

# SUSTAINABILITY REPORT

Universitas Pertamina

2025





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# Forewords

“Universitas Pertamina places sustainability at the core of education, research, and community service—advancing technology and the energy business for national progress and the SDGs.”

**Prof. Dr. Ir. Wawan Gunawan A. Kadir, M.S., IPU**  
Rector, Universitas Pertamina



Since our founding in 2016, Universitas Pertamina has placed sustainability at the core of our tridharma of education, research, and community service. We aspire to be a world-leading university in technology and energy business, contributing meaningfully to the Sustainable Development Goals (SDGs) and to national economic progress.

This report showcases milestones from 2023 and the latter part of 2024, reaffirming our commitment to the SDGs. Sustainability is not an aspiration alone; it is integrated into our curriculum through mandatory courses and embedded in our research agendas and community engagement initiatives.

Since January 2024, Sustainability Center Universitas Pertamina has strengthened sustainability governance and evolved as a center of excellence, catalyzing collaboration with stakeholders at local, national, and global levels. This initiative underscores our resolve to cultivate sustainable practices and innovations.

We continue to advance inclusivity, deliver high-quality education, and champion digitalization and transparent governance. These priorities have reinforced Universitas Pertamina’s role as a strategic hub for the energy transition, a center of educational excellence, and a trusted pool of expertise serving Indonesia and the Asia-Pacific.

As a young university, we remain steadfast in leading by example and delivering measurable impact for a sustainable future. We look ahead with confidence, guided by academic integrity and a commitment to societal benefit.

## Reporting Period Note

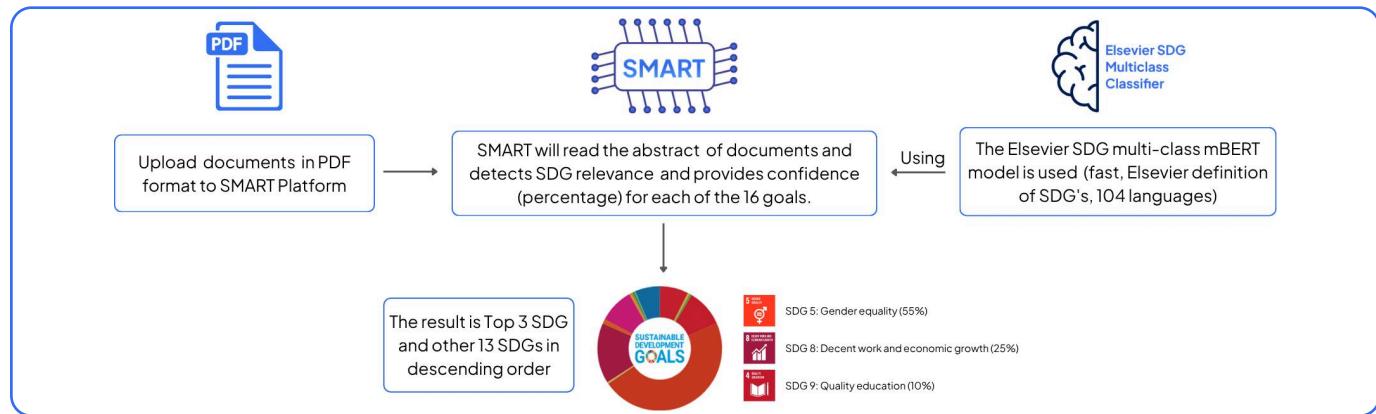
The year stated in the title of this Sustainability Report refers to the year of publication, while the data presented primarily reflect the **2024 academic year**, unless otherwise specified.

# Introduction to SMART

**SDG Mapping and Assessment for Research and Tracking (SMART)** is a foundational methodological achievement developed by the Sustainability Center of Universitas Pertamina. This innovative, AI-powered platform has become our institutional standard for achieving precise, evidence-based accountability in sustainability performance. We continuously leverage the advanced **Elsevier SDG Multiclass Classifier**, a multilingual artificial intelligence trained on millions of academic abstracts to objectively analyze our internal documents and research outputs, enabling us to move beyond anecdotal or subjective assessments.

This robust system underpins our commitment to the United Nations Sustainable Development Goals (SDGs). Through the SMART platform, our documents and publications are classified to their most relevant primary SDG, enabling consistent, data-driven mapping across the institution. This methodology turns qualitative narratives into structured insights for planning and reporting.

The diagram below shows the SMART workflow, which illustrates how documents are processed using the Elsevier SDG Multiclass Classifier to generate evidence-based SDG classifications.



The adoption of SMART represents a strategic innovation that ensures our impact remains transparent, credible, and globally comparable. Aligned with the **Times Higher Education (THE) Sustainability Impact Ratings** framework, SMART enables Universitas Pertamina to measure and communicate its contributions in a manner that is internationally recognized and benchmarked against leading institutions worldwide. Through SMART, we affirm our sustained commitment not only to advancing sustainability but **to systematically mapping, classifying, and validating** our progress toward a more sustainable future.

# University Research on SDGs

Universitas Pertamina is committed to advancing the United Nations' Sustainable Development Goals (SDGs) through impactful research and innovation. We recognize that achieving sustainability requires strong collaboration between disciplines, and therefore encourages faculty members and students to engage in research that provides practical solutions to national and global challenges. From clean energy transitions to climate-disaster prevention applications, Universitas Pertamina continues to foster a research culture that promotes scientific excellence and societal impact.

Universitas Pertamina's research portfolio demonstrates significant alignment with several SDGs, with a strong concentration on SDG 9 (Industry, Innovation, and Infrastructure), SDG 12 (Responsible Consumption and Production), and SDG 8 (Decent Work and Economic Growth). This alignment reflects Universitas Pertamina's role as a hub for sustainability-driven technological innovation and its commitment to supporting Indonesia's transition toward a green economy. The chart on the side illustrates the distribution of SDG-related research conducted by faculty members across different disciplines.



Beyond numbers and charts, the strength of the University's research lies in the individuals behind these innovations. The following highlights present three researchers representing Universitas Pertamina's contributions to the SDGs in the fields of health and renewable energy.

