

Collaborative Research Grants

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ENVIRONMENT AND  
CLIMATE CHANGE

# KNOWLEDGE PARTNERSHIP PROFILES



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# INTRODUCTION

KONEKSI is the Australian Government's flagship program in the knowledge and innovation sector in Indonesia. KONEKSI aims to achieve an enduring relationship between Indonesia and Australia that advances mutual interest and supports Indonesia's inclusive and sustainable development. KONEKSI's purpose is to increase the use of knowledge-based solutions for inclusive and sustainable policies and technologies.

In March 2023 KONEKSI launched a pilot call for proposals for collaborative research grants between Australian and Indonesian organisations. The Government of Australia and Government of Indonesia jointly agreed on the priority theme of Environment and Climate Change (ECC) incorporating a focus on policy- and innovation-relevant research related to climate change mitigation, climate change adaptation, and climate change resilience.

The selection process for recipients of the ECC collaborative research grants was highly competitive. Of 610 applications received, KONEKSI shortlisted 105 which were invited to proceed to Stage 2 and submit a full grant application. At the final stage, 38 projects were selected as recipients of the collaborative research grants based on an independent assessment by expert reviewers.

KONEKSI is delighted to feature 38 knowledge partnerships in this booklet as the inaugural recipients of ECC collaborative research grant, recognising their expertise, equitable partnerships and impact on climate change mitigation, adaptation, and resilience.



SUB-THEMES

# BLUE CARBON

# Harvesting Hope: Renewable Energy, Clean Water, and Quality Salt for Madura's Saltwork Community through Seaweed Farming

**Keyword:** Desalination, seaweed farming, solar salt production, organic rankine cycle

This project aims to combine seaweed farming with solar salt production to produce blue carbon, commercial-grade seaweeds, renewable (electrical) energy, potable water, and quality solar salts. The research involves the development of a coupled seaweed and solar salt farming system through an organic Rankine cycle system and a seawater reverse osmosis desalination system. The pilot project will produce a prototype ready for commercialisation.

## Indonesian Organisations

- Universitas Trunojoyo, Fakultas Teknik
- Kementerian Kelautan, Direktorat Pemanfaatan Air Laut dan Biofarmakologi

## Australian Organisations

- University of Newcastle, Global Engagement and Partnerships
- RMIT University, College of Business and Law

## Lead Researchers

- Prof. Caroline Chan

## Researchers

- Prof. Booi Kam
- A/Prof. Wahyudi Agustiono
- Nizar Amir
- Dr. Zaki Mahassin

## Research locations

- East Java

# Maintaining Blue Carbon by Learning from Indigenous Papuan Women's Conservation and Adaptation Strategies in Papua's Mangrove Areas

**Keyword:** Indigenous Papuan women's knowledge in mangrove areas

This project will support inclusive and innovative blue carbon initiatives. Using qualitative methodology, the project will document and understand the expertise of Indigenous Papuan women and their adaptation strategies in Papua's mangroves, the main outcomes of this research will be (1) new knowledge about diverse models of climate change adaptation strategies that are based on Indigenous Knowledge, gender inclusive and contribute to gender equality and policy innovation; (2) increased awareness of traditional knowledge that can help maintain the ecological function of mangrove forest including its impact on carbon supply; (3) enhanced women's roles in community knowledge partnerships; (4) improved Gender Equality, Disability, and Social Inclusion research capabilities of early career researchers and students; and (5) enhanced collaboration between researchers in Australia and Indonesia.

## Indonesian Organisations

- Universitas Papua, Pusat Penelitian Lingkungan Hidup

## Australian Organisations

- The University of Queensland, School of Social Science

## Lead Researchers

- Dr. Aplena Elen Siane Bless

## Researchers

- Dr. Jenny Munro
- Els Tienieke Rieke, PhD;
- Agustina Sylvanie Mori Muzendi, MSi,
- Yustina L.D. Wambrau, M.GF Agribuss
- Yenny Yendri Solosa, M.Sc
- Desi Natalia Edowai, MP
- Hermina Haluk, M.Eng
- Dr. Petrus Dimara
- Dr. Selvi Tebay
- Krisma Lekito, M.Sc
- Dr. Yaved Syufi



## Research locations

- West Papua
- Southwest Papua
- Central Papua
- Papua



SUB-THEMES

# CLIMATE FINANCING



# Understanding Social Participation and Inclusion in Jurisdictional Approaches to Sustainable Environmental Management

**Keyword:** Jurisdictional Approach

The objective of this research is to strengthen understanding of how to increase participation and social inclusion in Jurisdictional Approaches to sustainable land and forest management, based on lessons from a selection of sites in Indonesia. The research will use mixed methods to evaluate dynamics of representation and influence within the multistakeholder coordinating forums of jurisdictional initiatives; community and stakeholder consultation on policy and planning processes supported by these initiatives; and patterns of inclusion/exclusion in access to economic opportunities such as price premiums, market access and technical support for more productive and climate smart agro-commodity production facilitated by jurisdictional initiatives. The project will explore the ways in which both the design of Jurisdictional Approaches and broader patterns of social inequality in implementation sites shape, enable and constrain social inclusion within Jurisdictional Approaches. The project will contribute to stronger Gender Equality, Disability, and Social Inclusion frameworks and indicators in Jurisdictional Approaches and wider policy engagement and knowledge regarding their importance.

## Indonesian Organisations

- Universitas Gadjah Mada, Fakultas Ilmu Sosial dan Ilmu Politik (FISIPOL)

## Australian Organisations

- The University of Melbourne, Faculty of Arts and the Nossal Institute

## Lead Researchers

- A/Prof. Rachael Diprose
- A/Prof. Kate Macdonald

## Researchers

- Dr. Bahrudin

## Research locations

- West Kalimantan
- Riau

# Conserving Ridge to Reef: Integrated and Innovative Approach to Enable Sustainable Financing in Supporting Inclusive Climate Change Projects in Indonesia

**Keyword:** Ridge to reef framework

This research project aims to develop a comprehensive, innovative, and viable approach that fosters inclusive Ridge to Reef projects aiming to contribute to the sustainability of climate change adaptation, mitigation, and resilience, benefiting Indigenous communities, local populations, and women. The anticipated deliverables and outputs of this research encompass three key aspects: (1) a comprehensive feasibility study and strategy will examine the potential for R2R implementation in Indonesia and its contributions to inclusive climate change projects; (2) a mechanism for effective governance will be developed, addressing the area encompassing upland forests, watersheds, and mangrove forests, while prioritizing gender equality, disability, and social inclusion at national and subnational levels; (3) an approach will be formulated to assist project implementers and the government in attracting funding from various public-private sources at the local, national, or transnational levels, to support inclusive Ridge to Reef climate change projects in Indonesia.

## Indonesian Organisations

- World Resources Institute (WRI) Indonesia
- Badan Riset dan Inovasi Nasional (BRIN), Organisasi Riset Tata Kelola Pemerintahan, Ekonomi, dan Kesejahteraan Masyarakat

## Australian Organisations

- University of Technology Sydney, Institute for Sustainable Futures
- The University of Queensland, Center for Biodiversity and Conservation Science, School of Earth & Environmental Science

## Lead Researchers

- Tomi Haryadi

## Researchers

- Prof. Dr. Syarif Hidayat
- Dr. Maxensius Tri Sambodo
- Prof. Juliet Willetts
- Prof. Eve McDonald-Madden

## Research locations

- West Papua

SUB-THEMES

# DISASTER RISK MITIGATION



# Fire Play: Understanding and Documenting Indigenous Fire Governance in Indonesia

**Keyword:** Fire management

This research focuses on understanding and documenting decentralised fire governance in Indonesia. Using mixed methods, the project will (1) document Indigenous Dayak fire experience at the climate frontier and (2) Inform policy on the lingering impacts of climate injustices to vulnerable groups. The project will generate multi-media documentation of local fire initiatives, in-depth reports on fire knowledge, an evaluation of fire policies, discourse analysis of fires, a socio-economic baseline survey, a fire-related regulatory and policy database, and community-related materials. The project will foster interdisciplinary approaches to learn and record how Indigenous Dayak in Central Kalimantan navigate climate initiatives that require them to end their fire practices, find new ways of life, and sustain anti-fire initiatives in their villages.

