

Indonesia Focus 18th Annual Conference

September 26, 2026

The College Avenue Student Center Rutgers University
126 College Ave., New Brunswick, NJ, 08901
Room 411 ABC (4th floor)

Schedule

09:30 Registration

10:00 Opening

10:10 Remarks from Indonesia Education Attaché: Dr. Iip Ichsanuddin

10:25 Keynote: Dr. Erin Vogel, Professor of Anthropology, Rutgers University

10.45 Q & A

11:00-12:00 Session I: Environment

Moderator: Nur Sisworahardjo

- Restoring Degraded Land Under Constraint: Adaptive Restoration Techniques Across Three Ecosystems in Sumatra's Leuser Landscape. **Fransisca Ariantiningih (Rutgers University)**, Rio Ardi (Yayasan Orangutan Sumatera Lestari), Panut Hadisiswoyo (Yayasan Orangutan Sumatera Lestari)
- Multi-sectoral Intervention Against *Aedes aegypti* in Dengue Outbreak Management in Pontianak, West Kalimantan, Indonesia. **Fitriyyah. (Rutgers University)**
- Whole Effluent Toxicity (WET) Testing as a Vital Component of Implementing Water Quality Standards under the National Pollutant Discharge Elimination System (NPDES): A Comparative Review of the United States and Indonesia. **Agus Sofyan (University of Pikeville)**

12:00 – 13:00 Lunch

13:15-14:00 Session II: Education & Society

Moderator:

- Using Autobiography as a Tool for Community Resilience in Preparation of Kindergarten Teachers. **Dr. Adrian Rodgers (The Ohio State University)** & Andri Andriansyah (Universitas Islam Negeri – Ar-Raniry)
- Listening Across Generations: Pancasila, Motivational Interviewing, and Mental-Health Readiness in Indonesia **Dr. Esther Siagian Rosbrook (Colgate University, NY)**



14:00 – 14:30 Coffee break

14:30 -15:30 Session III: Economy & Sociology

Moderator: Jimmy Ardiansyah

- Comparative Analysis of the Trade Policy between Indonesia and Malaysia toward Export to the USA. **Kumara Jati**, Irfan Sugiyana, Nevy Dwi Kusumawati, Raafi Nurlistiani, Ega Hani Ariesi (The Ministry of Trade of the Republic of Indonesia), Fauzan Budi Prasetya (Indonesia Trade Promotion Center (ITPC) Los Angeles), Friez Noor Abraham (University of California, Los Angeles (UCLA), USA)
- Beyond Detection: A Risk-to-Readiness Strategy for Halal Food Authentication in Indonesia. **Herbi Yuliantoro (Lehigh University)**
- Leading the Archipelago through the Power of Diversity in Indonesia.
Dr. Esther Siagian Roosbrok (Colgate University, NY)

15:30 Photo session and certificate presentation

16:00 Conclusion & discussion on future conference

LIST OF ABSTRACTS



Restoring Degraded Land Under Constraint: Adaptive Restoration Techniques Across Three Ecosystems in Sumatra's Leuser Landscape

*Fransisca Ariantiningih – Rutgers, The State University of New Jersey
Rio Ardi – Yayasan Orangutan Sumatera Lestari – Orangutan Information Center (YOSL-OIC), Panut Hadisiswoyo – Yayasan Orangutan Sumatera Lestari – Orangutan Information Center (YOSL-OIC)*