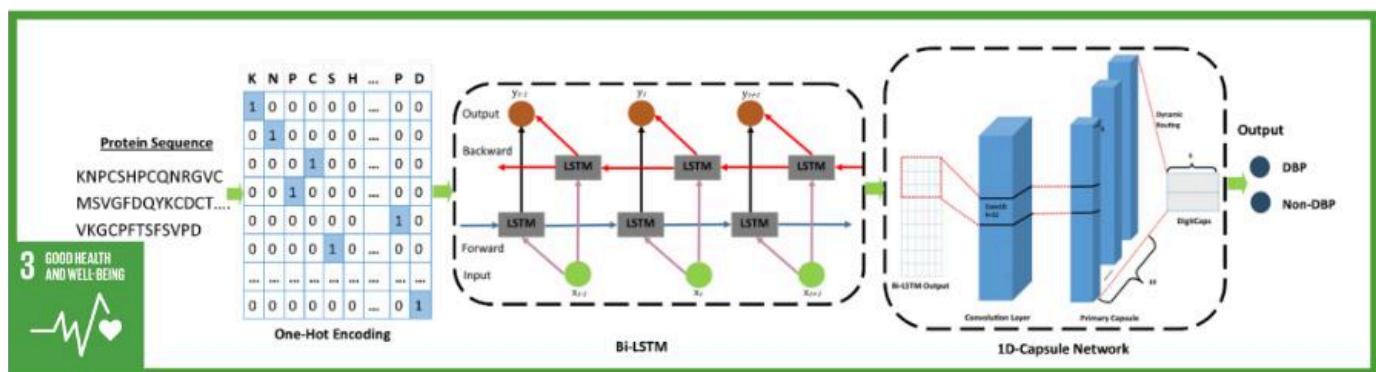
## HOW DOES THEIR RESEARCH SUPPORT OUR UNIVERSITY IN SUSTAINABLE DEVELOPMENT GOALS?



### Dr. Meredita Susanty

Author of paper: BiCaps-DBP: Predicting DNA-binding Proteins from Protein Sequences Using Bi-LSTM and a 1D-Capsule Network

My research bridges artificial intelligence and molecular biology through the development of BiCaps-DBP, a computational tool designed to predict DNA-binding proteins directly from protein sequences. DNA-binding proteins play crucial roles in gene regulation, DNA repair, and the discovery of new medicines for diseases such as cancer and autoimmune disorders. Traditional experimental methods for identifying these proteins can be slow, labor-intensive, and costly.



Through this AI-based model, I aim to accelerate the identification process by providing fast and accurate predictions of potential DNA-binding proteins. This helps researchers prioritize which proteins to test in laboratories, saving both time and resources. Integrating artificial intelligence with biomedical science, I believe, allows us to enhance the efficiency of drug discovery and diagnostics, ultimately improving human health outcomes.

Collaboration is essential in this process. Tools like BiCaps-DBP require expertise from computer scientists, biologists, and medical researchers. By working together, we can transform computational predictions into real medical applications that make a tangible impact on society.

Looking ahead, I hope my research inspires more interdisciplinary innovations that unite computer science and life sciences. My vision is for tools like BiCaps-DBP to become integral to the drug discovery process, enabling rapid identification of disease-related proteins and advancing our understanding of human biology.

## HOW DOES THEIR RESEARCH SUPPORT OUR UNIVERSITY IN SUSTAINABLE DEVELOPMENT GOALS?

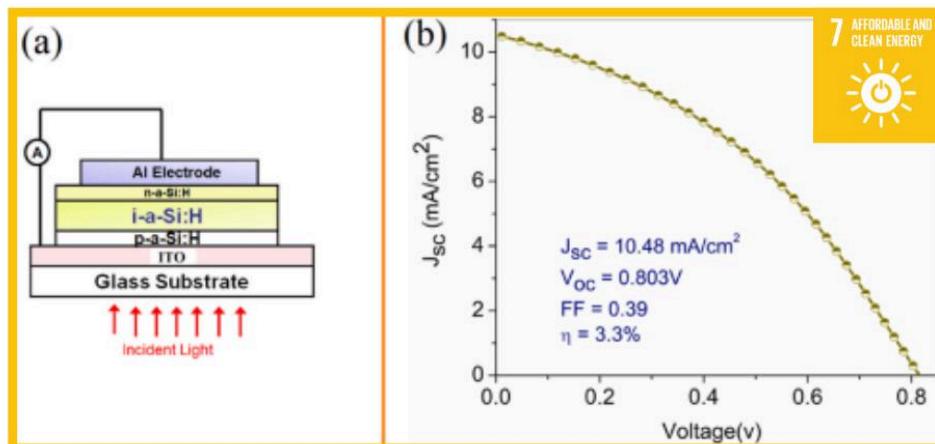


**Dr. Soni Prayogi**

Author of paper: A New Look at an Explanation of Band Gap of PECVD Grown a-Si:H Thin Films Using Absorption Spectra, Spectroscopic Ellipsometry, Raman, and FTIR Spectroscopy

My research focuses on advancing renewable energy technologies through the study of hydrogenated amorphous silicon (a-Si:H) thin films grown using Plasma-Enhanced Chemical Vapor Deposition (PECVD). I aim to understand the fundamental optical and structural properties of this material, especially the mechanisms that influence its band gap. These insights are essential for improving the efficiency and performance of solar cells and other renewable energy devices.

By combining several advanced characterization methods—absorption spectroscopy, spectroscopic ellipsometry, Raman, and FTIR spectroscopy—I provide a more comprehensive explanation of how energy conversion occurs within thin-film materials. The findings contribute directly to SDG 7 by supporting the development of sustainable and affordable solar technologies.



In my experience, collaboration plays a vital role in materials research. Working with other institutions and industries allows us to deepen our understanding of semiconductor materials and accelerate their application in real-world energy solutions.

Through this work, I hope to lay a stronger scientific foundation for the development of high-performance, cost-efficient semiconductor materials. Ultimately, this research supports global efforts to achieve cleaner and more sustainable energy systems.

## HOW DOES THEIR RESEARCH SUPPORT OUR UNIVERSITY IN SUSTAINABLE DEVELOPMENT GOALS?



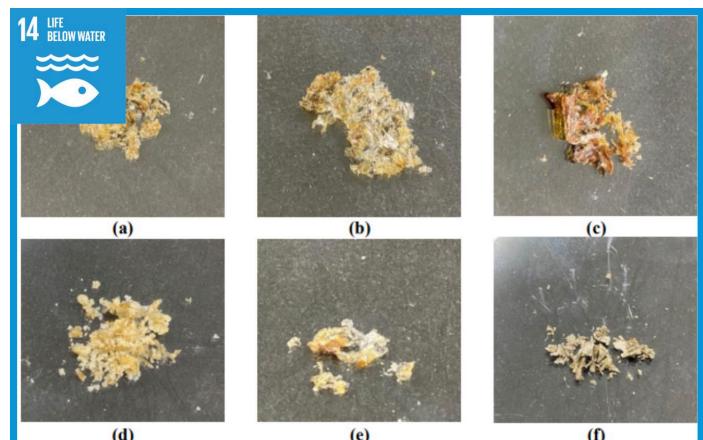
**Ayu Dahliyanti, S.T., M.Eng**

Author of paper: The Effect of Ethylenediaminetetraacetic Acid (EDTA) and Pepsin Enzyme Addition on The Characteristics of Yellowstripe Fish (*Selaroides leptolepis*) Collagen and Gelatin

My research focuses on developing collagen and gelatin from alternative marine sources using enzymatic hydrolysis. Collagen is an important supplement that improves skin elasticity and supports joint health, while gelatin has long been used in food industries. However, most of the collagen and gelatin products available today come from bovine and porcine sources, which are unsuitable for certain individuals due to allergies or religious restrictions. To provide a more inclusive and sustainable solution, I explored marine-based collagen and gelatin that are more soluble and better absorbed by the human body.

