



The 2nd International Seminar on Natural Resources and Environmental Management 2021

“Towards a New Era of Natural Resources and
Environmental Management”

Bogor, August 4th - 5th 2021

PROGRAM BOOK

Organized by



IPB University
— Bogor, Indonesia —



Pusat Penelitian Lingkungan Hidup (PPLH)
Environmental Research Center (ERC)
IPB University

Supported by



Pascasarjana



International Collaboration Office
IPB University



Geospatial Information Agency



Table of Contents

Table of Contents.....	1
Welcoming Speech Chairman of ISeNREM 2021.....	2
Welcoming Speech Rector of IPB University	3
Welcoming Speech Dean of Graduate School	5
Welcoming Speech Chairs of Study Program of Natural Resources and Environmental Management.....	7
Committee	8
Speaker	11
Abstract Invited Speakers	16
Prof. Zeljko Bacic (University of Zagreb, Croatia)	16
Dr. Jacob Phelps (University of Lancaster, UK)	17
Prof. Rizaldi Boer (IPB University).....	17
Prof. Hery Purnomo (IPB University)	18
Prof. Tasuku Kato (Tokyo University of Agriculture Technology, Japan)	19
Prof. Diego Ramirez-Lovering (Monash University, Australia)	19
Program schedule.....	21
List of Contributors	32

Welcoming Speech Chairman of ISeNREM 2021

Ladies and gentlemen and all participants,

Assalamualaikum Wr Wb

On behalf of the Organizing Committee, we sincerely welcome you to the 2nd International Seminar on Natural Resources Environmental Management (ISeNREM 2021). We thank you for your participation and contribution to share your expertise with us.

ISeNREM is a biennial scientific meeting organized by the Natural Resources and Environmental Management Science Study Program (PSL IPB) and the Graduate School of IPB University. This year's meeting is the second meeting, and the first time it is held virtually online due to the global pandemic situation. Using a digital event platform, the participants stay together and communicate in one room without requiring participants to travel and be more secure.

I am pleased to announce that we have some crucial figures as our keynote speakers during this ISeNREM 2021, like the Representative from Indonesian Minister of Forestry and Environment (KHLH): Secretary General, Head of Geospatial Information Agency, and Former Head of Indonesian National Board for Disaster Management. We also have six distinguished invited speakers from Indonesia, Japan, Australia, Croatia, and United Kingdom. I am also impressed with the enthusiasm of 132 contributing participants. There will be 126 oral presentations coming from both Indonesia and overseas.

I want to express my appreciation to the Graduate School, Environmental Research Centre, and Directorate of International Program of IPB University, Indonesian Ministry of Environment and Forestry, and Indonesian Geospatial Information Agency to support this event. To all committees of the 2nd ISeNREM 2021, I express a high appreciation to you all who have organized this event well.

Finally, I would like to wish you all a fruitful seminar and please enjoy the meeting.

Thank you.

Wassalamualaikum Wr Wb,

Bogor, August 4th 2021

Dr. Zaenal Abidin, M.Agr.

Welcoming Speech Rector of IPB University

Bismillahirrahmanirrahim,

Assalamualaikum wr wb.

Good day, Ladies and Gentlemen.

First and foremost, on behalf of IPB University, I would like to extend a great appreciation and warm greetings to the esteemed:

1. Representative from Indonesian Minister of Forestry and Environment (KHLH), Secretary General
Dr. Bambang Hendroyono
2. Dean, Graduate School IPB University,
Prof. Dr. Anas Miftah Fauzi
3. Former Head of Indonesian National Board for Disaster Management (BNPB) (2019 - 2021),
Letjen TNI Dr. (HC) Doni Monardo
4. Chairman of Geospatial Information Agency (BIG),
Prof. Dr. Muh Aris Mafai
5. Heads, Study Program Natural Resources and Environmental Management Sciences
6. Distinguished speakers,
Prof. Zeljko Basic (University of Zagreb, Croatia), Dr. Jacob Phelps (Lancaster University UK), Prof. Rizaldi Boer (CCROM IPB Indonesia), Prof. Herry Purnomo (CIFOR-ICRAF/IPB Indonesia), Prof. Tasuku Kato (TUAT Japan), Prof. Diego Ramirez (Monash University Australia)
7. All participants, scientists, practitioner, students, and committee members of ISeNREM 2021.

Ladies and Gentlemen,

I am glad to inform you that in 2021, IPB University, through Natural Resources and Environmental Management Science (NREMS) study program, successfully organized the **2nd ISeNREM 2021 'The International Seminar Natural Resources and Environmental Management'** in Bogor. Here, this morning, we are witnessing the continuation of ISeNREM events. However, because of the pandemic, this event is conducted online.

We have learned that Corona Virus 19 (COVID-19) disease outbreak since March last year has changed the world including our daily life known as a new normal.

However, as scientists, researchers, students, practitioners, policy makers and business persons we somehow managed to adapt to this new normal to continue our programs and activities. We have to keep the contacts with our fellows and make the new ones that nowadays could be done through different means among other like today's virtual event.

Ladies and Gentlemen,

The theme of this seminar is “**Towards a New Era of Natural Resources and Environmental Management**”. The seminar is an excellent forum for those who are involved in scientific disciplines on emerging issues and trends in natural resources and environmental science. The new era teaches us to become more adaptive and even agile to many uncertainties, to enhance the cooperation with soft diplomacy, and to develop our confidence in overcoming the problems relating to climate change, population growth, technological advancement as well as socio-economic dynamics. For that reason, I am convinced that this seminar can be a successful event to share another new perspective on environmental issues and knowledge exchanges with recent development.

Ladies and Gentlemen,

Finally, I appreciate the Study Program of Natural Resources and Environmental Management Science (NREMS), Graduate School, IPB University, and Geospatial Information Agency (BIG) for co-organizing this international symposium. Hopefully, this event will generate new perspectives for strengthening the development agenda in the tropics as clearly stated in the 17 SDGs. Without further ado, on behalf of IPB Rector, herewith by saying “Bismillahirrohmanirrohim”, I officially open the 2nd ISeNREM 2021.

Wassalamu'alaikum wr wb

Professor Arif Satria,
Rector, IPB University

Welcoming Speech Dean of Graduate School

We know that high economic growth in the ASEAN region for the last two decades has resulted in the declining of both environmental quality and natural resources. This has been reflected in the reckless exploitation of natural resources and the high level of environmental pollution which increasingly has threatened the ecology of life in the environment. Besides, there is a tendency for the increasing natural disasters occurrence that often arises as a result of the global climate change and tectonic and volcanic activity cycles such as earthquakes, tsunamis, and volcanic eruption. In this recent time, there is also pandemic of COVID 19 which affect life and the environment. This further aggravates the decline in the level of environmental quality in Indonesia as well as the whole world.

With such background, Graduate School of IPB University give a mandate to the Study Program of Natural Resources and Environmental Management Science to organize a scientific seminar in the field of environmental science named "The 2nd International Seminar on Natural Resources and Environmental Management 2021" (ISeNREM 2021). This activity is the second international seminar held, we expect this occasion become an event for the exchange of information and the formation of scientific networks from various scientific disciplines among the experts in the field of natural resources and environmental science. Additionally, we expect that this seminar can produce new models or innovations for wise and sustainable management of natural resources in this era of disruption.

This occasion will bring up four sub-themes namely (i) Environmental Change and Disaster Management, (ii) Environmental Policy and Diplomacy, (iii) Environmental Management System, and (iv) Geo-spatial and Environmental Planning. The selection of the topics was based on fields that have been part of the Natural Resources and Environmental Management study program in the Graduate School of IPB University. That's why it is expected that this seminar can also produce scientific publications both to increase the number and quality of scientific publications published in accredited national scientific journals or indexed scientific proceedings at reputable international indexing institutions.

I express my gratitude to the Study Program of Natural Resources and Environmental Management Science managers who have worked hard to prepare this ISeNREM 2021 well. Likewise, I would also like to thank Directorate of

International Program of IPB University, Indonesian Ministry of Environment and Forestry, and Indonesian Geospatial Information Agency for their supports so this event can run well, be it for financial support or by any other means.

Dean of the Graduate School of IPB University

Prof. Dr. Anas Miftah Fauzi

Welcoming Speech Chairs of Study Program of Natural Resources and Environmental Management

Study Program of Natural Resources and Environmental Management Science (NREMs), IPB University welcomes to this 2nd International Seminar on Natural Resources and Environmental Management (2nd ISeNREM 2021). We hope that this scientific event can be one of the scientific event which will be remembered for its quality. This is also a valuable opportunity to promote NREMs, IPB University.

This study program was established in 1975 for Master program and 1976 for Doctoral program and currently has more than 1.000 master and 600 doctoral alumni. Both master program and doctoral program has been accredited “A” by Directorate General of Higher Education, Ministry of Research, Technology and Higher Education. We hope that this seminar will contribute to maintain this achievement.

This ISeNREM 2021 will be the second international seminar after the first international seminar organized in 2019. We hope that this seminar will give benefit to the study program as well as to scientific community engaged in the management of natural resources and the environment. The four sub-themes raised this time provide broad insights on very actual environmental aspects. Therefore, the presence of keynote speakers and invited speakers from Japan, Croatia, Australia, United Kingdom, and Indonesia is very interesting. There are many seminar participants which will present their research results both orally and through posters presentation. We hope that the output of this seminar will contribute to the development of natural resources and environmental science, as well as to the sustainable development.

Finally, we would like to thank to the organizing committee, sponsor and all the participants. Enjoy attending seminar in scientific international atmosphere.