Since 2008, Yayasan Orangutan Sumatera Lestari – Orangutan Information Centre (YOSL-OIC), a local conservation NGO, has restored approximately 2,700 hectares of degraded orangutan habitat inside and around Gunung Leuser National Park, Sumatra, through the planting of over 2.5 million seedlings. Drawing on 18 years of field experience, this paper examines how restoration techniques were iteratively adapted to the distinct ecological conditions of three degraded landscapes: Imperata-dominated dryland (Halaban), tropical peat swamp (Singkil), and reclaimed former oil palm plantation (Cinta Raja). At each site, restoration practices were adjusted in response to specific environmental constraints. In Halaban, pioneer species were prioritized to outcompete invasive grass cover, while mechanical suppression methods were employed in place of herbicides, which are prohibited within the national park. In Singkil, raised planting beds were used to address the seasonal waterlogging characteristic of peat swamp environments. Across sites, YOSL-OIC further introduced biodegradable planting containers made from banana trunk and bamboo as an alternative to plastic polybags; planted directly with the seedling, these containers support soil moisture retention and provide gradual organic fertilization as they decompose. The paper also highlights continuous on-site field presence as a structural enabler of restoration outcomes, combining silvicultural maintenance with deterrence of re-encroachment. While site specific carbon inventories have not yet been conducted, the paper situates YOSL-OIC's restoration efforts within the broader literature on tropical forest and peat swamp restoration to identify substantial, currently unquantified climate-mitigation co-benefits and proposes carbon monitoring as a priority for future research. By synthesizing nearly two decades of restoration practice under real-world ecological, regulatory, and resource constraints, this paper contributes practitioner-based evidence to inform restoration science, conservation policy, and Indonesia's broader climate resilience agenda.

**Multi-sectoral Intervention Against *Aedes aegypti*
in Dengue Outbreak Management
in Pontianak, West Kalimantan, Indonesia**

Fithriyyah

Rutgers School of Public Health, 683 Hoes Lane West, Piscataway, NJ 08854, USA

Dengue fever is a viral infection that is transmitted through the *Aedes aegypti* mosquito and is prevalent in tropical and subtropical areas. Pontianak, as the provincial capital of West Kalimantan, Indonesia, is an endemic place for dengue fever. Dengue fever has become a significant burden on public health, especially in a developing country like Indonesia. Besides being influenced by population growth and increasing mobility, dengue fever is now notably worsened by climate change and environmental degradation. Generally, dengue fever management mainly focuses on eliminating the vector: *Aedes aegypti* mosquito, to end the virus transmission. However, multi-sectoral intervention is also crucial to complement the health intervention in the community, making synergies among stakeholders in addressing Dengue fever. Hence, the responsibility to stop the Dengue outbreak is not only the role of the health sector, but also for the corporations, policymakers, research and educational institutions, and the government.

Whole Effluent Toxicity (WET) Testing as a Vital Component of Implementing Water Quality Standards under the National Pollutant Discharge Elimination System (NPDES): A Comparative Review of the United States and Indonesia

Agus Sofyan - University of Pikeville

Whole Effluent Toxicity (WET) testing has become an essential biological monitoring tool for protecting aquatic ecosystems from the complex effects of industrial and municipal wastewater discharges. Unlike conventional chemical analyses, which quantify individual pollutants against established concentration limits, WET testing evaluates the integrated biological response of aquatic organisms exposed to entire effluent samples. This holistic approach allows regulatory agencies to detect the combined effects of known and unknown contaminants, degradation products, and synergistic or antagonistic interactions among multiple chemicals that cannot be identified through conventional chemical monitoring alone. In the United States, WET testing is a fundamental component of the National Pollutant Discharge Elimination System (NPDES) established under Section 402 of the Clean Water Act (CWA). The U.S. Environmental Protection Agency (EPA) requires WET testing whenever there is reasonable potential for wastewater discharges to cause toxicity in receiving waters, thereby ensuring that effluent limitations adequately protect aquatic life designated under state water quality standards. WET testing complements chemical-specific water quality criteria by providing direct evidence of biological effects and serves as the basis for permit development, compliance monitoring, Toxicity Identification Evaluation (TIE), and Toxicity Reduction Evaluation (TRE).

The scientific foundation of WET testing relies on standardized acute and chronic toxicity tests using representative freshwater and marine organisms such as *Ceriodaphnia dubia*, *Daphnia magna*, *Pimephales promelas*, *Oncorhynchus mykiss*, *Mysidopsis bahia*, and *Menidia beryllina*. These organisms serve as indicators of ecosystem health because they represent different trophic levels and exhibit measurable responses to toxic contaminants. Acute toxicity tests generally assess mortality over short exposure periods, whereas chronic toxicity tests evaluate sublethal effects including reproduction, growth, and survival over extended periods. Together, these biological endpoints provide a comprehensive assessment of ecological risk associated with wastewater discharges.