In this study, I use the Yellowstripe scad (*Selaroides leptolepis*), a locally abundant and affordable fish species. Its skin and bones, which are typically discarded as waste by the fish processing industry, are transformed into high-value materials. This approach promotes sustainable utilization of marine resources while reducing waste, aligning directly with Sustainable Development Goal (SDG) 14: Life Below Water.

The findings show that marine-based collagen and gelatin not only offer environmental benefits but also have promising functional properties for health and food applications. By valorizing fish by-products, my research supports both economic efficiency and marine ecosystem preservation, turning local challenges into valuable innovations for society.



Collaboration and partnerships are crucial for scaling up this research. With stronger support from universities, industries, and government institutions, I believe we can establish local production systems for marine collagen and gelatin in Indonesia. In the future, I hope this work contributes to more accessible, affordable, and sustainable bioproducts that benefit both people and the planet.

# Sustainability Framework in Our University

## OUR SUSTAINABILITY FOCUSES

Universitas Pertamina structures sustainability around three pillars: Environment, Social, and Governance. Within these pillars, five focus areas guide planning and delivery across the institution: addressing climate change; water and waste management; inclusive and high-quality education; data security, digitalization, and efficiency; and sustainability-driven research and innovation. These areas align with the United Nations Sustainable Development Goals (SDGs) and provide a clear pathway from institutional priorities to measurable outcomes.



Building on this foundation, the matrix operationalizes each pillar by mapping the five focus areas to the most relevant SDGs. Under Environment, Addressing Climate Change aligns with SDG 7, 13, and 15, while Water and Waste Management connects to SDG 2, 6, and 14—together covering clean energy, climate action, terrestrial protection, food-water security, sanitation, and aquatic ecosystems. The Social pillar's Inclusive and High-Quality Education links to SDG 1, 3, 4, 5, 8, and 10, reflecting poverty alleviation, health, learning outcomes, gender equality, decent work pathways, and reduced inequalities. Within Governance, Data Security, Digitalization, and Efficiency supports SDG 16 and 17 through strong institutions and effective partnerships, while Sustainability-Driven Research and Innovation advances SDG 9, 11, and 12 via industry innovation, sustainable cities, and responsible production. This alignment clarifies how priorities translate into indicators and evidence, enabling consistent planning, resourcing, and performance reporting across units and over time.

The matrix below depicts the architecture that sustains the ESG framework. Institutional values provide the foundation for culture and decision making. Centers of Excellence, national and global expert networks, and the community of students and professional personnel translate priorities into programs and partnerships. Academic capacity is represented by six faculties, sixteen undergraduate programs, and two master's programs, which together act as the primary channels for curriculum, research, and outreach. This structure links governance and resources to practice, ensuring that activities in climate action, water and waste management, inclusive education, digital trust, and research and innovation produce traceable contributions to the SDGs.



## OUR POLICY AND COMMITMENT ON SUSTAINABILITY

Universitas Pertamina is committed to implementing sustainability across all of our activities in teaching, research, outreach, and stewardship. This commitment is supported by our policy on sustainable development goals. This policy is stated in our Strategic Planning Documents 2023–2028, which outline Universitas Pertamina's vision to be a world-class **energy oriented** university based upon **innovation, entrepreneurship** in technology and business that **empowers society and nurtures future leaders**.

## OUR POLICY ON ENVIRONMENTAL ASPECT

Aspect	Policy
Wastewater treatment	Universitas Pertamina HSSE Standard UP/SPMI/STD/F.01, 2022 Edition
Hazardous waste disposal	Standard Operating Procedure UP-SPMI/04/06/29/R00 on the Management and Handling of Hazardous and Toxic Materials
Solid waste management	<ul style="list-style-type: none"> <li>Universitas Pertamina HSSE Standard UP/SPMI/STD/F.01, 2022 Edition</li> <li>Restriction on the Use of Bottled Drinking Water (AMDK) for Internal University Activities</li> </ul>
Smoke-free area	On 21 January 2017, Universitas Pertamina signed the charter "Universitas Pertamina Simprug Complex is a Smoke-Free Area," approved and signed by the leadership within the Pertamina Simprug area.
Renewable energy and energy efficiency	Universitas Pertamina Research Strategic Plan 2023–2028, in which one of the research focus areas for 2023–2028 is to develop innovative solutions related to sustainability, efficiency, and diversification of energy sources, contributing to national energy security.
Climate action	Universitas Pertamina Research Strategic Plan 2023–2028, in which one of the research focus areas for 2023–2028 is to understand the impacts of climate change and to develop mitigation and adaptation strategies oriented toward environmental sustainability.

## OUR POLICY ON SOCIAL ASPECT

Aspect	Policy
Low-income student support	Rector's Regulation Number 018/UP-R/PER/HK.00/XI/2021(2021) on the Administration of Scholarships
Entrepreneurship	Rector's Regulation Number 012/UP-R/PER/HK.00/X/2023 (2023) on Entrepreneurship Guidelines within Universitas Pertamina
Women application and entry	Rector's Regulation Number 0010/UP-R/PER/HK.00/VIII/2023 on Universitas Pertamina New Student Admissions Guidelines
Maternity & paternity leaves	<ul style="list-style-type: none"> <li>Rector's Regulation Number 0004/UP-R/PER/VI/2016 on Universitas Pertamina Personnel, Chapter 3, Article 7(6b) and Article 10</li> <li>Governing Board Regulation Number 015/BP-UPER/X/2024 on the Rights and Obligations of Universitas Pertamina Employees, Article 17(6) and Article 17(10)</li> </ul>
Anti discrimination, anti-harassment, modern slavery, pay scale equity, labour rights and union	<ul style="list-style-type: none"> <li>Rector's Regulation Number 0010/UP-R/PER/HK.00/VIII/2023 on Universitas Pertamina New Student Admissions Guidelines (Chapter II, Section A, No. 5)</li> <li>Pertamina Foundation Regulation Number 012/BP-UPER/VI/2024 on Employee Protection (Article 3)</li> <li>Rector's Regulation on the Lecturer Code of Ethics Number 003/UP-R/PER/VI/2016, Article 8(5)</li> <li>Governing Board Regulation Number 012/BP-UPER/VI/2024 on Protection of Universitas Pertamina Employees, Articles 4 and 5</li> <li>Governing Board Regulation Number 012/BP-UPER/VI/2024 on Protection of Universitas Pertamina Employees, Article 6(4)</li> <li>Governing Board Regulation Number 015/BP-UPER/X/2024 on the Rights and Obligations of Universitas Pertamina Employees, Article 8(1)</li> <li>Rector's Regulation Number 0021/UP-R/PER/V/2016, Article 20 on the Management of Employee Disciplinary Actions and Complaints</li> <li>Governing Board Regulation Number 015/BP-UPER/X/2024 on the Rights and Obligations of Universitas Pertamina Employees, Chapter V</li> <li>Rector's Regulation Number 0011/UP-R/PER/VIII/2019 amending Rector's Regulation Number 0012/UP-R/VIII/2016 on the Student Code of Ethics</li> </ul>