Chairs of NREMs Study Programs,

The Graduate School, IPB University:

Prof. Dr. Widiatmaka (Doctor Program)

Prof. Dr. Hadi Susilo Arifin (Master Program)

Committee

Steering Committee

Chairman

Prof. Dr. Ir. Anas M. Fauzi, M.Eng - *Dean of Graduate School, IPB University, Indonesia*

Vice Chairman

Prof. Dr. Ir. Widiatmaka, DAA, IPU - *Chair of NREMs Study Doctor Programs, IPB University, Indonesia*

Secretary

Dr. Zaenal Abidin, S.Si, M.Si - *IPB University, Indonesia*

Member

Prof. Dr. Ir. Hadi Susilo Arifin, M.S - *IPB University, Indonesia*

Prof. Dr. Lina Karlinasari, S.Hut, M.Sc. - *IPB University, Indonesia*

Prof. Dr. Ir. Agus Bueno, M.Si, M.Kom - *IPB University, Indonesia*

Prof. Dr. Ir. Iskandar Z Siregar, M.For.Sc - *IPB University, Indonesia*

Prof. Dr. Ir. Hefni Effendi, M.Phill - *IPB University, Indonesia*

Prof. Dr. Ir. Titi Candra Sunarti, M.Si - *IPB University, Indonesia*

Dr. Syartinilia, S.P, M.Si - *IPB University, Indonesia*

Scientific Committee

Prof. Dr. Ir. Widiatmaka, DAA, IPU - *IPB University, Indonesia*

Prof. Tasuku Kato - *Tokyo University of Agriculture and Technology (TUAT), Japan*

Prof. Dr. Christian Walter - *UMR INRA/Agrocampus 1069 SAS, France*

Prof. Dr. Vijay Bhagat - *Agasti Arts, Commerce and Dadasaheb Rupwate Science College, India*

Prof. Dr. Zeljko Bacic - *University of Zagreb, Croatia*

Dr. Jacob Phelps - *Lancaster University, United Kingdom*

Dr. Ariya Aruninta - *Chulalongkorn University, Thailand*

Dr. Carina Moura - *University of Göttingen, Germany*

Dr. Zaenal Abidin - *IPB University, Indonesia*

Prof. Dr. Lina Karlinasari - *IPB University, Indonesia*
Prof. Dr. Ir. Hadi Susilo Arifin - *IPB University, Indonesia*
Prof. Dr. Ir. Hefni Effendi - *IPB University, Indonesia*
Prof. Dr. Ir. Iskandar Zulkarnaen Siregar - *IPB University, Indonesia*
Prof. Dr. Ir. Hery Purnomo - *IPB University, Indonesia*
Prof. Dr. Rizaldi Boer - *IPB University, Indonesia*

Organizing Committee

Chairman

Dr. Zaenal Abidin, S.Si, M.Si - *IPB University, Indonesia*

Vice Chairman

Dr. Andrea Emma Pravitasari S.P, M.Si - *IPB University, Indonesia*

Secretary

Dr. Yudi Setiawan S.P. M.Env.Sc - *IPB University, Indonesia*

Publication

Dr. Liyantono - *IPB University, Indonesia*

Program

Dr. Fifi Gus Dwiyantri, S.Hut, M.Agr - *IPB University, Indonesia*

Dr. Kaswanto, S.P, M.Si - *IPB University, Indonesia*

IT and Public Relation

Arif Kurnia Wijayanto, M.Sc - *IPB University, Indonesia*

Prita Ayu Permatasari, S.P - *IPB University, Indonesia*

Irza Arnita Nur, S.Si, M.Si - *IPB University, Indonesia*

Luisa Febrina Amalo, S.Si - *IPB University, Indonesia*

Vidya Nur Trissanti, S.Hut - *IPB University, Indonesia*

Finance

Herlin Anggreayani, S.P - *IPB University, Indonesia*

Administration

Subur, S.E - *IPB University, Indonesia*

Technical Support

Yadi Suryadi, S.E - *IPB University, Indonesia*

Dina Yuniar, S.Pi, M.Si - *IPB University, Indonesia*

Bayu Rifnadh, Amd - *IPB University, Indonesia*

Didi Sutaryadi - *IPB University, Indonesia*

Book Program

Nurul Iswari, S.P - *IPB University, Indonesia*

Wis Udawaty, S.Hut - *IPB University, Indonesia*

Maria Edna Herawati, S.Hut - *IPB University, Indonesia*

Astarina Syifa' Ummah, S.P - *IPB University, Indonesia*

Maulana D. Putra Riyadi, S.Pi - *IPB University, Indonesia*

Izhar Aulia, S.Hut - *IPB University, Indonesia*

Ilham M. Fauzan, S.Hut - *IPB University, Indonesia*

Secretariat Address

The Study Program of Natural Resources & Environmental Management Science,
Graduate School of IPB University Campus IPB Baranangsiang, Bogor 16144,
Indonesia

Phone/Fax : +62 251 8332779

Website

Web: <https://isenrem.ipb.ac.id/>; <http://psl.ipb.ac.id/>

Speaker

Opening speech



Prof. Dr. Arif Satria
Rector of IPB University

Arif Satria received his undergraduate degree majoring in Social Economics, Faculty of Agriculture (IPB), then continued his master's degree in Rural Sociology of IPB and earned his Doctorate Degree at Marine Policy of Kagoshima University, Japan. He also had been a Visiting Fellow at the University of British Columbia, Canada.

Prof. Arif is currently a Rector of IPB University, and also a lecturer of FEMA IPB since 2010. Prof. Arif has been actively involved in drafting of marine and fishery policies since 2002 such as the drafting of the Fisheries Law 31/2004; Revision of the Law on the Management of Coastal Areas and Small Islands; Preparation of the Blue Economic Concept; as well as a number of Government and Ministerial Regulations.

Keynote speaker



Dr. Ir. Bambang Hendroyono, M.M, IPU
Secretary General, Ministry of Environment and Forestry

“Sustainable Management of Forestry in Indonesia”

Bambang Hendroyono obtained a doctorate degree from University of Brawijaya, Malang. He has served as Secretary-General, Ministry of Environment and Forestry, from 2015 until now. Previously he worked as Director-General of Forestry Business Development, Ministry of Forestry in 2012 to 2015.

For 30 consecutive years, he received the Satyalancana Karya award from the President of Indonesia in 2000, 2010, and 2019, respectively. He has actively involved in organisation, namely, a Head of Forestry, Agriculture and Plantation Sector, The Institution of Engineers Indonesia and also a chairman of the National Level Leadership Training Alumni Association (IKA PIMNAS), The State Administration Agency, Indonesia.



Letjen TNI Dr. (HC) Doni Monardo
*Former Head of Indonesian National Board for
Disaster Management (2019-2021)*

**“Managing Disaster in Natural Resources and
Environmental Management in Indonesia”**

Doni Monardo is a former head of Indonesian National Disaster Management Agency (BNPB) who served from January 3, 2019 to May 25, 2021. He graduated from the Indonesian Military Academy in 1985 and completed his education at the Special Forces Command (Kopassus). He has outstanding works, dedications, and contributions in environmental science and natural resources. He is the only high-ranking TNI officer who is consistent with actions and movements to plant lots of trees, protect ecosystems and build awareness for the environment by inviting various community groups from the first officer to the senior officer. In 2015, he created the Green Gold and Blue Gold programs, a blend of economic and security approaches.

Doni Monardo also played a major role in pushing for the issuance of Law Number 11 of 2017 concerning Ratification of the Minamata Convention on Mercury on September 13 2017, and Presidential Regulation Number 15 of 2018 concerning Acceleration of Pollution Control and Damage to Citarum River Basin.



Prof. Dr. Aris Marfai
Chief of Geospatial Information Agency

**“Managing Spatial Data in Natural Resources and
Environmental Management in Indonesia”**

Professor Aris has been appointed as the head of BIG in January 27th, 2021. He is the youngest ever BIG’s chairman at 45 years old. Before starting career at BIG, Prof. Aris spent twenty-two years as a lecturer at Faculty of Geography, Gadjah Mada University and his last position was dean of the Faculty of Geography. Under his leadership, BIG is planning and executing the provision of large-scale base-map (1:5,000) for the entire nation in the next five years covering land area of 1.9 million km². Implementation of one map policy is prioritized to maximize the utilization of geospatial information for sustainable development in Indonesia. National spatial data infrastructure is also enhanced to guarantee the public access for geospatial information.

Invited speaker



Prof. Željko Bačić
University of Zagreb, Croatia

Željko Bačić is a professor of satellite geodesy at the University of Zagreb Faculty of Geodesy. He serves as Croatian representative in EU Copernicus Committee, is member of Ministry of Science and Education Reference group for Space and leads Copernicus office Croatia (member of Copernicus Academy and Copernicus Relay network). Presently he is Project coordinator of Erasmus+ CBHE BESTSDI project which deals with introduction of SDI in the university study courses in Western Balkan region.

Željko has previously served as Director General of State Geodetic Administration of Republic of Croatia (1999-2012) being member of number of governmental bodies, like Head of the Croatian National Spatial Data Infrastructure Board (2008-2012). He was also member of Management Board (2002-2007) and President (2004-2007) of EuroGeographics – the European Association representing National Mapping, Cadastre and Land Registry Authorities. He published over 100 papers in refereed journals, conference proceedings and professional periodicals.



Dr. Jacob Phelps
University of Lancaster, UK

Jacob is an environmental social scientist dedicated to identifying strategies to protect tropical biodiversity. He leads the Conservation Governance Lab, which explores institutional, policy, and legal responses to leading environmental challenges, such as illegal wildlife trade and wildfire. He draws on a wide range of methods and approaches, and is active in the science-policy interface, including through CITES and IUCN. Jacob has worked in the Neotropics and across Southeast Asia. Until August 2015, he was a Scientist at the Center for International Forestry Research (CIFOR) in Indonesia.

His current research addresses the governance of key environmental challenges: Governing biodiversity loss through conservation litigation, Governing illegal wildlife trade, Governing hydropower through EIAs, and Governing Indonesian peatland wildfires. His recent publication in 2021 is entitled *Building a global taxonomy of wildlife offences*.



Prof. Rizaldi Boer
IPB University

Rizaldi Boer is a professor at the IPB University, Indonesia and currently Executive Director of Centre for Climate Risk and Opportunity Management in Southeast Asia and Pacific of IPB University. He received doctoral degree from University of Sydney, Australia in 1994. He has been working on climate change mitigation and adaptation, particularly on agriculture, forest and other land uses since 1998. He is very active in conducting several studies related to policies low carbon and climate resilience development.

He involved in many international scientific teams, national research missions and several scientific projects of the United Nations and high-level global players (specifically on REDD, with the UNFCCC, SDSN, IDDRI, DANIDA, IGES, JICA, NIES, etc). He had been appointed as Chairperson of the RA-V Region Agricultural Meteorology Working Group (2002-2009) for WMO (World Meteorological Organization) and member of the Task Force Bureau for the IPCC Greenhouse Gas Inventory (2008-2015), and now serves as Chairman of the Expert Board of the Indonesian Agriculture Meteorology Society, as well as Member of the Advisory Board for the Asian Greenhouse Gas Inventory Working Group (WGIA), and the Asian Low Carbon Research Network (LoCaRNet).



Prof. Dr. Ir. Hery Purnomo, M.Comp
IPB University

Hery Purnomo received his PhD in forest management and policy (2002) and a BSc in agricultural meteorology from Bogor Agricultural University, as well as an MSc in computer science from a joint programme between the University of Indonesia and the University of Maryland, USA. His research interests are specializing in forestry and climate.