Implementation of WET testing has significantly strengthened the effectiveness of the NPDES permitting program by identifying toxic discharges that would otherwise remain undetected through chemical analyses. Numerous studies have demonstrated that industrial effluents meeting all chemical-specific permit limitations may still exhibit significant toxicity due to complex mixtures of contaminants. Consequently, WET testing has become an indispensable regulatory tool for identifying hidden toxicity, evaluating permit compliance, and protecting designated aquatic uses. Furthermore, the integration of WET testing with Toxicity Identification Evaluation (TIE) and Toxicity Reduction Evaluation (TRE) enables regulatory agencies and industries to identify causative toxicants and develop cost-effective treatment strategies to reduce environmental impacts.

In contrast, Indonesia's industrial wastewater management system primarily relies on chemical-specific effluent standards established through national environmental regulations. These standards regulate parameters such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), ammonia, heavy metals, oil and grease, pH, and other pollutants. Although these regulations have substantially improved industrial wastewater management, they generally do not require routine biological toxicity testing as part of discharge permitting. Consequently, industrial discharges containing complex mixtures of contaminants may satisfy chemical concentration limits while still posing ecological risks to aquatic organisms. This limitation is particularly important for industries such as mining, pulp and paper, petrochemical, textile, pharmaceutical, and metal processing facilities, where wastewater composition is highly variable and contains numerous interacting contaminants.

This review examines the scientific principles, regulatory framework, and environmental significance of Whole Effluent Toxicity testing under the U.S. Clean Water Act and the National Pollutant Discharge Elimination System. It further compares the U.S. biological effects-based regulatory approach with Indonesia's predominantly chemical-based industrial wastewater standards, highlighting strengths and limitations of each framework. Finally, the review proposes integrating biological toxicity assessment into Indonesia's wastewater permitting system to complement existing chemical monitoring programs. Adoption of WET testing would provide a more comprehensive assessment of industrial discharges, strengthen environmental compliance, improve aquatic ecosystem protection, and align Indonesia's water quality management practices with internationally recognized approaches for ecological risk assessment.

Using Autobiography as a Tool for Community Resilience in Preparation of Kindergarten Teachers

Dr. Adrian Rodgers - The Ohio State University
Andri Andriansyah - Universitas Islamic Negeri – Ar-Raniry

This qualitative, descriptive, naturalistic study investigated the use of an autobiographical literacy activity, in the context of other literacy activities, in a Kindergarten teachers in Banda Aceh. The study took place in a university course which lasted six months and totaled 100 minutes (about one and a half hours) a week for two credit hours in the fourth semester of the Early Childhood Education program at the State Islamic University (UIN Ar-Raniry) Banda Aceh, Indonesia. The primary objective of the research is to describe how one of the many literacy tasks undertaken as a part of a larger study operated. Results of the data analysis pointed to several conclusions. Early childhood pre-service teachers must adapt their methods for instructing literacy. This study also shows that pre-service teachers wrote and showed reader and writer reaction through written response, extending Rosenblatt's theory. Moreover, students can acquire an awareness that they are an integrated component of the literacy process through activities. Instructors at the university level must be able to improve the critical thinking of pre-service teachers, particularly in terms of the development of instructional practices that adhere to curriculum, government, and federal rules. Through these supplementary teaching activities, pre-service teachers can learn about a range of cultures, values, and beliefs within various literary works. By utilizing these methods, pre-service teachers can build empathy and a deeper understanding of different perspectives. Building community resilience and begins with school and grass roots community practices at the earliest age. This is especially the case in Banda Aceh which was confronted simultaneously a generation ago with an armed insurgency and a tsunami that devastated the province. As a part of community rebuilding educators, who work even with the youngest students are trained to consider their autobiographies and how those personal stories intersect with their teaching. As Bishop noted, "If ... students cannot find themselves and people like them in the books they read and have read to them, they receive a powerful message about how they are undervalued in both school and society" (1990, p. 561). The Indonesian school curriculum uses only textbooks provided by the government. Using these textbooks limits student access to see themselves in the readings and may lower their interest in reading or discussing the texts. "My assessment was that,