## Indonesian Organisations

- Universitas Indonesia, Lembaga Penelitian dan Pengembangan Sosial dan Politik, Fakultas Ilmu Sosial dan Ilmu Politik
- Yayasan Puter Indonesia
- Badan Riset dan Inovasi Nasional, Pusat Riset Kewilayahan

## Australian Organisations

- The University of Melbourne, Asia Institute, Faculty of Arts

## Lead Researchers

- Dr. Aryo Danusiri
- S. Paramita B.
- Sofyan Ansori

## Researchers

- Andaman Muthadir
- Angela Iban
- Edwin Jurriens
- Jemma Purdey

## Research locations

- Central Kalimantan

# Tide Eye – AI/IOT-Powered Airborne System for Monitoring Water Level and Tidal Floods in North Coast of Central Java

**Keyword:** Sea level, monitoring

The project addresses the need of Pemali-Juana River Basin Office in digitally transforming their monitoring of seawater level and tidal flood risks; thus, improving the livelihood of inhabitants in the north coast of Central Java. The project will develop a complete airborne AI/IoT-powered system, a shareable water level database, and a user dashboard. The outcomes include a cost-effective, fit-for-purpose, scalable solution to digitalise the monitoring and predicting flood risks which will improve the monitoring efficiency and accuracy and reduce the losses caused by floods.

## Indonesian Organisations

- Telkom University (Tel-U), Fakultas Teknik Elektro
- Balai Besar Daerah Aliran Sungai Pemali-Juana (BBWS) Kementerian Pekerjaan Umum dan Perumahan Rakyat
- PT. Hilmy Anugerah Consulting Engineer Ltd. (PTHA)

## Australian Organisations

- University of Wollongong (OUW), Faculty of Engineering and Information Science (EIS)

## Lead Researchers

- A/Prof Le Chung Tran

## Researchers

- Prof. Son Lam Phung
- Prof. Hoa Khanh Dam
- Prof. Christian Ritz
- Prof. Faisal Hai
- A/Prof. Montse Ros
- Prof. Jiangtao Xi
- Prof. Farzad Safaei
- Dr. Miftadi Sudjai
- A/Prof. Aloysius Adya Pramudita
- Dr. Erna Sri Sugesti
- Dr. Achmad Ali Muayyadi

- Dr. Asep Suhendi
- Dr. Harya Muldianto
- Mulyadi Sudjai

#### **Research locations**

- Central Java





SUB-THEMES

# ENERGY TRANSITION



# Initiative for an Open, Inclusive, and Integrated Climate Change Model for Indonesia

**Keyword:** Energy transition, open climate model, microsimulation

This research project aims to build an energy transition model to guide the development of more effective and equitable climate policies. Using economic and pioneering open climate modelling in Indonesia, the project will develop a robust and inclusive climate and energy model. The goal of this project is to visualize the decarbonization pathways of Indonesia's economy and how the energy transition may influence various aspects such as macroeconomics, employment, inequality, emissions, and its effects on vulnerable groups including women and people with disability.

## Indonesian Organisations

- Universitas Indonesia, Lembaga Penyelidikan Ekonomi dan Masyarakat, Fakultas Ekonomi dan Bisnis Universitas Indonesia (LPEM FEB UI)
- Institute for Essential Reform (IESR)
- Lembaga Penelitian SMERU

## Australian Organisations

- Australian National University, Institute for Climate, Energy and Disaster Solutions

## Lead Researchers

- Dr. Alin Halimatussadiah
- Dr. Milda Irhamni

## Researchers

- Prof. Frank Jotzo
- Prof. Budy Resosudarmo
- Dr. Yeliz Simsek
- Dr. Jorrit Gosens
- Dr. Dharani Sabba
- Muhammad Yudha Pratama
- Fachry Abdul Razak Afifi
- Dr. Asep Suryahadi
- Lia Amelia
- Affandi Ismail
- Fabby Tumiwa
- Dr. Raden Raditya Yudha Wiranegara

- Pintoko Aji
- Alvin Putra Sisdwinugraha

#### **Research locations**

- DKI Jakarta
- Canberra





SUB-THEMES

# ENVIRONMENTAL CONSERVATION

# Aligning Indigenous Knowledge with Innovative Methods to Measure Natural Capital and Mitigate Detrimental Environmental, Social and Cultural Impacts

**Keyword:** Natural capital

This research will document living natural capital assets of different marine, coastal and terrestrial environments to be able to assess mitigation strategies. It will provide a robust baseline on the across 40,000 ha adjoining the city of Pontianak, West Kalimantan and surrounding areas. The outcomes of this research are to (1) provide government agencies and communities with an accurate, repeatable, quantitative and objective baseline measure of natural capital across the urban, agricultural and forested landscapes, as well as mangroves and seagrass meadows, (2) develop prediction models of how land use and land cover and targeted species might have shifted with climate change, and (3) provide local indigenous communities with tools and training for data engagement and field validation. This knowledge will inform how successful current or future mitigation strategies are in maintaining or enhancing these natural capital assets across regions and landscapes.

## Indonesian Organisations

- Badan Riset dan Inovasi Nasional, Pusat Penelitian Masyarakat dan Kebudayaan
- Institut Pertanian Bogor, Departemen Pemanfaatan Sumberdaya Perikanan, Fakultas Ilmu Kelautan dan Perikanan
- Politeknik Negeri Pontianak, Jurusan Perikanan dan Ilmu Kelautan
- Yayasan Rekam Nusantara, Pusat Sumber Daya Perikanan Indonesia
- Universitas Nusa Cendana, Departemen Pertanian
- Universitas Padjadjaran, Departemen Hama dan Penyakit Tumbuhan, Fakultas Pertanian

## Australian Organisations

- Murdoch University, Harry Butler Institute; and Asia Research Centre
- ArborCarbon Pty Ltd
- The Metis Centre

## Lead Researchers

- Emeritus Prof. G. Hardy
- Emeritus Prof. N. Loneragan
- A/Prof. C. Warren

## Researchers

- Dr. Endah Yulia
- Dr Lily Ishaq
- Prof. Budy Wiryawan
- Dr Sutomo
- Dr. B. Vatria
- Dr D. Adhuri
- Dr. I. Yulianto
- Adjunct Profesor P. Barber
- Dr. M. Metta

## Research locations

- West Kalimantan

# Agricultural Productivity, Poverty, and The Environment

**Keyword:** Agricultural productivity

This research is aimed at answering whether improved agricultural technologies and increased farmer productivity can reduce harmful environmental externalities, such as deforestation, fire, and pollution. Using mixed methods, the project will prepare the long-term research by undertaking interviews, pilot testing, and extensive stakeholder engagement. The outcomes of this project will be a framework for understanding the relationship between agricultural technologies and reduction of environmental harm to promote agricultural productivity.

## Indonesian Organisations

- J-PAL Southeast Asia
- Lembaga Penelitian Ekonomi dan Masyarakat (LPEM) Fakultas Ekonomi dan Bisnis, Universitas Indonesia

## Australian Organisations

- Australian National University, Crawford School of Public Policy
- Monash University, Centre for Development Economics and Sustainability

## Lead Researchers

- Dr. Ryan Edwards

## Researchers

- Dr. Alin Halimatussadiah
- Dr. Emilia Tjernstrom

## Research locations

- DKI Jakarta

SUB-THEMES

# **FUTURE PROOFING COMMUNITIES**



# Developing an Integrated Approach to Climate Change Adaptation, Food Security and Social Forestry in Vulnerable and Indigenous Communities in Eastern Indonesia

**Keyword:** Social forestry, climate change adaptation, food security

This project connects social forestry policy, food security and climate adaptation to support social inclusion. The project will focus on areas with high stunting capacities to investigate how social forestry can address critical adaptation/food security issues faced by marginal groups in social forestry areas. The project will use mixed methods to combine climate vulnerability, livelihood, and food security analysis to map the drivers of insecurity. The project will undertake and deliver policy analysis of (1) the drivers of livelihood insecurity, the sources of community resilience, and the impact of existing interventions on community wellbeing in social forestry areas; (2) how social forestry policy responses can support climate change adaptation and food security. The project will enhance the resilience of vulnerable communities and contribute to social inclusion by promoting indigenous empowerment and addressing gender-based discrimination and inequalities that affect access to resources and decision-making power.

