



**UNDIP** | UNIVERSITAS  
DIPONEGORO  
The Excellent Research University

PROGRAM AND ACHIEVEMENT REPORTS

# SUSTAINABLE DEVELOPMENT 2023



UNIVERSITAS DIPONEGORO



**SDGs CENTER**  
UNIVERSITAS DIPONEGORO



# PREFACE

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Assalamu'alaikum Warahmatullahi Wabarakaatuh

Program Implementation Report and Activities related to the Sustainable Development Goals year 2023 has been completed. The purpose of this report is to provide an overview of various programs and activities carried out by all academics of Universitas Diponegoro in correlation to the 17 objectives or goals of Sustainable Development Goals.

As we know, SDGs are an urgent call initiated by the United Nations and become global action by all after being ratified by many countries around the world. All countries that have signed and approved this blueprint were encouraged to have commitment and carry out various programs and activities to achieve all the objectives of the SDGs. SDGs cover almost all aspect for peace and prosperity for people and the planet, now and into the future by action in global partnerships.

Universitas Diponegoro is committed to continuously support the implementation the SDGs program. This commitment is also in order to help the Indonesian government to achieve the SDGs targets that have been set.

Hopefully this report provides adequate information about the programs and activities of SDGs at Universitas Diponegoro. We hope that this report is useful for all of us.

Wassalamualaikum Warahmatullahi Wabarakaatuh

Semarang, 1 January 2024  
Rector

Prof. Yos Johan Utama, SH. MHum

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# INTRODUCTION

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Sustainable Development Goals (SDGs) are programs that guide the development of countries in the world initiated by the United Nations (UN). This program was agreed upon by 193 countries and governments around the world through the document "Transforming Our World: the 2030 Agenda for Sustainable Development" at the 70th United Nations General Assembly in September 2015.

The SDGs have five basic principles that underlie the economic, social and environmental fields, namely: 1) People, 2) Planet (earth), 3) Prosperity, 4) Peace, 5) Partnership (cooperation) and 17 Goals and 169 Goals to achieve a better human life and the universe. The agreement of UN member countries on the SDGs has the consequence that countries in the world must implement the SDGs program to achieve the targets that have been set.

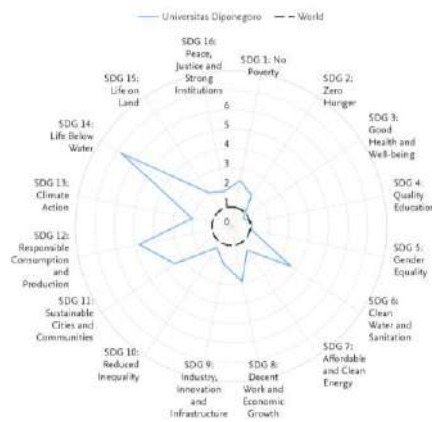
Universitas Diponegoro (UNDIP) as one of the Legal Entity State Universities in Indonesia has a vision of being an "excellent research university" (Utama and Ambariyanto, 2017), supported by the selection of Undip's Principal Scientific Pattern, namely Coastal Region Eco-development (Ambariyanto et al, 2017) strongly supports this. Regarding the University's Vision and Scientific Principles UNDIP is actively developing the SDGs program at the institutional level to support the Indonesian government in achieving all the goals that are targeted in the SDGs program. Sustainability is the basis for policy development at UNDIP, for that UNDIP developed UNITY (UNDIP Initiatives for Sustainability) (Ambariyanto et al, 2018).

Considering UNDIP is a higher education institution, UNDIP implement its policy to develop an advanced/modern, safe, and comfortable campus for the learning and teaching process (Utama, et al, 2017). Furthermore, in the process of implementing the program to achieve SDGs goals, all UNDIP stakeholders including lecturers, employees, students and the community around the campus are fully involved in accordance with their respective capacities.

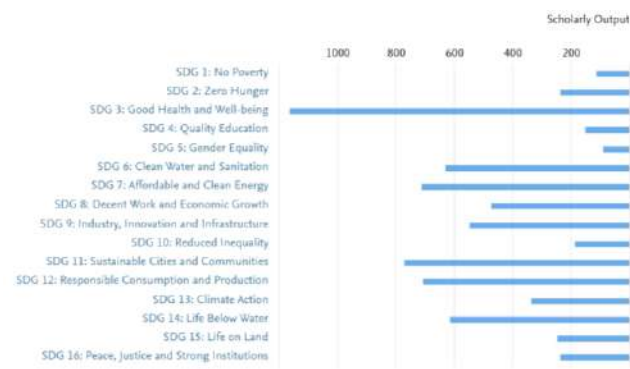
The purpose of preparing this report is to provide an overview of the programs and achievements that have been carried out by UNDIP in 2023 in carrying out its role to support the achievement of the 17 SDGs goals.

# PUBLICATION BY SDGs

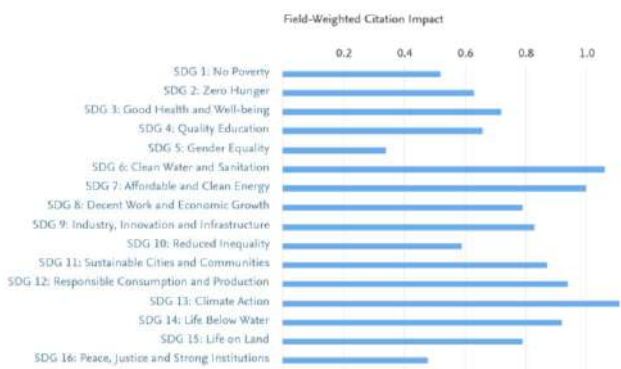
Publication output of Universitas Diponegoro from Sustainable Development Goals perspectives according from Scopus statistics can be seen in the relativity activity chart and bar chart.



The analysis shows that most activity in research and publication conducted related to SDG 14, SDG 12, SDG 6, SDG 11, and SDG 8.



The result inline with the realization of **Universitas Diponegoro vision to become excellent research university that focuses on the coastal region eco development** as part of UNDIP contribution to the economy development of Indonesia





UNDIP Campus Bus for internal commuting



End poverty in  
all its forms  
everywhere



### **SCHOLARSHIPS AWARDED TO 1,500 NEW STUDENTS**

UNDIP welcomed a significant number of new students through its scholarship programs. Out of 1,500 students who were granted financial aid, 750 received the KIP Kuliah (KIPK) scholarship, a government initiative aimed at supporting students from economically disadvantaged backgrounds. This program ensures that talented individuals, regardless of their financial situation, have access to higher education. Additionally, UNDIP's internal scholarship was awarded to another 750 students. This internal program focuses on recognizing students with strong academic potential.



### **COLABORATIONS WITH MAJOR INSTITUTIONS TO PROVIDE STUDENT SCHOLARSHIPS**

UNDIP has formed key partnerships with Bank Indonesia, Bank Mandiri, Yayasan Asahi Glass Indonesia, and the Tanato Foundation to offer scholarships aimed at reducing the financial burden for students. This initiative provides a direct benefit to students by not only covering tuition costs but also supporting them with stipends for daily living expenses, which can often be a significant barrier to academic success. By partnering with these organizations, UNDIP is also enhancing students' career prospects by linking them with industries, creating opportunities for networking, internships, and professional growth.