historically, children from parallel cultures had been offered books as windows into lives that were different from their own, and children from the dominant culture had been offered fiction that mirrored their own lives. All children need both” (Bishop, 2012, p. 9). This claim, supported by research data from the 2018 OECD Programme for International Student Assessment (PISA) stated, “Countries and economies whose students were relatively weaker in reading multiple-source texts, for example, might be expected to have more negative trends between 2015 and 2018 than countries whose students were relatively stronger in reading such texts” (p.126). Based on that assertion, providing opportunity for students to see themselves in the reading materials is strongly recommended. To achieve this, schools and teachers need to provide more access to various books with various contexts.

Listening Across Generations: Pancasila, Motivational Interviewing, and Mental-Health Readiness in Indonesia

Dr. Esther Siagian Rosbrook - Colgate University, NY

Indonesia's readiness for environmental disruption, natural disasters, and rapid social change depends on psychological and relational capacity as well as physical infrastructure. This conceptual paper examines Pancasila as a culturally grounded framework for mental-health education, reflection, and help-seeking among Generation X, Millennials, and Generation Z. The categories describe different historical locations rather than fixed psychological types. Generation X has navigated political transition, caregiving, and persistent stigma; Millennials have experienced digital transition, precarious work, and burnout; and Generation Z has grown amid social comparison, disrupted education, and increasing visibility of anxiety and self-harm. Pancasila can support mental-health literacy when its principles invite spirituality without fatalism, humanity without shame, unity without conformity, psychologically safe deliberation, and socially just access to care. Motivational interviewing (MI) offers a compatible process for exploring ambivalence and strengthening self-directed change. The paper proposes the original DENGAR Cycle – Dengarkan (listen), Explore ambivalence, Name the value, Generate a chosen step, Affirm agency and support, and Review or refer. DENGAR is not psychotherapy or a replacement for professional care; it is a transferable structure for trained educators and practitioners to support recurring reflection, early assistance, and responsible referral. Applications for higher education and a 90-day pilot are presented.

Comparative Analysis of the Trade Policy between Indonesia and Malaysia toward Export to the USA

Kumara Jati – The Ministry of Trade of the Republic of Indonesia

*Irfan Sugiyana, Nevy Dwi Kusumawati, Raafi Nurlistiani, Ega Hani Ariesi - The Ministry
of Trade of the Republic of Indonesia*

*Fauzan Budi Prasetya - Indonesia Trade Promotion Center (ITPC) Los Angeles Friez Noor
Abraham - University of California, Los Angeles (UCLA)*

This study provides a comparative analysis of trade policies implemented by Indonesia and Malaysia in promoting exports to the United States market. The research aims to identify structural differences, institutional approaches, and strategic frameworks adopted by both countries, particularly in response to evolving global trade dynamics and recent policy developments. The research employs a qualitative approach combining descriptive analysis, literature review, and comparative analysis to assess regulatory frameworks, export facilitation measures, and compliance mechanisms. In addition, a comparative institutional analysis is conducted between Indonesia Trade Promotion Center (ITPC) and Malaysia External Trade Development Corporation (MATRADE) to evaluate their respective roles in trade promotion, market intelligence dissemination, and business matching facilitation. Findings indicate that while both countries actively pursue export expansion to the U.S. Furthermore, the study highlights how recent developments in bilateral and reciprocal trade arrangements, influence market access, tariff structures, and competitiveness of exports from both countries. Strategic recommendations are proposed to enhance Indonesia's export performance, including strengthening institutional coordination, improving regulatory clarity, and leveraging trade promotion offices more effectively in capturing U.S. market opportunities. The findings indicate that both Indonesia and Malaysia face similar challenges in penetrating the U.S. market, including stringent regulatory standards, sustainability requirements, and non-tariff barriers. In the palm oil sector, competition is intensified by environmental concerns and certification schemes, whereas in processed food products, branding, quality standards, and distribution networks play a crucial role in determining competitiveness. Despite these challenges, Malaysia tends to exhibit stronger positioning in certain downstream palm-based products, while Indonesia demonstrates broader diversification in processed food exports. The study further identifies opportunities for strategic cooperation between Indonesia and Malaysia, including harmonization of

