

NEWS, NOTES, & EVENTS

Environmental security and resilience – Indonesia and global challenges

KATHRYN A. MONK and **DOLLY PRIATNA** (Eds.)

We are pleased to present InJAST Volume 3 Number 1 April 2022, with research papers ranging from taxonomic studies of Lepidoptera to a phytosociological study of a lowland forest and an analysis of tourism supporting conservation efforts. This volume demonstrates again just how wide-ranging environmental studies are and how much they cross disciplines and geographies. Such studies often demand innovative approaches and disruptive thinking, and, to that end, we are excited to have a Guest Editorial from Prof. Jeff Waage OBE of the London School of Hygiene and Tropical Medicine to inspire such thought. Prof. Waage started the London International Development Centre (LIDC) in 2007 as a consortium of University of London's Bloomsbury Colleges. LIDC is based on the belief that solving today's complex development challenges starts with collaboration. It draws on an extensive diverse and active community of researchers, postgraduate students, and development professionals to deliver interdisciplinary research that creates real change. They work collaboratively across the globe, including in Indonesia. In his Guest Editorial, Prof. Waage explains the challenges of investigating and managing the interactions of the environment, agriculture, and health.

Indonesia faces tremendous challenges from climate change, biodiversity loss, and wider social and economic change. These challenges need extensive interdisciplinary approaches enabling multiple perspectives from diverse stakeholders to be recognised and utilised. Collaboration between scientists, social scientists, and economists has never been so important. As Christiana Figueres, former Executive Secretary, United Nations Framework Convention on Climate Change said: "The [global] challenges we face are massive, urgent, and interconnected. We need people across all sectors to pull together and move us to a bright and strong future. There's no time to waste!". We are therefore happy to see the growing number of community-based participatory studies being submitted to InJAST and hope these will increase in future. There are exciting and vitally important issues to be tackled and supported by environmental managers, from direct conservation work to flood risk management and pollution control. Climate change drives or affects all these of course and has been, for example, one of the key drivers for Indonesia's momentous plans to move the capital from the 256,000-hectare (990-square-mile)

Jakarta on the north-western side of Java Island, the most populated island in the country, to the relatively undeveloped and biodiversity-rich East Kalimantan province. Climate change and immediate economic drivers in many parts of Indonesia also contribute to the annual toxic haze, which causes air quality to reach hazardous levels and creates major health, environmental and economic problems, especially in Sumatra and Java. Indeed, as of March this year, Riau province has already declared a state of emergency ahead of this year's main fire season.

More globally, environmental security and resilience have never been so central to issues of international importance, with hugely significant international events last year and this being planned and run despite other major global challenges. The most important of these was the 26th UN Climate Change Conference of the Parties (COP26) in Glasgow, UK, on 31 October – 13 November 2021, which resulted in the Glasgow Climate Pact. This global agreement aims to accelerate action on climate this decade, and finally completes the Paris Rulebook. A record-breaking number of delegates gathered for this critical COP, including Indonesian President Joko Widodo, who received global attention for his exciting commitments to deforestation, early coal power retirement, and the clean energy transition. Underlining the importance of all commitments made at COP26 is that COP27 will be held in Egypt in November this year to ensure all nations are integrating their national climate change actions with the Glasgow Climate Pact. Indonesia has much opportunity for leadership here. Indonesia holds the 2022 G20 Presidency and raised three priority issues at the 2022 G20 Environment Deputies Ministerial-Climate and Sustainable Working Group meeting recently, including marine management to achieve climate change mitigation targets. They highlighted the great potential of blue carbon, especially in the mangrove ecosystem, for reducing greenhouse gas emissions. It was particularly exciting to see that the interdisciplinary nature of these problems and their solutions was being recognised. Joint meetings are planned with other working groups, such as energy transition, sustainable finance, business, and youth. Evidence to inform the development of these solutions will be imperative and interdisciplinary environmental science should be at its heart.

Biodiversity is of course also on the global agenda. The first part of the 15th meeting of the Convention on

Biodiversity (CBD) COP was held online in October last year. The latest information from the Secretariat of the CBD is unfortunately and worryingly that the second part of COP15 is delayed until the third quarter of this year. The recent Geneva pre-meeting ended without resolving any of the key issues – finance, implementation, or key targets, including protecting at least 30% of land and sea by 2030 (“30-by-30”), and the rights of Indigenous Peoples and local communities.