### **UNDIP CAMPUS BUS**

The bus transportation services operating across UNDIP's Tembalang campus are designed to provide a highly convenient and comfortable commuting experience for students and staff alike. Equipped with modern amenities such as air conditioning, ergonomic seating, and free Wi-Fi, the buses offer a pleasant journey even during the busiest hours. The service runs on well-structured, regular schedules, ensuring punctuality, with multiple routes covering key areas both on and around the campus. This extensive coverage makes the buses accessible to a large portion of the university population, easing daily commutes and promoting a more sustainable mode of transport.



**136**

publications until 2023  
based on UN-SDGs  
keywords



**285**

educational activities,  
researches, and  
community services



**76**

collaborations, either at  
local, regional, national,  
and international scale



# 1 NO POVERTY



## End poverty in all its forms everywhere



### PROMOTION OF SMART TOURISM IN TUGUREJO VILLAGE

The creation of a promotional website plays a crucial role in expanding market access for local businesses such as UMKM Putri Tirang, which specializes in fish-based products. This online platform is expected to increase visibility and support local economic growth. In addition to this, coastal mapping and sustainable mangrove management training is being conducted, an effort supported by initiatives like Gerakan Kebangkitan Ekonomi Masyarakat Lokal (Gerbang Elok). These activities aim to promote both environmental sustainability and long-term economic benefits for the local community, fostering a balance between resource preservation and economic progress.



### EMPOWERING LOCAL ECONOMY THROUGH MICROFINANCE INITIATIVES

Following the earthquake in Cianjur, swift action was taken under the leadership of Dr. Achmad Zulfa Juniarto to provide assistance to the affected communities. Three specialized teams were deployed, including the Disaster Emergency Response Team (D-DART), volunteer responders, and community service teams. The Surveillance Team was dispatched immediately after the disaster to conduct a thorough assessment of the situation on the ground. This was followed by the Medical Team, which comprised health professionals and students dedicated to delivering essential medical care and support to the victims.



### TUITION FEE ADJUSTMENT SERVICES

UNDIP provides seven types of tuition fee adjustments (UKT) to support students facing financial difficulties. Options include lowering UKT tiers based on financial capacity, reductions for students in their ninth or tenth semesters taking six or fewer credits (up to 50%), and complete waivers for final-year students or those unable to pay. Students experiencing temporary economic hardships can opt for installment payments. Additionally, students may defer payments to the next semester, ensuring that education remains financially accessible to all.



D-DART aid amidst Cianjur Earthquake aftershock



### COLLABORATION WITH KEMENKO FOR POVERTY REDUCTION

UNDIP Partnership with the Ministry of Human Development and Culture (Kemenko PMK) to enhance efforts in education, research, and community service aimed at poverty reduction. Through this collaboration, UNDIP has been involved in initiatives such as empowering early childhood teachers, providing nutritious meals for students, and offering scholarships to underprivileged students. Both parties are committed to optimizing resources and fostering active campus involvement in addressing extreme poverty across Indonesia.



Red Pod Long Bean Cultivation in Muaro, Jambi



End hunger, achieve food security and improved nutrition and promote sustainable agriculture



## EMPOWERING LOCALS TO TACKLE FOOD WASTE

The Community Service Team from UNDIP's Vocational School conducted training on organic waste processing using Black Soldier Fly (BSF) maggots.. This initiative addresses food waste while providing educational opportunities for community empowerment. The training covered waste management techniques, decomposition, and converting waste into organic fertilizer and animal feed. Furthermore, the program highlighted the potential of using BSF larvae as a sustainable source of animal feed, offering a viable alternative to traditional feed sources.



## STUNTING PREVENTION AMONGST PREGNANT WOMEN IN PENER, CENTRAL JAVA

Students from the Community Service Team at UNDIP organized a socialization program focused on preventing stunting, engaging pregnant women at the Village Health Clinic in Pener, Taman District, Pemalang Regency, Central Java. This initiative targets the chronic nutritional deficiency that leads to stunted growth in children. According to the Ministry of Health, stunting poses a significant threat to the quality of life in Indonesia and can persist across generations if not properly addressed.



## RED POD LONG BEAN CULTIVATION IN MUARO, JAMBI

Funded by the Directorate General of Higher Education in partnership with ITSNU Jambi, this three-year initiative will be led by Prof. Dr. Ir. Florentina Kusmiyati, M.Sc. The project aims to enhance agricultural practices while securing Plant Variety Protection (PVT) rights for the beans, leveraging Jambi's rich natural resources for sustainable development. By focusing on improving cultivation techniques, the initiative will engage local farmers and communities, providing them with essential training and resources. Ultimately, this collaborative effort seeks to promote not only economic growth in the region but also environmental stewardship, ensuring that local agricultural practices are both productive and sustainable.



**295**

publications to 2023  
based on UN-SDGs  
keywords



**471**

educational activities,  
researches and  
community services



**34**

collaborations at local,  
regional, national, and  
international scale.





# End hunger, achieve food security and improved nutrition and promote sustainable agriculture



## EMPOWERING DUCK FARMERS IN TURUNREJO, KENDAL

Led by Dr. Istna Mangisah, the initiative enhances the livelihood of local farmers through training in feed fermentation and maggot farming, improving sustainability and waste management in duck farming. Emphasizing food safety standards, the initiative ensures that local duck products meet consumer demands for safe and healthy food options, ultimately boosting their market value and competitiveness. This approach modernizes agriculture while supporting farmers in enhancing practices and meeting market demands.



## FOOD FEST, ENTREPRENEURSHIP, AND EDUFEST 2023

UNDIP's Vocational Program hosted the Food Festival, Entrepreneurship, and Edufest 2023, collaborating with PT Sriboga Flour Mill to support flour-based SMEs. The event highlighted the growing food industry demand in Central Java, offering culinary entrepreneurs a platform to connect and meet business needs. Dean Prof. Dr. Ir. Budiyo noted opportunities for graduates in jobs, entrepreneurship, or further education, while the festival featured interactive activities like a food bazaar, baking demonstrations, and student exhibitions, fostering connections within the culinary community.



## INAUGURATION OF THE NEW CAFETERIA AT THE FACULTY OF MEDICINE

The Faculty of Medicine at UNDIP recently inaugurated its new cafeteria, an event celebrated enthusiastically by faculty, staff, and students alike. This modern facility provides a comfortable and inviting space for relaxation and social interaction, featuring ample seating arrangements that accommodate both small and large groups. The cafeteria boasts a diverse menu that caters to the varied tastes and dietary needs of the campus community.



## HEALTHY FOOD DISTRIBUTION FOR STUDENTS DURING RAMADHAN

UNDIP has launched a program to distribute healthy food for students to break their fast during Ramadan, emphasizing charity and community support. Students can register via the SSO system to receive nutritious meals prepared to meet their dietary needs. Meals are distributed at various campus locations, with a strong turnout expected as students receive balanced and healthy options, including fruits, vegetable dishes, proteins such as chicken or fish, whole grains, and healthy snacks and beverages.



**Food distribution during Ramadhan, UNDIP**



Ensure healthy lives and promote wellbeing for all at all ages



### PROVIDING FREE HEALTHCARE TO A REMOTE VILLAGE IN GROBOGAN

UNDIP's Research and Community Service Institute (LPPM) provided free healthcare to remote villages, including 277 residents of Tonjong, a remote village in Grobogan, addressing their limited access to medical services. The village, surrounded by rivers and forests, is far from health facilities, making this initiative vital for the community. Dr. Hadi Salim, head of the program, emphasized UNDIP's commitment to community service, while Dr. Sri Winarni highlighted the focus on post-flood health issues, such as hypertension and skin diseases. This initiative not only brings essential medical care to those in need but also raises awareness about the importance of preventive health measures in rural areas.