## Indonesian Organisations

- Universitas Nusa Nipa, Departemen Agroteknologi
- Universitas Indonesia, Departemen Antropologi
- Universitas Budi Luhur, Pusat Studi Budaya Luhur Nusantara
- Universitas Gadjah Mada, Fakultas Kehutanan
- Universitas Sumatera Utara, Departemen Sosiologi
- LSM Sandy Florata
- Dinas Lingkungan dan Kehutanan NTT
- UPT KPH Kabupaten Sikka
- UPT KPH Kabupaten Flores Timur

## Australian Organisations

- Australian National University, Crawford School of Public Policy & Centre for the Public Awareness of Science

## Lead Researchers

- Prof. John McCarthy

## Researchers

- Yovita Yasintha Bolly, Msi
- Dr. Suraya Affif
- Dr. Prudensius Maring
- Dr. Rini Astuti
- Prof. Ahmad Maryudi
- Dr. Henri Sitorus
- Desmiwati
- Aloysius Tao
- Dr. Mulia Nurhasan
- Kevin Sandy

## Research locations

- East Nusa Tenggara

# Building Inclusive Climate Resilience: Enhancing the Adaptive Capacity Of Indonesian Children and Youth in Overcoming and Mitigating the Climate Impact

**Keyword:** Climate justice

This project focuses on children and young people to investigate current Government of Indonesia policies and practices that generate climate injustices and explore strategies to integrate climate justice into policy and practice. Through mixed method approaches, the project will identify the underlying causes of climate injustices by: (1) examining and assessing current policies and practices in mitigation, adaptation, and disaster risk reduction and how these might have unintended negative effects on vulnerable communities, particularly children and youths; (2) Understanding the vulnerabilities and injustices experienced by children and young people; and (3) Understanding the opportunities and challenges in integrating a climate justice perspectives and transformative approaches into current policies and practices. The project promotes child and youth centred methodologies to inform the improvement of policy for climate justice while also contributing to innovations for measuring societal exposure, sensitivity, and ability to adapt to the impact of climate change using the social vulnerability index and measuring the integration of climate justice into policies and practices using the climate justice index.

## Indonesian Organisations

- Universitas Indonesia, Pusat Kajian dan Advokasi Perlindungan dan Kualitas Hidup Anak Universitas Indonesia (PUKAPA)

## Australian Organisations

- Australian National University, Indonesia Project

## Lead Researchers

- Clara Siagian
- Firman Witoelar Kartaadipoetra

## Researchers

- Widi Laras Sari

## Research locations

- DKI Jakarta
- Central Java
- West Kalimantan

# Protecting the Most Vulnerable in Rural Indonesia: How Can We Develop More Adaptive Social Protection?

**Keyword:** Social protection

This project aims to support the social integration of marginal groups in Adaptive Social Protection. It will focus on the two most vulnerable rural groups, dry-land smallholders and small-scale fishers; and explore policy options for Government of Indonesia to better develop Adaptive Social Protection and align it with local conditions and needs. This multidisciplinary project will integrate qualitative and quantitative approaches, apply livelihood, food security, economic and demographic analyses to map vulnerabilities and evaluate how Adaptive Social Protection can best to build adaptive capacity. It will increase the capacity of Indonesia's emerging Adaptive Social Protection system to assist those most vulnerable and build their adaptive capacity while ensuring that gender equality and social inclusion considerations are central to adaptive social protection planning.

## Indonesian Organisations

- Lembaga Penelitian SMERU
- Universitas Islam Internasional Indonesia, Fakultas Ilmu Sosial

## Australian Organisations

- Australian National University, Crawford School of Public Policy
- University of Western Sydney, School of Social Science

## Lead Researchers

- Athia Yumna
- Nila Warda

## Researchers

- Dr. Sirojuddin Arif
- Prof. John McCarthy
- Prof. Andrew McWilliam

## Research locations

- Nusa Tenggara
- Sulawesi

# Using Restorative Justice Techniques to Build Resilience and Address Climate Change Harms in Indonesia

**Keyword:** Climate justice

This project brings marginalised voices into responses of restorative justice to environment harm. Using inclusive methodologies that amplify people with disability and women, the program outcomes will create an original database of research for evidence in the development of more inclusive environmental law, policies, and practices to mitigate climate harms communities, locally, regionally and nationally.

## Indonesian Organisations

- Universitas Brawijaya, Fakultas Hukum

## Australian Organisations

- Australian Catholic University, Thomas More Law School
- Australia-Indonesia Disability Research and Advocacy Network (AIDRAN)

## Lead Researchers

- Prof. Patrick Keyzer

## Researchers

- Dr. Aan Eko Widiarto
- Dr. Mark Hamilton
- Dr. Dina Afrianty
- Rayna Smith
- Linc Yow Yeh
- Prisca Listriningrum
- Daru Adianto
- Arina Hayati
- Unita Werdi Rahajeng
- Filipus Yudianto
- Mahalli

## Research locations

- East Java
- East Nusa Tenggara
- South Sulawesi

# Forced Labour and Climate Change: Keeping A Focus on Women and Children

**Keyword:** Forced labour

This project will focus on Indonesian policy and business responses to forced labour and the impacts on vulnerable women and children, especially those exposed to natural disasters, exacerbated by climate change in the context of responses. The project's method will utilise a child rights framework, alongside an intersectional gender focused framework, and encourage local participation and use a mixed-methods approach. The project will take a particular focus on the risks of rising sea levels to coastal villages, the risk of forced migration that arise from land loss, and the intersection with forced labour. The objectives of the research are, (1) apply a gender and child focused analysis to the current policies and business responses to forced labour and climate change related to coastal villages in Indonesia, (2) map the extent of forced labour amongst women and children, (3) gain a better understanding of the experiences of vulnerable women and children in coastal villages, and (4) reach consensus amongst community leaders, business leaders and policy makers on ways to address forced labour in their communities.

## Indonesian Organisations

- Universitas Diponegoro, Departemen Perencanaan Wilayah dan Kota
- Badan Riset dan Inovasi Nasional, Pusat Penelitian Hukum

## Australian Organisations

- Griffith University, Disrupting Violence Beacon

## Lead Researchers

- Dr Amy Young
- Prof. Dr.-Ing. Wiwandari Handayani
- Dr Laely Nurhidayah

## Researchers

- Prof. Patrick O'Leary
- Prof. Elena Marchetti
- Prof. Sara Davies
- Dr Ana Borges Jelinic
- A/Prof. Jennifer Boddy
- Dr Febi Dwirahmadi
- Prof. Donna McAuliffe
- Prof. Susan Harris Rimmer

- Dr. Landung Esariti
- Intan Hapsari Surya Putri
- Dr. Aditya Rahmadhony
- Josephin Mareta
- Vera Bararah Barid

#### **Research locations**

- DKI Jakarta
- Central Java



# Strengthening the Flood Resilience Capabilities of Vulnerable Groups

**Keyword:** Flood response

Floods are a common occurrence in Indonesia and Australia, and their frequency and severity are expected to worsen with the predicted impacts of climate change. There is an urgent need to strengthen the flood resilience capabilities of local communities, particularly among vulnerable population groups. Vulnerable groups are of concern as they are hard to reach, and have economic, social or physical constraints that limit their ability to prepare for and respond to a flood situation. Using a case study and mixed methods approach, the research will focus on identifying the unique needs of vulnerable groups in a flood situation; and mapping the key information sources used by vulnerable groups. The outcomes of the project will provide essential baseline knowledge to policy makers and emergency teams to guide flood response planning and resource allocation to best support and empower vulnerable groups in a flood situation.

