

e-ASIA Joint Research Program (e-ASIA JRP)
The review results of the 10th Call for Proposals
in the field of “Environment”
on the topic of
“Marine Science and Climate Change”

It is our great pleasure to announce the selected projects of the e-ASIA Joint Research Program (e-ASIA JRP*¹) 10th Call for Proposals in the field of “Environment” on the topic of “Marine Science and Climate Change”.

A total of 20 proposals was submitted in response to the 10th joint call for proposals. After careful consideration based on the joint review results by the three funding organizations from three countries participating in the call*², the following four collaborative projects were selected for support with the approval of the e-ASIA JRP Board. Support to the projects will continue for three years.

“Construction of carbon recycling systems to produce alternative fish oil and its application for producing health-beneficial aquacultural and poultry products”

to be conducted jointly by:

Japan: Satoshi Nakai, Professor, Hiroshima University

Indonesia: Soeprijanto, Professor, Sepuluh Nopember Institute of Technology

Philippines: Veronica Migo, Professor, College of Engineering and Agro-Industrial Technology (CEAT), University of the Philippines Los Baños (UPLB)

This collaborative research aims to construct carbon recycling systems where the heterotrophic microorganisms, thraustochytrids are cultivated using food and beverage-processed waste and wastewater to produce polyunsaturated fatty acids (PUFAs) such as docosahexaenoic and eicosapentaenoic acids (DHA and EPA) and to demonstrate that the resultant biomass can be used as alternative fish oil to produce PUFAs-enriched aquacultural and poultry products.

“Application of eDNA metabarcoding in faunal biodiversity assessment of Indo-Pacific mangroves vulnerable to climate change”

to be conducted jointly by:

Japan: Tadashi Kajita, Professor, University of the Ryukyus

Indonesia: Mohammad Basyuni, Professor, University of Sumatera Utara

Philippines: Venus Leopardas, Associate Professor IV / Acting Dean of School of Graduate Studies, Mindanao State University at Naawan

This collaborative research project aims to develop a standardized biomonitoring tool by using aquatic environmental DNA for Indo-Pacific mangrove ecosystem. The eDNA approach will serve as a new indicator for evaluating species biodiversity in mangrove ecosystems. Incorporating with Species Distribution Model analyses, the study will provide prediction of species distribution under different climate change scenarios.

“Marine Heat Waves in the Western Pacific: Detection, Mechanisms and Their Impacts on the Coral Reef Ecosystem”

to be conducted jointly by:

Indonesia: Anindya Wirasatriya, Associate Professor / Secretary of Department, Diponegoro University

Japan: Toshio Suga, Professor / Head of Physical Oceanography Laboratory, Tohoku University

Philippines: Maria Vanessa Rodriguez, Assistant Professor, Marine Science Institute (MSI), University of the Philippines (UP) Diliman

This cooperative research project aims to identify Marine Heat Wave (MHW) events in the western Pacific and investigate their mechanisms and impacts on the coral reef. MHW is new subject in climate change, characterized by extremely high ocean temperatures that persist for days to months, can extend up to thousands of kilometres and can penetrate multiple hundreds of metres depth.

“Enhancing Climate Change Resilience of Social-Ecological Systems in the Coral Triangle and Its Surrounding Areas”

to be conducted jointly by:

Japan: Rempei Suwa, Senior Researcher, Japan International Research Center for Agricultural Sciences (JIRCAS)

Philippines: Rene Rollon, Professor, Institute of Environmental Science & Meteorology (IESM), University of the Philippines (UP) Diliman

Indonesia: Analuddin, Professor, Halu Oleo University

This cooperative research project aims to establish a new framework for enhancing the resilience of social-ecological systems in the coral triangle and its surrounding areas under climate change and anthropogenic pressures, by introducing comprehensive approaches with innovative methodology development, including those for holistic ecosystem service enhancement, and thereby for sustaining and improving the blue economy in the region.

On behalf of the e-ASIA JRP, we would like to offer our sincerest congratulations to the project teams and look forward to the significant impact their results will bring to our society in the future.

*1 The e-ASIA Joint Research Program (e-ASIA JRP)

Through the acceleration of science and technology research exchange and collaboration in the East Asian region, the e-ASIA Joint Research Program (e-ASIA JRP) aims to strengthen research and development capabilities towards resolution of shared challenges across the region, including those associated with materials, alternative energy, agriculture, health research, disaster risk reduction and management, advanced interdisciplinary research towards innovation, and environment. As part of that objective, the e-ASIA JRP intends to support the multilateral collaborative research projects, which must consist of three or more countries.

e-ASIA JRP's homepage: <http://www.the-easia.org/jrp/>

*2 The list of organizations participating in the 10th joint call for proposals in the field of “Environment”:

- Ministry of Education, Culture, Research and Technology (DIKBUDRISTEK) (Previous Responsible Organization: Ministry of Research and Technology/ National Research and Innovation Agency (RISTEK/BRIN)), Indonesia
URL: <http://www.dikti.kemdikbud.go.id/> (Available only in Indonesian)
<https://simlitabmas.ristekbrin.go.id/>
- Japan Science and Technology Agency (JST), Japan
URL: <http://www.jst.go.jp/EN/index.html>
- Department of Science and Technology (DOST- PCAARRD), Philippines
URL: <https://www.dost.gov.ph/> (DOST)
<http://www.pcaarrd.dost.gov.ph/home/portal/> (DOST- PCAARRD)

Contact

Ken Kawabata (Mr.)

e-ASIA JRP Special Program Coordinator

Tel: +66 (0)2 564 7713

H/P: +66 (0)61 421 0316

E-mail: easia_secretariat@jst.go.jp

Website: <https://www.the-easia.org/jrp/>