

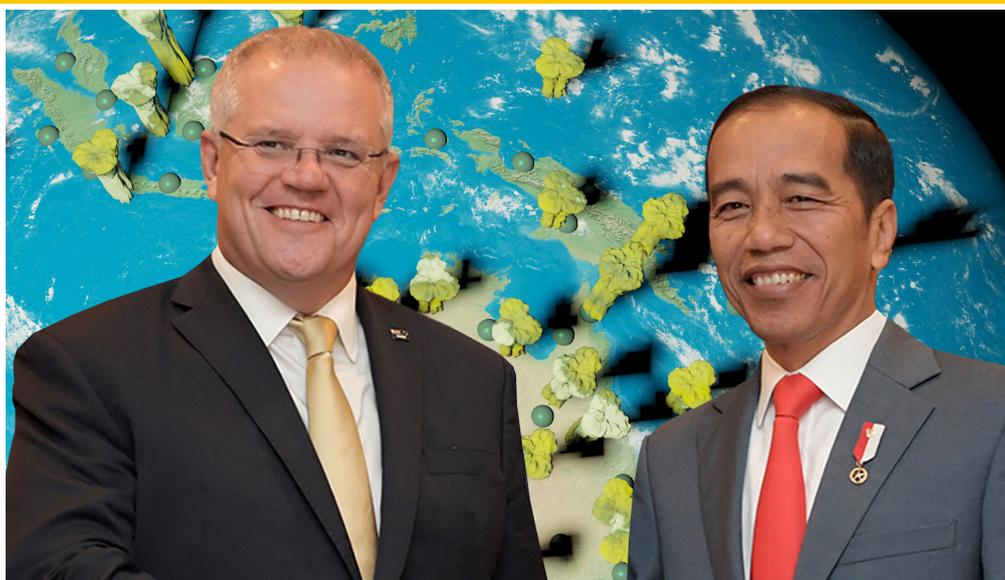
AUSTRALIA-INDONESIA

SUSTAINABLE FUTURES

COLLABORATIVE PROGRAM FOR SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE | VOLUME 3 2020

Inside this issue...

CAIPSDCC collaboration: An agenda for action	2
From the Secretariat	2
What is needed for a smooth and effective energy transition in Indonesia?	4
Community engagement towards forest conservation from an Indonesian perspective	5
Featured publications	6
Funding opportunities	6
Dual Masters a huge success despite COVID-19 lockdown	6
Meet our researchers	7
COVID-19: Updates from Indonesia, Australia and beyond	7
Photo gallery	8



Australia-Indonesia shared adversity amid pandemic

During his state visit to Australia, President Joko Widodo met Prime Minister Scott Morrison for the Indonesia-Australia Annual Leaders meeting and held a joint ministerial meeting with other Australian and Indonesian ministers in Canberra on 10 February 2020. They witnessed the signing of the Plan of Action for the Comprehensive Strategic Partnership 2020-2024—containing, among other things, the commitment to actively develop cooperation between Indonesia, Australia and Pacific islands, including exploring options for practical cooperation in the area of climate change.

I would expect to continue to write about the possibility of collaboration in line with the high-level commitment between the two countries. However, one month after the visit, the COVID-19 global pandemic had emerged. As of 23 May 2020, the total number of confirmed cases is 5,103,006 and the death toll stands at 333,401. The numbers continue to increase rapidly. The United Nations

Secretary-General, António Guterres stated that there are three critical action areas in response to the COVID-19 pandemic. The first and second are to tackle the health emergency while keeping the focus on the social impact and the economic response and recovery. Guterres then emphasised that we have to “recover better”. He stated that we have to learn and prepare ourselves for future health emergencies while continuing to fulfil our promise for the people and the planet—the 2030 Agenda for Sustainable Development and the Paris Agreement on Climate Change.

As someone who has been working in the field of climate change for a long time, I can't help but reflect on the COVID-19 pandemic and draw a parallel between it and the climate change problem. Reflecting on the development of COVID-19, we heard predictions from the scientists and the experts on what might be possibly happening,

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CAIPSDCC collaboration: An agenda for action

Collaboration is the central feature of CAIPSDCC. It underpins the approach we at Griffith University and Universitas Indonesia have decided on, as we address the challenges presented by climate change and sustainable development facing our nations and the wider Asia-Pacific region. Over the past 18 months, our shared commitment to collaboration has allowed academics and colleagues from our two institutions to meet, converse and workshop ideas in person. Our meetings ranged from the conventional (seminars on our university campuses in Depok and Nathan, and dialogues in Jakarta and Brisbane) to the less conventional. Exploring Bantimurung National Park, reviewing coastal management strategies from the top of the Gold Coast's Q1 Tower; and workshoping aboard a phinisi on the Bay of Makassar, as well as at the Griffith's Smart Water Centre were all highlights.