- Rector's Decree Number 0029/UPER-R/SK/HK.01/II/2024 on the Establishment of the Task Force for the Prevention and Handling of Sexual Violence at Universitas Pertamina

## OUR POLICY ON GOVERNANCE ASPECT

Aspect	Policy
Stakeholder engagement	Governing Board Regulation Number Per-009/BP-UPER/IV/2024 on Universitas Pertamina Partnerships/Cooperation
Corruption and bribery	Rector's Regulation Number 0010/UP-R/PER/III/2017 (2017) on the Gratification Control Policy
Academic freedom	Rector's Regulation Number 0001/2024 on Academic Freedom
SDGs education	Rector Regulation No. 0011/UP-R/PER/HK.00/VII/2021 on the 2021 Curriculum Development Guidelines aligns Universitas Pertamina's curriculum with Indonesia's Vision 2045 and the Sustainable Development Goals (SDGs).

## *“Leuweung ruksak, cai beak, manusa balangsak”*

“When the forest is destroyed and water is gone, humanity suffers”

(Proverb from the Sundanese, West Java)

The proverb underscores that societal well-being rests on preserving ecosystems and serves as a moral call to protect the environment..

# Addressing Climate Change

Universitas Pertamina, as an institution with a strong focus on the energy sector, recognizes its significant responsibility in contributing to both climate change mitigation and adaptation efforts. The energy sector remains the dominant source of global greenhouse gas (GHG) emissions, accounting for 75.7% of total emissions worldwide (World Resources Institute, 2021). In this context, Universitas Pertamina is committed to positioning itself at the forefront of clean and renewable energy development, thereby supporting Indonesia's national agenda to achieve Net Zero Emissions by 2060.

**67**

Number of Action In



Goals No. 7

Affordable and Clean  
Energy

**32**

Number of Action In



Goals No. 13

Climate Action

**25**

Number of Action In

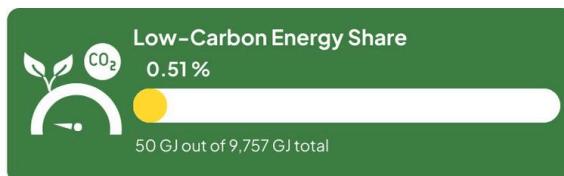
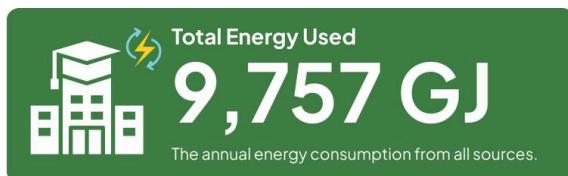


Goals No. 15

Life On Land

## OPERATIONS

Universitas Pertamina continues to rely primarily on purchased electricity as its main source of energy. In 2024, total energy use from all sources reached 9,757 GJ. On-site low-carbon generation contributed about 50 GJ, yielding a 0.51% low-carbon energy share. Campus energy intensity was 0.37 GJ per m<sup>2</sup> of floor area, and 1.72 GJ per person. These figures indicate early but tangible progress from solar installations while grid electricity continues to provide the bulk of consumption.



## RESEARCH & INNOVATION

Eggshell Waste Innovation for Direct Carbon Capture and Storage (CCS) of CO<sub>2</sub> Emissions



Our student research team from the Chemical Engineering Program successfully received funding under the Student Creativity Program (PKM) for a project entitled “Direct Carbon Capture Storage Innovation Based on Absorption Using Calcium Hydroxide Nanoparticles Derived from Eggshell Waste.” The study seeks to develop an economical and effective method of direct CO<sub>2</sub> capture to mitigate emissions from fossil fuel utilization. Aligned with SDG 13 (Climate Action) and SDG 15 (Life on Land), the research not only contributes to emission reduction but also demonstrates the potential of utilizing agricultural waste—such as eggshells—for environmental sustainability. Furthermore, this initiative fosters greater awareness of Carbon Capture and Storage (CCS) technologies among the academic community and beyond.

## COMMUNITY OUTREACH

### Desa Energi Berdikari (DEB) as an Alternative Energy Solution

On January 27, 2024, Sobat Bumi Scholarship recipients from Universitas Pertamina, inaugurated the Desa Energi Berdikari (Energy Independent Village) initiative in Bojong Kulur Village, Bogor, in collaboration with PT Pertamina (Persero) and the Pertamina Foundation. The program addresses both environmental and economic challenges in the village, which is widely recognized for its tofu production industry. Through the integration of biogas and solar energy technologies, the program successfully reduced LPG consumption by up to 80%, lowered household expenditures, and contributed to the achievement of Indonesia's Net Zero Emissions 2060 target.



Beyond energy transition, the program also introduced alternative energy applications to the community, facilitated the planting of 750 carbon-absorbing trees, and delivered training on tofu-based product innovations to enhance local entrepreneurship. Appreciated by the Bojong Kulur Village Government, this collaborative initiative exemplifies a practical and replicable model of sustainable energy adoption and community empowerment, while reinforcing Pertamina's long-term vision of advancing a greener and more sustainable future.

## TEACHING & EDUCATION

### Climate and Environmental Change Campaign by Communication Studies Students

One of the courses offered by the Communication Studies Program at Universitas Pertamina, "Climate and Environmental Communication," equips students with the ability to understand and apply the fundamentals of effective climate change communication, outreach strategies, behavioral change mechanisms, and supporting activities that enhance communication impact. As part of the course requirements, students are tasked with designing and implementing climate-related campaigns.



One student group initiated a campaign to reduce skincare waste through the program TIPSEN (Tindakan Inisiatif Pengelolaan Sampah Skincare - Skincare Waste Management Initiative). Over a five-day period, the campaign successfully collected 523 pieces of skincare and makeup waste, resulting in an estimated carbon savings of 13.17 kg CO<sub>2</sub>. This initiative highlights the integration of academic learning with practical action, demonstrating the role of communication strategies in fostering environmental awareness and sustainable behavior.

## “Tri Hita Karana”

“Three Causes of Harmony”  
(proverb from Balinese, Bali)

It teaches that happiness and balance come from maintaining harmony with God (Parahyangan), with people (Pawongan), and with nature (Palemahan).