## Indonesian Organisations

- Institut Teknologi Sepuluh Nopember, Fakultas Teknik Sipil, Perencanaan, dan Geologi
- Pemerintah Kota Surabaya

## Australian Organisations

- Queensland University of Technology, Faculty of Business and Law
- University of Technology Sydney, Faculty Design Architecture & Building

## Lead Researchers

- A/Prof. Connie Susilawati

## Researchers

- Lilik Arijanto, S.T., M.T.
- Ria Asih Aryani Soemitro
- Sara Wilkinson
- Ashantha Goonetilleke
- Melissa Teo
- Farida Rachmawati

## Research locations

- East Java
- New South Wales



# From Technical to Socio-Ecological Pathways for Climate Change Adaptation: Analysis of Floods in Semarang

**Keyword:** Flood control, community resilience, adaptation

The project aims to increase the sustainability of infrastructure-oriented solutions to flooding, providing an assessment framework to improve the knowledge and understanding of the direct and potential impacts of such infrastructure adaptations in Semarang on the livelihoods, socio-economic conditions, and longer-term sustainability of the diverse communities involved. The design of this framework is an innovative approach to address the current negative impacts of some technical interventions, using qualitative methods. The project will contribute to policy and tools that encourage inclusive and sustainable development and facilitate knowledge sharing between Semarang and Brisbane.

## Indonesian Organisations

- Universitas Diponegoro, Fakultas Teknik, Departemen Perencanaan Wilayah dan Perkotaan
- Pemerintah Kota Semarang

## Australian Organisations

- The University of Queensland, Faculty of Science, School of the Environmental
- Brisbane City Council

## Lead Researchers

- A/Prof. Sonia Roitman

## Researchers

- A/Prof. Wido Prananing Tyas
- A/Prof. Ron Johnstone
- Prof. Wiwandari Handayani
- Budi Prakosa
- Sarah Stanilewicz

## Research locations

- Central Java

# Empowering Women in Mitigating Climate Change Impacts on Health

**Keyword:** Health, women health, climate change, women' empowerment, climate change mitigation

This study addresses climate change impacts on the health of women and children. Using nursing expertise and drawing on qualitative methods, the research will document and amplify diverse women's experiences to generate inclusive policy relevant information on how to protect health from increasing climate-change-related pressures; and create long-term partnerships with Indonesian women that will facilitate long-term capacity for the nursing research team to serve the women of Indonesia as they face an uncertain climate future.

## Indonesian Organisations

- Universitas Indonesia, Fakultas Keperawatan

## Australian Organisations

- Monash University, Faculty of Medicine, Nursing and Health Science
- The University of Melbourne, Faculty of Medicine, Dentistry and Health Science

## Lead Researchers

- Ns. Suryane Sulistiana Susanti, S.Kep., M.A.,Ph.D

## Researchers

- Ns. Rona Cahyantari Merduaty, S.Kep., M.AdvN
- Ns. Indah Permata Sari, S.Kep., M.Kep., Sp.Kep.Kom
- Dessie Wanda, S.Kp., M.N., Ph.D
- A/ Prof. Zerina Tomkins
- A/Prof. Ann Borda

## Research locations

- Aceh
- DKI Jakarta
- West Java
- Central Java
- East Nusa Tenggara

# Building a Model of Future-Proofing for Climate Resilience By Engaging Communities (MoFCREC) in Eastern Indonesia

**Keyword:** Community climate knowledge, participatory research, climate resilience, vulnerable communities, human rights

This project highlights vulnerable community knowledge to identify climate-related challenges and develop strategies to strengthen resilience. Through participatory action research, the project offers three key innovations: (1) Deep community engagement, facilitated through co-design processes at every level of the research program. (2) Demonstration of the intersectional disadvantages accrued through climate change (for example, acknowledging that poverty impacts nutrition, and that older people can also be women living with disabilities) through a constant iterative comparison approach; and (3). Development and consolidation of an interdisciplinary, international team bringing together expertise in climate resilience, environmental governance, human rights, social inclusion, gender, disability, ageing, law and policy. This project seeks to develop a Model of Future-proofing for Climate Resilience by Engaging Communities. This project aims to build strong and enduring partnerships that will promote climate resilience for key vulnerable groups: people with disabilities, diverse women, and older people (and people who live at the nexus of these), in Lombok, Makassar and Sumbawa.

## Indonesian Organisations

- Monash University Indonesia, Program Studi Desain Perkotaan dan Program Kebijakan dan Manajemen Publik
- Pusat Penelitian Komunikasi Perubahan Iklim Monash, Simpul Indonesia
- Universitas Hasanuddin, Fakultas Kesehatan Masyarakat, dan Pusat Keunggulan Ilmu Interdisipliner dan Keberlanjutan
- Gerakan Disabilitas untuk Kesenjangan Indonesia (YayasanPerDIK)
- Lembaga Bantuan Hukum Perempuan Sulawesi Selatan (LBH APIK Sulsel)
- Kementerian Pemberdayaan Perempuan dan Perlindungan Anak Republik Indonesia
- DP3AAP2KB Provinsi Nusa Tenggara Barat
- Badan Perencanaan Pembangunan Daerah (Bappeda) Provinsi Nusa Tenggara Barat
- Komisi Nasional Anti Kekerasan Terhadap Perempuan
- Perhimpunan Jurnalis Lingkungan Hidup Indonesia

## Australian Organisations

- Monash University, Herb Feith Indonesian Engagement Centre, Faculty of Arts, Faculty of Law
- Australia-Indonesia Centre
- ReelOzInd
- 360Info

## Lead Researchers

- A/Prof. Sharyn Davies
- A/Prof. Ika Idris

## Researchers

- Prof. Megan Farrelly
- A/Prof. Sudirman Nasir
- A/Prof. Narelle Warren
- A/Prof. Becky Batagol
- A/Prof. Eka Permanasari
- Dr. Ronli Sifris
- Dr. Sabina Satriyani Puspita
- Dr. Eugene Sebastian
- Dr. Jemma Purdey
- Joni Putra
- Nur Syarif Ramadhan
- Rosmiati Sain
- Ria Ernunsari
- Eko Novi Ariyanti
- Prof. Andrew Jaspan
- Dr. Nurhandini Eka Dewi
- Dr. Iswandi

## Research locations

- South Sulawesi
- West Nusa Tenggara
- East Nusa Tenggara

# Building Resilience in At-Risk Rural Communities Through Improving Media Communication on Climate Change Policies

**Keyword:** Media communication

This project will address Indonesia and Australia climate policy coverage in the media. Using quantitative survey, content analysis, and human-centred design methodologies, this research will focus on at-risk rural communities who are especially vulnerable to the direct and indirect impacts of climate change. The project will aim to: (1) produce a comprehensive up-to-date summary report on the knowledge and perception of at-risk rural communities in relation to climate policies, and the first report on identified shared challenges in Indonesia and Australia of media communication towards rural communities regarding specific climate policies; (2) produce a detailed report on the patterns, volume, targeting and factual correctness of media coverage on current climate policies relevant to at-risk rural communities, and the first report on transferable best practices in media communication about climate policies towards at-risk groups like rural communities in Indonesia and Australia; and (3) design and develop a user-friendly online platform serving as the first comprehensive information portal designed to enhance media communication on climate change policies among at-risk rural communities in Indonesia and Australia. The overarching aim of this project is to understand the media communication of climate policy and enhance public capacity - especially among members of at-risk rural communities - to evaluate the reliability of information and engage with climate policies that are relevant to them.