### ENHANCING HEALTHCARE WITH UNDIP EAR AND EYE CENTRE LAUNCH

In celebration of its 7th anniversary, UNDIP'S National Hospital proudly launched the new Ear and Eye Center, which provides advanced healthcare services focusing on addressing various ear and eye health issues, enhancing the hospital's capabilities to serve the community more effectively. This new facility not only aims to improve patient outcomes through specialized treatments but also serves as a resource for public awareness and preventive care initiatives, fostering a healthier community overall.



### PROMOTING HEALTH BENEFITS OF TRADITIONAL JAMU

UNDIP's Thematic Community Service students have actively promoted the health benefits of *jamu*, Indonesia's traditional herbal medicine, through various educational activities. In Kelurahan Beji, they held interactive sessions during a community exercise event, sharing knowledge on *jamu* ingredients and their health benefits. Utilizing social media and distributing brochures, the students aimed to revive interest in *jamu* as part of a healthy lifestyle.



**1469**

publications until 2023  
based on UN-SDGs  
keywords



**467**

educational activities,  
researches and  
community services



**45**

collaborations at local,  
regional, national, and  
international level



# Ensure healthy lives and promote wellbeing for all at all ages



## INNOVATING TEA TO ENHANCE COVID-19 TREATMENTS

Significant strides in public health are being made through the innovative research led by Mohamad Endy Yulianto and his team, focusing on enhancing treatment options for respiratory diseases, particularly those caused by SARS-CoV-2, by harnessing bioactive compounds found in tea, citrus, and pepper. Utilizing advanced nanoencapsulation techniques, the team ensures targeted and controlled delivery of these compounds, thereby improving their efficacy and maximizing therapeutic benefits.



## LAUNCHING PEER COUNSELING INITIATIVES TO TACKLE MENTAL HEALTH CHALLENGES

UNDIP's Faculty of Engineering, in collaboration with its Student Executive Board, has launched a peer counseling initiative aimed at raising awareness of mental health issues among students. This event tackled the various pressures that students encounter, from academic demands to personal challenges, highlighting the urgent need for mental health resources on campus. Expert speakers from the Faculty of Psychology encouraged students to utilize the new counseling services and to support one another in overcoming difficulties. By fostering a supportive community, the initiative seeks to promote not only academic success but also the overall well-being of students, empowering them to openly discuss their struggles and develop resilience in navigating the complexities of university life.



## SUPPORTING HEALTHY FOOD PRODUCTION IN BOYOLALI

Through continuous training, UNDIP has empowered women from the Tunas Muda farming group to produce and market Modified Cassava Flour (Mocaf), a healthier alternative to wheat flour. Mocaf, made from fermented cassava, can replace wheat flour in various foods and has been used to create healthier noodles, especially beneficial for people with diabetes and autism. This initiative not only promotes healthier eating options but also enhances the economic independence of the women involved, enabling them to become active contributors to their community's food security and nutritional well-being.



## PROMOTING BLOOD DONATIONS AND HEALTH CHECKS

The UPT K3L at UNDIP, in collaboration with Semarang City PMI, RSND, and Puskesmas Rowosari, organized a blood donation event alongside a Non-Communicable Diseases Integrated Counseling Post (Posbindu PTM). Posbindu PTM, a program from the Health Department, offers routine health assessments for UNDIP employees, including measurements of height, weight, blood pressure, waist circumference, blood sugar, uric acid, and cholesterol levels. The blood donation was open to the university community, with medical personnel ensuring donor eligibility through health checks.





UNDIP Mengajar program in Wanayasa Banjarnegara



Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



## EMPOWERING FUTURE GENERATIONS

Indonesia's population of 275.36 million, only 6.41% have pursued higher education, indicating a need to enhance interest among young people. During their visit, the students discussed college life, majors, admission pathways, and scholarship opportunities. This engaging session aimed to motivate students from Vocational High School NU Bandar to further their education and explore available financial support options for college.



## UNDIP MENGAJAR PROGRAM

Gerakan Undip Mengajar (GUM) offers Universitas Diponegoro students a chance to positively impact society through service. In its 11th edition, GUM operated in eight locations, including Cangkol 2 Public Elementary School in Cirebon, where students engaged in programs including interactive classes and environmental awareness initiatives, along with home visits to discuss student progress. GUM also awarded scholarships worth 8 million rupiah to selected students supported by PB Education, My Skill, and Nexa.



## PREPARING FOR INTERNATIONAL OPPORTUNITIES

Eighty-three students from UNDIP's Faculty of Economics and Business participated in a pre-departure ceremony for international programs, including dual degrees and credit transfers. Led by Dean Prof. Suharnomo, the event celebrated students heading to prestigious universities worldwide, such as Saxion University and institutions in the UK and Australia. Ten students received competitive scholarships to study abroad for free. This initiative not only broadens the students' academic horizons but also enriches their cultural experiences, preparing them for global careers. The ceremony emphasized the importance of international exposure in today's interconnected world, inspiring students to embrace new challenges and opportunities during their studies abroad.



**194**

publications to 2023  
based on UN-SDGs  
keywords



**328**

educational activities,  
researches and  
community services



**85**

collaborations at local,  
regional, national, and  
international level



# Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all



## ANTI-BULLYING EDUCATION AT JATI PUBLIC ELEMENTARY SCHOOL 3

Students from Universitas Diponegoro conducted an anti-bullying educational program at State Elementary School 3 Jati in Karanganyar to raise awareness about the impacts of bullying. The session covered definitions, types, and consequences of bullying, as well as ways to respond, aiming to instill values of peace and empathy in children. Engaging activities and games made the session interactive, helping students retain the information. At the end of the program, students received leaflets as visual aids to further spread awareness and prevention.



## STUDENT EXCHANGE PROGRAM COLLABORATIONS WITH SHINSHU UNIVERSITY

This annual Student Exchange program, focusing on Nephrology and Gastroenterology, fosters collaboration between the institutions internationally and allows students to apply their knowledge in Indonesia through a four-week clinical rotation under Dr. Nani Maharani. Participants gain practical experience and immerse themselves in the local culture, enhancing their understanding of global health issues and practices.



## LAUNCHING TOEFL PREPARATION CLASSES

TOEFL preparation program continues to be provided to enhance students' English language skills. The program offers interactive workshops, and practice tests, focusing on reading, listening, speaking, and writing. With access to online resources, students are empowered to achieve their desired TOEFL scores, boosting their academic and employment opportunities.



## INTRODUCING STORY MAPS FOR DIGITALIZING DESA CIKADU

UNDIP student Irva Scantika led an innovative training in Desa Cikadu, Pemalang, teaching local officials and teachers how to create Story Maps using ArcGIS Online. This online platform allows interactive maps and information to be integrated into village websites, boosting digital presence. The initiative addresses the lack of online information about Desa Cikadu and aims to promote the village's potential. The training was well-received, with hopes it will encourage more website creation to showcase local tourism, businesses, and other opportunities.



Cikadu village promotional posters



Anti-Bullying awareness session in State Elementary School 3 Jati, Karanganyar





Inauguration of Professorship in UNDIP



**Achieve gender equality and empower all women and girls**



### **EMPOWERING WOMEN: CONGRESS ON TECHNOLOGY TRAINING**

In a recent congress focused on empowering women, a new initiative by UNDIP was unveiled to bridge the digital divide for female entrepreneurs, including workshops on digital marketing, e-commerce, and social media strategies, enabling participants to enhance their businesses and reach broader markets. The initiative seeks to foster economic independence and encourage more women to enter the entrepreneurial landscape, paving the way for a more inclusive economy. By equipping women with essential digital skills, the program aims to create a supportive network that fosters collaboration and innovation among female entrepreneurs.