# Water and Waste Management

Universitas Pertamina is committed to ensure that everyone within our campus community has access to adequate water and proper sanitation. We also supports sustainable water management by developing various programs and research initiatives aimed at promoting water conservation, water recycling, and water quality monitoring. In addition, Universitas Pertamina has begun implementing sustainable waste management practices to advance waste circularity, with a strong emphasis on the principles of Reduce, Reuse, and Recycle (3R). As an educational institution, we further integrates knowledge on water, wastewater, and waste management into our curriculum, ensuring that graduates are equipped with the capacity to apply responsible and effective waste management practices in our respective communities.

31

Number of Action In



Goals No. 2  
Zero Hunger

30

Number of Action In



Goals No. 6  
Clean Water and  
Sanitation

32

Number of Action In



Goals No. 14  
Life Below Water

## OPERATIONS

Most of Universitas Pertamina's water supply comes from the local municipal utility (PDAM). We are conducting water use tracking across campus to better monitor consumption, identify opportunities for efficiency, and explore potential water reuse. Universitas Pertamina also tracks the amount of waste generated, recycled, and sent to landfill as part of our commitment to sustainable waste management. In 2024, average water use was 11.92 liters per person per day, reflecting essential needs for sanitation and facility maintenance.

Total solid waste amounted to 64 metric tons, equivalent to 0.03 kilograms per person per day. Of this, food waste contributed 11 tons—approximately one-tenth of the total. Waste treatment outcomes indicated that 39% was recycled by an external operator, 17% was recovered as organic material, and 44% was landfilled, highlighting opportunities to further enhance waste segregation and food waste prevention initiatives.



## RESEARCH & INNOVATION

“We Waste”: Transforming E-Waste into Renewable Energy



Electronic waste poses a growing environmental and health challenge, with Jakarta households generating 14.2 tons of e-waste in just eight months (2022). To address this issue, Sandi Pamungkas, our student of the Economics Program at Universitas Pertamina (UPER), developed “We Waste”—an innovation that converts e-waste into an environmentally friendly power bank through an alternative electrolyte process. This initiative, which won first place at the National Essay Competition of the Southeast Sulawesi Economic Forum (2023), has potential to reduce household e-waste, supports renewable energy use, and contributes to the green economy, aligning with SDG 12 and SDG 13.

## COMMUNITY OUTREACH

### Constructicons of public sanitation facilities and outreach for STBM

As part of our commitment to social responsibility and community empowerment, Universitas Pertamina actively engages in community service programs. In 2024, the Environmental Engineering and Civil Engineering Study Programs implemented a project in Desa Pangubusan, Kabupaten Bandung, focusing on the construction of public sanitation facilities (MCK Umum) and the promotion of the Community-Based Total Sanitation (STBM) 5 Pillars.



This initiative aimed to improve community access to proper sanitation, raise awareness on hygiene and waste management, and strengthen the capacity of local residents to adopt sustainable sanitation practices. Through participatory approaches, the program not only provided essential infrastructure but also fostered behavioral change to support long-term environmental and public health outcomes. Aligned with SDG 3 (Good Health and Well-being) and SDG 6 (Clean Water and Sanitation), the program demonstrates Universitas Pertamina's dedication to advancing sustainable development by integrating education, research, and community engagement.

## TEACHING & EDUCATION

### Integrating Flood Mitigation Education in Schools



Universitas Pertamina actively promotes education that strengthens awareness of water sustainability and waste management. In September 2024, a flood mitigation education program was carried out at SMA 2 Perguruan Cikini, inspired by the 2023 flood disaster that highlighted the urgent need for water-related resilience. The program emphasized the connection between improper waste disposal, water pollution, and flooding, showing students how local actions directly affect clean water availability and aquatic ecosystems. Through interactive sessions, students learned practical strategies for flood preparedness, responsible waste management, and water conservation. By embedding water literacy and disaster preparedness into school education, Universitas Pertamina not only supports SDG 6 (Clean Water and Sanitation) by fostering responsible water use and management, but also contributes to SDG 14 (Life Below Water) by reducing the risk of waste and pollutants entering rivers and seas. This initiative highlights the role of education in cultivating environmentally conscious citizens who can safeguard both terrestrial water systems and marine biodiversity.

## “Alam Takambang Jadi Guru”

“Nature is the greatest teacher”

(Proverb from Minangkabau, West Sumatra)

It expresses the belief that everything in nature provides lessons for human life. The natural world—its changes, balance, and harmony—serves as a source of wisdom and moral guidance.

# Inclusive & High Quality Education

Universitas Pertamina is committed to fostering high-quality and inclusive education for individuals of all backgrounds, cultures, and ethnicities. In response to the growing demand for green skills, we provide sustainability-focused education to our students through both degree and non-degree pathways, including collaborative research projects and community engagement initiatives. We ensure that the principle of lifelong learning is upheld by organizing a wide range of educational activities—such as seminars, focus group discussions, and public lectures—that are accessible to anyone, anytime, and anywhere.