Against this background of global and national environmental evidence needs, the aim of InJAST is to

stimulate and share the work of an increasing community of environmental researchers and managers in Indonesia and elsewhere. We encourage papers associated with local, national, and international challenges. We especially recognise the growing community of postgraduates and early career researchers and will support you in developing these materials for publication. Environmental security and resilience are at the heart of what you do, and we want to make sure you are heard.

InJAST’s website and online submission portal is:

<https://journal.unpak.ac.id/index.php/InJAST/index>

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NOTES

Natural disasters and climate change beliefs: The role of distance and prior beliefs

Public support of climate policies crucially depends on climate change beliefs. Here we analyse the effects of natural disaster experience on the belief in the existence of climate change. The primary data source is a panel survey covering 22,251 observations from 11,194 geo-located households collected in Germany between 2012 and 2015, combined with satellite imagery of a major flood event in 2013. We find that flood experience had a significant positive effect on the beliefs in the existence of climate change for those respondents living close to the flooded area. However, the effect decreases sharply with distance. We further show that this overall effect is driven by those respondents who already believed in climate change before the flood – they saw their belief confirmed by their experience. In contrast, spatial proximity to the flood had no measurable effect on skeptics. These results imply that climate skeptics may not be influenced by the experience of natural disasters at their doorsteps.

Osberghaus, D. & Fugger, C. (2022). Natural disasters and climate change beliefs: The role of distance and prior belief. *Global Environmental Change*, 74, 102515.

The global scale, distribution and growth of aviation: Implications for climate change

Prior to the COVID-19 crisis, global air transport demand was expected to triple between 2020 and 2050. The pandemic, which reduced global air travel significantly, provides an opportunity to discuss the scale, distribution and growth of aviation until 2018, also with

a view to consider the climate change implications of a return to volume growth. Industry statistics, data provided by supranational organizations, and national surveys are evaluated to develop a pre pandemic understanding of air transport demand at global, regional, national and individual scales. Results suggest that the share of the world’s population travelling by air in 2018 was 11%, with at most 4% taking international flights. Data also supports that a minor share of air travelers is responsible for a large share of warming: The percentile of the most frequent fliers – at most 1% of the world population - likely accounts for more than half of the total emissions from passenger air travel. Individual users of private aircraft can contribute to emissions of up to 7,500 t CO₂ per year. Findings are specifically relevant with regard to the insight that a large share of global aviation emissions is not covered by policy agreements.

Gossling, S. & Humpe, A. (2020). The global scale, distribution and growth of aviation: Implications for climate change. *Global Environmental Change*, 65, 102194.

Are we underestimating microplastic abundance in the marine environment? A comparison of microplastic capture with nets of different mesh-size

Microplastic debris is ubiquitous and yet sampling, classifying and enumerating this prolific pollutant in marine waters has proven challenging. Typically, waterborne microplastic sampling is undertaken using nets with a 333 µm mesh, which cannot account for smaller debris. In this study, we provide an estimate of

the extent to which microplastic concentrations are underestimated with traditional sampling. Our efforts focus on coastal waters, where microplastics are predicted to have the greatest influence on marine life, on both sides of the North Atlantic Ocean. Microplastic debris was collected via surface trawls using 100, 333 and 500 μm nets. Our findings show that sampling using nets with a 100 μm mesh resulted in the collection of 2.5-fold and 10-fold greater microplastic concentrations compared with using 333 and 500 μm meshes respectively ($P < 0.01$). Based on the relationship between microplastic concentrations identified and extrapolation of our data using a power law, we estimate that microplastic concentrations could exceed 3700 microplastics m^{-3} if a net with a 1 μm mesh size is used. We further identified that use of finer nets resulted in the collection of significantly thinner and shorter microplastic fibres ($P < 0.05$). These results elucidate that estimates of marine microplastic concentrations could currently be underestimated.

Lindeque, P.K., Cole, M., Coppock R.L. et al (2020). Are we underestimating microplastic abundance in the marine environment? A comparison of microplastic capture with nets of different mesh-size. *Environmental Pollution*, 265(A), 114721.