### **ADVANCING GENDER EQUALITY IN ACADEMIC SETTINGS**

Prof. Dr. Ani Purwanti's rise to the position of professor reflects her exceptional dedication to advancing gender equality in Indonesia. Throughout her career, she has been a passionate advocate for women's constitutional rights, emphasizing that justice and equality are essential components of Pancasila. Her work has transcended academic boundaries, influencing both legal frameworks and societal attitudes toward gender. As a professor, she continues to collaborate with key stakeholders to challenge gender-based discrimination, paving the way for more inclusive policies and practices.



### **MOTHER'S DAY TALKSHOW: CELEBRATING RESILIENCE**

Dharma Wanita Persatuan marked Mother's Day with a talk show focusing on children with special needs. Featured speaker Prof. dr. M.I. Widiastuti Samekto discussed ADHD and the importance of early diagnosis. Chairwoman Ibu Asih Budiastuti encouraged mothers to be strong and patient, while Rektor Prof. Dr. Yos Johan Utama highlighted the vital role of mothers in nurturing and educating their children, reminding everyone that each child is a precious gift. The event not only provided valuable insights into special needs but also fostered a sense of community and support among mothers facing similar challenges.



**107**

publications to 2023  
based on UN-SDGs  
keywords



**79**

educational activities,  
researches and  
community services



**26**

collaborations at local,  
regional, national, and  
international level





# Achieve gender equality and empower all women and girls



## EMPOWERING FEMALE ENTREPRENEURS IN CENTRAL JAVA

The Faculty of Psychology at Universitas Diponegoro teamed up with Central Java's DP3AP2KB for "SERAT KARTINI," a three-day program focused on empowering 20 housewives in Sidorejo Village. Participants learned business skills and crisis management, aiming to strengthen women's roles as economic contributors, with plans for ongoing collaboration to enhance women's empowerment in Indonesia. The program also provided training on financial literacy, ensuring that women are equipped with the tools necessary to manage household and business finances effectively. In addition, local resources were utilized to support sustainable entrepreneurship efforts in the community.



## EMPOWERING FEMALE JOURNALISTS IN ASIA

The Communication Science Department at Universitas Diponegoro, in collaboration with the Asian Center for Journalism, hosted the "Asian Women Journalist for Media Freedom" event. Female journalists from various Asian countries gathered to address challenges like sexual harassment and online violence. Campus policies and future initiatives were also discussed, emphasizing the need for systemic changes to protect journalists. The event closed with a discussion on building solidarity across borders to safeguard media freedom.



## EMPOWERING FEMALE FARMERS FOR SUSTAINABLE INCOME

Ibu Surani, head of the Rukun Makmur Women Farmers Group, emphasized women's vital role in boosting family income during a meeting with Undip's Faculty of Animal Science and Agriculture. As the farmers face challenges like limited mentorship, Undip faculty pledged tailored support and essential resources, including livestock vitamins. The initiative aims to teach them to produce complete goat feed, enabling a focus on micro and small enterprises.



"Proud Children with Special Needs Talk show", Faculty of Medicine



## INTERNATIONAL CONFERENCE HIGHLIGHTING GENDER EQUALTY IN PSYCHOLOGY

Undip's Faculty of Psychology held the 4th International Conference on Psychological Studies (ICPSYCHE) online, centered on "Embracing the Human Side of Change." The event united researchers and educators to discuss family dynamics and personal development. Dean Prof. Dian Ratna Sawitri highlighted the importance of change, while Rektor Prof. Yos Johan Utama thanked contributors. Keynote speakers included Prof. Melanie Zimmer-Gembeck and Prof. Rosalia Sciorino Sumaryono, focusing on parenting and gender equity. The conference also featured panel discussions on mental health resilience, providing valuable insights into adapting to societal shifts. Future collaborations were discussed to enhance global partnerships in psychological research.



Sustainable water management practices



Ensure availability and sustainable management of water and sanitation for all

## RESPONDING TO THE WATER CRISES IN SRAGEN

To combat the severe water crisis in Sragen, Central Java, Universitas Diponegoro has established a bore well in Srawung village through its Community Service Center (P2KKN). Inaugurated by the local regent, this initiative aims to provide clean water access while promoting tree planting to sustain water sources. Alongside the well installation, UNDIP is also conducting public health workshops to educate the community about sustainable water management practices. This effort is expected to alleviate the long-term water scarcity issues in the region. The project also includes monitoring the quality of the water to ensure it meets health standards for daily use.

## PROMOTING CLEAN WATER AND SANITATION IN PAGEREJO

UNDIP's students actively engaged with the local community to combat open defecation and promote sanitation awareness. Initiatives include educational outreach on hygiene practices, mapping ODF conditions, and teaching handwashing techniques in schools. The team also participated in local cultural events to strengthen community ties. Through this program, the students aim to instil healthy habits and improve public health in the area.

## HAND SANITIZER DISTRIBUTION AMIDST COVID-19

UNDIP took proactive measures during the COVID-19 pandemic by distributing hand sanitizer throughout its campus. This initiative aimed to enhance hygiene and reduce virus transmission among students, faculty, and staff, with hand sanitizer stations strategically placed in high-traffic areas. The university also collaborated with local health authorities to ensure that health protocols were strictly followed, further minimizing the risk of outbreaks.



**780**

publications to 2023  
based on UN-SDGs  
keywords



**215**

educational activities,  
researches and  
community services



**25**

collaborations at local,  
regional, national, and  
international level



# Ensure availability and sustainable management of water and sanitation for all



## PROVIDING A BORE WELL AND READING GARDENS FOR CIBEUREUM

UNDIP's "UNDIP Peduli Cianjur" initiative has completed a bore well project for Cibeureum residents, addressing their urgent need for clean water after the November 2022 earthquake. Prof. Dr. Jamari, head of the Research and Community Service Institute (LPPM), handed over the well and three reading gardens to village head Asep Nahdoh. This project aims to uplift the community's spirits and enhance access to learning, with residents expressing gratitude for the support and its positive impact on their daily lives. Additionally, the initiative fosters a sense of community resilience, encouraging residents to engage in local development activities thereby empowering the community to build a brighter future together.



## EDUCATING FACULTY AND STUDENTS ON WATER MANAGEMENT

As part of the community service initiative, the program focuses on improving waste management and hygiene, particularly regarding water usage. Engaging cleaning staff and canteen managers, the initiative fosters skill-sharing and supports UNDIP's commitment to sustainable development. Additionally, the program provides training sessions to educate staff on best practices for waste separation and efficient water use, ensuring a lasting impact on campus cleanliness. By promoting awareness and practical solutions, this initiative encourages a culture of sustainability among students and staff alike, contributing to a healthier environment for the entire UNDIP community.



## WATER PROCESSING WORKSHOP

UNDIP's Vocational program hosted a workshop on Teaching Factory-based learning, focusing on biodiesel and drinking water production. Program Chair Mohamad Endy Yulianto highlighted the importance of enhancing faculty skills to better prepare graduates for industry demands. The workshop aimed to blend classroom and practical experiences, emphasizing water processing.