**40**

Number of Action In



Goals No. 1  
No Poverty

**29**

Number of Action In



Goals No. 3  
Good Health and  
Well-being

**67**

Number of Action In



Goals No. 4  
Quality Education

**32**

Number of Action In



Goals No. 5  
Gender Equality

**26**

Number of Action In



Goals No. 8  
Decent Work and  
Economic Growth

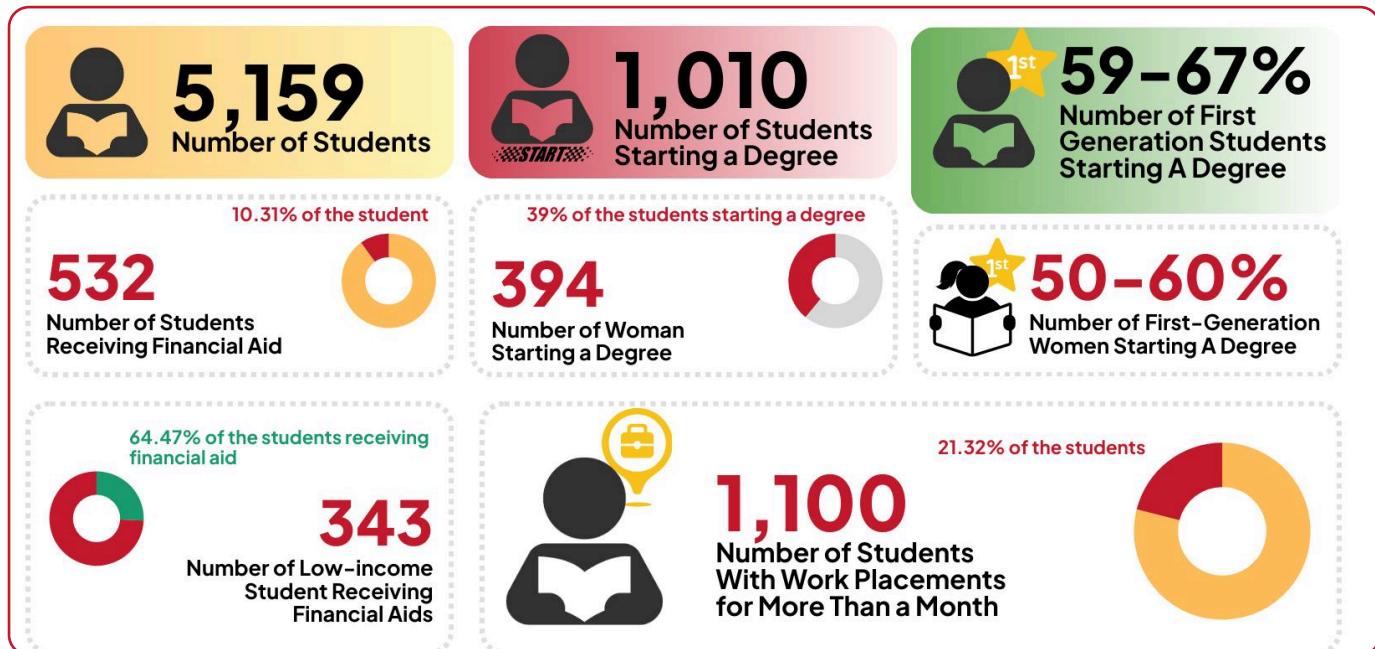
**26**

Number of Action In



Goals No. 10  
Reduced Inequalities

## OPERATIONS



Universitas Pertamina is committed to inclusive and high-quality education by providing scholarships for underprivileged students, including the Kebumen Scholarship, Sobat Bumi Natuna, and support for students from 3T (tertinggal, terdepan, terluar) regions (remote, frontier, and underdeveloped areas in Indonesia). These initiatives broaden access to higher education and empower young people from across the archipelago.

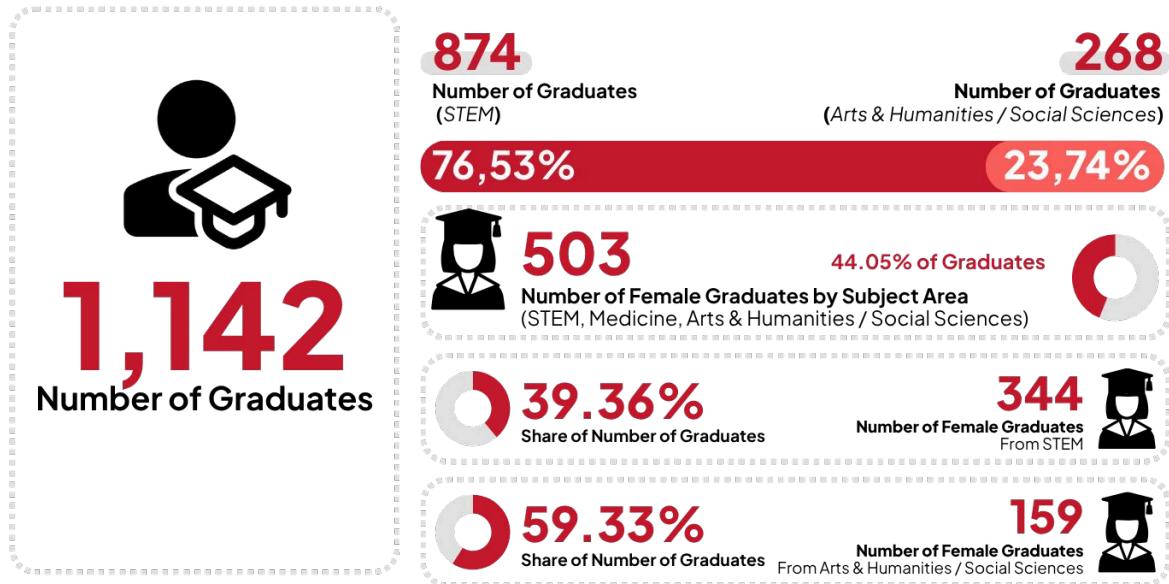
Universitas Pertamina also ensures comprehensive student well-being through the campus clinic, the Student Health Unit, and partnerships with external health facilities, such as Tugu Insurance for personal accident coverage. Mental health services are provided via a dedicated Guidance and Counseling Unit, managed by the Student Services Manager.

Together, these programs support students' academic and personal development while advancing SDG 3, SDG 4, and SDG 5.

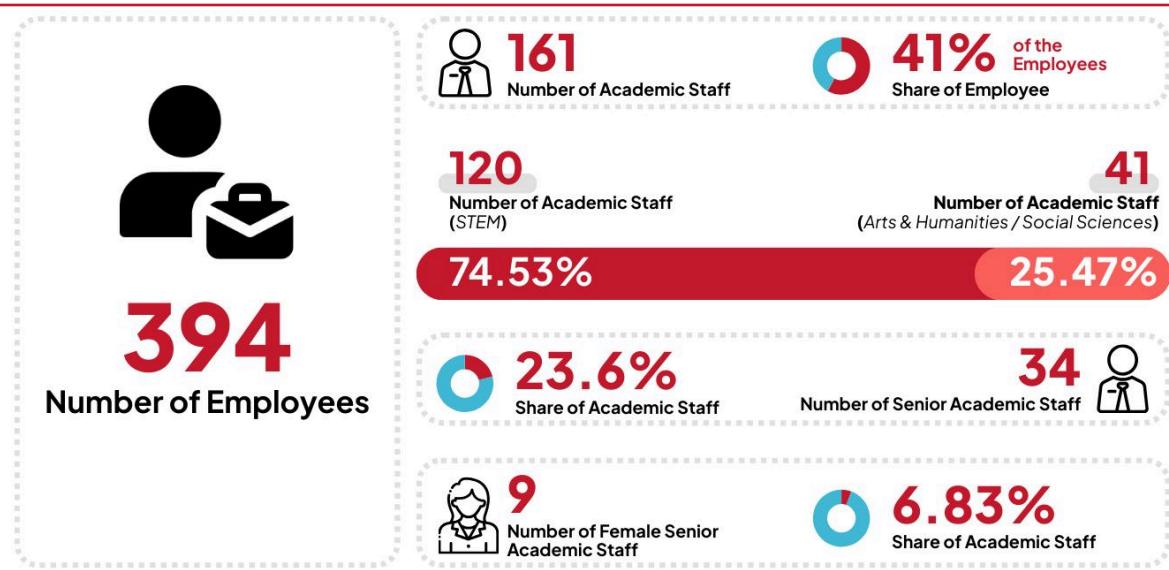
Universitas Pertamina recorded a student body of 5,159 in 2024. Of these, 1,010 students began a degree program, including 394 women (39% of new entrants). 59–67% of first-year student is first generation students starting a degree where 50–60% are females.

Financial access was supported through 532 scholarship or aid recipients (10.31% of all students), with 343 awards directed to low-income learners (64.47% of aid recipients).

Work-based learning remained substantial, as 1,100 students (21.32% of the student population) completed placements longer than one month.