He conducts research on criteria and indicators of sustainable forest management, adaptive collaborative management of forest, company–community partnership, forest governance, mitigation (REDD+), adaptation to climate change and furniture value chains. Purnomo has participated in scientific conferences, workshops and seminars and has visited forests in Asia, Africa, Europe, Australia and South America.

One of his most recent articles has been published in the international journal entitled *A political-economic model for reducing fires and improving livelihoods in lowland Indonesia*.



Prof. Tasuku Kato
Tokyo University of Agriculture Technology, Japan

Tasuku Kato obtained his Bachelor, Master, and Ph.D. Degree from Agricultural Engineering, The University of Tokyo in 1993, 1995, and 1998, respectively. His research interests are mainly about water quality issues in irrigation and drainage, and watershed management in agricultural area. He has been conducted several monitoring, simulation model, and scenario analysis in Kasumigaura basin, Japan and several watersheds in Southeast Asia.

He is currently a professor in International Innovative Agricultural Science, Graduate School of Agriculture, Tokyo University of Agriculture and Technology.



Prof. Diego Ramirez
Monash University, Australia

Diego Ramírez is a Professor of Architecture in the Faculty of Art, Design and Architecture at Monash University. His research and educational practice examine the contributory role architecture and urban design play in addressing the significant challenges facing contemporary urban environments with a key focus on the Global South and through a lens of planetary health. His interdisciplinary research – designed and conducted in collaboration with government and industry – strives for impact, purposefully and strategically targeting policy change and implementation.

Diego Ramírez is recognised internationally for research in sustainable architecture and urban design. As an award-winning architectural and urban design practitioner and researcher, he has been commissioned to design a range of projects including affordable housing, commercial projects and public art projects. He has completed Australian and international urban resilience projects with state and local Governments, and with industry.

Abstract Invited Speakers

Prof. Zeljko Basic (University of Zagreb, Croatia)

“Managing Disaster in Sustainable Natural Resources and Environmental Management”

Whole world is aware of necessity to manage natural resource and our environment in a manner which will ensure sustainability of human habitat and existence of life on our planet. Natural and human caused disasters are crating situation in which efforts to protect environment and natural resources are distracted or even heavily endangered. Among natural disasters earthquakes are having special place because they are able to create devastating damages, not only destroying buildings and infrastructure but also organization of society causing situation in which management of environment and natural resources is either otežano or completely out of function.

Based on devastating earthquakes which hit Croatia in year 2020, on March 22nd with epicenter near Croatian capital Zagreb (strength of 5.2 on the Richter scale) and on December 29th, with epicenter near town of Petrinja (strength of 6.2 on the Richter scale) lot of experience has been gathered about usage of modern satellite and GIS technologies in support of disaster management. Already after the earthquake that struck Zagreb on March 22nd, 2020, a great need for spatial interpretation of the earthquake and its aftermath has been recognized. Therefore, after the earthquake in Petrinja, a quick reaction of geodetic experts followed, using modern satellite and geoinformation (GI) technologies to provide information on the aftermath of the earthquake.

In this presentation an overview of the systems, sensors and data used, their processing and the results obtained, i.e., the applications developed for crisis management purposes is given as well as reflection of those contributions to the management of environment and natural resources

Dr. Jacob Phelps (University of Lancaster, UK)

“Conservation Litigation to Uphold Environmental Rights”

The future of more sustainable natural resource and environmental management must include new governance measures for upholding environmental rights in the face of widespread harm—not only harm to human communities, but also ecosystems and biodiversity. This interdisciplinary talk will highlight that many countries—including Indonesia—allow lawsuits to hold responsible parties liable for the environmental harm they cause. Such litigation remains largely untested in most biodiversity hotspots and contexts. Yet, liability litigation is important to upholding rights, including because it can help remedy harm to the environment by seeking legal remedies such as species rehabilitation, public apologies, habitat conservation and education. This talk will highlight Indonesia’s experience with liability suits in the context of peatland fires, and explain why these could become a more widespread, important part of future environmental governance around the world. We propose a simplified framework for developing lawsuits across countries and contexts, and encourage scientists and resource managers globally to take active roles in using courts to help uphold environmental rights.

Prof. Rizaldi Boer (IPB University)

“Managing Land and Forest Resources for Stabilizing Global Climate”

Forests play an important role in stabilizing climate and reducing the impact of adverse climate on life as forests have a function in regulating the carbon cycle and regional climate as well as protecting biodiversity, supporting livelihoods, and supplying goods and services that can promote sustainable growth. With rising population followed with the increase in land demand, making sustainable use of land-forest systems will be very challenging. In many tropical forested countries, the land and forest sector found to be a dominant source of greenhouse gas emission. In Indonesia, this sector is responsible for more than 50% of the national greenhouse gas emission. In its Long-Term Strategy for Meeting the Paris Target, Government of Indonesia is targeting to twisting the land and forest sector from net emitter to net sink by 2030. Policies that facilitate the creation of synergies and trade-offs inherent in land-use systems, so they can deliver multiple benefits to society and nature, are discussed.

Prof. Hery Purnomo (IPB University)

*“Environmental Management and Government System in Indonesia:
Towards Sustainability Advantage”*

Stephen Hawking (1942-2018) revealed that the two biggest disasters that could come to earth were climate change and being hit by an asteroid. Climate change is already happening. Global demand for sustainability especially from the EU and UK is increasing. Indonesia faces, among others, deforestation and land use change, vegetation fires, floods and landslides, pollution, loss of biodiversity, and Covid-19. Meanwhile, Indonesia's population continues to increase, and forest cover has continued to decline over the last 50 years. The industrial revolution 4.0 is changing the way we live and providing new externality challenges. The issuance of the omnibus law on Job Creation (Law No. 11 of 2020) that facilitates the business world and creates job opportunities creates new challenges in environmental management and governance. Indonesia is committed to significantly reducing greenhouse gas (GHG) emissions through the National Determined Contribution (NDC). Indonesia is lining up with the world in achieving the 17 United Nations-based Sustainable Development Goals (SDGs). Understanding how environmental management and governance works, adapting and taking advantage of the new era, acting, and connecting is necessary.

Management (i.e. technical and economic) and governance (i.e. structures, institutions, and actors) explain about 60% of the variation in sustainability and livelihoods models (Purnomo et al. 2021). Good environmental cases occur and are led by various actors, namely the central and local governments, the private sector, civil society organizations (CSOs), and other non-state actors. During 2019-2020 Indonesia succeeded in reducing deforestation, vegetation fires, and GHG emissions. Public and private commitment to sustainability in Riau and South Sumatra is increasing. Several districts in West Papua canceled permits for oil palm development and remained forest. This nature-based solution provides positive insight and optimism. However, biodiversity loss, deforestation, GHG emissions are not yet zero. In many cases, economic development does not go hand in hand with environmental conservation. We don't know yet how post Covid-19 national economic recovery and the Job Creation law affect environmental sustainability. Circular economies, innovative financing for climate change mitigation, and payments for environmental services are happening, but at a much smaller scale and speed than necessary. Sustainability is mandated by the 1945 Constitution (article 33:4) and significant progress has been made at various scales, jurisdictions,

and leaderships. Therefore, making sustainability a competitive advantage for key Indonesian products and services such as palm oil, pulp and paper, rubber, cocoa, and tourism is a must. Action *dots* to improve sustainability, and then connecting those *dots* to other *dots* at the sub-national, national, and global levels to synergize, adapt, and reinforce is the way to go.

Prof. Tasuku Kato (Tokyo University of Agriculture Technology, Japan)
“Green Infrastructure in Paddy Fields”

In this lecture, paddy fields as Green Infrastructure is discussed. Green Infrastructure is widely used to mitigate impact or disaster for hydrological and environmental issues and they are supplementary utilized with grey infrastructure (concrete structure). EU proposed an idea to protect agricultural environment by Green Infrastructure, through biodiversity strategy and farm to folk strategy. Ecosystem services are impressed in both strategies and they are contributed to sustainable society.

In ASEAN countries, Green Infrastructure could be useful not only urban area but also sub-urban area, because fruitful ecosystem is available in this area for sustainable society. Mostly, paddy fields are major land use in suburban area, and paddy fields are provided multi-function aspects with water and farming management. We can say these paddy fields could be Green Infrastructure. Then, we will see some case study how paddy fields could be contributed as Green Infrastructure.

Prof. Diego Ramirez-Lovering (Monash University, Australia)
“Water Resources Management System: Lesson Learned from Australia”

The lecture will present a body of transdisciplinary research that seeks to advance human health and wellbeing by transforming housing, water infrastructure, water management, and sanitation practices in informal settlements in the Asia Pacific. This pioneering design research deploys best-practice, water-sensitive urban design for informal settlement revitalisation and develops urban design strategies for integrating the natural environment and built form into sustainable urban

development practices. The projects have expanded beyond pathways to improve WASH (water, sanitation and hygiene) outcomes through integrated water management into producing socio-technical solutions that address, in a more integrated manner, the holistic transformation of urban environments. Using Planetary Health and Circular Economy principles and approaches, the projects include nature-based infrastructure provision, co-designed with communities through targeted engagements, focusing on inclusive and gender sensitive processes.