## ENSURING SAFE WATER QUALITY IN KETANGGAN VILLAGE

Water quality is essential for daily life, yet many in Ketanggan rely on natural sources like springs and wells. Recognizing this issue, UNDIP students assessed water quality by testing physical parameters (taste, odor, color, temperature, and TDS) and chemical parameters (pH). Most sources showed a decline in quality, remaining within safe limits but not recommended for continuous consumption due to health risks. Findings were shared with the community through local events and door-to-door visits.



"Biodiesel Factory and Drinking Water Production" Workshop at UNDIP's Vocational School





Biogas from organic waste at UNDIP



Ensure access to affordable, reliable, sustainable and modern energy for all



### DEVELOPMENT OF A SOLAR BOAT FOR ENERGY CONSERVATION

The solar boat DIPONEGORO 1.0, developed by the Research Marine Technology (RMT) team from UNDIP, represents advancement in sustainable maritime technology. Powered entirely by solar energy through photovoltaic panels, this innovative vessel minimizes its carbon footprint while addressing marine pollution by utilizing waste masks in its construction. Its lightweight, streamlined design enhances hydrodynamic efficiency, allowing for smooth navigation and optimal energy use even in varying weather conditions.



### SHOWCASING INNOVATION THROUGH ELECTRIC VEHICLE DEVELOPMENT

The Antawirya Hexa team from UNDIP showcased their commitment to clean energy at the national Energy Efficient Car Competition (KMHE) held at the Carnaval Circuit Ancol. Competing against 60 teams, they presented two innovative vehicles: Gentayu, an urban gasoline car, and Rondhan, a prototype battery-electric vehicle. Gentayu recorded impressive fuel efficiency, peaking at 357.79 Km/L, earning third place in its category. Rondhan, developed in January 2023, excelled with battery efficiency figures of 873.011 Km/kWh, securing second place in the Prototype Battery-Electric category.



### SOLAR POWERED STREETLIGHTS ILLUMINATE TENDAS VILLAGE

Wisnu Adi Nugroho, a student from UNDIP's Industrial Electrical Engineering, led an initiative to install solar-powered streetlights in poorly lit areas of Tendas Village, significantly enhancing public safety and local infrastructure. These solar streetlights harness sunlight during the day to charge built-in batteries, providing reliable illumination at night without relying on the grid. This project not only improves visibility after dark but also promotes environmental sustainability by utilizing renewable energy sources. Supported by the village head, the initiative aims to create a safer environment while raising awareness about electrical hazards, fostering a more informed community for residents.



909

publications to 2023  
based on UN-SDGs  
keywords



92

educational activities,  
researches and  
community services



32

collaborations at local,  
regional, national, and  
international level



# Ensure access to affordable, reliable, sustainable and modern energy for all



## WASTE-TO-ENERGY SYSTEM

Dr. Ir. Badrus Zaman, a candidate for professor at UNDIP, presented groundbreaking research on transforming waste into renewable energy. His system integrates biological waste processing, converting landfill gas into methane, treating leachate to generate electricity, and turning solid waste into high-calorific fuel, not only tackling Indonesia's growing waste crisis but also offering sustainable energy solutions for industries, aligning with global environmental goals.



Shell Eco-Marathon Asia Pacific & Middle East



## ECO-FRIENDLY FUEL BRIQUETTES

Students from UNDIP introduced Kemusu residents to an eco-friendly method of turning corn cobs, typically discarded as waste, into sustainable briquettes. These briquettes are made by drying and burning the corn cobs, then molding them into compact fuel sources. They offer a cost-effective and environmentally friendly alternative to traditional fuels, reducing waste while providing a reliable energy source for both household and industrial use.



## BOOSTING A GREENER CAMPUS

UNDIP's Faculty of Engineering has allocated IDR 60 million for energy conservation projects, including installing wind turbines and expanding solar panels to generate clean electricity. The faculty will also conduct an energy audit to improve efficiency.



## BIOETHANOL PRODUCTION

Five UNDIP chemical engineering students are optimizing bioethanol production from cassava starch by employing enzymes that function at low temperatures, eliminating the need for energy-intensive heating. Their innovative approach involves adding potassium (K<sup>+</sup>) and magnesium (Mg<sup>2+</sup>) ions to accelerate the fermentation process and boost bioethanol yield. By focusing on non-edible cassava varieties, the team turns agricultural waste into an eco-friendly biofuel, offering a sustainable alternative energy solution. This research, funded by the Ministry of Education and Research, aims to make bioethanol production more efficient and cost-effective, supporting cleaner energy initiatives while reducing reliance on fossil fuels.

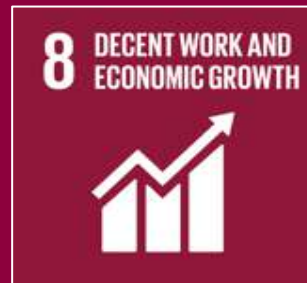


Solar Cell Streetlight Installation, Mulur Village





Small Medium Enterprise Branding during Car Free Day



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

## PROMOTION OF SMALL AND MEDIUM LOCAL ENTERPRISES DURING CAR FREE DAY

Utilizing the popular Car Free Day event in Semarang to promote local products from small and medium enterprises in Pedurungan Tengah including Infused Water by Bu Rena, Ceriping Pisang by Bu Tarwi, and Salad Wrap by Pak Suroto, UNDIP students aim to enhance marketing outreach by offering samples and sharing the health benefits of the products, resulting in most items selling out quickly.

## UNDIP CAREER CENTRE

The UNDIP Career Centre provides a range of facilities and services designed to support students and alumni in their career development. Offering personalized career counseling, resume workshops, and interview preparation sessions, the Centre equips individuals with essential job-seeking skills. Additionally, the Centre hosts job fairs and networking events, connecting students with potential employers. It also collaborates with industry partners to offer internship and job placement opportunities, helping students gain practical experience.

## INTRODUCING DIGITALIZATION TO KLAREYAN VILLAGE

Students from UNDIP organized a workshop in Klareyan Village, Pemalang, to promote digitalization for Micro, Small, and Medium Enterprises (UMKM). Many local businesses still rely on traditional marketing, so the workshop emphasized the benefits of digital platforms like Instagram, Shopee, and Tokopedia for expanding market reach and enhancing product visibility. Experts encouraged local entrepreneurs to embrace digital marketing to boost economic independence and create job opportunities in the village. Participants were also taught practical skills in content creation and online store management, equipping them with the tools to effectively navigate the digital economy.



**595**

publications to 2023  
based on UN-SDGs  
keywords



**351**

educational activities,  
researches and  
community services



**47**

collaborations at local,  
regional, national, and  
international level





# Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all



## MAGENTA MARKET DAY 2023

UNDIP's Faculty of Psychology held Magenta Market Day, featuring a bazaar, blood donation, and performances, with talks from entrepreneurs like Arnaz Agung Adrarasmara and alumni Vinsensia Bertha Vania. Students showcased innovative products, with Dean Prof. Dian Ratna Sawitri announcing mentorship funding for top projects to support participation in national competitions.



## BOOSTING STUDENT ENTREPRENEURSHIP THROUGH THE P2MW PROGRAM

UNDIP's 2023 P2MW Program was launched to encourage student entrepreneurship, supporting a diverse range of projects from food innovations to sustainable products. Students were guided through hands-on coaching, mentorship, and funding opportunities, allowing them to turn their ideas into real ventures with lasting impact. The program helped students not only build businesses but also connect with industry experts, giving them valuable market insights and practical experience.