The graduating class comprised 1,142 students. The cohort included 874 men and 268 women, corresponding to 76.53% and 23.74% respectively. These figures provide a clear baseline for tracking graduate destinations and progression in the next reporting cycle.



The university employed 394 personnel. Academic staff totaled 161 (41% of employees), with a disciplinary profile weighted toward STEM at 74.53% and complemented by arts, humanities, and social sciences at 25.47%. 34 of academic staff held position in senior academic (23.6%), and from 9 of 34 of senior academic staff is women (6.83%). This staffing composition supports delivery of inclusive and high-quality education and underpins contributions to SDG 4, with reinforcing links to SDG 5 and SDG 8.

## RESEARCH & INNOVATION

### Academic Publication on Green Growth and Education



Anchored in Universitas Pertamina's Sustainability Focus on Quality and Inclusive Education and oriented toward Research and Innovation in Education, the Chemistry Study Program convened a Subject Teacher Conference for Chemistry teachers from across Jakarta, a subject teachers' professional forum, for a workshop at Griya Legita on 1 August 2024. Under the theme "Discover How Chemistry

Shapes Our World and Future," the program translated university research and disciplinary expertise into classroom practice by pairing a discussion of the 2024 Chemistry learning outcomes with hands-on co-creation of Grade 12 High School teaching modules aligned to the "Kurikulum Merdeka", which participants then presented in groups. Program Head Dr. Nila T. Berghuis emphasized connecting chemistry to everyday life to spark student curiosity, with aspirations to run the series regularly—creating a continuous feedback loop between schools and campus. This teacher-capacity pathway strengthens SDG 4 by empowering educators) and embedding relevant, real-world science learning, while demonstrating Universitas Pertamina's model for turning academic insight into scalable, classroom-ready innovation.

## COMMUNITY OUTREACH

### Indonesian Millennial in Sustainability (IMIS) 2024



Universitas Pertamina, through the Indonesian Millennial in Sustainability (IMIS) program, actively engages youth in promoting inclusive, high-quality education.

The initiative raises awareness of education as a pillar for reducing inequality and alleviating poverty, while highlighting the role of sustainability in achieving social progress. By involving students and communities in discussions, campaigns, and collaborative projects, IMIS provides a platform for youth to contribute ideas and solutions aligned with the Sustainable Development Goals (SDGs). This outreach initiative not only fosters a deeper understanding of quality education but also empowers young people to address broader social and economic challenges, ensuring that the benefits of education are accessible to all.

## TEACHING & EDUCATION

### Learning Sustainability from National Leaders



Universitas Pertamina actively promotes collaboration between lecturers and industry practitioners to deliver contextual learning experiences for students. By integrating real-world insights from professionals into the classroom, students gain exposure to practical applications of theories while understanding current industry challenges and innovations. This approach not only strengthens the relevance and quality of academic programs but also equips graduates with competencies that match the evolving demands of the workforce. Such collaboration reflects the university's commitment to Teaching & Education – Inclusive & High Quality Education, ensuring that learning is both academically rigorous and socially impactful, while fostering inclusivity by preparing students from diverse backgrounds to thrive in professional environments.

**“Belom bahadat, belom bengen, belom basarah”**

Live with manners, skill, and devotion”  
(Proverb from Dayak Ngaju , Central Kalimantan)

It teaches that a good person should act respectfully, work diligently, and live with spiritual awareness.

# Data Security, Digitalization, and Efficiency

Universitas Pertamina recognizes the crucial role of digitalization and data security in advancing institutional efficiency and safeguarding information assets. In the era of rapid technological change, responsible digital transformation not only enables smarter campus management but also fosters innovation, inclusivity, and resilience. Through integrated operations, pioneering research, community engagement, and enhanced teaching methods, Universitas Pertamina highlights its strong commitment to responsible digitalization that supports sustainable development and aligns these initiatives with SDG 16 (Peace, Justice, and Strong Institutions).

**45**

Number of Action In



**Goals No. 16**

Peace, Justice and  
Strong Institution

**103**

Number of Action In



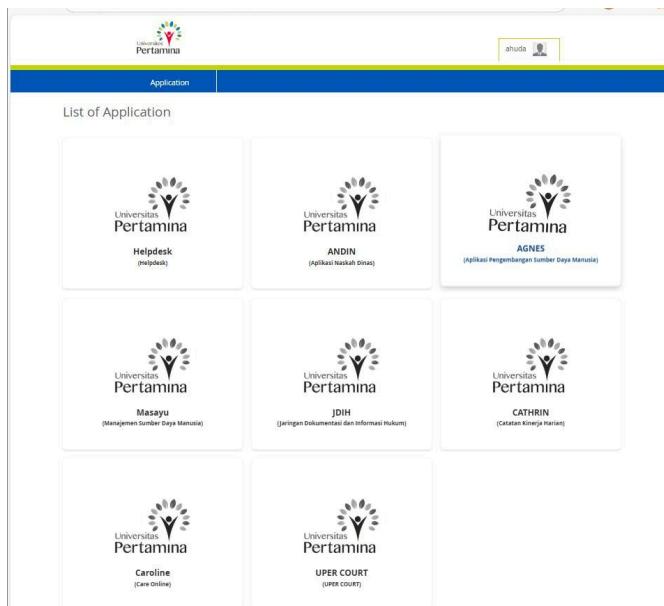
**Goals No. 17**

Partnership For The  
Goals

## OPERATIONS



Digitalization has been one of the top ten university priorities since 2021 (UPer Go Digital Program). Universitas Pertamina operates 15 digital systems and facilities that support academic activities, administrative processes, and institutional data management. The portfolio covers core functions such as learning and student administration, research and asset tracking, and sustainability reporting, enabling faster services and reduced paper transactions.



Data governance is strengthened through centralized coordination and standard security controls, including role-based access, encryption, routine backups, and periodic system audits. Capacity-building

for staff ensures consistent use of the platforms and improves data quality. Together, these measures enhance operational efficiency, protect institutional information, and provide timely, reliable inputs for decision making.

## RESEARCH & INNOVATION

Tratour: Smart Application for Waste Education



Student from Computer Science Program developed Tratour, an educational application on waste management, which won recognition for Best Code Implementation at the National Digital Innovation Competition. By integrating gamification and interactive digital features, the app provides real-time simulations and educational modules on sustainable waste practices. Beyond its role in environmental education, Tratour exemplifies how digital platforms can be leveraged to improve efficiency in delivering impactful knowledge at scale. This innovation highlights Universitas Pertamina's commitment to merging sustainability with digital transformation and positions the university as a hub for practical digital solutions.

## COMMUNITY OUTREACH

Exploring Data Science and Artificial Intelligence with High School Students



In 2024, the Computer Science Department organized an outreach program titled “Exploring Data Science and AI” for high school students. The initiative introduced participants to fundamental concepts of data analytics, machine learning, and artificial intelligence through hands-on workshops and interactive sessions. By bridging academic expertise with youth education, this program not only enhanced digital literacy among students but also inspired interest in pursuing technology-related fields. It underscores Universitas Pertamina’s role in advancing digital inclusion and preparing the younger generation for a data-driven future.