## Indonesian Organisations

- Universitas Gadjah Mada

## Australian Organisations

- Deakin University

## Lead Researchers

- A/Prof. Xiao Liu
- Dr. Hilya Mudrika Arini

## Researchers

- Dr. Anna Klas
- Dr. Fitri Trapsilawati
- Dr. Adam Cardilini

- Prof. Catherine Bennett
- A/Prof. Hassan Vally
- Dr. Justin Lawson
- Dr. Ming Liu
- Dr. Chathu Ranaweera
- A/Prof. Kevin Lee
- Dr. Yun Mulyani
- Dr. Yunita Sari
- Dr. Arif Nurwidyantoro

#### **Research locations**

- Australia
- Indonesia



# Inclusive Climate Adaptation: The Roles of Women's Climate Advocacy Network

**Keyword:** Women's advocacy

This research project will investigate the roles of women's climate advocacy networks and focusing on their perspectives to understand the existing gaps in advocating the issues and how adaptation policies can best support their needs and leverage the existing networks. This study uses a combination of feminist perspectives on the environment, critical analysis of societal structures, and an understanding of the ongoing effects of colonialism to explore the role of gender in discussions about the environment, development, and climate change. It will emphasise the significance of gender by investigating issues like who has access to resources and controls them, how gender shapes our understanding of knowledge, and how gender intersects with environmental and climate-related struggles. The goal is to raise awareness and knowledge about the importance of considering gender in these discussions and to encourage a renewed focus on this crucial aspect.

## Indonesian Organisations

- Universitas Negeri Semarang, Fakultas Bahasa dan Seni
- Universitas Gadjah Mada, Fakultas Ilmu Sosial dan Ilmu Politik
- Institut Mosintuwu
- Sri Institute
- Solidaritas Perempuan Kinasih
- Jaringan Perempuan Indonesia Timur (JPIT)

## Australian Organisations

- Australian National University, College of Science
- University of Western Australia, Graduate School of Education

## Lead Researchers

- Dr. Zulfa Sakhiyya
- Dr. Yulida Pangastuti
- Dr. Rini Astuti
- Prof. Vaille Dawson

## Researchers

- Lian Gogali
- Dr. Desintha
- Dwi Asriani
- Sanaul Laily

- Pdt. Dr. Merry Kolimon

#### **Research locations**

- Central Sulawesi
- East Nusa Tenggara
- DI Yogyakarta





# Towards Future Proof Society: Adaptive Social Protection Against Climate Change

**Keyword:** Social protection

This project will identify existing formal and informal social protection systems, including multiple climate financing schemes that can facilitate anticipatory actions to enhance climate resilience, particularly among marginalised groups such as women, children, and other socially excluded communities. Specific potential contributions of the project findings to the wider policy discussions include (1) the understanding and potential development of alternative protection through community-based arrangements; (2) the development of a comprehensive approach for climate protection through social protection and alternative protection, (3) the potential improvements of formal social protection for ASP development, and the (4) a formulation of new social protection programs that can be uptaken by the government.

## Indonesian Organisations

- Resilience Development Initiative
- Universitas Kristen Wira Wacana, Fakultas Ekonomi, Bisnis, dan Humaniora
- Universitas Pendidikan Indonesia, Fakultas Pendidikan Ekonomi dan Bisnis
- Habitat for Humanity Indonesia
- The Prakarsa Indonesia

## Australian Organisations

- Charles Darwin University, Faculty of Arts and Society

## Lead Researchers

- Dr. Saut Sagala

## Researchers

- Dr. Maklon Killa
- Dr. Ayu Krishna
- Andras Hapsoro
- Dr. Victoria Fanggidae
- Dr. Jonatan Lassa

## Research locations

- East Nusa Tenggara

# Enabling Children as Agents of Change through Inclusive Edugames on Climate Change and Disaster Resilience

**Keyword:** Climate education

This research focuses on climate education and children and young people. The action and inclusive methods are aimed to understand how children and young people learn about climate change by developing education materials through a gamification approach action (edugames) using digital and non-digital media designed to be sustainable, affordable, and easily scaled up. The edugames objectives are to develop learners' abilities and confidence to think critically and creatively about climate change, to communicate risk effectively, to develop personal and social responsibility and become concerned citizens in their surrounding environment, and to appreciate diversity and gender equality.

## Indonesian Organisations

- PREDIKT Tangguh Indonesia
- Universitas Nusa Cendana, Fakultas Kesehatan Masyarakat
- Universitas Multimedia Nusantara, Fakultas Seni Rupa dan Desain
- ChildFund Indonesia
- Masyarakat Penanggulangan Bencana Indonesia (MPBI)

## Australian Organisations

- Charles Darwin University, Faculty of Arts and Society
- University of Western Australia, Graduate School of Education
- Harkaway Primary School

## Lead Researchers

- Dr. Avianto Amri

## Researchers

- Yusra Tebe
- Rebeka R. Haning
- Dr. Indra Yohanes Kiling
- Aditya Satyagraha, S.Sn., M.Ds
- Fonita Theresia Yoliando, S.Ds., M.A
- Dr. Rina Suryani Oktari
- Dr. Jonatan Lassa
- Hermina Manlea, S. Si, M. Env.Sc

- Jamjam Muzaki
- Leigh Johnson

#### **Research locations**

- East Nusa Tenggara



SUB-THEMES

# **FUTURE- PROOFING ENVIRONMENTS**



# Evaluating the Contribution of Social Forestry Management Rights Towards Climate Proof Livelihoods of Women and Men in Indonesia

**Keyword:** Social forestry

This study contributes to realising social equity and climate mitigation benefits of Indonesia's social forestry scheme. Using mixed method approaches, the study aims to: (1) measure the contribution of social forest management on locally appropriate measures of well-being and sustainable and climate-proof livelihood activities for diverse social groups, especially women's groups within forest residing or adjacent communities that have secured a social forestry management permit within the past five years; (2) measure the forest cover, quality and women's role on forests that have been issued a social forestry management permit within the past five years; and (3) understand what support communities with social forestry permits require in order to climate-proof their livelihoods, enhance forest cover and quality, and to increase women's role in forest management to enhance climate mitigation and gender equity outcomes.

## Indonesian Organisations

- Perkumpulan Untuk Peningkatan Usaha Kecil (PUPUK)
- The Asia Foundation
- Badan Riset dan Inovasi Nasional (BRIN), Lembaga Ilmu Sosial dan Humaniora (Pusat Penelitian Masyarakat dan Budaya, Pusat Penelitian Studi Kependudukan)  
Universitas Airlangga, Departemen Ilmu Ekonomi

## Australian Organisations

- The University of Melbourne, School of Agriculture, Food and Ecosystem Sciences, Faculty of Science

## Lead Researchers

- Ike Sulistiowati
- Dr. Rumayya

## Researchers

- Dr Tessa Toumbourou
- Dr Andrea Rawluk
- R. Alam Surya Putra
- Margaretha Tri Wahyuningsih

- Ridwan
- Dr Lilis Mulyani
- Gutomo Bayu Aji
- Marcellinus Mandira Budi Utomo
- Dr Ilmiawan Auwalin
- Mokhamad Farid Fauzi
- Sendri Lentari

#### **Research locations**

- Central Kalimantan
- West Kalimantan
- South Sulawesi
- Bengkulu
- DI Yogyakarta

# Indonesia–Australia Citarum Action Research Program (CARP)–Circular Economy Transitions for Resilient Climate And Environmental Futures

**Keyword:** Circular economy

The objective of the project is to develop and test novel approaches in the field of integrated waste, especially solid waste and wastewater solutions, to achieve zero plastic waste discharge into the Citarum River. Using transdisciplinary expertise and community-led decision making, the project will bring together technological and social innovation to (1) establish a ‘living lab’ village-based pilot for showcasing, education, training and capacity building, and as the subject of living lab research; (2) design principles for operationalising and upscaling integrated waste-to-resource systems in TPS-3R facilities servicing up to 5,000 households. The team will also develop a proof of concept for integrated waste and waste management, and evidence to evaluate policy effectiveness at local, national and international scales. In the long run, the new knowledge created from this project would be used to inform strategies for addressing river pollution in the Citarum basin and for other degraded rivers in Southeast Asia, improving the lives of vulnerable communities dependent on rivers for water and livelihoods.