Program schedule

Wednesday, 04 August 2021	
Time	Agenda
08.30 – 09.00	Registration
09.00 – 09.10	Opening
09.10 – 09.50	Opening speech: Prof. Dr. Arif Satria (Rector IPB University)
09.50 – 10.30	Keynote speech: Dr. Ir. Bambang Hendroyono, M.M, IPU (Secretary General, Ministry of Forestry & Environment)
10.30 – 12.00	Parallel Session I (6 room)
12.00 – 13.00	Break
13.00 – 13.30	Prof. Dr. Zeljko Bacic (University of Zagreb, Croatia)
13.30 – 14.00	Prof. Dr. Ir. Rizaldi Boer (IPB University)
14.00 – 14.30	Prof. Dr Tasuku Kato (Tokyo University of Agriculture Technology, Japan)
14.30 – 15.15	Parallel Session II (6 room)
15.15 – 15.30	Break
15.30 – 17.00	Parallel Session II (6 room)

Thursday, 05 August 2021	
Time	Agenda
08.30 – 09.00	Preparation session
09.00 – 09.30	Keynote speech: Letjen TNI Dr. (HC) Doni Monardo (Former Head of Indonesian National Board for Disaster Management, 2019-2021)
09.30 – 10.00	Keynote speech: Prof. Dr Aris Marfai (Chief of Indonesian Geospatial Information Agency)
10.00 – 10.30	Prof. Dr. Diego Ramirez (Monash University, Australia)
10.30 – 12.00	Parallel Session I (6 room)
12.00 – 13.00	Break
13.00 – 14.00	Parallel Session II (6 room)
14.00 – 14.30	Dr. Jacob Phelps (University of Lancaster, UK)
14.30 – 15.00	Prof. Dr. Ir. Herry Purnomo (IPB University)
15.00 – 15.30	CLOSING

PARALLEL SESSION 1 (4 August 2021)		
Session Code WED-1-1	Room 1	
	Moderator: Dr. Kaswanto Prof. Dr. Lina Karlinasari	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	ECD02	Levina Pieter
10.45-11.00	ECD12	Eka Novriyanti
11.00-11.15	ECD13	E Yulianingsih
11.15-11.30	ECD15	Abdul Rahman Singkam
11.30-11.45	ECD17	Siti Aisyah
11.45-12.00	ECD18	Ali Pramono
12.00-13.00	Break Out	
Session Code WED-1-2	Room 2	
	Moderator: Prof. Dr. Ir. Suria Darma Tarigan Dr. Yudi Setiawan	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	EMS05	Angelita Puji Lestari
10.45-11.00	EMS21	Patoni A. Gafar
11.00-11.15	EMS27	Fachmijany Sulawesty
11.15-11.30	EMS32	D S. Said
11.30-11.45	EMS44	Hefni Effendi
11.45-12.00	EMS18	Evy Setiawati
12.00-13.00	Break Out	
Session Code WED-1-3	Room 3	
	Moderator: Dr. M Yanuar Jarwadi Purwanto Prof. Dr. Fahmi Amhar	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	EPD17	Adi Firmansyah
10.45-11.00	EPD18	Adhi Rachmat Sudrajat Hariyadi
11.00-11.15	EPD20	Sandhi Imam Maulana
11.15-11.30	EPD24	Astrina Yulianti
11.30-11.45	EPD28	Nunung Puji Nugroho
11.45-12.00	EPD36	Fahmi Amhar
12.00-13.00	Break Out	

Session Code WED-1-4	Room 4	
	Moderator: Dr. Sri Mulatsih Prof. Dr. Dewayany Sutrisno	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	GEP17	Vicca Karolinoerita
10.45-11.00	GEP43	Sri Malahayati Yusuf
11.00-11.15	GEP01	Aldiano Rahmadya
11.15-11.30	GEP04	Kristiyanto
11.30-11.45	GEP05	Yanuar Wijayanto
11.45-12.00	GEP32	Setyardi Pratika Mulya
12.00-13.00	Break Out	
Session Code WED-1-5	Room 5	
	Moderator: Dr. Liyantono Prof. Dr. Widiatmaka	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	ECD24	Wanda Kristini
10.45-11.00	ECD22	Yopi Ilhamsyah
11.00-11.15	ECD31	F Hidayat
11.15-11.30	ECD32	Hendrik
11.30-11.45	ECD34	Afra Nurul Azizah
11.45-12.00		
12.00-13.00	Break Out	
Session Code WED-1-6	Room 6	
	Moderator: Dr. Ratna Sari Dewi Dr. Alianda F.M. Zain	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	EMS30	Rahmat Safe'i
10.45-11.00	EMS31	Ramadhani Dwi Handrian
11.00-11.15	EMS34	P Setiadji
11.15-11.30	EMS03	Rima Purnamayani
11.30-11.45	EMS09	Ely Vebriyanti
11.45-12.00	EMS35	Ansahar
12.00-13.00	Break Out	

PARALLEL SESSION 2 (4 August 2021)		
Session Code WED-2-1	Room 1	
	Moderator: Prof. Dr. Lina Karlinasari Dr. Kaswanto	
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	EPD32	Rt Saki Rohmah
14.45-15.00	EPD33	Sylvia Zahara
15.00-15.15	EPD35	Salis Deris Artikanur
15.15-15.30	Break Out	
15.30-15.45	EPD16	Kinanthi Wahyu K
15.45-16.00	EPD25	Rita Ariyana
16.00-16.15	EPD01	Viktor Siagian
16.15-16.30	EPD07	Viktor Siagian
16.30-16.45	EPD14	Sri Mulatsih
16.45-17.00		
Session Code WED-2-2	Room 2	
	Moderator: Prof. Dr. Hefni Effendi Dr. Liyantono	
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	GEP19	Salim Suliman
14.45-15.00	GEP20	Septian Rahardiantoro
15.00-15.15	GEP22	Amaliannisa Rizqia Fiqriyati
15.15-15.30	Break Out	
15.30-15.45	GEP35	Sukisno
15.45-16.00	GEP33	Ulfah Choerunnisa Nurul Litasari
16.00-16.15	GEP34	Prayogi Saiful Anwar
16.15-16.30	GEP02	Khalifah Insan Nur Rahmi
16.30-16.45		
16.45-17.00		

Session Code WED-2-3	Room 3	
		Moderator: Prof. Dr. Fahmi Amhar Dr. M Yanuar Jarwadi Purwanto
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	EMS13	Adhe Phoppy Wira Etika
14.45-15.00	EMS11	Prasetyo Adinegoro
15.00-15.15	EMS28	Donhatai Sruamsiri
15.15-15.30	Break Out	
15.30-15.45	EMS12	Herdhata Agusta
15.45-16.00	EMS38	Yudith Vega Paramitadevi
16.00-16.15	EMS45	Endang Juniardi
16.15-16.30		
16.30-16.45		
16.45-17.00		
Session Code WED-2-4	Room 4	
		Moderator: Prof. Dr. Dewayany Sutrisno Dr. Sri Mulatsih
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	EMS37	Suci Wulandari
14.45-15.00	EPD15	Suci Wulandari
15.00-15.15	EPD04	Ardiansyah
15.15-15.30	Break Out	
15.30-15.45	EPD06	Semeidi Husrin
15.45-16.00	EPD09	Yusuf Munandar
16.00-16.15	EPD10	Yusuf Munandar
16.15-16.30	EPD03	Margareth Rosalinda Sapulete
16.30-16.45	EPD05	Pamungkas Buana Putra
16.45-17.00		

Session Code WED-2-5	Room 5	
		Moderator: Prof. Dr. Anuraga Jayanegara Dr. Andrea Emma Pravitasari
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	GEP09	Susilo
14.45-15.00	GEP10	Mochamad Irwan Hariyono
15.00-15.15	GEP31	A Transisto
15.15-15.30	Break Out	
15.30-15.45	GEP38	Trisnani Yuda Fitri
15.45-16.00	EMS42	Devin Hartanto
16.00-16.15	EMS43	Rania Alifa Desenaldo
16.15-16.30	EMS29	Nattapat Leelaphattharaphan
16.30-16.45		
16.45-17.00		
Session Code WED-2-6	Room 6	
		Moderator: Dr. Alinda F.M. Zain Dr. Ratna Sari Dewi
Time (WIB)	Paper Code	Presenter Name
14.30-14.45	GEP11	Jaka Suryanta, Irmadi
14.45-15.00	GEP12	Ratna Sari Dewi
15.00-15.15	GEP23	A.M. Utomo
15.15-15.30	Break Out	
15.30-15.45	GEP27	Rahmat Asy'Ari
15.45-16.00	GEP28	Susilo
16.00-16.15	GEP25	Turmudi
16.15-16.45	GEP15	Turmudi
16.45-17.00		

Note:

ECD : Environmental Change and Disaster Management

EPD : Environmental Policy and Diplomacy

EMS : Environmental Management System

GEP : Geo-spatial and Environmental Planning

PARALLEL SESSION 1 (5 August 2021)		
Session Code THU-1-1	Room 1	
	Moderator: Dr. Syartinilia Dr. Mala Nurilmala	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	ECD16	Hidayat
10.45-11.00	ECD36	Irwan Ary Dharmawan
11.00-11.15	ECD37	Rifky Nauval Hendrawan
11.15-11.30	ECD39	Suratman
11.30-11.45	ECD11	Andhika Nurul Wahidah
11.45-12.00	ECD38	Abdillah Munawir
12.00-13.00	Break Out	
Session Code THU-1-2	Room 2	
	Moderator: Prof. Dr. Erliza Noor Prof. Dr. M. Nur Aidi	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	EMS23	Didik Suprayogo
10.45-11.00	EMS24	Sulastri
11.00-11.15	EMS40	Yuliati H. Sipahutar
11.15-11.30	EMS15	Ani Mardiasuti
11.30-11.45	EMS17	Rienoviar
11.45-12.00	EMS36	Subagyo
12.00-13.00	Break Out	
Session Code THU-1-STU	STUDENT SESSION	
	Moderator: Prof. Dr. Widiatmaka Dr. Zaenal Abidin	
Time (WIB)	Paper Code	Presenter Name
10.30-11.00	EMS06	Beata Ratnawati
11.00-11.30	EPD30	Wiwik Yuniarti
11.30-12.00	EPD34	Wahyu Catur Adinugroho
12.00-13.00	Break Out	

Session Code THU-1-4	Room 4	
	Moderator: Dr. Andrea Emma Pravitasari Dr. Wiwin Ambarwulan	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	GEP36	Widia Siska
10.45-11.00	GEP29	Almyanti Ningrum
11.00-11.15	GEP26	I Nyoman Putera Indrawan
11.15-11.30	GEP14	Wiwin Ambarwulan
11.30-11.45	GEP42	Daniel Hamonangan
11.45-12.00	GEP16	Heinrich Rakuasa
11.45-12.00	Break Out	
Session Code THU-1-5	Room 5	
	Moderator: Dr. Yeti Lis Purnamadewi Dr. Yudi Setiawan	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45	ECD35	Bagja Hadi Nugraha
10.45-11.00	ECD09	Saparullah
11.00-11.15	ECD10	Sri Lestari Munajati
11.15-11.30	ECD14	H Helmanto
11.30-11.45	ECD33	Yeli Sarvina
11.45-12.00		
12.00-13.00	Break Out	
Session Code THU-1-6	Room 6	
	Moderator:	
Time (WIB)	Paper Code	Presenter Name
10.30-10.45		
10.45-11.00		
11.00-11.15		
11.15-11.30		
11.30-11.45		
11.45-12.00		
12.00-13.00	Break Out	

