean of Faculty of Fisheries and Marine Science, the keynote speakers. Finally the success of this conference lies not only in the quality of papers but also on the dedicated team work of the organizing and scientific committee. I would like to acknowledge Institute of Physics (IOP) for the collaboration in publishing the conference proceedings.

To all participant, I do hope that the 4th ICTCRED 2018 event bring a fruitful knowledge and be a memorable event not only from the scientific perspective but also in the joy of meeting with other scientists for mutual collaboration. I wish you enjoy the conference as well as the beautiful nature and great traditions of Semarang.

Wassalamu’alaikum Warahmatullohi Wabarokatuh

Thank you

Tri Winarni Agustini
4th ICTCRED Chair
Bismillahirrahmanirrahim

My respect for distinguished speakers, presenters, delegates, professionals, and all participants

Praise be to the Allah S.W.T. for granting us the opportunity to organize the International Conference on Tropical and Coastal Region Eco Development (ICTCRED) 2018 in Semarang, Indonesia. Fisheries and Marine Science Faculty, Diponegoro University, is pleased and feels honored to be the host of this prestigious annual conference.

I am very pleased to welcome you all to this international conference, Tropical and Coastal Region Eco-development, which acts as a forum for those interested in tropical marine and coastal development issues. This annual conference is the fourth event after the third has been successfully held at Yogyakarta in 2017. This conference is the first time organized by Fisheries and Marine Science Faculty after the last three was organized by Research and Community Services Institute (LPPM), Diponegoro University.

Diponegoro University commits to providing an opportunity for scientific society to always play an important role in disseminating ideas and research results especially in the area of coastal and marine tropical development, which is the main research field of our university. Hence, this conference offers a platform for extensive sharing and exchange of knowledge for the Coastal Region Eco Development (CRED) and Tropical Life Sciences (TLS). The CRED topics presented in this conference cover aquaculture, fisheries, coastal management and social economics, marine product processing, biotechnology, coastal engineering, climate change, disaster mitigation, and rehabilitation. In the TLS, this conference deals with relevant ideas and knowledge addressing coastal public health and policy, epidemiology, food nutrition and health, medical microbiology, molecular biology, pharmacological aspect and treatment, tropical diseases. Thus, it is clear that the International Conference on Tropical and Coastal region eco-development is a unique blend of coastal and tropical that nicely fits the current interest among the community concerned with sustainable coastal and tropical marine ecosystems.

On behalf of the Faculty of Fisheries and Marine Science UNDIP, I would like to express my deep thanks to our distinguished keynote speakers, Prof. Dr. Ocky Karna Radjasa, Prof. Dr. Kazuo Nadaoka, Dr. Elconor A. Tendencia, Prof. Yasuhiro Igarashi, and Prof. Dr. Irwandi Jaswir, who had been traveling all the way to Semarang. Certainly, we will have an important benefit of preparing the next generation of Indonesian scientists with international exposure.

Finally, we thank our participants to present their research papers, to share extensively and exchange of ideas thoughts and discussions so that this conference facilitates the formation of networks among participants. Many thanks to the organizing and scientific committee of ICTCRED 2018 who have worked very hard to run the conference.

I pray to Allah S.W.T. to bless this conference with His Grace. I wish you all the best and hope your presence in Semarang would be a memorable one. Thank you.
My best regards,

Prof. Dr. Agus Sabdono
Dean of Fisheries and Marine Sciences Faculty
Diponegoro University
WELCOME ADDRESS OF THE RECTOR OF DIPONEGORO UNIVERSITY

Assalamu’alaikum Warahmatullohi Wabarokatuh

It is a great pleasure and honour for our University to be the host of the 4th International Conference on Tropical and Coastal Region Eco Development 2018. Previously, the Conference was initiated and hosted by Research and Community Services Institute, Diponegoro University. Due to the broader attention to the venue from the researchers who work on tropical, marine science and coastal development study, from 2018, the Conference was organized by Faculty of Fisheries and Marine Science, Diponegoro University. The origin of the conference theme is reflected the idea of our Center of Excellence (CoE) which was established in 2012 representing our priority as a Research University. Since the declaration of Diponegoro University as a research university, the main theme of the research should be enhanced to the level of international benchmarking. Therefore, international level of a venue is very important.

Here I would like to express a special acknowledgement, to the distinguished speakers: Prof. Dr. Ocky Karnaradjasa from Ministry of Research, Technology and Higher Education; Prof. Dr. Kazuo Nadaoka from Tokyo Institute of Technology Japan; Dr. Eleonor A. Tendencia from Southeast Asian Fisheries Development Philippine; Prof Dr. Yasuhiro Igarashi from Toyama Prefectural University Japan; Prof. Dr. Irwandi Jaswir from International Islamic University Malaysia. Thank you for the valuable time to deliver knowledge and share scientific information at this conference. I believe that this opportunity will provide valuable information for us and deliberates the new research ideas for participants of this conference. For all the participants, I would also like to welcome you at this conference, to Semarang City where our University was located.

Diponegoro University, consists of 13 faculties, has strong human resources and research background related to the coastal development and tropical life sciences. It is also supported by Integrated Laboratory of Marine and Fisheries and also Marine Science Techno Park which is located at Teluk Awur, Jepara.

Coastal development and tropical life sciences are two important issues in Indonesia. The issues need to be actualized by the Government and the stake holders involved. The enormous potencies of Indonesian ocean, couple with the various type of existing ecosystems, provide a remarkable opportunity for thousand of scientists to contribute for the prosperity of human life. Currently, various reports mentioned the occurrence of global warming which is affect the broader aspects of human life. The sea and coast are believed to have a major role in global climate change. Therefore, research involving many aspects in both areas will generate a lot of new knowledge that is very important to deal with the climate change.

Moreover, the exploration and exploitation of marine products must be considered on the impact of the environmental devastation. These issues are interesting topics which are reflected by large number of abstracts submitted to this conference. These interesting issues need to be discussed in this conference by sharing research finding and ideas.

I am grateful to see that this conference has enormous responds from the participants either from domestic or from other countries such Japan, Philippine and Malaysia as reported by Organizing Committee.

Number of publication indexed by reputable database has been set as an indicator for world university rank including Indonesia. Therefore, Diponegoro University also encourages all scientists and academic staffs to increase their publication records in these international reputation journals. Currently, Diponegoro University is in the 3rd position among national universities in Indonesia for the number of...
publications in the reputable International journals. I sincerely express appreciation to the organizing committee for their effort to organize the conference.

By the end of my short welcome address, I hope our foreign guests take advantage of their stay here to enjoy Semarang, a warm and friendly city. May you enjoy the original Semarang’s cuisine, Lumpia and its wonderful places known as Old Town.

Once again, it is my great pleasure to welcome you all to the 4th International Conference on Tropical and Coastal Region Eco Development 2018. I wish you a pleasant and fully scientific day of conferences and I hope you can get a fruitful share with other scientists on current developed knowledge and perhaps seeking for potential collaboration of your interested field.

Wassalamu ‘alaikum Warahmatullohi Wabarokatuh
Thank you for your kind attention.

Prof. Yos Johan Utama
Rector