Through these meetings we have shared research perspectives and learned more about each others' expertise and networks; we have identified issues of shared concern as well as strategies and practices that we can learn from each other. And, we've shared in meals, conversations and experiences that have allowed us to get to know each other better. These interactions have generated

an important partnership between us as institutions, scholars and colleagues; and ensures our collaboration is underpinned by friendship and trust.

Sadly, it is unlikely that we will have the opportunity to meet face-to-face through this year as nations across the globe, including our own, grapple with the Covid19 pandemic. But we are better placed than most—because of the relationships we have developed—to continue our collaboration in the virtual world. I am hoping that through this year, our collaborative partnership will allow us to interact more to understanding the key developments facing our region. I look forward to advancing research projects that will inform policy not only in our respective nations, but across the region on our priority areas: i) transitioning to low carbon economies; ii) improving sustainable landscape management practices; iii) enhancing climate change adaptation for small islands; and of course, iv) managing and responding to global health crises.

Over the past two years we have successfully invested in building the relationships necessary for ongoing collaboration. Our institutions are now working through a joint Secretariat that is well equipped to translate our collaborative

ideas into action. With the Secretariat in place I look forward to developing our research capacity, conducting more influential dialogues and informing better policy outcomes.

And this year as we continue to face increasing threats from a changing climate and ongoing development inequities. More than ever we need to bridge the gap between science and decision-making. And in doing so, we need to get better at collaborations that will inspire 'action' from our political and community leaders, our diplomats and policymakers and our communities.



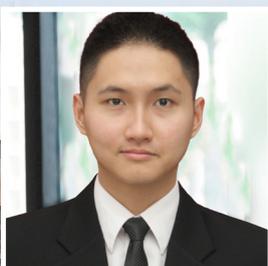
Professor Caitlin Byrne
Director, Griffith Asia Institute



Professor Jatna Supriatna
Director, Institute for Sustainable Earth Resources



Lia Zakiyyah



Hendika Gunawan

From the Secretariat

With a premium view of the lush and green forest of Universitas Indonesia (UI), CAIPSDCC Secretariat Office is on the 7th floor of Multidisciplinary Laboratory Building of Faculty of Mathematics and Natural Sciences, UI. The Secretariat, with its two members—Lia Zakiyyah and Hendika Gunawan, officially commenced in late November 2019. After setting up the office, the Secretariat began the efforts to work on the objectives of the CAIPSDCC. Multiple meetings and discussions with the core team of CAIPSDCC, including primary researchers from Griffith University and Universitas Indonesia. The secretariat is also analysing ways forward, especially with regard to engaging with various stakeholders to ensure the output of CAIPSDCC answers the needs of policymakers—a science to policy approach.

Between meetings with different time zones and other Secretariat work, the members have also implemented small personal challenges to pursue sustainable lifestyles at the office. Taking the stairs up and down to the 7th floor and setting up a micro-scale urban garden and composting in the office. These are small steps which brought about smiles every day... at least it did before COVID-19 as the team are now working from home.

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but we did not prepare ourselves enough, despite warning. A similar situation could also be found in the field of climate change. I believe that it's time for us to take the science more seriously and not repeat the same mistake.

The same sentiment is shared by my friend Christiana Figueres, the Executive Secretary of the United Nations Framework Convention on Climate Change (2010-2016), who stated that the COVID-19 outbreak has taught us valuable lessons that will help us in tackling climate change. Both are global challenges, despite the fact that the impact might not be felt immediately, it does not mean that it will not affect us eventually. To face both climate change and a pandemic, wide systemic change is necessary; followed by changes in government policies, company decisions, and individual behaviours. We have also seen with our own eyes that prevention is better than dealing with the enormous consequences of inaction. Society consists of interrelated actors, each and every one of us is connected, and what happened to one, affects the other. The COVID-19 outbreak has shown us that we are only as safe as those who are most vulnerable.

Regarding behavioural change, I believe what we should learn from this pandemic is the importance of using language and communication approaches that are easily understood by all people, no matter what their background. Experts and policymakers should allocate time and effort in doing this, to ensure that there will be no gaps in information, which might otherwise be filled by conspiracy and misinformation. Empowering people could be the best way to fight misinformation because people tend to lose hope when facing a problem which seems to have no solution. That's why we should inform

them of what they can do to face the problem—just like encouraging people to wash their hands and stay indoors to face the coronavirus.