PARALLEL SESSION 2 (5 August 2021)		
Session Code THU-2-1	Room 1	
	Moderator: Dr. Mala Nurilmala Dr. Syartinilia	
Time (WIB)	Paper Code	Presenter Name
13.00-13.15	EMS33	Heri Soedarmanto
13.15-13.30	EMS02	Oktaviani
13.30-13.45	EMS16	Nabila Fathimatuz Zahra
13.45-14.00	EMS26	Idham Khalik
Session Code THU-2-2	Room 2	
	Moderator: Prof. Dr. M. Nur Aidi Prof. Dr. Erliza Noor	
Time (WIB)	Paper Code	Presenter Name
13.00-13.15	EPD02	Leonarda Sofiani Rame
13.15-13.30	EPD13	Yusuf Munandar
13.30-13.45	EPD11	Nindya Maharani
13.45-14.00	EPD29	Anto Wartono
Session Code THU-2-STU	Room 3	
	Moderator: Dr. Zaenal Abidin Prof. Dr. Widiatmaka	
Time (WIB)	Paper Code	Presenter Name
13.00-13.30	EMS14	Vivin Seygita
13.30-14.00	ECD28	Amandita Lintang Rumondang
Session Code THU-2-4	Room 4	
	Moderator: Dr. Yudi Setiawan Dr. Andrea Emma Pravitasari	
Time (WIB)	Paper Code	Presenter Name
13.00-13.15	GEP06	Sosteness Jerome Nakamo
13.15-13.30	GEP07	Angga Yudaputra
13.30-13.45	GEP13	Arda Ardella
13.45-14.00	GEP18	Fikry Asri Islami

Session Code THU-2-5	Room 5	
	Moderator: Dr. Wiwin Ambarwulan Dr. Yeti Lis Purnamadewi	
Time (WIB)	Paper Code	Presenter Name
13.00-13.15	EPD37	Yeti Lis Purnamadewi
13.15-13.30	EPD08	Syafararisa Dian Pratiwi
13.30-13.45	EPD21	Badi'ah
13.45-14.00	EPD22	Fitrotun Niswah
Session Code THU-2-6	Room 6	
	Moderator: Dr. Perdinan Dr. Liyantono	
Time (WIB)	Paper Code	Presenter Name
13.00-13.15	ECD19	Azra Zahrah Nadirah Ikhwani
13.15-13.30	ECD20	Mawardi
13.30-13.45	ECD01	Hasna Afifah
13.45-14.00	ECD08	Ni Kadek Yudia Susanti

Note:

ECD : Environmental Change and Disaster Management

EPD : Environmental Policy and Diplomacy

EMS : Environmental Management System

GEP : Geo-spatial and Environmental Planning

List of Contributors

Environmental Change and Disaster Management (ECD)

CODE	Title; Author; Affiliation
ECD01	Modeling The Impact of Climate Change on General Flowering in Bukit Barisan Selatan National Park; Hasna Afifah, Sopandi Sunarya, Susana Paulina Dewi, Laji Utoyo; Bandung Institute of Technology.
ECD02	Strengthening Indonesian Farmers’ Resilience Capacity of Disasters and Climate Change Through Development of Decision Support System: Challenges Lie Ahead; Marcellinus M.B. Utomo, Levina A.G.Pieter; FOERDIA, Ministry of Environment and Forestry.
ECD03	Residual Stand Damage Due Technique of Felling and Skidding in Natural Forest; Yuniawati, Esti Rini Satiti; Pusat Penelitian dan Pengembangan Hasil Hutan
ECD04	Improving the Resilience of the North Coast of Central Java to Flood Disasters Based on the Perspective of the Social-Ecological-Technological System (SETS); Mussadun, Muh. Muktialie, Kuku Destanto; Diponegoro University.
ECD05	Utilization of the ECMWF Seasonal Rainfall Forecast System (SEAS5) for Forest Fire Prediction over Sumatera Island, Indonesia; Furqon Alfahmi, Amrya Khaerima, Antonius Wipur Byantoro; IPB University.
ECD06	Springshed protection planning for combating drought in Grobogan District, Central Java; A.B. Supangat, Purwanto, H. Hendrayana, H.D. Riyanto; Watershed Management Technology Center (WMTC) / BalitekDAS Surakarta.

ECD07	<p>The Estimation of Forest Fire Emission in Siak Regency, Riau Province during the Early Period of COVID-19 Pandemic; Muhammad Hidayatul Mustofa, Lailan Syaufina, and Nining Puspaningsih; IPB University.</p>
ECD08	<p>First Evidence of Microplastics in Seabirds in the Jakarta Bay Area; Ni Kadek Yudia Susanti, Ani Mardiasuti, Sigid Hariyadi; IPB University.</p>
ECD09	<p>Study of the configuration of multi-source energy harvesting systems based on quartz-crystal piezoelectric nanogenerator; Saparullah, Nandang Mufti, Hari Wisodo; Malang State University.</p>
ECD10	<p>Ecosystem service analysis aspects of disaster prevention and protection functions in Bogor Regency, West Java; Sri Lestari Munajati, Hariadi Kartodihardjo, M. Buce Saleh, Nurwadjedi; IPB University.</p>
ECD11	<p>Land Use Sustainability to Mitigate Potential Land Slide in Ciletuh Watershed, Sukabumi, Indonesia; Andhika Nurul Wahidah, Dwi Nowo Martono, Supriatna; University of Indonesia.</p>
ECD12	<p>The atmospheric concentration of common glasshouse gasses in the pulpwood plantation in Riau Province, Indonesia; Eka Novriyanti, Makoto Watanabe, Takayoshi Koike; FOERDIA, Ministry of Environment and Forestry.</p>
ECD13	<p>Greenhouse Gas Emissions and Rice Products in A Variety of Rice Varieties Using Gora Systems and Walik Jerami Systems in Rainfed Lands; Eni Yulianingsih, Rina Kartikawati and Hesti Yulianingrum; Indonesian Agricultural Environmental Research Institute.</p>
ECD14	<p>A safety factor of old trees Pterocarpus indicus Willd. in Bogor Botanic Gardens;</p>

	Hendra Helmanto, Frisca Damayanti, Arief Noor Rachmadiyanto; Research Center for Plant Conservation and Botanic Garden, Indonesian Institute of Sciences (LIPI).
ECD15	Water Quality Assessment of Bengkenang River based on Physico-chemical parameters and Macroinvertebrates Diversity; Abdul Rahman Singkam, Agus Budi Utomo, Bhakti Karyadi; The University of Bengkulu.
ECD16	Riverbank macroplastic litter in the lower Citarum River; H. Hidayat, S. Aisyah, and R. Hurley; Indonesian Institute of Sciences (LIPI).
ECD17	Identification of Inorganic Macrodebris in Downstream Citarum River, Muara Gembong, Bekasi District; Siti Aisyah, Hidayat, Aldiano Rahmadya; Indonesian Institute of Sciences (LIPI).
ECD18	Alternate wetting and drying combined farmyard manure for reducing greenhouse gas but improving rice yield; Ali Pramono, Terry Ayu Adriany, Nourma Al Viandari, Jumari, Ika Ferry Yunianti; IAARD.
ECD19	Diversity of hydrocarbon degrading bacteria in Pulau Pari and Its Potential Role for Bioremediation; I Made Sudiana, Arwan Sugiharto, Triratna Sulistiyani, Masrukkin, Siti Meliah, Idris, Toga Pangihotan Napitupulu, Azra Zahrah Nadirah Ikhwani, Atit Kanti, Debora Christin Purbani, Suyadi; Indonesian Institute of Sciences (LIPI).
ECD20	Anticipate the impact of climate change at tidal swamplands through water management technology; Mawardji; Balittra.
ECD21	Knowledge and the Impact of Climate Change on Coffee Farming on Non-Community Forest (HKM) lands in Air Hitam Subdistrict, West Lampung Regency; Abdul Mutolib, Candra Nuraini; Siliwangi University.
ECD22	Extreme Rainfall and Flooding in Banda Aceh, Climate Change Excess?;

	Yopi Ilhamsyah, Muhammad, Ichsan Setiawan, Irwandi, Zulkarnain Jalil; IPB University.
ECD23	Vegetation Structure and Composition Analysis of Post Mining –Coal Revegetation Areas; Lulu Yuningsih, Hermansyah, Eddy Ibrahim, Marsi; Sriwijaya University.
ECD24	Disaster Mitigation-Based Land Suitability for Settlements Using Multi-Criteria Evaluation (MCE) Method in The Northern Part of South Barito Regency; Wanda Kristini, Widiatmaka, Setyardi Pratika Mulya; IPB University.
ECD25	Socio-Spatial Study of Urban Community Willingness in Semarang City to be involved in forming a disaster Resilient Community in the era of industrial 4.0; Yosef Prihanto, Aninda W. Rudiastuti, Munawaroh, dan E. Suryanegara; Geospatial Information Agency (BIG).
ECD26	Comparison of the Gama, Nakayasu, Snyder Hydrograph Model and the Travel Time application in determining the flood water level for the early warning system in the Ciliwung watershed; Dwi Ariyani, Perdinan, Saniscara Phratama; IPB University.
ECD27	The combined effect of tidal flooding and heavy rainfall on coastal flood prone area of Sayung sub-district; Ati Rahadiati, Dewayany Sutrisno, Munawaroh; Geospatial Information Agency (BIG).
ECD28	Species composition and structure of mangrove forest exposed to plastic debris in Angke Kapuk protected forest, Jakarta; Amandita Lintang Rumondang, Cecep Kusmana, Sri Wilarso Budi R; IPB University.
ECD29	Composter Technology Innovation Using Bacterial Feeder to Treat Domestic Solid Waste; Tia Rostaman, Ety Riani, Sugeng A Putranto; IPB University.
ECD30	RELIEF (Recursive Elimination of Feature) method use for Solar Home System research;

	Santosa E, Karlinasari L, Hartulistiyoso E, Pertiwi S; IPB University.
ECD31	Climate change risk of “oil and gas” city: case of Dumai City, Indonesia; Fahrul Hidayat, Ibnu Thomiyah R; Master of Urban and Regional Planning, Bandung Institute of Technology.
ECD32	Life Cycle Analysis (LCA) and Data Envelopment Analysis (DEA) assessment of different power plant in Bauxite Mining: the Case of West Kalimantan Province; Hendrik, Akhmad Fauzi, Widiatmaka, Dyah Tjahyandari Suryaningtyas, Florentinus Firdiyono, Arief Ameir Rahman Setiawan; IPB University.
ECD33	Climatic Suitability for Robusta Coffee in West Lampung Under Climate Change; Yeli Sarvina, Tania June, Surjono Hadi Sutjahjo, Rita Nurmalina, and Elza Surmaini; IPB University.
ECD34	Species Composition and Vegetation Structure of Mangrove Forest in Pulau Rambut Wildlife Reserve, Kepulauan Seribu, DKI Jakarta; Afra Nurul Azizah, Cecep Kusmana; IPB University.
ECD35	Species Composition and Vegetation Structure of Lowland Forest in Pulau Rambut Wildlife Reserve, Kepulauan Seribu, DKI Jakarta; Bagja Hadi Nugraha, Cecep Kusmana; IPB University.
ECD36	Indraja Buana: The Gee based Spatio-temporal Analysis Tools for Disaster Environmental Management in Indonesia; Irwan Ary Dharmawan, Rifky Nauval Hendrawan, Muhammad Aufaristama; Padjadjaran University.
ECD37	The Use of Cloud Computing for Shoreline Changes Mapping in Jakarta Bay using Otsu Thresholding and Edge Detection on Landsat-5 and Landsat-8 Satellite Imagery; R N Hendrawan, I Zidny, F R Ma'arif, V I C Sinaga, A M Azis, A Purnama, R A Desenaldo, E Irawan, I A Dharmawan, M Aufaristama; Padjadjaran University.