Current research trends on plastic pollution and ecological impacts on the soil ecosystem:

A review

Plastic pollution in the environment is currently receiving worldwide attention. Improper dumping of disused or abandoned plastic wastes leads to contamination of the environment. In particular, the disposal of municipal wastewater effluent, sewage sludge landfill, and plastic mulch from agricultural activities is a serious issue and of major concern regarding soil pollution. Compared to plastic pollution in the marine and freshwater ecosystems, that in the soil ecosystem has been relatively neglected. In this study, we discussed plastic pollution in the soil environment and investigated research on the effects of plastic wastes, especially microplastics, on the soil ecosystem. We found that earthworms have been predominantly used as the test species in investigating the effects of soil plastic pollution on organisms. Therefore, further research investigating the effects of plastic on other species models (invertebrates, plants, microorganisms, and insects) are required to understand the effects of plastic pollution on the overall soil ecosystem. In addition, we suggest other perspectives for future studies on plastic pollution and soil ecotoxicity of plastics wastes, providing a direction for such research.

Chae, Y. & An, Y.J. (2018). Current research trends on plastic pollution and ecological impacts on the soil

ecosystem: A review. *Environmental Pollution*, 240, 387-395.

Soil health and climate change

Soils regulate many biological and physical processes between the atmosphere and the lithosphere. Soil health is an integrative property of soil that supports agricultural sustainability. Measurement of a single property in concern with the soil health is nonetheless always being related to particular circumstances. Conserving natural resources is a major concern in sustaining soil health for feeding the increasing population. In the current scenario of globalization, climate change is discussed as a global issue. Human influences on climate change exceed the boundaries of natural variability consequently resulting in changes in atmospheric composition, urbanization land-use changes, cropping patterns, etc. Carbon regulation in soil plays a major role in climate change in the soil system. An increase in mean annual temperature accelerates the decomposition rate of organic matter that influences the water storage capacity, nutrient balance, and aggregate stability, which are important for good soil structure, soil fertility, productivity, and sustainability. As a matter of fact, soil microbes decompose organic matter, but a rise in temperature may alter the microbial population with changing temperature regimes. Hence, it is necessary to study the climatic impact of soil health to take necessary steps to overcome the negative effects. An integrated sustainable approach linked with soil health may contribute a significant resilience under adverse conditions. Increasing soil organic carbon is the best way to mitigate climate change and to ensure food security. Hence, COP 21 launched the “4 per mille Soils for Food Security and Climate” to increase global soil organic matter stocks by 0.4% per year to mitigate the global emissions of greenhouse gases by anthropogenic sources.

Venati, G., Ch., S., Reddy, K.S. et al (2020). Soil health and climate change. In (book) Prasad, M.N.V. & Pietrzykoski (Eds.). *Climate Change and Soil Interactions. Elsevier.*

Water Pollution: Effects, Prevention, and Climatic Impact

The stress on our water environment as a result of increased industrialization, which aids urbanization, is becoming very high thus reducing the availability of clean water. Polluted water is of great concern to the aquatic organism, plants, humans, and climate and indeed alters the ecosystem. The preservation of our water environment, which is embedded in sustainable development, must be well driven by all sectors. While effective wastewater treatment has the tendency of salvaging the water environment, integration of environmental policies into the actor firms core

objectives coupled with continuous periodical enlightenment on the present and future consequences of environmental/water pollution will greatly assist in conserving the water environment.

Inyinbor, A.A., Adebesein, B.O., Oluyori, A.P. et al (2018). Water Pollution: Effects, Prevention, and Climatic Impact. In (book) Glavan, M (Ed). Water Challenges of an Urbanizing World. *Intech*.