## TEACHING & EDUCATION

CITE-UP 2024: Digital Future Exploration



Universitas Pertamina hosted CITE-UP 2024, a forum designed to explore the transformative potential of digitalization in education and industry. The event facilitated discussions on emerging technologies, digital entrepreneurship, and the responsible use of artificial intelligence. Students engaged with practitioners and academics to understand challenges and opportunities within the digital landscape. Through this initiative, Universitas Pertamina strengthened its educational framework by embedding digital literacy and efficiency as core competencies, ensuring that graduates are equipped with the skills necessary to thrive in a rapidly evolving digital economy.

## “Urip Iku Urup”

“Life is a flame that should give light to others”  
(Proverb from Javanese, Central Java)

It expresses that life gains meaning through helping and inspiring others, just as fire gives warmth and light to its surroundings.

# Sustainability-driven Research and Innovation

Universitas Pertamina is dedicated to advancing research and innovation that support sustainability at local, national, and global levels. Through interdisciplinary collaborations, applied research, and targeted funding programs, we encourage faculty and students to explore solutions to pressing environmental, social, and economic challenges. Research topics include renewable energy, climate change mitigation, sustainable materials, circular economy, and community resilience. Most of these initiatives directly support SDG 9 (Industry, Innovation and Infrastructure), SDG 11 (Sustainable Cities and Communities), and SDG 12 (Responsible Consumption and Production). As a knowledge-based institution, Universitas Pertamina also integrates sustainability values into its innovation ecosystem—promoting the development of responsible technologies, green startups, and policy recommendations that drive real-world transformation.

5

Number of Action In



Goals No. 9

Industry, Innovation and Infrastructure

25

Number of Action In



Goals No. 11

Sustainable Cities and Communities

11

Number of Action In

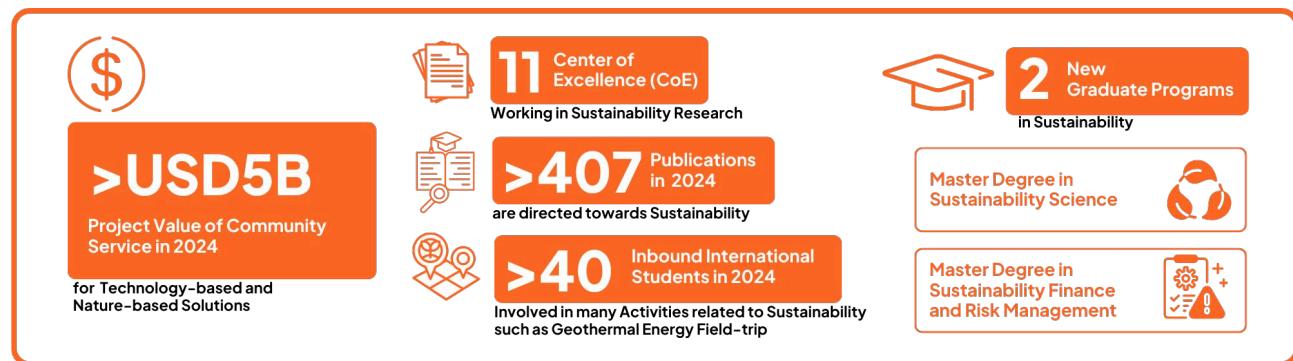


Goals No. 12

Responsible Consumption and Production

## OPERATIONS

### UN Appointment for Green Chemistry Collaboration



Universitas Pertamina's knowledge and innovation ecosystem is anchored by 11 Centers of Excellence. In 2024 these platforms supported more than 407 publications, welcomed over 40 inbound

international students, and delivered community service with a project value exceeding USD 5 billion. Academic capacity advanced with two new graduate programs: the Master in Sustainability Science and the Master in Sustainability Finance and Risk Management. In 2024 the United Nations appointed Universitas Pertamina to develop Green Chemistry with the Ministry of Industry and Yale University. The collaboration targets cleaner production by reducing waste, improving energy efficiency, and limiting hazardous emissions, with impact tracked through shared indicators and capacity-building for students and industry partners.

## RESEARCH & INNOVATION

### Student Innovation: Antibacterial Uniforms for Waste Management Officers



One of several student research teams at Universitas Pertamina developed an antibacterial uniform designed specifically for waste management officers (commonly known as petugas orange). The uniform incorporates textile innovation with antibacterial properties to improve hygiene, reduce exposure to harmful bacteria, and enhance worker safety. Recognized for its social and environmental impact, this innovation

addresses both occupational health and sustainable urban waste management. It exemplifies how student-led research at UPER not only produces scientific advancement but also delivers practical solutions for community well-being, aligning with SDG 9 (Industry, Innovation, and Infrastructure) and SDG 11 (Sustainable Cities and Communities).

## COMMUNITY OUTREACH

### Hands-on Solar Panel Workshop with MGMP DKI Jakarta

To strengthen knowledge transfer and public awareness of renewable energy, Universitas Pertamina collaborated with MGMP, "Musyawarah Guru Mata Pelajaran" (Subject Teacher Conference) Jakarta in a community workshop on simple solar panel design. The program brought together teachers and educators to explore practical renewable energy applications, emphasizing the importance of clean energy adoption in schools. By providing hands-on experience in building solar panels, the initiative encouraged educators to integrate sustainability topics into their teaching. This outreach initiative not only expands digital and green literacy but also accelerates the diffusion of renewable technologies to broader communities, contributing to SDG 7 (Affordable and Clean Energy) and SDG 17 (Partnerships for the Goals).



## TEACHING & EDUCATION

### Public Lecture Series on Sustainable Development 2024

Universitas Pertamina, through its Sustainable Development course, organized the Sustainable Development Public Lecture Series 2024 in June as part of its commitment to embedding sustainability into higher education. The two-day hybrid event invited leading speakers from international organizations and national sustainability practitioners to share insights with students across multiple faculties.

On the first day, Miklos Gaspar, Director of the United Nations Information Center (UNIC) Indonesia, delivered a lecture on the Sustainable Development Goals (SDGs) and the Future of Indonesia, emphasizing the importance of multi-sector partnerships in achieving the 2030 Agenda. The second day featured Rici Solihin, SDG Certified Leader and Entrepreneurship Facilitator, who highlighted the role of the circular economy and youth participation in advancing sustainable development.

Each session engaged 185 participants on site, in addition to students joining virtually. The academic design required participants to prepare reflective summaries, ensuring active learning and critical engagement. Through this initiative, Universitas Pertamina strengthened students' theoretical understanding of sustainability while providing practical perspectives on how global goals can be realized at the local and national level.

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## Follow up and engage

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