ECD38	SEBAL Model on Biophysical Variables and Energy Flux: Availability of Evapotranspiration Distribution using Remote Sensing in Lore Lindu National Park; Abdillah Munawir, Tania June, Cecep Kusmana, Yudi Setiawan; IPB University.
ECD39	Study of Biophysical Land Characteristics to Support the Sustainability of Gunung Batu Arboretum as a Miniature Botanical Garden in Bogor City, Indonesia; Suratman, Widiatmaka, B Pramudya, M Y J Purwanto, F Agus, and I Syamsudin4;Indonesia Agency for Agricultural Research and Development (IAARD).

Environmental Policy and Diplomacy (EPD)

CODE	Title; Author; Affiliation
EPD01	Analysis of factors affecting soybean production and price efficiency in Banten province; Viktor Siagian, Hermanto Siregar, Anna Fariyanti, Kaman Nainggolan; IPB University.
EPD02	The Effect of Demographic Factors on Waste Generation and Heavy Metal Contain in Illegal Garbage Dump in Malaka Regency, East Nusa Tenggara Province; Leonarda Sofiani Rame, Widiatmaka, Arief Hartono, Irman Firmansyah; IPB University.
EPD03	The Effectiveness of Implementation of The Mercury Elimination Policies in Artisanal Small-scale Gold Mining (A Case Study in Bolaang Mongondow Regency, North Sulawesi); Margareth Rosalinda Sapulete, Hefni Effendi, Ety Riani, Machfud; IPB University.
EPD04	Current Status Review of Plastic Waste Leakage to Jakarta Bay; Ardiansyah, Ario Damar, Machfud, Sigid Hariyadi; IPB University.

EPD05	<p>Multi-purpose riparian forest model for conservation and reduction of non-point source pollution in the lake Toba catchment; Pamungkas Buana Putra, Dody Yuliantoro, Irfan Budi Pramono, and Rahardyan Nugroho Adi; Gadjah Mada University.</p>
EPD06	<p>Marine Debris Monitoring During the Rainy Season in the Citarum Estuary of Muara Gembong; Semeidi Husrin, H Hidayat, Aldiano Rahmadya, Siti Aisyah, Marianne Olsen; Marine Research Centre - MMAF</p>
EPD07	<p>Impact of increasing input and output prices on chili farmer production and income in Banten province; Viktor Siagian, Hermanto Siregar, Anna Fariyanti, Kaman Nainggolan, Ismatul Hidayah; IPB University.</p>
EPD08	<p>Economic Loss Due to the Impact of Climate Change on the Health Sector in Indonesia; Syafararisa Dian Pratiwi, Perdinan, Ikrom Mustofa, Tin Herawati; PIAREA Environment and Technology.</p>
EPD09	<p>Increase in the Number of Active Smokers During the Covid-19 Pandemic in Indonesia; Yusuf Munandar; Fiscal Policy Agency.</p>
EPD10	<p>The Increase in the Number of Poor People Having Access to Proper Drinking Water During the Covid-19 Pandemic in Indonesia; Yusuf Munandar; Fiscal Policy Agency.</p>
EPD11	<p>Increasing Herpetofauna Data in Indonesia Through Citizen Science; Nindya Maharani, Mirza D. Kusri, Amir Hamidy; IPB University.</p>
EPD12	<p>The Impact of Beef Cattle-based Farming Patterns on Dry Land Business Objectives in Tanah Laut Regency; Adhe Phoppy Wira Etikha, Widia Siska, Ani Siti Rohaeni; Indonesian Center for Agricultural Technology Assessment and Development.</p>

EPD13	Decrease in the Number of People who Openly Defecate During the Covid-19 Pandemic in Indonesia; Yusuf Munandar; Fiscal Policy Agency.
EPD14	Industrial Development and Greenhouse Gas Emissions; Sri Mulatsih; IPB University.
EPD15	Scenario Development of Implementing Cleaner Production on Smallholder Pepper Agroindustry; Suci Wulandari; Indonesian Center for Estate Crops Research and Development.
EPD16	Green Open Space Development Based On Urban Heat Island Phenomenon in Malang City; Kinanthi Wahyu Kusumaningrum, Ratna Saraswati, Adi Wibowo; University of Indonesia.
EPD17	Environmental Management System Toward SDGs Achievement Base on Community Empowerment in Peri-Urban Area; Sumardjo, Adi Firmansyah, Leonard Dharmawan, Agit Kriswantriyono, Yulia P. Wulandari; IPB University.
EPD18	Community Contribution to Ecosystem Restoration in Kerinci Seblat National Park: Role Model in Giri Mulyo Village, Jambi-Sumatra, Indonesia; Adhi Rachmat Sudrajat Hariyadi; PT Hatfield Indonesia.
EPD19	Calculating Method for Personal Responsibility and Personality towards Intention to Act (A Case Study of UBSI Students); Agus Priadi, Dahlia Sarkawi, Anggi Oktaviani, Idah Yuniasih, Ida Zuniarti; Bina Sarana Informatika University.
EPD20	Content Analysis on Laws and Regulations Related to Forest and Land Fires Management at National Level, Riau Province, and Bengkalis Regency; Sandhi Imam Maulana; Ministry of Environment and Forestry.
EPD21	The Use of Ostrom Rules-in-use Concept in The Regulatory Analysis of Natural Tourism Utilization in Conservation Areas Case Study Gunung Gede Pangrango National Park;

	Badi'ah, Hariadi Kartodiharjo, Bramasto Nugroho, Bambang Supriyanto; IPB University.
EPD22	A-G-I-L Scheme as Social System to Build Characters Caring for The Environment through The Adiwiyata Program; Suci Megawati, Fitrotun Niswah; Surabaya State University.
EPD23	Local Wisdom and Sustainability of Donoloyo Natural Reserves in The Spatial Perspective; Dyah Arum Kusumaningsih, Arif Kurniawan; Diponegoro University.
EPD24	The Roles of Field Assistant of Pesticide Companies in Indonesia: A Qualitative Study; Astrina Yulianti, Istriningsih, Yovita Anggita Dewi, Vyta W. Hanifah, Dwi Herteddy, Ewin Suib, and Muhrizal Sarwani; University of Indonesia.
EPD25	Policy Strategies of Indonesia's National Garlic Standard Development According to Standard Development Principles; Rita Ariyana, Mulyaningrum, Mia Rosmiati; Bandung Institute of Technology.
EPD26	The Impact of Industry on the Quality of Life of the Community in Bahodopi Subdistrict, Morowali Regency according to the SDGs Indicator; Afdhaliah K. Usman, Andrea E. Pravitasari, Sugeng A. Putranto; IPB University.
EPD28	Sediment Export Estimation from the Catchment Area of Rawa Pening Lake Using InVEST Model; Nunung Puji Nugroho; Balai Penelitian dan Pengembangan Teknologi Pengelolaan Daerah Aliran Sungai.
EPD29	Tourism Potential in West Beach Coastal Area of Banten Province based on Land Use Space Pattern; Anto Wartono, EKS Harini Muntasib, Hadi Susilo Arifin; IPB University.
EPD30	Development of Highland Vegetable Commodity Areas through Multi-criteria Decision Making (MCDM) Analysis and Geographic Information Systems;

	Wiwik Yuniarti, Sumardjo, Widiatmaka, Winny Dian Wibawa; IPB University.
EPD31	Measurement of accessibility to public schools using GIS and entropy-based weighting; Arif Wicaksono; BAPPEDA Bogor.
EPD32	Spatial Planning Policy Evaluation to Achieve Food Security and Sustainability in Pandeglang Regency; Rt Saki Rohmah, Widiatmaka, Iskandar Lubis; IPB University.
EPD33	Banda Aceh Urban Development based on Land Capability; Sylvia Zahara, Darmawan, Boedi Tjahjono; IPB University.
EPD34	Tracking the Environmental Quality of Regency in Indonesia's New Capital City and Its Surrounding Area; Wahyu Catur Adinugroho, Lilik Budi Prasetyo, Cecep Kusmana, and Haruni Krisnawati; IPB University.
EPD35	AHP-GeoTOPSIS Method to Analyze Priority Areas for Development of Sugarcane Plantation in 2031 in Lamongan Regency; Salis Deris Artikanur, Widiatmaka, Yudi Setiawan, Marimin; IPB University.
EPD36	Recent Development in Spatial Planning after the Omnibuslaw Job Creation; Fahmi Amhar; Geospatial Information Agency (BIG).
EPD37	Feasibility Analysis of Wood Pellet Bioenergy Investment and Its Efficiency in Tobacco Industry in NTB; Yeti Lis Purnamadewi, Dede Hermawan, Yana Juhana; IPB University.