A Review of the Measurement Method, Analysis and Implementation Policy of Carbon Dioxide Emission from Transportation

This paper presents a review of carbon dioxide (CO₂) emissions from transportation in an attempt to establish a quick and suboptimal update of the methods used to calculate and analyse CO₂ emissions from transportation. Transportation is the largest contributor to air pollution through the release of high amounts of CO₂ gas into the atmosphere. The methods for calculating and analyzing the carbon footprint of transportation; which is of critical importance in the management of greenhouse gases that contribute to global warming; are still being developed. However; there are some differences in the definitions and methods used to calculate the carbon footprint of transportation in previous studies. This review focuses on the similarities of the methods used to measure CO₂ emissions as well as the analyses used to evaluate the emissions. This paper will also highlight the advantages and limitations of each research work. By doing this; the present study contributes to the selection of appropriate methods for calculating CO₂ emissions from transportation and draws attention to environmental issues. It is hoped that the implementation of the most appropriate framework will help to reduce CO₂ emissions from transportation.

Yaacob, N.F.F., Yazid, M.R.M., Maulud, K.N.A. et al (2020). A Review of the measurement method, analysis and implementation policy of carbon dioxide emission from transportation. *Sustainability*, 12(5873), 1-22.

Agricultural water pollution: key knowledge gaps and research needs

While water pollution is starting to receive the attention it deserves, the contribution of agriculture requires greater consideration as current agricultural practices have an unprecedented impact on water quality. This paper reviews knowledge in selected areas of agricultural water pollution (AWP) and identifies future research needs. These include source attribution, emerging contaminants, costs and incentives for adoption of pollution reduction measures. Future research priorities include identification and testing of locally appropriate markers; modelling the effects of

contaminants on biota and pathways of microbial contaminants; harmonization of data collection and calculation of economic costs of AWP across countries and projects; and how to better share relevant knowledge to incentivize improved agricultural practices.

Evans, A.E.V., Mateo-Sagasta, J., Qadir, M. et al (2019). Agriculture water pollution: Key knowledge gaps and research needs. *Current Opinion in Environmental Sustainability*, 36, 20-27.

Using catastrophe theory to model climate change

Catastrophe theory is a branch of mathematics and dynamical systems, which explains how some singularities in systems can be used to explain catastrophes in the real-world [1]-[2]. These can be thought of, and are often depicted as, folds within planar spaces. This theory, which came to prominence in the 1970s, can be used to model natural phenomena such as disasters and, currently, is being used to model climate change and changes in the environment. This presentation explores the current literature on catastrophe theory and climate change and discusses its potential for modelling and predicting environmental issues. A number of researchers have published recently on this topic. Some examples are discussed below. Kent has examined how mathematical modelling can be used within risk assessments for global catastrophes [3]. Levi, Hypel and Howard have discussed advances in "drama theory" for coping with global climate change and environmental catastrophe [4], while Mostafa has presented a paper which demonstrates how catastrophe theory can be used for prediction of international concerns such as global warming, and the economics of this [5]. Sunstein has discussed how decision theory can be used to predict potential disasters of all kinds, including Covid 19 and climate change [6]. Finally, Vickrey and Weitzman both discuss the direct application of catastrophe theory to climate change [7]-[8]. There is, thus, much evidence that catastrophe theory has the potential to offer us a powerful modelling tool to help us better understand, analyse and predict those catastrophes which can be encapsulated under the umbrella term of climate change including, global warming, serious flooding and other increasingly "natural" environmental disasters. We discuss the potential for catastrophe theory as a useful tool for physicists who wish to better understand recent and future environmental issues.

Smith, P. & Alfano, R. (2021). Using catastrophe theory to model climate change. *IOP Institute of Physics*.

Carbon balance of tropical peat forests at different fire history and implications for carbon emissions