## LAUNCHING DIGITAL BUSINESS PROGRAM LAUNCH

UNDIP's Faculty of Economics and Business has introduced a new Digital Business program complete with a unique Bloomberg Laboratory and entrepreneurship labs to equip students with essential skills for the digital landscape, including subjects like e-commerce, big data analytics, and financial technology, along with opportunities for internships at leading companies. Graduates will be prepared for careers as entrepreneurs, business development managers, and digital strategists.



Training and Consulting Centre, UNDIP



## UNDIP TRAINING AND CONSULTING CENTRE

Undip Training and Consulting Centre offers practical training programs designed to boost career opportunities, focusing on essential skills like safety hazard management. These programs help professionals understand and mitigate workplace risks, ensuring a safer, more productive environment. Participants gain hands-on experience with real-world scenarios, enhancing their ability to identify hazards and implement effective safety measures. This approach not only improves workplace safety but also gives trainees a competitive edge in their careers.



Ecobrick Construction with locals in Taji Village



Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



### EXPORIA : VILLAGE INNOVATION SHOWCASING

UNDIP's Community Service team highlighted the potential of Toriyo Village at the Village Innovation Expo (EXPORIA), showcasing their work on sustainable community empowerment during a seven-week program. The event, held as a gesture of gratitude to local officials, was attended by key figures such as the Head of Community Empowerment and the Bendosari District Chief. It featured 25 booths displaying innovative projects aimed at improving local welfare, including hydroponic farming, ecobricks for sustainable building, and creative waste utilization methods. These initiatives reflect UNDIP's commitment to fostering practical solutions that address both environmental and economic needs in rural communities.



### RENEWABLE ENERGY INNOVATIONS

UNDIP is advocating for increased investment in technological innovations to enhance renewable energy management. Renewable sources like solar, biomass, wind, wave, and nuclear offer sustainable alternatives to fossil fuels. Dr. Sripeni Inten Cahyani from the Ministry of Energy and Mineral Resources emphasized UNDIP's vital role in fostering significant discoveries during a recent public lecture. The event highlighted the potential for marine renewable energy innovations. UNDIP's ongoing research focuses on developing efficient wave and tidal energy systems, which could be game changers in harnessing Indonesia's vast marine resources for clean energy production.



### ECOBRIK GARDEN

In response to Indonesia's growing plastic waste crisis, UNDIP students have collaborated with the community in Taji Village to establish an ecobrick garden, turning plastic waste into valuable resources. The project involves filling plastic bottles with non-biodegradable waste to create ecobricks, which are then used to construct benches and tables. This initiative not only helps reduce plastic pollution but also fosters environmental awareness and community participation in sustainable practices.



**698**

publications to 2023  
based on UN-SDGs  
keywords



**255**

educational activities,  
researches and  
community services



**38**

collaborations at local,  
regional, national, and  
international level



## Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation



### ENHANCING INFRASTRUCTURE FOR BETTER VOCATIONAL EDUCATION

Key improvements include the new Workshop Center and Teaching Factories focusing on biodiesel and water production. With 70% of the curriculum emphasizing practical skills, students will receive competency certificates from accredited organizations. The hands-on approach is designed to align with industry needs, giving students experience in real-world applications. This integration of cutting-edge facilities and training enhances competitiveness in the growing fields of sustainable technology.



### WATER HYACINTH HEXAGONAL POROUS CERAMICS

UNDIP has developed hexagonal porous ceramics made from water hyacinth, transforming this invasive plant into a sustainable building material. This innovation not only addresses environmental issues but also contributes to water filtration. The material's unique structure allows it to be used in construction while promoting cleaner waterways through natural filtration.



### DIPO HUB: A NEW CREATIVE SPACE AT UNDIP

The Dipo Hub Building at Undip is designed as a dynamic space for collaboration and creativity, themed "Connected by Food, Music, and Games." Inaugurated by Rector Prof. Dr. Yos Johan Utama, the hub aims to benefit the academic community and local residents. It emphasizes sustainability, fostering business initiatives, and creating value within the community, as highlighted by Dwi Cahyo Utomo from the Business and Commercial Enterprise Management and Risk Analysis Agency.



### ADVANCING MEDICAL TRAINING CENTRES

UNDIP has established the Diponegoro Medical Simulation Centre (DMSC) to enhance medical education. This facility, inaugurated by Rector Prof. Dr. Yos Johan Utama, offers advanced simulation tools to mimic real hospital scenarios. DMSC focuses on practical training, allowing students to gain essential skills in a safe environment. It will also support ongoing professional development for healthcare providers.



Artificial Patch Reef UNDIP in Karimunjawa



Diponegoro Medical Simulation Centre, UNDIP





Desa Binaan Program to reduce inequality within region



**Reduce inequality within and among countries**



## ADVANCING DISABILITY AWARENESS AND REHABILITATION

The International Day of Disabled Persons aims to raise awareness and promote the rights and well-being of individuals with disabilities. In recognition, RSND and the Physical Medicine and Rehabilitation Program at UNDIP hosted a hybrid session focused on stroke rehabilitation titled "Innovative to Achieve A Day for All." The event included discussions on disability issues, caregiver education, and demonstrations of rehabilitation tools, featuring expert Dr. Tanti Ajoie Kesoema, who provided practical tips for daily activities for individuals with disabilities and their caregivers.



## PROMOTING INCLUSIVITY FOR INTERNATIONAL DISABILITY DAY

To celebrate International Disability Day, UNDIP'S Faculty of Psychology held the event "Disability Matters: Kita Bisa, Kita Setara, Kita Inklusif, Kita Berdaya." This initiative featured discussions on disability challenges and included a talk show with experts and a sign language workshop by members of the deaf community. The event aimed to empower individuals with disabilities and foster an inclusive environment. It also encouraged participants to engage in active dialogue about the rights and opportunities for disabled individuals in both education and the workforce.



## UTBK FACILITIES ACCESSIBILITY

UNDIP ensures a comfortable environment for UTBK participants by providing air-conditioned rooms that are fully accessible to individuals with disabilities. The university facilitates easy access to UTBK information through its dedicated website and offers comfortable waiting areas for participants before their test schedules. Additionally, on-site support staff are available to assist disabled participants, ensuring an inclusive and smooth testing experience for everyone.



**231**

publications to 2023 based on UN-SDGs keywords



**224**

educational activities, researches and community services



**24**

collaborations at local, regional, national, and international level



# Reduce inequality within and among countries



## COMMUNITY CADRES FOR DISABILITY AWARENESS IN MANISHARJO

Efforts to enhance awareness about disabilities in Manisharjo focus on educating the community about mental health and the empowerment of disabled individuals. This initiative includes forming a cadre to spread knowledge through articles and educational materials, ultimately fostering a more inclusive environment. The program also involves workshops and interactive sessions to help break down stigma, encouraging the community to actively support disabled individuals in their daily lives. Additionally, the initiative collaborates with local healthcare professionals to provide mental health screenings and counseling services. These efforts aim to build a sustainable support network for disabled individuals, ensuring long-term community involvement and understanding.



## ENHANCING CAMPUS ACCESSIBILITY

UNDIP is committed to improving accessibility for all students and visitors. The campus features designated parking for individuals with disabilities and wheelchair-accessible ramps throughout, ensuring smooth navigation. Additionally, accessible restrooms and elevators are available, promoting an inclusive environment that supports the needs of everyone on campus. UNDIP also offers specialized assistance services to ensure that students with disabilities can fully participate in academic and extracurricular activities without barriers. The university continually updates its facilities and services based on feedback from disabled students, ensuring ongoing improvements.