## Indonesian Organisations

- Universitas Indonesia, Departemen Teknik Sipil dan Departemen Ilmu Politik
- Yaksa Pelestari Bumi Berkelanjutan (YPBB)
- CSIRO

## Australian Organisations

- Monash University, Art, Design and Architecture and Monash Sustainable Development Institute

## Lead Researchers

- Prof. Diego Ramirez-Lovering
- Prof. Tony Wong
- Prof. Rob Raven
- Dr. Paris Hadfield
- Dr. Ilya Fridman
- Dr. Michaela Prescott
- Dr. Jane Holden
- Dr. Tanvi Maheshwari

## Researchers

- Dr. Reni Suwarso
- Dr. Dwinanti Marthanty
- Dr. Cindy Priadi
- Dr. M. Adhiraga Pratama
- David Sutasurya
- Dr. Melissa Skidmore
- Dicky Tanumihardja

#### **Research locations**

- West Java



# Future Proofing a Basic Social Service: Climate-Resilient Community-Based Rural Water Supply

**Keyword:** Water resources

This project aims to improve the climate resilience and inclusiveness of rural water systems and their related water resources. Using mixed-methods, the project will strengthen this basic service and its gender equality, disability and social inclusion-responsiveness, towards future-proofing rural water services in the face of climate change impacts.

## Indonesian Organisations

- Universitas Indonesia, Fakultas Teknik
- Universitas Ibnu Khaldun Bogor, Centre for Policy Regulation and Governance (CPRG)
- Universitas Gadjah Mada, Fakultas Kedokteran, Kesehatan Masyarakat dan Keperawatan

## Australian Organisations

- University of Technology Sydney, Institute for Sustainable Futures

## Lead Researchers

- Prof. Juliet Willetts

## Researchers

- Dr. Cindy Priadi
- Dr. Mova Al'Afghani
- Dr. Daniel

## Research locations

- DI Yogyakarta
- West Java
- West Kalimantan
- East Nusa Tenggara
- Lampung

# Developing Applications of Satellite Imagery for Modelling Environmental and Social Impacts of Climate Change on Seaweed Farming in Indonesia

**Keyword:** Seaweed

This project will develop an approach to mapping seaweed production areas using satellite imagery to monitor sea use change. Using mixed methods, this project will (1) develop computer vision and machine-learning tools for analysis of satellite imagery to monitor seaweed production; (2) undertake 'ground-truthing' of production estimates using oceanographic measurements and farm production diaries in three case study locations (in South Sulawesi, East Nusa Tenggara and Maluku); and (3) undertake qualitative social research to explore community perceptions of climate variability and their resilience strategies to identify interventions.

## Indonesian Organisations

- Universitas Hasanuddin, Pusat Penelitian dan Pengembangan Penelitian Kelautan, Pesisir dan Pulau-Pulau Kecil
- Jaringan Sumber Daya, PT.
- Universitas Nusa Cendana, Fakultas Peternakan, Kelautan dan Perikanan
- Universitas Gadjah Mada, Fakultas Geografi
- Politeknik Perikanan Negeri Tual, Departemen Teknologi Pasca Pengolahan Perikanan

## Australian Organisations

- Griffith University, Griffith Asia Institute Agribusiness Stream
- The University of Queensland, School of Agriculture and Food Sustainability and School of Information Technology and Electrical Engineering

## Lead Researchers

- Dr. Alexandra (Zannie) Langford

## Researchers

- Prof. Nurjannah Nurdin
- Radhiyah Ruhon
- Boedi Julianto
- Welem Turupadang
- Dr. Pramaditya Wicaksono
- Dr. Sanjiwana Arjasakusuma
- Wellem Anselmus Teniwut

- A/Prof. Ammar Abdul Aziz
- Prof. Scott Chapman
- Dr. Xin Yu

#### **Research locations**

- East Nusa Tenggara
- Maluku
- South Sulawesi



# The Ridge to the Reef of Integrated Watershed Management Approach (IWMA) to Foster the Socio-Ecology Climate and Livelihoods Resilience of Small Islands in Eastern Indonesia

**Keyword:** Integrated agroforestry, sustainable livelihood, ecological resilience, climate change, mitigation & adaptation

This project will address resilience of socio-ecosystems and local livelihoods in small islands in eastern Indonesia. The project will adopt multiple methods that incorporates data on the biophysical, livelihood, food nutrition, gender and extreme natural hazards to develop and test ecosystem resilience and risk reduction modelling; promote gender sensitive agroforestry best practices models and developed manuals; and develop policy and regulatory instruments to implement programs on water conservation and agroforestry practices. Anticipated outcomes include the potential contribution to the pathways for implementing Indonesia Adaptation Strategies promoting socio-ecological climate and livelihood resilience of small islands in Indonesia and beyond.

## Indonesian Organisations

- Universitas Gadjah Mada, Fakultas Kehutanan
- Center for International Forestry Research (CIFOR)
- Universitas Mataram, Fakultas Pertanian
- Universitas Pattimura, Fakultas Pertanian
- Universitas Kristen Artha Wacana, Fakultas Keguruan dan Ilmu Pendidikan
- Kementerian Lingkungan Hidup dan Kehutanan (KLHK), Pusat Standardisasi Instrumen Ketahanan Bencana dan Perubahan Iklim (CISDRCC)

## Australian Organisations

- Australian National University, Institute for Climate, Energy and Disaster Solutions (ICEDS)

## Lead Researchers

- Prof. Ahmad Maryudi

## Researchers

- Prof. Digby Race
- Ani Adiwinata, PhD
- Prof. Muktasam Abdurrahman
- Prof. Agus Kastanya

- Lintje Pellu, PhD
- Kirsfianti L. Ginoga, PhD

### **Research locations**

- East Nusa Tenggara
- Maluku
- West Nusa Tenggara



# Enhancing Food Resilience and Strengthening Animal Health Capacity through Comprehensive Assessment of Arthropod-Borne Diseases in Changing Climate Scenarios in Indonesia

**Keyword:** Animal health, vector-borne diseases, epidemic prevention, food resilience

This project addresses policies to protect and control arthropod diseases. Employing novel techniques for testing livestock and arthropod populations for various pathogens and identifying risk factors, the project's outcomes will provide important information about the distribution and epidemiology of arthropod vectors and associated diseases, future spread and associated risk factors, improvement of farmers' Knowledge, Attitude, Practices, selective drug choice and innovations, and the preparedness of concerned bodies.

## Indonesian Organisations

- Universitas Sebelas Maret, Fakultas Peternakan
- Universitas Gadjah Mada, Fakultas Peternakan
- Badan Riset dan Inovasi Nasional, Pusat Riset Veteriner

## Australian Organisations

- The University of Melbourne, Melbourne Veterinary School, Faculty of Science

## Lead Researchers

- Dr. med. vet. Penny H. Hamid, DVM., M. Biotech

## Researchers

- Prof. Abdul Jabbar, DVM., M.Sc (Hons), PhD., GCUT.
- Abdul Ghafar, DVM., M.Phil, PhD
- Mohammad Zainal Abidin, S.Pt., M. Biotech., PhD
- April Hari Wardhana, S.Si., M.Si., PhD

## Research locations

- Central Java

# Addressing Vulnerabilities and Enhancing Resilience in the Smallholder Value Chains of Java's Peri-Urban Food Supply Systems

**Keyword:** Food systems

This research aims to enhance peri-urban agriculture's resilience to climate change, ensuring a reliable food supply for Indonesia's urban centers. The objectives of this research are: (1) building a comprehensive dataset, enhancing the understanding of peri-urban value chains in these regions, (2) identification of intervention priorities and opportunities for innovation, such as how the value chains can link with market demand for carbon neutral and more sustainable food products, (3) interventions to build resilience and sustainability of food supply at multiple scales, and (4) enhance research team's professional capabilities, gaining in-depth knowledge and skills in systems dynamics modelling and carbon footprint analysis.