Accurate assessment of tropical peat forest carbon stocks and impact of fires on carbon pools is required to determine the magnitude of emissions to the atmosphere and to support emissions reduction policies. We assessed total aboveground carbon (AGC) in biomass pools including trees, shrubs, deadwood, litter and char, and peat carbon to develop empirical estimates of peat swamp forest carbon stocks in response to fire and disturbance. In contrast to the common assumption that peat fires combust all AGC, we observed that about half of undisturbed forest AGC, equivalent to about 70 Mg C ha⁻¹, remains after one or two recent fires – mainly in dead trees, woody debris and pyrogenic carbon. Both recently burnt and repeatedly burnt peat forests store similar amounts of carbon in the top 10 cm of peat when compared with undisturbed forests (70 Mg C ha⁻¹), mainly due to increased peat bulk density after fires that compensates for their lower peat C%. The proportion of fuel mass consumed in fire, or combustion factor (CF), is required to make accurate estimates of peat fire emissions for both AGC and peat carbon. This study estimated a CF for AGC (CF_{AGC}) of 0.56, comparable to the default value of the Intergovernmental Panel on Climate Change (IPCC). This study estimated a varying CF for peat (CF_{PEAT}) that ranged from 0.4 to 0.68 as depth of burn increased. This revised CF_{PEAT} is one third to one half of the IPCC default value of 1.0. The current assumption of complete combustion of peat (CF = 1.0) is widely acknowledged in the literature as oversimplification and is not supported by our field observations or data. This study provides novel empirical data to improve estimates of peat forests carbon stocks and emissions from tropical peat fires.

Krisnawati, H., Adinugroho, C., Imanuddin, R. et al (2021). Carbon balance of tropical peat forests at different fire history and implications for carbon emissions. *Science of The Total Environment*, 799, 146365.

EVENTS

UN Biodiversity Conference (CBD COP 15) (Part 2) - Kunming, China 29 Aug-9 Sep 2022 (tentative)

This Conference comprises the 15th meeting of the Conference of the Parties (COP 15) to the Convention on Biological Diversity (CBD), the tenth Meeting of the Parties to the Cartagena Protocol on Biosafety (Cartagena Protocol COP/MOP 10), and the fourth Meeting of the Parties to the Nagoya Protocol on Access and Benefit-sharing (Nagoya Protocol COP/MOP 4).

CBD COP 15 will review the achievement and delivery of the CBD's Strategic Plan for Biodiversity 2011-2020. It is also anticipated that the final decision on

the post-2020 global biodiversity framework will be taken, together with decisions on related topics including capacity building and resource mobilization.

The UN Biodiversity Conference was originally scheduled to take place from 15-28 October 2020, in Kunming, China, but was postponed several times in light of the COVID-19 pandemic. On 18 August 2021, the CBD Secretariat announced that COP 15 would take place in two parts:

- the first part took place in a virtual format, from 11-15 October 2021;
- the second part of COP 15 is scheduled to be a face-to-face meeting in Kunming, China, from 25 April-8 May 2022. It is now anticipated that these dates will be adjusted to dates later in 2022.

In November 2021, due to the emergence of the Omicron variant of the COVID-19 virus and subsequent travel restrictions announced by some countries, the resumed sessions of the subsidiary bodies were postponed from January to March 2022. The 24th meeting of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA 24) and the 3rd meeting of the Subsidiary Body on Implementation (SBI 3) of the Convention on Biological Diversity (CBD) as well as the third Meeting of the Open-ended Working Group on the Post-2020 Global Biodiversity Framework (WG2020-3) will prepare for CBD COP 15.

Further information:

<https://www.cbd.int/article/new-dates-cop15-virtual-2021-facetoface-2022>

UN Climate Change Conference 2022 (UNFCCC COP 27) - Sharm El-Sheikh, Egypt 8-20 November 2021

The 27th session of the Conference of the Parties (COP 27) to the UNFCCC will take place in Sharm El-Sheikh, Egypt. COP 27 was originally expected to take place from 8-20 November 2021. Due to the COVID-19 pandemic, COP 26 was rescheduled from November 2020 to November 2021. As a result, COP 27 will take place from 7-18 November 2022. We will update this page when the agenda for COP 27 is announced. To receive updates from the SDG Knowledge Hub in your inbox, subscribe to the SDG Update newsletter. To explore more climate change reporting, read the full Earth Negotiations Bulletin summary and analysis of the Glasgow Climate Change Conference COP 26 or view all UNFCCC negotiation coverage.

Further information:

<https://unfccc.int/calendar/events-list>

Sustainable Energy for All Forum (SEforALL Forum) – Kigali, Rwanda 6-8 May 2022

The Sustainable Energy for ALL (SEforALL) Forum was originally scheduled to take place from 6-8 May 2020, in Kigali, Rwanda. In light of the COVID-19 pandemic, it was initially postponed until February 2021. It was subsequently postponed until 2022.