Environmental Management System (EMS)

CODE	Title; Author; Affiliation
EMS01	Exposure of Ammonia Concentration from Processing Natural Rubber to Crumb Rubber to the Environmental Quality;

	Nurul Amri Komarudin, Elsrea Br Tarigan, Yahya Shafiyuddin Hilmi; IPB University.
EMS02	Biology of Telenomus sp. (Hymenoptera: Scelionidae) on Eggs of Spodoptera frugiperda (J. E. Smith) (Lepidoptera: Noctuidae); Oktaviani, Nina Maryana, Pudjianto; IPB University.
EMS03	Peatland characteristics in oil palm plantations in Siak District, Riau Province; Rima Purnamayani, Suria Darma Tarigan, Sudradjat, Haris Syahbuddin, Ai Dariah; IPB University.
EMS04	Bamboo Biochar Decrease the Application of Inorganic and Organic Fertilizers in Fertile Tropical Agricultural Area; Erry Purnomo, Noor Farid, Sekar Argarini, Anita Choiriah, Eka Novitasari, Ayu Lestiyani; Tidar University.
EMS05	Rice Lines Potentially as New Varieties in Acidic Land; Angelita Puji Lestari, Rini Hermanasari, Yullianida, Aris Hairmansis; Indonesian Center for Rice Reserach.
EMS06	The Study of the Useful Life in Troketon Disposal Site with Composting Method; Beata Ratnawati, Mohamad Yani, Suprihatin, Hartrisari Hardjomijojo; IPB University.
EMS07	Synthesis of Zeolite x/ Silver and Copper Oxide Composites via Tollens Reactions and It's Application as Adsorbent; Hasanuddin Rizal, Zaenal Abidin, Trivadila, Nurul Hiedayati, Matsue Naoto; IPB University.
EMS08	Harvestndex of Tuber Plants on Different Types of Land in Semin, Gunung Kidul; Maharani Dewi, Dila Swestiani, Aris Sudomo, Asep Rohandi; Balitbang Teknologi Agroforestry.
EMS09	The Administration of Animal, Vegetable and Combination of Indigenous Microorganism (IMO) in Making Dairy Cattle Biourine to Nitrogen, Phospor and Kalium; Ely Vebriyanti; IPB University.
EMS10	Effect of Biodecomposer Supporting in Anthurium (Anthurium andreanum) Propagation;

	Ridho Kurniati, Eka Fibrianty; Indonesian Ornamental Crop Research Institute.
EMS11	A Comparative Study of Hybrid nanogenerator Based piezo/tribo in series and parallel as Self Charge powerbank; Prasetyo Adinegoro, Nandang Mufti, Sunaryono; Malang State University.
EMS12	Oil palm Shell Hydrolyzation at Subcritical Temperature to Produce Organic Herbicide for <i>Borreria alata</i> (aubl.) dc Control; Herdhata Agusta, Muhammad Syakir, Dwi Guntoro, Mercy Bientri Yunindanova, Bustanil Arifin; IPB University.
EMS13	The Growth and Productivity of Corn-Soybean on Various Organic Materials using TURIMAN Method in Marginal Land; Adhe Phoppy Wira Etika, Asmarhansyah, Widia Siska, Rima Purnamayani, Arief Surahman, Dian Yunita; Ministry of Agriculture.
EMS14	Analysis of Mangrove Vegetation Around Spawning Habitat of Terubuk Fish (<i>Tenualosa macrura</i>) in Bengkalis, Meranti Islands and Siak Regency, Riau Province; Vivin Seygita, Sulistiono, Cecep Kusmana, Gatot Yulianto; IPB University.
EMS15	Waterbird community in Pulau Rambut Wildlife Sanctuary, Jakarta Bay: Review on species composition and population size after thirty years; Ani Mardiasuti; IPB University.
EMS16	Estimation of mangrove vegetation density in Indramayu Regency, Jawa Barat; Nabila Fathimatuz Zahra, Yudi Setiawan, Lilik Budi Prasetyo; IPB University.
EMS17	Study of Curing Time on The Characteristics of Lemon Peel Oil from Lemon Juice Industry Waste; Rienoviar, Tun Tedja Irawadi; IPB University.

EMS18	<p>Potential of modified flour derived from the bamboo shoot and swamp tuber origin from South Kalimantan as environmentally friendly food; Heri Soedarmanto, Evy Setiawati, Sri Hidayati, Miyono, Anhar Firdaus; Institute of Research and Standardization of Industry, Ministry of Industry.</p>
EMS19	<p>Distribution and Diversity of the Genus Ficus in Kuningan Regency, West Java, Indonesia; Yayan Hendrayana, Cecep Kusmana, Pudji Widodo, Imam Widhiono, Ilham Adhya; Kuningan University.</p>
EMS20	<p>Habitat Characteristics of Tendani (<i>Goniothalamus macrophyllus</i>) in Lowland Forests Gunung Subang, Kuningan Regency, West Java; Ilham Adhya, Pudji Widodo, Cecep Kusmana, Eming Sudiana, Yayan Hendrayana, Agus Yadi Ismail, Toto Supartono; Kuningan University.</p>
EMS21	<p>Extraction of Black Pepper Non-Volatile Components as an Industrial Material; Patoni A. Gafar; Baristand Industri Palembang, Ministry of Industry.</p>
EMS22	<p>The analysis of plywood industrial wastewater treatment in South Kalimantan; Heri Soedarmanto, Evy Setiawati; State Polytechnic of Banjarmasin-Brawijaya university.</p>
EMS23	<p>Litter Layer and Earthworms as an Indicator of Coffee Production in the Coffee and Pine based agroforestry system; Didik Suprayogo, Arief Lukman Hakim, Bintan Rahma Fadillah, Iwanda Krismonika Prajnaparamita, Irma Ardi Kusumawati, Cahyo Prayogo, Rebecca L. Rowe, Niall Mc. Namara; Brawijaya University.</p>
EMS24	<p>Trophic Status and Phytoplankton Community of Some Small Lakes in Ciliwang Watershed, West Java, Indonesia; Sulastri, Siti Aisyah, Rachmi Dina; Research Center for Limnology, Indonesian Institute of Sciences (LIPI).</p>

EMS25	Water Quality and Biophysics Conditions of Situ Rawa Kalong Tourism Area, Depok City, West Java; Karya Widyawati, Cecep Kusmana, Setyo Pertiwi, Bambang Sulistyantara; IPB University.
EMS26	The water quality characteristics and quality status of Bengkulu River and Nelas River, Bengkulu Province: Conditions for the last six years; Idham Khalik, Asep Sapei, Sigid Hariyadi, Elisa Anggraeni; IPB University.
EMS27	Trophic Status of Waters in the Poso River Basin, Central Sulawesi; Fachmijany Sulawesty, Triyanto, Gadis Sri Haryani, Lukman, Octavianto Samir, Fauzan Ali, and Eva Nafisyah; Research Center for Limnology, Indonesian Institute of Sciences (LIPI).
EMS28	Adsorption of nickel (II) on layered alkali silicates from water; Donhatai (Ammy) Sruamsiri. Makoto Ogawa; Vidyasirimedhi Institute of Science and Technology (VISTEC).
EMS29	Adsorption of spiropyran, an organic dye, onto layered clay minerals; Nattapat (Nut) Leelaphattharaphan, Kamonnart Imwiset, Makoto Ogawa; Vidyasirimedhi Institute of Science and Technology (VISTEC).
EMS30	Health Assessment of Conservation Forest Based on Biodiversity Indicator Tree Types (Case Study at Elephant Respont Unit Margahayu Way Kambas National Park); Fendi Agung Sanjaya, Rahmat Safe'i, Gunardi Djoko Winarno, Agus Setiawan; University of Lampung.
EMS31	Discriminating the Severity of Basal Stem Rot Disease in Oil Palm (<i>Elaeis guineensis</i> Jacq.) Plantation Using Sentinel-2; Ramadhani Dwi Handrian, Bambang Hendro Trisasongko, Dyah Retno Panuju; IPB University.
EMS32	Nutrient content and growth ability of aquatic weed <i>Wolffia</i> sp as alternative feed sources for aquaculture system;

	Djamhuriyah S.Said, Tjandra Chrismadha, N. Mayasari, Dwi Febrianti, and ARM Suri; Research Center for Limnology, Indonesian Institute of Sciences (LIPI).
EMS33	Identification of liquid smoke organic compounds derived from corn cobs based on the pyrolysis temperature; Saibatul Hamdi, Budi Tri Cahyana, Nurmilatina, Sri Hidayati, Nazarni Rahmi, Evy Setiawati; Institute of Research and Standardization of Industry.
EMS34	Geotourism Prospects in Cyclops Mountains in Papua Conservation Area; Prihananto Setiadji, Bambang Sulistyantara, Bambang Pramudya, Suwardi; IPB University.
EMS35	Feasibility Study on Coal Post-mining Land Use for Agricultural (Case Study of PT ABK in Kutai Kartanegara Regency, East Kalimantan); Santun RP Sitorus, Hartrisari Hardjomidjojo, Eka Intan Kumala Putri; IPB University.
EMS36	The tool analysis of sustainability Off-Grid Hybrid wind and Solar Pantai Baru Power Plant Yogyakarta; Subagyo Subagyo, Moh. Yanuar J P, Bambang Pramoedya N, Saleh Abdurrahman; IPB University.
EMS37	Agricultural Innovation System to Support Environmental Management Implementation in Coffee Smallholder Plantation; Suci Wulandari, Fadjry Djufry; Indonesian Center for Estate Crops Research and Development.
EMS38	Carbon Footprint Analysis Tools of Electrokinetic Remediation (EKR): A Bibliometric view of the Literature; Yudith Vega Paramitadevi, Beata Ratnawati, Mochamad Arief Budihardjo, Bimastyaji Surya Ramadan, Agus Jatnika Effendi, Syarif Hidayat, Dimas Ardi Prasetya, Ivone Wulandari Budiharto; IPB University.
EMS39	Life Cycle Assessment on Cement Production (review jurnal); Atfal Murodif; IPB University.

EMS40	<p>Increased effectiveness of conservation coastal environment through cleaner production and work motivation of fish processors; Yuliati H Sipahutar, Henita Rahmayanti, Rukaesih Achmad, Rinaldo Sitorus, Muhammad R Suryanto; Politeknik Ahli Usaha Perikanan.</p>
EMS41	<p>Carbon stock potential of Indonesian local fruit trees, some collections of Purwodadi Botanic Garden; Titut Yulistyarini, Julisasi Tri Hadiah; Research Center for Plant Conservation and Botanic Garden, Indonesian Institute of Sciences (LIPI).</p>
EMS42	<p>Citarum River Microplastic Pollution Monitoring Using Remote Sensing; D. Hartanto, K H Kirana, M AUFARISTAMA, I A Dharmawan; Padjadjaran University.</p>
EMS43	<p>MataBDG: A Google Earth Engine (GEE) Application for Environmental Monitoring in Bandung City; Rania Alifa Desenaldo, Asep Purnama, Fatimah Az-Zahra, Fauzian Dwi Ramadhan, Rifky Nauval Hendrawan, Muhammad AUFARISTAMA, Irwan Ary Dharmawan; Padjadjaran University.</p>
EMS44	<p>Distribution of Heavy Metals Concentration (Ag, Hg, Cd) and the Pollution Status of Western Part of Segara Anakan Waters, Cilacap, Central Java Province of Indonesia; Kurnia Pangastuti, Hefni Effendi, Sulistiono, Gatot Prayoga; Environmental Research Center (ERC) IPB University.</p>
EMS45	<p>Distribution Heavy metals (Pb and Cd) contents in water and sedimen in Panjang and Pamujan Besar Islands, Banten Bay, Indonesia; Endang Juniardi, Sulistioni, Sigid Hariyadi; IPB University.</p>
EMS46	<p>Aquatic Physical and Chemical Characteristics of Reservat and Protected Area of Mahseer (Tor Douronensis Valenciennes, 1842) in Muara Bungo and Kerinci Regencies, Jambi Province, Indonesia; Febri Ria Safitri, Sulistiono, Sigid Hariyadi; IPB University.</p>