## Indonesian Organisations

- Badan Riset dan Inovasi Nasional, Organisasi Penelitian untuk Pemerintahan, Ekonomi, dan Kesejahteraan Masyarakat
- Institut Pertanian Bandung, Fakultas Ekonomi dan Manajemen, Jurusan Agribisnis
- Universitas Gadjah Mada, Fakultas Pertanian, Jurusan Sosio-Ekonomi Pertanian
- Universitas Negeri Malang, Fakultas Ilmu Sosial, Jurusan Geografi
- Universitas Muhammadiyah Yogyakarta, Fakultas Pertanian, Jurusan Agribisnis

## Australian Organisations

- The University of Queensland, Faculty of Science, School of Agriculture and Food Sustainability and School of the Environment

## Lead Researchers

- A/Prof. Ammar Abdul Aziz
- A/Prof. Paul Dargusch
- Dr. Risti Permani
- Dr. Md Ali Akber

## Researchers

- Dr. Adhitya Marendra Kiloos
- Dr. Nurul Hilmiati
- Prof. Amzul Rifin
- Dr. Any Suryantini

- Dr. Bagus Setiabudi Wiwoho
- Dr. Ike Sari Astuti
- Dr. Zuhud Rozaki
- Dr. Yanti Nuraeni Muflikh
- Dr. Julius Harrison Kotir
- Prof. Yasmina Sultanbawa

#### **Research locations**

- East Java
- DKI Jakarta
- West Java
- DI Yogyakarta





# Building a Sustainable Future: Developing Nutritious and Climate-Resilient Crop Varieties

**Keyword:** Future Crop, drought-resilient rice, healthier rice, multi-omics, gene technology, social science

Climate change is leading to extreme weather events, including more severe droughts, floods and temperature extremes that result in poor crop productivity and grain quality. The aims of our 'seeding stage' KONEKSI-PILOT research project are to: (1) Build capability of Indonesian-Australian researchers for climate-ready agri-tech; (2) Define the effect of climate change, specifically drought, on local Indonesian pigmented rice through high-throughput multi-omics technologies; (3) Establish new plant breeding technologies, including gene editing, for Indonesian pigmented rice; and (4) map the regulatory landscapes and societal attitudes to gene technology in Indonesia. Our project's long-term goal is to develop climate-resilient and nutritious rice varieties which aligned with the research priorities of the Australian and Indonesian governments, particularly in the sectors of food, resources, and health. By providing a set of modules and training, our consortium will enhance the sector-wide capacity and capability of Indonesian and Australian researchers. We will also evaluate the regulatory and societal attitudes towards such innovation in both countries. Furthermore, we will bring together all of the aforementioned elements to create a game-shifting nexus that can deliver rice varieties that are healthier and more resilient to climate change.

## Indonesian Organisations

- Universitas Gadjah Mada, Pusat Penelitian Bioteknologi
- Badan Riset dan Inovasi Nasional (BRIN), Organisasi Penelitian Pertanian dan Pangan, Pusat Penelitian Tanaman Pangan
- Institut Penelitian Padi Internasional (IRRI)

## Australian Organisations

- Australian National University, Research School of Biology, ARC Training Centre for Future Crops Development

## Lead Researchers

- Prof. Barry Pogson FAA
- Prof. Joan Leach
- Dr. Hendry Susila
- Dr. Rini Astuti

### Researchers

- Dr. Yekti Asih Purwestri
- Dr. Aris Hairmansis
- Dr. Ajay Kohli

### Research locations

- DI Yogyakarta
- Canberra



SUB-THEMES

# HEALTH IMPACTS



# Exploring Links Between Food Security and Health to Inform Policy and Service Priorities for Communities Living in High Flood Risk Areas of the Northern Coast of Central Java

**Keyword:** Food security

This project focuses on food insecurity, health and the impacts of climate change and environmental degradation on the livelihoods of vulnerable communities. Through a mixed methods approach, the project will produce evidence of (1) the diet and health status of a coastal community, including population groups at greatest risk of poor outcomes; (2) the key challenges for people in maintaining food security and good health; (3) current adaptive practices to overcome these challenges; and (4) community priorities for multisectoral support. The outcomes will target policy and service initiatives to mitigate the negative impacts of climate change on food security and health.

## Indonesian Organisations

- Universitas Brawijaya, Fakultas Kedokteran
- Universitas Sebelas Maret, Sekolah Pasca Sarjana
- Lembaga Penelitian Sosial, Demokrasi dan Keadilan Sosial (Percik Institute)
- The Habibie Centre

## Australian Organisations

- The George Institute for Global Health

## Lead Researchers

- Dr. Anna Palagyi

## Researchers

- Dr. Sujarwoto
- Dr. Haryani Saptaningtyas
- Hery Wibowo Trisaksono
- Dr. Julia Novrita
- Dr. Kathy Trieu
- Dr. Briar McKenzie
- Dr. Arpita Ghosh
- Dr. Moh Shadiqur Rahman
- Dr. Hery Toiba
- Hesti Retno Budi Arini

## Research locations

- Central Java

# Climate Resilient Primary Health Care (PHC) and Financing Systems in Indonesia: A Participatory Action Research (PAR)

**Keyword:** Primary health care, participatory research, health adaptation plans

This project will support better climate resilient primary health care systems. Using participatory action research with a broad range of policy actors, health practitioners, research communities, and marginalised communities, the project will develop a proof of concept on health adaptation plans and sustainable financing.

## Indonesian Organisations

- Universitas Udayana, Fakultas Kedokteran

## Australian Organisations

- Australian National University, College of Health and Medicine, School of Medicine and Psychology

## Lead Researchers

- Dr. I Nyoman Sutarsa (MD., MPH., PhD., FHEA)

## Researchers

- Dr. Anak Agung Sagung Sawitri (MD., MPH., PhD)

## Research locations

- Bali
- West Nusa Tenggara
- East Nusa Tenggara

# CORE-STEP: Advancing Innovative Knowledge-Based Solutions for Inclusive and Climate Ready Primary Health Care Systems

**Keyword:** Primary health care, PUSKESMAS, climate services, marginalized populations

The CORE-STEP project aims to strengthen primary healthcare's ability to provide gender-inclusive climate services addressing the adverse effects of climate change. We will employ a mixed methods approach to collect data in the selected pilot sites in Indonesia (Banda Aceh, Ambon, and Mataram). Targeted primary healthcare centers in Australia will be involved in exchange visits and knowledge sharing. Primary healthcare professionals collaborate to develop climate services that are informed by a gender analysis, design targeted interventions, and enhance the skills of marginalized groups. Deliverables include a report of the evaluation findings, analysis on context-specific climate services, and dashboard with collated real-time data to manage interventions and climate risks. The project focuses on improving access and quality of inclusive and climate-ready primary health care through strengthening the capacity of primary health workers, involving marginalized groups in planning and decision-making, and fostering cross-sectoral collaboration. It serves as a model for other public health initiatives adapting to climate change.

## Indonesian Organisations

- Universitas Syiah Kuala, Program Pascasarjana Ilmu Kebencanaan; Fakultas Kedokteran; Pusat Penelitian Tsunami & Mitigasi Bencana / TDMRC
- Universitas Mataram
- Universitas Pattimura
- Kementerian Kesehatan
- International Council for Local Environmental Initiatives (ICLEI) Indonesia
- Cerdas Antisipasi Risiko bencana (CARI!)