Focusing on the theme, 'Building Speed, Reaching Scale, Closing the Gap,' this Forum will provide a global platform to mobilize resources, connect partners and showcase action to realize the promise of the sustainable energy revolution for everyone. The event will bring together a diverse group of energy stakeholders to take stock of progress towards implementing SDG 7 (Affordable and Clean Energy) and provide an opportunity to develop new partnerships, launch new financial instruments to close energy access gap, and connect with energy leaders from communities, cities, politics, business and finance. The event will also seek to raise ambition under the Nationally Determined Contributions (NDCs) under the Paris Agreement on climate change.

Further information: <https://www.seforall.org/forum>

International Conference on Sustainable Environment, Agriculture and Tourism (ICOSEAT) 2022 – Bangka Island 21 Jul 2022 - 23 Jul 2022

We are honored and delighted to invite you to participate in the International Conference on Sustainable Environment, Agriculture, and Tourism (ICOSEAT) 2022 which will be held on July 21-23, 2022 in Bangka Island, one of the wonderful places of Indonesia. The main theme of the conference is Agroindustry 4.0, Tourism and Supportive Government for Sustainable Development. We welcome articles in the field of Agroindustry and Appropriate Technology 4.0; Environmental and Mining Engineering; Sustainable Development and Tourism Management; Agriculture and Food Engineering; and Marine, Aquaculture, and Biological Science. ICOSEAT provides a forum for academics, Business, and governments to present and discuss topics on recent development in those fields. Further Information: icoseat.ugm.ac.id

The 8th International Conference on Science and Technology - Yogyakarta 7–8 September 2022

Held as part of the Universitas Gadjah Mada Annual Scientific Conferences (UASC 2022) series, the 8th International Conference on Science and Technology (ICST 2022) provides an ideal academic platform for researchers to present the latest research findings and describe emerging technologies and directions in engineering and the natural sciences. This year, five symposia will be held, Computer and Information

Technology symposium; Electronics, Power, Communication, Control, and Instrumentation symposium; Life Sciences, Materials, and Applied Chemistry symposium; Mechanical and Industrial Engineering symposium; and Remote Sensing and Geomatics symposium. ICST 2022 is in conjunction with the 3rd Geoscience and Environmental Management symposium. The accepted and presented papers will be submitted for possible inclusion to journals/proceedings that are indexed by Scopus/CPCI/DOAJ.

Further information: <https://icst.ugm.ac.id/>

SEMIRATA 2022 on the 5th International Conference on Science and Technology (ICST)

FMIPA IPB in collaboration with BKS PTN Barat for Mathematics and Natural Sciences, Universitas Putra Malaysia (UPM, Malaysia), Kasetsart University (KU, Thailand), and SEAMEO BIOTROP will hold SEMIRATA 2022 on the 5th International Conference on Science and Technology (ICST) in conjunction with the 6th International Seminar on Sciences (ISS) and the 13th International Fundamental Science Conference (IFSC) on 10-11 August 2022 (online). The study raised at this event is Science for life resilience and sustainable development with several sub-topics. We invite you and your students to participate in submitting abstracts and research articles. Articles submitted will be selected and published in several journals managed by members of the West PTN BKS for Mathematics and Natural

SEMIRATA 2022
on the 5th International Conference on Science and Technology (ICST)
in conjunction with the 6th International Seminar on Sciences (ISS)
and the 13th International Fundamental Science Conference (IFSC)
"Science for life resilience and sustainable development"

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2. Climate smart, biodiversity and resilience
3. Big data analytics, applied statistics, statistical modelling
4. Pure mathematics, operation research, mathematical modeling, computational mathematics, actuarial science and risk theory
5. AI and machine learning for sustainability
6. Biodiversity and conservation, bioscience, biotechnology, biochemistry
7. Biomaterial, nanomaterial
8. Bioinformatics, omics science (meta genomics, transcriptomics, proteomics, metabolomics)
9. Environmental and human health
10. Renewable energy, bioenergy
11. Green chemistry
12. Theoretical high energy physics and cosmology
13. Nonlinear phenomena and complex systems