Geo-spatial and Environmental Planning (GEP)

CODE	Title; Author; Affiliation
GEP01	<p>Monitoring of plastic debris in the lower Citarum River using Unmanned Aerial Vehicles (UAVs); Aldiano Rahmadya, H Hidayat, Siti Aisyah, Semeidi Husrin; Indonesia Institute of Sciences (LIPI).</p>
GEP02	<p>Monitoring Land Cover Change using Google Earth Engine in Urban Area; Khalifah Insan Nur Rahmi, Abdullah Ali, Aji Ahmed Maghribi, Septianto Aldiansyah, Randhi Atiqi; University of Indonesia.</p>
GEP03	<p>Identification of Shoreline Change in Padang City from 2000-2020 with Modified Normalized Difference Water Index Method and The Use of Digital Shoreline Analysis System; Beben Graha Putra, Arie Yulfa; Padang State University.</p>
GEP04	<p>The Land Use Change Impacts and Its Based on Local Ecological Knowledge Approach in Cikalong Village Tasikmalaya West Java; Kristiyanto; State Islamic University Syarif Hidayatullah Jakarta.</p>
GEP05	<p>Planning for Jabodetabek Electric Rail Transport using GIS; Yanuar Wijayanto, Akhmad Fauzi, Ernan Rustiadi, Syartinilia; IPB University.</p>
GEP06	<p>Assessment of land cover and its changes in Litumbandyosi-Gesimasowa game reserve using remote sensing and GIS; Sosteness Jerome Nakamo, Syartinilia, Yudi Setiawan; IPB University.</p>
GEP07	<p>Spatial Distribution Prediction of Invasive Plant Merremia peltata under Future Climate Change;</p>

	Angga Yudaputra; Research Center for Plant Conservation and Botanic Garden, Indonesian Institute of Sciences (LIPI).
GEP08	Land Cover/Land-Use Changes Assessment in Dramaga Sub-District, Bogor, Indonesia: A GIS and Remote Sensing Based Analysis; Esmatullah Khyber, Lailan Syaufina, Arzyana Sunkar; IPB University.
GEP09	An Analysis of Spatio-Temporal Water Vapor Variation in the East Java using Ground Based GPS Receivers; Susilo, Eko Yuli Handoko; Geospatial Information Agency (BIG).
GEP10	The Use of Airborne Lidar Data to Analyze Flood Disaster Area; Mochamad Irwan Hariyono, Aptu Andy Kurniawan; Geospatial Information Agency (BIG).
GEP11	Simulation of Land Use Changes in the Hydrological Characteristics of the Central Citarum Sub-Watershed; Jaka Suryanta, Irmadi, Turmudi, Yatin Suwarno, Sri Lestari, Suprajaka, Ati Rahadiati; IPB University.
GEP12	The Application of Satellite Derived Bathymetry for Coastline Mapping; Ratna Sari Dewi, Ibnu Sofian, Suprajaka; Geospatial Information Agency (BIG).
GEP13	Modeling Rice Growth from Ground-based Sensors as the Benchmark for UAV Image Analysis; Arda Ardella; IPB University.
GEP14	Estimating total suspended matter from MERIS imagery of tropical coastal water Berau Estuary Indonesia using spectral unmixing model; Wiwin Ambarwulan, Mhd. Suhyb Salama, Water Verhoef, C. M. Mannaerts; Geospatial Information Agency (BIG).
GEP15	Spatial Model of Peatland Fire Control Strategies through Integration of Rainfall Monitoring and

	Institutional Approach. Case Study of Kepulauan Meranti District; Turmudi; IPB University.
GEP16	Modeling of Cellular Automata Markov Chain for Predicting the Carrying Capacity of Ambon City; Heinrich Rakuasa; University of Indonesia.
GEP17	Methodologies for Mapping Abandoned Wetland in Tropic Region; Vicca Karolinoerita, Yiyi Sulaeman, Wirastuti Widyatmanti, Destika Cahyana, Khairil Anwar, Muhammad Noor; Indonesian Swampland Agriculture Research Institute (ISARI).
GEP18	Accuracy Assessment of Land Use Change Analysis using Google Earth; Fikry Asri Islami, Suria Darma Tarigan, Enni Dwi Wahjunie, Bambang Dwi Dasanto; IPB University.
GEP19	Assessing the paddy fields conversion using optical satellite imagery: A case study in Karawang Regency, West Java ; S. M. Suliman, Y. Setiawan, Syartinilia; IPB University.
GEP20	Optimum tuning parameter selection in generalized lasso for clustering with spatially varying coefficient models; Septian Rahardiantoro, Wataru Sakamoto; Okayama University.
GEP21	Examining a Deep Learning Approach for Mangrove Mapping: The Case of Mentawai, Indonesia; Bambang H. Trisasongko, Yaya I. Ulumuddin, Dyah R. Panuju; IPB University.
GEP22	The dynamics of rice-field conversion in the surrounding Cipali toll-roads of Subang Regency; Amaliannisa Rizqia Fiqriyati; IPB University.
GEP23	Utilization of Synthetic Aperture Radar (SAR) Imagery to Identify Potential for Earthquake Disasters to Improve Disaster Preparedness;

	Agung Mulyo Utomo, Aris Poniman, Yosep Prihanto; Indonesia Defense University.
GEP24	The Direction of Development for High Priority Commodity Plantation in Pekalongan Regency Central Java Province; Alifa Rus Kusumaningtyas; IPB University.
GEP25	Spatial Modeling in Sustainable Peat Land Management Based on Peat Hydrological Units (KHG); Turmudi; IPB University.
GEP26	Spatial Planning-based Ecological Footprint at Badung Regency, Bali; I Nyoman Putera Indrawan, Widiatmaka, Bambang H. Trisasongko; IPB University.
GEP27	Mapping mangrove forest distribution on the Banten, Jakarta, and West Java Ecotone Zone from Sentinel-2-derived vegetation indices using Cloud Computing based Random Forest; Rahmat Asy'Ari, Azelia Dwi Rahmawati, Naifa Sa'diyya, Ardy Hwardaya Gustawan; IPB University.
GEP28	Utilization of Indonesia's Regional Ionosphere Model to improve the accuracy of GPS Measurements to Support Disaster Studies; Ayu Nur Safi'i, Susilo, Dadan Ramdani, Buldan Muslim; Geospatial Information Agency (BIG).
GEP29	Analysis of Annual Water Yield Dynamics with Invest Water Yield Model in Tesso Nilo National Park; Yudi Setiawan, Suria Darma Tarigan; IPB University.
GEP30	Preliminary Study on the Application of SAR Technology for Bathymetry Model; Ayu Nur Safi'i and Ratna Sari Dewi; Geospatial Information Agency (BIG).
GEP31	Geospatial Analysis of Flood Prone Areas in the Pekalen Watershed Based on Satellite Data; Akbar Transisto; UPN "Veteran" Jawa Timur.

GEP32	<p>Land Cover/ Land Use and Spatial Planning in the Border Area of Bogor Regency and Bogor City, West Java Province, Indonesia; Setyardi Pratika Mulya, Muhammad Munif, Andrea Emma Pravitasari, Ernani Rustiadi, Widiatmaka; IPB University.</p>
GEP33	<p>The Analysis of Dynamic Spatial Growth and Distribution Orientation Pattern of Settlement: Mitigation of Urban Growth Effect due to New Era of Aerotropolis in Kulon Progo, D.I Yogyakarta; Ulfah Choerunnisa Nurul Litasari, Widiatmaka, Khursatul Munibah, Machfud; IPB University.</p>
GEP34	<p>Landscape Characteristics on Forest Health Measurement Plots in Several Forest Functions; Prayogi Saiful Anwar, Rahmat Safe'i, Arief Darmawan; University of Lampung.</p>
GEP35	<p>Determining Key Factors of Sustainable Land Resources Management on the Catchment Area of Musi Hydropower Plant in Bengkulu Province with Interpretive Structural Modelling; Sukisno, Widiatmaka, Januar J. Purwanto, Bambang Pramudya N, Khursatul Munibah; IPB University.</p>
GEP36	<p>Agroclimate Suitability for Paddy in Sukabumi Regency by 2032 using RCP 4.5 scenario; Widia Siska, Widiatmaka, Yudi Setiawan, Setyono Hari Adi; IPB University.</p>
GEP37	<p>The Mangrove Ecotourism Development Based on Carrying Capacity and Suitability Approach: A Case Study in Jor Bay, West Nusa Tenggara, Indonesia; Bima Prasetyo Supratman, Sulistiono, Zulhamsyah Imran; IPB University.</p>
GEP38	<p>Analysis of land use changes and economic loss of paddy field conversion: a case study of Ciampea Subdistrict, Bogor Regency;</p>

	Trisnani Yuda Fitri, Soeryo Adiwibowo, Andrea Emma Pravitasari; IPB University.
GEP39	Geo-Environmental Approach in Detailed Spatial Planning: The Case of Ujung Kulon National Park, Cibaliung, Pandeglang, Indonesia; La Ode Syamsul Iman, Rizky Ianatus Sholehah, Bambang H Trisasongko, Nur Etika Karyati, Diar Shiddiq, Selamat KUSDARYANTO, Iskandar Lubis, Mujio Sukir; IPB University.
GEP40	Directions for the Development of Leading Plantation Commodities in Pekalongan Regency, Central Java Province; Alifa Rus Kusumaningtyas; IPB University.
GEP41	Oil Palm Mapping Using Google Earth Engine and Sentinel-2; Tian Mulyaqin; BPTP Banten.
GEP42	Preliminary Detection of Heavy Metal Distribution on Mining Soil Based on Spectral Unmixing Using Multispectral Image (Study case : Bintan Island); D Hamonangan, K H Kirana, M AUFARISTAMA, I A Dharmawan; Padjadjaran University.
GEP43	Soil Erosion Prediction Using GeoWEPP Model in Cimanuk Hulu sub-watershed; Sri Malahayati Yusuf, Arif Kurnia Wijayanto, Nanang F Sudrajat; IPB University.

Secretariat Address

The Study Program of Natural Resources & Environmental Management
Graduate School of IPB University Campus IPB Baranangsiang, Bogor 16144, Indonesia

Phone/Fax: +62 251 8332779

Website: isenrem.ipb.ac.id - psl.ipb.ac.id