## Australian Organisations

- Griffith University, School of Medicine and Dentistry; Griffith Asia Institute/GAI

## Lead Researchers

- Dr. Rina Suryani Oktari, PhD
- Dr. Connie Cai Ru Gan, PhD, MPH

## Researchers

- Prof. Dr. Taufik Fuadi Abidin, M.Tech
- A/Prof. Dr. dr. M. Yani, M. Kes

- Dr. Hendra Kurniawan, M.Sc., Sp.P
- Eko Pradjoko, ST., M.Eng., Ph.D
- Dr. Bokiraiya Latuamury, S.Hut., M.Sc
- Prof. Sara Davies, PhD
- A/Prof. Bernadette Sebar, PhD
- Lidewij Margriet Vorage, MPH
- dr. Ina Agustina Isturini, MKM
- Ir. Arif Wibowo, M.Sc
- Mizan Bustanul Arifin Bisri, PhD
- dr. Brury Apriandi Husaini, MKM
- Nasliati, S.Kom
- Rizka Puspitasari, S.Kom

### **Research locations**

- Aceh
- Maluku
- West Nusa Tenggara

SUB-THEMES

# NATURAL RESOURCE MANAGEMENT





# Multipurpose Coastal Reservoir Development for Jakarta for Water and Energy Security

**Keyword:** Coastal reservoir

The project will address water quality and energy security in Jakarta. Using a mixed-method approach, the project will investigate the adoption of a large freshwater coastal reservoir within the sea at the mouth of the Cisadane River to develop an innovative multipurpose coastal reservoir for the city of Jakarta for water and energy security to alleviate the reliance of poor-quality ground water and associated land subsidence and also to mitigate the effects of climate change.

## Indonesian Organisations

- Institut Teknologi Bandung
- Badan Perencanaan Nasional Republik Indonesia (Bappenas)
- Persatuan Insinyur Indonesia (PII)

## Australian Organisations

- University of Wollongong, School of Civil, Mining, Environmental and Architectural Engineering, Faculty of Engineering and Information Sciences

## Lead Researchers

- A/Prof. Muttucumaru Sivakumar
- A/Prof. Shu Qing Yang

## Researchers

- Dr. Andoyo Wurjanto
- Dr. Entin Agustini Karjadi
- Abdul Malik Sadat Idris, M. Eng
- Dr. Purba Robert Mangapul Sianipar

## Research locations

- West Java

# Ecosystem-Based Adaptation to Climate Change of Indigenous Women Groups in Indonesia (Sumatra) and Australia (Queensland)

**Keyword:** Ecosystem services, traditional ecological knowledge, knowledge sharing, ecosystem-based adaptation

This research uses indigenous women's knowledge and western science to identify ecosystem-based adaptation measures to increase community resilience to climate change. The outcomes will provide policymakers, community leaders, and other stakeholders with valuable insights that will aid in developing more effective, socially just and equitable climate change adaptation policies, strategies, and programs.

## Indonesian Organisations

- Universitas Andalas, Departemen Sosial Ekonomi Pertanian, Fakultas Pertanian

## Australian Organisations

- Griffith University, Australian Rivers Institute

## Lead Researchers

- Dr. Simone Maynard

## Researchers

- Prof. Yonariza
- Arrum Harahap

## Research locations

- Aceh
- West Sumatera
- Queensland

# Solar-Powered Desalination Using Hybrid Reverse Osmosis for Fresh Water Supply in Remote Areas

**Keyword:** Desalination

The objective of this project is to create a pilot membrane filtration system for brackish water desalination using reverse osmosis powered predominantly through solar power.

## Indonesian Organisations

- Universitas Diponegoro, Departemen Teknik Kimia

## Australian Organisations

- Australian National University, Fenner School of Environment and Society

## Lead Researchers

- Dr. James Latimer
- Dr. Laurentia Setiawan
- Andi Wibowo

## Researchers

- Prof. H. Hadiyanto
- Prof. I Nyoman Widiasta

## Research locations

- Central Java

SUB-THEMES

# UNDERSTANDING ENVIRONMENTAL CHANGES & NEEDS

# Contesting Loss for Indonesian Communities In Climate-Crisis (CLICCC)

**Keyword:** Climate reparations

The project aims to build partnerships between the Indonesian government and vulnerable communities experiencing loss and damages due to climate change and to advance Indonesia's interests in and claims for climate reparations through the Warsaw International Mechanism on Loss and Damage. The objectives of the project includes (1) establish an Indonesia-based consortium to research, evidence and empower climate-vulnerable communities experiencing material and non-material loss and damages to pursue inclusive solutions for adaptation and compensation, (2) develop a community-led, socially-inclusive and gender-sensitive, climate-impact monitoring system, and (3) provide relevant Indonesian government ministries with the political, legal and strategic resources to develop strategic policies on the Loss and Damage that will ensure Indonesian communities are compensated for climate-related loss and damages. The project's multi-disciplinary, multi-institutional research consortium uses a co-learning, cooperative inquiry approach to empower rural and urban communities to produce evidence-based knowledge of loss and damages and design planning for climate reparations.

## Indonesian Organisations

- Universitas Gadjah Mada, Institut Studi Internasional
- Pusat Studi Perkotaan Rujak
- Universitas Kristen Satya Wacana, Pusat Studi Pembangunan Berkelanjutan
- Universitas Muhammadiyah Yogyakarta, Hubungan Internasional
- Universitas Hasanuddin, Fakultas Kesehatan Masyarakat

## Australian Organisations

- Murdoch University
- Indo-Pacific Research Centre (formerly Asia Research Centre)

## Lead Researchers

- Dr. Jacqui Baker

## Researchers

- A/Prof. Agung Wardana
- Dr. Luqman Nul Hakim
- Dr. Sudirman Nasir
- Elisa Sutanudjaja
- Dr. Faris Al Fadhat

- Dr. Rebecca Meckelburg
- Dr. Charanpal Bal
- Dr Ian Wilson
- Dr Oliver Fritsch
- A/Prof. Carol Warren

#### **Research locations**

- DKI Jakarta
- Central Java



# Understanding Climate Impact on the Grassroot Communities and Rural Livelihood in Indonesia: Catalysing Changes Toward Adaptation and Resilience

**Keyword:** Socio-ecological resilience

This research aims to examine impacts of climate change on communities. Using transdisciplinary approaches, the project will reveal how climate change already impacts grassroots communities and rural livelihood shaped by various social variables including culture, socio-agroecological and political economy dimensions at grassroots levels. It further seeks to (1) identify, facilitate and catalyse adaptation measures and collective actions among at risk communities and (2) to understand how Non-Government Organisations, local governments and universities co-develop adaptation and transformation agenda at the grassroots levels in rural settings. Participatory action research is the primary approach or ways of working of this entire research activity to catalysing changes toward climate resilience policies and actions based on a rich and robust understanding of climate-related risks at the grassroots communities and rural people's livelihoods by considering the diversity of socio-ecological contexts. The research's objective and designed approach will contribute to the agreed Government of Indonesia and Government of Australia's priorities in Climate Change Resilience with sub-themes of future-proofing communities and practice areas focusing on socio-ecology resilience and Gender Equality, Disability, and Social Inclusion perspectives.

## Indonesian Organisations

- Universitas Mataram, Fakultas Peternakan
- Institut Teknologi Sepuluh November, Departemen Studi Pembangunan, Fakultas Desain Kreatif dan Bisnis Digital
- Konsorsium untuk Studi dan Pengembangan Partisipasi (KONSEPSI)
- Bengkel APPEK
- Yayasan Pengkajian Pengembangan Sosial (YPPS)
- TRANSFORM
- Lembaga Pengkajian dan Pemberdayaan Masyarakat (LP2M)
- Yayasan Konservasi Way Seputih (YKWS)

## Australian Organisations

- Charles Darwin University, Faculty of Arts and Society

### Lead Researchers

- Dr. Moh. Taquiuddin

### Researchers

- Risfa Wulan Ayu Wanjani
- Vinsensius Bureni
- Melky Koli Baran
- Suyono
- Yuni Setyaningsih, S.K.Pm., M.Sc
- Ramadhaniati
- Febrilia Ekawati
- Dr. Jonatan Lassa
- Dr. Kerstin Zanders

### Research locations

- East Nusa Tenggara
- Lampung
- West Nusa Tenggara
- West Sumatera



**KONEKSI** is Australia's flagship program in the Indonesia knowledge and innovation sector that supports better use of knowledge-based solutions for inclusive and sustainable policies and technologies.

**Mail**

[admin@koneksi-kpp.id](mailto:admin@koneksi-kpp.id)

**Site**

[www.koneksi-kpp.id](http://www.koneksi-kpp.id)