Paper Will be Published in Partner Journals

- HAYATI Journal of Biosciences (Scopus/Q2, S1)
- Biotropia (Scopus/Q4, S1)
- Microbiology Indonesia (S1)
- Agronomet (S2)
- Jurnal Pengeloaan Sumberdaya Alam dan Lingkungan (S2)
- Jurnal Ilmu Pertanian Indonesia (S2)
- Others

Registration Fee

Participant	International		Domestic	
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Students	USD 25	USD 30	Rp. 300.000,-	Rp. 400.000,-
Academic/Researcher	USD 50	USD 75	Rp. 800.000,-	Rp. 1.200.000,-
Non-Presenter	USD 15	USD 20	Rp. 200.000,-	Rp. 300.000,-

*Additional fee will be charged for publication

Keynote Speakers

- Nadiem A. Makarim***
Minister of Education, Culture, Research, and Technology Republic of Indonesia
- Suharsno Monoarfa***
Minister of National Development Planning of the Republic of Indonesia

Plenary Speakers

- Laksana Tri Handoko***
Chairman of the National Research and Innovation Agency (BRIN), Indonesia
- Linda Anne Stevenson***
Head of Knowledge Management and Scientific Affairs, Asia Pacific Network for Global Change Research

More on notable experts will join the event as invited speakers
*in Collaboration

Important Dates

- Deadline for abstract submission : 1 May 2022
- Notification of acceptance : 31 May
- Deadline for full paper submission : 1 July 2022
- Notification for full paper acceptance : 31 July 2022
- Conference dates : 9 - 10 August 2022
- Student competition : 11 August 2022

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Sciences, such as HAYATI Journal of Biosciences (Scopus, S1), Biotropia (Scopus, S1), Microbiology Indonesia (S1), Agromet (S2), Journal of Natural Resources and Environmental Management (S2), Journal of Indonesian Agricultural Sciences (S2), etc.

Further information:

<https://www.biotrop.org/othernews/semirata-2022-on-the-5th-international-conference-on-science-and-technology-icst>

Meet Us Online at the 4th International Electronic Conference on Environmental Research and Public Health (ECERPH 2022), 15–30 October 2022

We cordially invite you to participate in the 4th International Electronic Conference on Environmental Research and Public Health (ECERPH2022), which will be held from 15 to 30 October 2022. Prof. Dr. Jon Øyvind Odland serves as the chair of this e-conference. He is a Professor of Global Health at NTNU, Norwegian University of Science and Technology, and a specialist in GYN/OB, environmental medicine, and epidemiology. This online event will bring together researchers from all over the world with no concerns regarding travel or other related expenditures. Health effects could be very different if the world's temperature increases from 5 to 10 °C compared to an increase from 35 to 40 °C. If we look at the mortality associated with climate change, it is obvious that the burden is higher in tropical areas. However, if we add morbidity and complications for, e.g., reproductive health and pregnancy care, the situation might be very different. The spread of infectious diseases related to vector migration is also a very important topic, as is the situation of environmental exposure to contaminants and occupational health.

This conference will provide leading scientists, working in the environmental research and public health field, with an online platform to share their latest research and engage in exciting discussions.

The main topics and sessions of the conference are:

- Pregnancy, Reproductive Health, and Climate Change;
- Vector Migration from a Climate Perspective;
- COVID-19 from a Climate Perspective;
- The Forgotten Tropical Diseases from a Climate Perspective;
- Cardiovascular Diseases and Climate Change;
- Occupational Health and Temperature Change.

The conference will be completely free of charge to attend, as well as for scholars to upload and present their latest work on the conference platform. The accepted proceedings papers from the conference will most likely be published in a dedicated issue of the MDPI journal *Environmental Sciences Proceedings* (ISSN: 2673-4931). Please note that, before publication, Proceedings Series Journals will review accepted papers using the powerful text comparison tool iThenticate. This procedure aims to prevent scholarly and professional plagiarism. Articles with a high repetition rate and lack of novelty will not be published in the conference proceedings. In addition, all participants will be encouraged to submit an extended full manuscript to one dedicated Special Issue in *IJERPH* (ISSN 1660-4601) with a 15% discount on the article processing charge (APC, the original APC is CHF 2500). Further information:

<https://www.mdpi.com/journal/sustainability/announcements/3524>

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