In the midst of the pandemic, climate change threats continue to loom. The Great Barrier Reef has just been impacted by another mass bleaching, and climate change remains the single greatest challenge to the Reef. Australian bushfires earlier this year have destroyed millions of hectares of bushland, killed 30 people and over a billion animals. Indonesia also faced climate-related challenges.

As of 8 May 2020, Indonesia had already experienced 457 flood events and 275 landslides this year, resulting in 166 deaths. Floods alone have affected more than 1,900,000 people. The increased frequency of hydrometeorological disasters is related to climate change.

In the Pacific region, sea level rise continues to threaten the islands and its people. Micronesia and Solomon Islands lost several of its low-lying islands, and Tuvalu is threatened to lose its entire atoll area by 2050. In Indonesia, 23 million people who live in coastal areas will be impacted by floods as a result of sea-level rise.

This is a reminder that we shouldn't return to our unsustainable practices when the pandemic is under control (hopefully) in the not-too-distant future. It's time for us to take all the actions necessary in preparation to face current and future problems, whether it comes from climate change or future pandemics.

Referring back to the opening of this article, I think it's a good opportunity to harness our full commitment. As we are forced to slow down and take a step back, it certainly is a great time to take our next step toward a better sustainable future.

Professor Rachmat Witoelar

Indonesian President's Special Envoy on Climate Change 2015-2019

Head of Advisory Members of CAIPSDCC





What is needed for a smooth and effective energy transition in Indonesia?

Moekti H Soejachmoen

Assistant to President's Special Envoy for Climate Change (2010-2019)



Energy plays significant role in any development. No development can be conducted without energy. It is also clear that development is a key to ensure that people can have a good welfare. Good welfare for Indonesians is stated in the preamble of Undang-Undang Dasar 1945.

As a developing nation with more than 250 million inhabitants, Indonesia has been experiencing many challenges, including the limited national budget for development. Therefore, it is understandable that least cost has been chosen as the approach to undertake the development at all levels in the country. This is also the case with energy sector development. With a national target to reach 100% ratio of electrification nation-wide, the Government of Indonesia had to choose the cheapest type of energy resources. With a simple pricing consideration, coal has been chosen to be the main source of electricity generation to achieve that 100% target. This has led to an increased economic and social dependence on the coal sector. A study

shows that the national coal business in Indonesia, starting from its mining all the way to coal fired plants, has a significant contribution to Indonesia's GDP as well as workforce.

On the other hand, after the adoption of the Paris Agreement in December 2015, there has been more pressure to limit, and when possible, phase out the use of fossil-fuels, including coal. Most of international financial institutions have decided not to finance any fossil projects. Some of them are even divesting from such projects. This is not without reason. The burning of any fossil fuels will emit greenhouse gases to the atmosphere, and as we know, the existence of greenhouse gases in the atmosphere has led us to a warmer planet and caused climate change. For that reason, the most effective way to limit our GHG emission is by limiting our activities in burning fossil fuels.

Combining those realities, it is imperative for any nation to figure out how to fulfill the needs for energy as the engine for development, without contributing more

to a changing climate. One of the answers is to use the energy in a more efficient way, which will still lead to GHG emissions as fossil fuels will still be burned. The other answer, which definitely will not lead to GHG emissions, is to use renewable sources which have no GHG emissions. This shift has to be done properly and in a planned manner.

For a country like Indonesia, where fossil fuels, especially coal, have a significant contribution to the economy and workforce, shifting away from fossil fuels will definitely have significant economic and social impacts. Even a developed country like Germany, already indicated that shifting away from coal in power generation will only be done completely in 2038 with a number of considerations including to minimize the social and economic impact. Indonesia must conduct a thorough and comprehensive analysis of the potential impacts of such an exit, including how to address and minimise the impacts. Such an analysis will be the basis for Indonesia to decide on the cut-off date and shift away from coal reliance.

Community engagement towards forest conservation from an Indonesian perspective

Indonesia is losing primary forest at a staggering rate with an increasing loss of 47,600 hectares every year (2014, Margono et. al). The country is home to more threatened species than any other in the world. Sulawesi, one of the 17,508 Indonesian islands, lost nearly a million hectares of forest between 2001 and 2013 and large tracts of its remaining primary forest were unprotected as of 2000 (Global Forest Watch). Over 60 percent of mammals and more than one-third of Sulawesi's birds are endemic. It also provides habitat to the elusive, critically endangered Siau island tarsier (*Tarsius tumpara*) which is among the world's 25 most endangered primates (IUCN/SCC primate specialist group).