## SUPPORTING ORPHANS IN MARGAMULYA

In a spirit of compassion, UNDIP's Community Service Team participated in an event to support orphans in Margamulya, aiming to provide both moral and material assistance to the local children. Ten enthusiastic students joined the event at the village mosque, fostering emotional connections and solidarity with the community. The initiative not only offered direct support but also inspired the orphans to pursue their dreams with optimism.



## PROMOTING INTERCULTURAL COMPETENCE IN A BUSINESS SETTING

UNDIP's Applied Foreign Language Study Program recently hosted a public lecture titled "Mastering Intercultural Competence in Global Business," featuring Aron Laki from ELTE University, Hungary. Mr. Laki shared insights on navigating cultural differences and encouraged students to embrace learning new languages, highlighting how exposure to diverse languages significantly enhances knowledge.



International Disability Day at the Faculty of Psychology, UNDIP





**UPTK3L UNDIP coordinate the management of Waste Treatment to support Green and Sustainable Campus**



**Make cities and human settlements inclusive, safe, resilient and sustainable**



### **YOUTH FIRE SAFETY EDUCATION**

UNDIP collaborated with the local fire department to boost fire safety awareness in Denanyar Village, engaging around 250 participants, including students from local schools. This initiative provided practical fire safety demonstrations, equipping the community with vital skills to prevent and respond to fire hazards, particularly important in drought-prone areas. Naufal Azka Riadi, a key organizer, emphasized the university's commitment to fostering disaster preparedness among youth for enhanced community safety. The program also included training on the proper use of fire extinguishers, empowering participants to take immediate action in case of emergencies.



### **URBAN REGENERATION STUDIO**

UNDIP's Department of Urban and Regional Planning held the Urban Regeneration Studio 2023, focusing on economic development in Tambakrejo Village. Engaging 21 participants, the studio addressed local challenges through discussions and site visits, identifying strategies such as improving water management, enforcing zoning regulations, supporting SMEs, and ensuring adequate housing, aimed at guiding urban regeneration efforts in the area. Participants also developed actionable plans to enhance community engagement, ensuring that local voices are integral to the regeneration process.



### **SUSTAINABLE TOURISM IN LEREP VILLAGE**

Fourteen UNDIP students implemented the Eco Harmony program during their multidisciplinary community service in Lerep Village, focusing on nature-based ecotourism to support sustainability. Over 45 days, activities included tree planting education, eco-enzyme production, and developing a tourism management website. The program aligned with Lerep's "Go Green" vision and aimed to enhance local ecotourism while fostering sustainable practices among residents. Additionally, the students organized workshops to train locals in sustainable tourism practices, ensuring the community can continue to benefit from ecotourism in the long term.



**940**

publications to 2023  
based on UN-SDGs  
keywords



**341**

educational activities,  
researches and  
community services



**49**

collaborations at local,  
regional, national, and  
international level





# Make cities and human settlements inclusive, safe, resilient and sustainable



## EMERGENCY FIRE DRILL TRAINING

UNDIP conducted an emergency fire response simulation to enhance safety awareness among employees. This drill involved various emergency response teams, emphasizing effective evacuation procedures. The exercise aimed to foster a safer environment at UNDIP, ensuring staff are well-prepared for potential emergencies. Feedback from participants will be used to improve future drills and refine the university's emergency response protocols.



## DEVELOPMENT OF AGROTOURISM AND LOCAL TOURISM IN SUKOREJO VILLAGE

Sukorejo Village in Sragen, with the aid of UNDIP, is developing an agrotourism center focused on durian cultivation, supported by CSR funding from Holding Danareksa for 1,000 durian seedlings and irrigation facilities, as well as the local art of "CongYang," a blend of keroncong music and wayang, to establish a unique cultural identity. This initiative aims to attract tourists and promote local agriculture while preserving traditional art forms. By integrating sustainable farming practices with cultural heritage, the project seeks to enhance the livelihoods of local farmers and foster community pride in their unique offerings.



## PROMOTING SRANDULAN ART IN GEBANGHARJO

Sukorejo Village in Sragen, with the aid of UNDIP, is developing an agrotourism center focused on durian cultivation, supported by CSR funding from Holding Danareksa for 1,000 durian seedlings and irrigation facilities, as well as the local art of "CongYang," a blend of keroncong music and wayang, to establish a unique cultural identity.



## CATHARSIS FEST

Catharsis Fest 2023, encouraged participants to express themselves through dance, highlighting cultural values. After an online elimination, dance finalists from three universities competed, with Universitas Negeri Semarang taking first place, followed by UNDIP and Universitas Trunojoyo Madura. The festival also featured cultural workshops and local UMKM displays, underscoring the importance of small businesses in Indonesia's economy, and aimed to inspire ongoing cultural preservation within the community.



**CATHARSIS FEST 2023 held by PSDKU UNDIP in Tumbrep Village, Batang**



**Agrotourism Centre in Sukorejo Village, Sragen**



Composting education with locals in Harjosari, Pekalongan



## Ensure sustainable consumption and production patterns



### ENHANCING WASTE MANAGEMENT WITH TRAINING ON SORTING AND COMPOSTING

To address the waste management challenges on campus, UNDIP implemented training for its waste management personnel, focusing on two key methods: waste sorting, where participants learned how to separate inorganic and organic waste at the source to facilitate recycling, and composting organic waste, which converts biodegradable materials into compost for reuse. Additionally, the initiative included the distribution of educational materials to raise awareness among the entire campus community about the importance of responsible waste disposal and environmental sustainability.



### MAGGOT CULTIVATION TO AID FISH AND POULTRY FARMERS

UNDIP's Animal Science Faculty held a maggot farming training in Sukorejo Village, Sragen, aiming to address high feed costs in catfish and poultry farming. The training, attended by 120 farmers, demonstrated maggot cultivation methods and highlighted its dual benefits: as an affordable protein source and a method of organic waste management. Participants also received hands-on experience in setting up and maintaining maggot farms to ensure they could implement the techniques effectively. The initiative is expected to empower local farmers to reduce feed costs while promoting sustainable agricultural practices in the region.



### PROMOTING ZERO WASTE AWARENESS AT SDN 2 MARGAMULYA

UNDIP held a zero waste awareness campaign at Public Elementary School 2 Margamulya, aiming to educate students about reducing plastic waste. The initiative responds to the environmental crisis caused by single-use plastics, emphasizing the importance of minimizing waste. Students learned about the impact of waste and received eco-friendly tote bags to encourage sustainable practices. The campaign also included interactive activities that engaged students in discussions about recycling.



**882**

publications to 2023  
based on UN-SDGs  
keywords



**303**

educational activities,  
researches and  
community services



**30**

collaborations at local,  
regional, national, and  
international level





# Ensure sustainable consumption and production patterns



## INNOVATING FASTER COMPOSTING FOR ORGANIC WASTE

In response to concerns about the slow composting process at UNDIP, the Organic Team developed a new method to accelerate composting from 30 days to just 14. This multi-disciplinary initiative involves members from various faculties working together to manage the university's abundant organic waste, especially fallen leaves, monitoring factors including temperature, smell, and moisture throughout the process, ensuring the compost quality, which will be tested in the Environmental Engineering lab.



