

CAHYO WIDOKO LAKSONO

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SUMMARY

Master of Environmental Studies with expertise in Life Cycle Assessment (LCA), Climate Change Impact, and Data Analysis. Experienced in decarbonization research, biogas optimization, and environmental policy implementation. Proficient in QGIS, ArcGIS, Python, and OpenLCA. Strong background in environmental systems, sustainable practices, and blue carbon strategies.

EDUCATION

The University of Tokyo, Kashiwa, Japan

Master of Environmental Studies, GPA: 4.00/4.00

Thesis: Assessing the Potential of Mangrove Restoration for Blue Carbon in Indonesia's Climate Action Strategy: A Spatial Cost-Benefit Analysis under Climate Scenarios

2022 - 2024

Universitas Islam Indonesia, Yogyakarta, Indonesia

Bachelor of Environmental Engineering, GPA: 3.81/4.00

Thesis: Performance of Luffa cylindrical Sponge Media Coated with Silver Nanoparticles (AgNPs) and Graphene Oxide (GO) for Disinfection Process of Decentralized Wastewater Treatment

2014 - 2018

WORK EXPERIENCE

Research Assistant – National Institute for Environmental Studies (NIES), Japan

- Conducting research on decarbonization strategies and life cycle sustainability assessment under the Social System Division.
- Developing models to assess the sustainability of social systems and their environmental impacts.

2025 - Present

Biogas Analyst – Arsec Bioenergy Kashiwa Lab, GPSS Group

- Performed biogas optimization experiments and analysis.
- Conducted data analysis to improve biogas production efficiency.

2023 - 2024

Data Analyst – Center for Facilitation of Environment and Forestry Instruments Standard Implementation, Ministry of Environment and Forestry, Indonesia

- Conducted data analysis for environmental and forestry standards.
- Supported the implementation of sustainable practices and regulatory compliance.

2020 - 2022

RESEARCH EXPERIENCE

Assessing the Potential of Mangrove Restoration for Blue Carbon in Indonesia's Climate Action Strategy

National Institute for Environmental Studies (NIES), Japan

- Conducted spatial cost-benefit analysis under climate scenarios.
- Evaluated the role of mangrove restoration in Indonesia's climate action strategy.

2022 - 2024

Performance of Luffa cylindrical Sponge Media Coated with Silver Nanoparticles (AgNPs) and Graphene Oxide (GO) for Wastewater Disinfection

- Developed and tested a novel wastewater disinfection method.
- Published findings in a peer-reviewed journal.

2018 - 2019

Performance Evaluation of Water Filter Made from Oyong (*Luffa cylindrica*) Fiber Coated with Silver Nanoparticles for Coliform Bacteria Removal

Dspace Journal Universitas Islam Indonesia

- Designed and tested a water filtration system for decentralized wastewater treatment.

2017 - 2018

SKILLS

Software: QGIS, ArcGIS, AutoCAD, OpenLCA, SimaPro, Python, Fortran

Languages: English (Fluent), German (Intermediate), Japanese (Beginner), Indonesian (Native)

CERTIFICATIONS

- Data Analyst, Professional Academy – Ministry of Communication and Information, Indonesia
 - ISO 14001 Environmental Management System (EMS), Center for Standards, Ministry of Environment and Forestry, Indonesia
 - ISO 50001 Energy Management System, Center of Environmental Technology Studies, Indonesia
 - Good Mining Practice, PT Environesia Global Saraya, Indonesia
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PUBLICATIONS

Nurmiyanto, A., Ardhayanti, L.I., Wigati, A., & Laksono, C. (2020). Performance evaluation of water filter made from oyong (*Luffa cylindrica*) fiber coated with silver nanoparticles for coliform bacteria removal in wastewater. *Applied Mechanics and Materials*, 898, 9-15. doi:10.4028/www.scientific.net/amm.898.9.

HONORS AND AWARDS

- Asian Development Bank – Japan Scholarship Program, 2022
 - Winner of KLHK SDGs Nation Essay Competition, Ministry of Environment and Forestry, Indonesia, 2021
 - Blog Competition Winner on Ambition for Climate Adaptation, Institute for Essential Services Reform (IESR), 2020
 - Outstanding Student, Department of Environmental Engineering, Universitas Islam Indonesia, 2018
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LEADERSHIP AND ORGANIZATIONS

Zero Waste UII

Co-founder, Head of Research and Media Division

- Led zero waste campaigns and policy implementation.

2016 - 2018

Association of Environmental Engineering Students

Head of Department of Information and Communication

- Established online architecture for organization media.

2016 - 2017

Institute of Life Cycle Assessment, Japan

- Member

2024 - Present

PROFESSIONAL CONTRIBUTIONS

- Facilitator for EMS experts to develop Environmental Management System Guidelines for SMEs.
- Co-author of Indonesia SCP Framework Implementation Strategy 2020-2030.
- Co-author of the first edition of Indonesian Sustainable Action Guidelines.