In order to link government action with community responsiveness to progress forest conservation efforts in the Gorontalo region in Sulawesi, Indonesia; doctoral candidates Zulyanto Zakaria (Zul) (based at Universitas Negeri Gorontalo and Universitas Indonesia) and Maggie Muurmans (Griffith University, Australia) are in collaboration through the CAIPSDCC forest research network to facilitate partnerships and effective community engagement between local stakeholders and government representatives. Zul's research on the Jatna's tarsiers (*Tarsius supriatnai*) includes highlighting conservation management issues which has indicated that communication on governmental policy towards climate change and sustainable

development to local forest dwelling communities needs improvement.

Zul's connection with the indigenous peoples within the research area provides access to traditional ecological knowledge which creates a mechanism for co-management and empowerment from a bottom-up approach. This would assist optimal data collection for Muurmans' work on supporting local communities to achieve inclusive governance and effective engagement in natural resource management, building on her experience working in Aceh, Sumatra previously. Her research would provide an Indonesian case study on the conditions under which community engagement has been or hasn't been effective, identifying social-ecological systems in the region and how they compare with other case studies within Indonesia or internationally.

Zul and Maggie will also be preparing to lead the preparation and delivery of a session on sustainable landscape management during the "High Level Dialogue" forum in Indonesia. This will highlight the importance of improved communication strategies and building bridges between government and forest communities in the region. This session is anticipated to have attendance from a range of stakeholders, government officials and university representatives. It provides a unique opportunity to initiate a conversation in regard to research towards sustainable forest management.



Featured publications

Alamgir, M, Campbell, M, Sloan, S, Suhardiman, , Supriatna, J and Laurance, W, (2019). 'High-risk infrastructure projects pose imminent threats to forests in Indonesian Borneo', *Scientific Reports*. 9. 10.1038/s41598-018-36594-8.

Hafezi, M, Sahin, O, Stewart, R, Connolly, RM, Mackey, B, Ware, D, (2020), 'Adaptation strategies for coral reef ecosystems in Small Island Developing States: Integrated modelling of local pressures and long-term climate changes', *Journal of Cleaner Production*, vol. 253. <https://www.sciencedirect.com/science/article/pii/S0959652619347341?via%3Dihub>.

Mackey, B, (2020) 'Toward a Great Ethics Transition: The Earth Charter at Twenty', opening reflections for a GTI Forum, Great Transition Initiative. <https://greattransition.org/gti-forum/ethics-transition-mackey>.

Mackey, B, Kormos, CF, Keith, H, Moomaw, WR, Houghton, RA, Mittermeier, RA, Hole, D and Hugh, S, (2020), 'Understanding the importance of primary tropical forest protection as a mitigation strategy', *Mitigation and Adaptation Strategies for Global Change*. <https://link.springer.com/>.

Funding opportunities

Griffith University and Universitas Indonesia provide internal grants to support global student mobility opportunities. This funding supports various programs, including visiting research fellowships and postdoctoral fellowship programs. For further information visit:

Griffith University:
griffith.edu.au/research/research-services/research-grants/funding-opportunities/internal-grants

Universitas Indonesia:
[https://international.ui.ac.id/](http://international.ui.ac.id/)

Dual Masters a huge success despite COVID-19 lockdown

I'm beyond grateful to be accepted in this dual degree program, which started in August 2018 for the Master of Regional Planning at Hasanuddin University Indonesia, and February 2020 for the Master of Environment at Griffith University.



Dita Nadia Putri

I was amazed by how kind and welcoming the lecturers are. They are very understanding even when students have flaws and limitations, and remarkably generous and responsive even when the classes shifted to remote learning. The online workshops might have little glitches, but the sincerity of the lecturers to teach us has travelled across digital lines.

Studying with other international students is an incredible experience. I was wrong to think that we'd only meet with Australian students here, it turned out there are many other students from all around the world. Talking with them enlighten me about their countries, and gave me insight on better strategies to handle my own study. I'm looking forward to gaining more knowledge about environment and disaster risks from this program, especially when related to regional development, which will help not only my career later, but also my hometown to develop a more environmentally friendly city in this changing environment.

It is a great pleasure for me to be a student of the dual degree program in the Master of Regional Planning at Universitas Hasanuddin in 2019 and Master of Environment at Griffith University in 2020. The program is very beneficial because it allows students to obtain two degrees in a shorter time.

I had a great experience attending the course together with other international students in the first month before the pandemic. The atmosphere of the class was very vibrant. The material conveyed by the lecture is up-to-date and effectively captivated students' attention and triggered active discussion. Although all classes have shifted to online, it is not affecting the quality of the courses since the system is supporting interactive online discussion. The other advantage that I get from this program is a great opportunity to interact with other international students from various backgrounds and cultures. Thus, it enables me to broaden my horizon and network.