sustainability standards, joint promotion initiatives, and potential collaboration in value-added processing to enhance competitiveness in the U.S. market. Strengthening regional coordination could mitigate direct competition and create a more unified positioning for ASEAN products globally. This research also contributes to the discourse on comparative trade policy and offers practical insights into policymakers in designing adaptive and competitive export strategies in the context of shifting global trade regimes.

Beyond Detection: A Risk-to-Readiness Strategy for Halal Food Authentication in Indonesia

Herbi Yuliantoro - Lehigh University

Indonesia's halal assurance system is entering large-scale implementation. Laboratories will need methods that are sensitive enough to detect adulteration, reproducible between laboratories, interpretable by certifiers, and affordable at the high volumes. The analytical problem is broader than detecting pork: non-compliance may involve species substitution, porcine-derived ingredients, cross-contamination, or complex processing, while some dimensions of halal status, including slaughter and process integrity, cannot be resolved by laboratory testing alone. This critical review examines polymerase chain reaction (PCR), immunochemical and spectroscopic screening, targeted liquid chromatography-tandem mass spectrometry (LC-MS/MS), high-resolution mass spectrometry (HRMS)-based proteomics, metabolomics, lipidomics, and chemometrics through the lens of operational readiness. Recent studies show that porcine markers can be detected in processed foods using heat-stable peptides and discriminant metabolite or lipid profiles. However, strong performance in a discovery study does not necessarily translate into routine reliability. Key barriers include marker robustness across matrices and processing conditions, external and inter-laboratory validation, suitable reference materials, transparent data analysis, and the cost of deployment. We propose a four-tier strategy: risk and process assessment, rapid screening, targeted confirmation, and advanced HRMS investigation for unresolved or complex cases. The framework also incorporates green analytical chemistry by saving resources. In this model, mass spectrometry is most valuable as a confirmatory and discovery platform embedded within the wider halal assurance system. A risk-based analytical pathway could help Indonesia expand testing capacity while maintaining scientific rigor, religious relevance, and sustainable use of laboratory resources.

Leading the Archipelago Through the Power of Diversity in Indonesia

Dr. Esther Siagian Rosbrook - Colgate University, NY

Indonesia's diversity is often treated as a national fact, yet its greater significance lies in how effectively leaders and public institutions transform differences in identity, knowledge, geography, human capacity, and natural resources into shared national strength. Across this vast archipelago, unequal development, insecure and informal employment, food-safety concerns within the Free Nutritious Meals program, corruption risks, uneven educational capacity, and inconsistent institutional accountability reveal a persistent gap between national ideals and lived experience. This conceptual article examines Pancasila as a diversity-centered framework for closing that gap. It defines diversity as the presence and meaningful contribution of distinct identities, perspectives, talents, resources, and knowledge systems; equity as the fair distribution of access, voice, protection, capability, opportunity, and outcomes; and unity as a shared civic commitment that does not require sameness. Drawing on official Indonesian statistics and contemporary scholarship, the article argues that Pancasila can guide national transformation when its five principles are translated into decision-making standards, institutional safeguards, meaningful public participation, measurable leadership expectations, and responsive systems of accountability. A practical action map connects spirituality with ethical stewardship, humanity with dignity and safety, unity with archipelagic coordination, deliberative democracy with inclusive participation, and social justice with equitable and sustainable outcomes. Human-capacity development serves as a cross-cutting priority through skill-based and innovative education, stronger teacher preparation – particularly in rural and remote communities – and wider opportunities for people across regions and identities to contribute their knowledge and talents. The article concludes that unity in diversity becomes credible when citizens experience national values through secure livelihoods, safe public programs, equitable education, responsible resource management, trustworthy institutions, and leaders who prioritize public well-being, collaborate across differences, welcome constructive feedback, and remain accountable for measurable results.