I believe my experiences in this program will contribute to my career development and my analytical skills since the format of the courses effectively enriches my skills in critical thinking, organising and presenting ideas, and good management of working in groups.



Pugar S Girdayanto

Meet our researchers...



Maggie Muumans
Griffith University

Ms Maggie Muumans was born in Indonesia, raised in the Netherlands and is now an Australian citizen. She has over 19 years' experience in community conservation and sustainable livelihood development in Europe, Latin America, Asia and Oceania. Her projects include the establishment of community conservation areas, protected area management and alternative livelihood development. She also manages a coastal community engagement program in Queensland and has successfully implemented debt-for-nature swaps, micro credit systems and fishery alternatives. Maggie has received a number of national and international awards for her work.



Jamaluddin Jompa
Universitas Hassanuddin

Professor Jamaluddin Jompa, MSc was born in Takalar, South Sulawesi, Indonesia. He currently serves as Chairman for Marine Resilience and Sustainable Development at Hasanuddin University.

His research has expanded from aquaculture to marine biology, marine ecology, coral reef biology, reef bio-prospecting, and more recently on coral reef ecology and coastal Management.

Professor Jompa's current research projects are coral reef health and marine protected areas. He has published approximately 100 journal articles and books, the majority of which are international publications.



Zuliyanto Zakaria
Universitas Negeri Gorontalo

Mr Zuliyanto Zakaria (ZZ) is an Early Career Researcher and Lecturer in the Zoology Department of Biology Universitas Negeri Gorontalo. He studies the photoperiod effects on animals and is collaborating on several ecological projects in Gorontalo state, including biologists from Ehime University on native fish in Limboto Lake, Gorontalo.

Zuliyanto has published on photoperiod effect, morphometric analysis, and mangrove forest. As part of his doctoral study in Universitas Indonesia, he currently has a research project, focusing on *Tarsius supriatnai*, under the guidance of Professor Jatna Supriatna.

CAIPSDCC webinar series on planetary and human health to fight global pandemic

CAIPSDCC organised its first webinar titled: "COVID-19: Updates from Indonesia, Australia, and Beyond" on 19 May. Professor Budi Haryanto, Universitas Indonesia and Professor Cordia Chu, Griffith University, shared their views on the pandemic.

Dr Febi Dwirahmadi, Griffith University, chaired the session, opening with the statement that COVID-19 is the most serious global public health emergency in recent history. In the span of only a few weeks, it has affected over 216 countries, forcing people to make dramatic changes in every area of life, while the world tries to suppress the virus spread.

Professor Haryanto stated that the Indonesian government's large scale social restriction strategy to suppress the spread, has indeed decreased the cases. However, with Indonesia's plan to loosen restrictions, he is concerned it will cause another peak if implemented prematurely, particularly in Jakarta where the daily cases are still increasing. Therefore, he urged the government to proceed with caution, while continuously referring to the science as the base of the next steps—not only in Jakarta, but in surrounding areas where the cases are also increasing rapidly.

Professor Chu reflected this in a broader scope, sharing several important lessons. Firstly, despite the warnings from WHO, the world did not take

measures to prepare and therefore were not prepared to face a pandemic. The upside is that our interconnected world has made it possible to share information and real-time data with each other. This allowed the world to learn a lot about the pandemic quickly. The downside was that the free flow of information has also allowed misinformation to spread easily, creating confusion. Underestimation, inconsistency, and ineffective communication by some governments led to more suffering and panic.

We need to do better in risk communication targeted to the needs of the people, which may lead them to to comply. It is important to prevent people from feeling imprisoned by explaining every step needed and the purpose of each action.

The future

Moving forward, we have major challenges ahead of us on global health security—emerging zoonotic diseases and climate change. COVID-19 has taught us that we have to turn ourselves toward humanity and work together as one world. Multi-sectoral collaboration and international cooperation are essential in facing these problems. CAIPSDCC will explore these topics in-depth with experts in future discussions.



Photo gallery

1. CAIPSDCC team walk through Bantimurung – Bulusaraung National Park, South Sulawesi, 24 August 2019.
2. CAIPSDCC team at Griffith University's Gold Coast campus.
3. Sustainable fashion show at the high-level dialogue, 21 August 2019.
4. Coordination meeting at Universitas Indonesia, 20 August 2019.
5. Coordination meeting on Phinisi boat 23 August 2019.
6. Follow up meeting held at Universitas Indonesia, 22 August 2019.
7. Stakeholders meeting at UNHAS 23 August 2019.
8. High-level dialogue 21 August 2019.



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