## BATIK ECOPRINT TRAINING

The Community Service Team from UNDIP's Department of International Relations organized a batik ecoprint training using natural dyes in Sumeneban Village to promote responsible consumption and production. This initiative empowers economically marginalized residents, particularly housewives, by teaching sustainable entrepreneurship practices that utilize local natural dyes from plants. Participants not only learned the techniques of batik ecoprinting but also gained insights into marketing their products, helping to create new income opportunities for their families. Additionally, the training emphasized the importance of preserving local cultural heritage through the art of batik, fostering a sense of pride among participants.



## DEMONSTRATING ECO-ENZYMES TO REDUCE ORGANIC WASTE IN KRAMAT VILLAGE

To minimize organic waste, UNDIP students demonstrated eco-enzymes as a versatile solution in Kramat Village, Brebes. This initiative, conducted at Pertiwi Kindergarten, addresses the village's significant waste management issues, particularly organic waste from households. The program included explaining eco-enzymes' definitions, production methods, and benefits, followed by a quiz and informational posters for the local community. Participants were encouraged to create their own eco-enzymes at home, empowering them to take an active role in waste reduction. The initiative not only aimed to improve local waste management practices but also fostered community engagement in sustainable living.



**Irrigation mapping in Tanjung Kulon village, Pekalongan**



## UNDIP AIDS IN LOCAL IRRIGATION MAPPING

UNDIP's irrigation mapping initiative in Desa Tanjung Kulon Pekalongan aims to enhance water distribution efficiency for improved agricultural outcomes, focusing on identifying existing irrigation infrastructure, such as channels and water sources, which is crucial for assessing the current state and planning necessary upgrades. By mapping irrigation systems, the project can pinpoint areas lacking access or experiencing water excess, enabling targeted interventions to optimize water distribution through improved irrigation channels and adjusted patterns. This comprehensive approach not only supports local farmers in maximizing crop yields but also promotes sustainable water management practices that can benefit the entire community.





River Clean-Up initiated by UNDIP



Take urgent action  
to combat climate  
change and its  
impacts



### UNDIP'S NOTABLE CARBON FOOTPRINT REDUCTION

UNDIP reported a carbon footprint of approximately 7,078.49 metric tons of CO<sub>2</sub> in 2023, highlighting its ongoing commitment to sustainability. This figure includes emissions from electricity usage, transportation, and campus activities. For four consecutive years, UNDIP has been recognized as Indonesia's second most sustainable university in the UI GreenMetric World University Rankings.



### COASTAL CONSERVATION EFFORTS THROUGH MANGROVE PLANTING

UNDIP's Faculty of Social and Political Sciences (FISIP) launched the "Mangrove for Future 2023" initiative, planting 1,000 mangrove seedlings and conducting a beach clean-up at Tirang Beach, Semarang. This year's theme, "Mangroves for Life, Future in Our Hands," highlights the role of mangroves in coastal protection. The event, attended by Dr. Teguh Yuwono, Vice Dean of FISIP, and 105 volunteers, underscores the commitment of students and alumni to environmental conservation. Participants engaged in hands-on activities that fostered teamwork and awareness about the ecological significance of mangroves.



### UNDIP'S GREEN INITIATIVE

UNDIP's Faculty of Social and Political Sciences recently organized a tree planting event as part of its orientation for new students, emphasizing the need for environmental awareness. Led by Dean Prof. Dr. Hardi Warsono, the initiative encourages students to actively participate in climate action and sustainability efforts. By fostering a sense of responsibility among students, the program aims to cultivate future leaders who prioritize environmental stewardship. This hands-on experience not only enhances students' understanding of ecological issues but also instills a lasting commitment to preserving the environment for future generations.



Mangrovestation in Demak



**424**

publications to 2023  
based on UN-SDGs  
keywords



**145**

educational activities,  
researches and  
community services



**43**

collaborations at local,  
regional, national, and  
international level



# Take urgent action to combat climate change and its impacts

## SUSTAINABLE HYDROPONICS INITIATIVE AT TANJUNG VILLAGE

UNDIP students have implemented a hydroponics initiative in Tanjung Village to promote sustainable agriculture and enhance food security. Utilizing recycled plastic cups for growing plants, the project embodies the 3R principles—Reduce, Reuse, Recycle. This eco-friendly method reduces water usage and fosters community engagement, promoting resilience and environmental health. Additionally, the initiative provides educational workshops, equipping participants with practical skills to expand sustainable practices in their households and communities.



## INNOVATIVE ORGANIC WASTE SHREDDER

UNDIP's Wildan Wahyu Maharobi has created a machine to shred organic waste in Jebed Utara, Pemalang. This efficient device transforms waste into small particles, aiding in maggot production for fish feed and generating organic fertilizer. "It speeds up waste processing and helps reduce village waste," Wildan noted. The shredder features a hopper for waste input and a motor-driven blade, promoting sustainability and resource recovery. By facilitating waste management, this innovation not only contributes to environmental health but also supports local livelihoods through enhanced agricultural productivity.



**KKN Organic Waste Shredder in North Jebed Village, Pemalang**

## DEVELOPING RICE HUSK FERTILIZER

UNDIP students from the Chemical Engineering program have pioneered a novel fertilizer derived from rice husks, utilizing a silica-chitosan nano-encapsulation method. This innovative approach not only enhances plant growth but also addresses soil degradation issues. By transforming agricultural waste into valuable resources, this initiative contributes to sustainable farming practices and helps mitigate the impacts of climate change in the region.

## COMMUNITY CLEAN-UP INITIATIVES

These UNDIP community events not only focus on removing litter and plastic waste but also foster environmental awareness among participants. By engaging both students and local residents in maintaining clean public spaces, these efforts contribute to a healthier and more sustainable environment. Additionally, the initiative encourages participants to adopt eco-friendly practices in their daily lives, promoting a culture of sustainability within the community.





Coral Reef Monitoring and Inspection in Batang



Conserve and sustainably use the Oceans, seas and marine resources for sustainable development



### RESTORING CORAL REEF ECOSYSTEMS USING ARTIFICIAL PATCH REEFS (APR)

Focusing on restoring coral reef ecosystems using modular designs that are easy to assemble underwater, UNDIP's initiative creatively repurposes coal waste as a substitute for traditional construction materials, promoting sustainability while enhancing marine biodiversity. By utilizing innovative construction techniques, the project aims to provide a more resilient habitat for marine life, ultimately contributing to the overall health of ocean ecosystems.



### DEVELOPING SANCTUARIES FOR UNDERWATER FAUNA USING ARTIFICIAL FISH APARTMENTS (AFA)

Designed to bolster fish populations by providing essential habitats, these innovative structures are prototypes created during the Matching Fund Kadaireka 2023 program at UNDIP. By enhancing the underwater landscape, the project aims to support marine life recovery and contribute to sustainable fisheries in the region. Additionally, these prototypes serve as a model for future conservation efforts, demonstrating how innovative design can positively impact marine ecosystems.



### PLANTING 1,000 MANGROVES AND CLEANING UP TIRANG BEACH

UNDIP's Student Body organized the Mangrove for Future 2023 program, which involved planting 1,000 mangrove seedlings and a beach clean-up at Tirang Beach, Semarang. This initiative addresses coastal erosion, emphasizing the critical role of mangroves in protecting the shoreline. Vice Dean Dr. Teguh Yuwono highlighted the importance of environmental stewardship among students. The event saw participation from 105 volunteers, including students from various faculties, in collaboration with alumni, Djarum, and the Semarang Mangrove Center.



**748**

publications to 2023  
based on UN-SDGs  
keywords



**325**

educational activities,  
researches and  
community services



**57**

collaborations at local,  
regional, national, and  
international level





# Conserve and sustainably use the Oceans, seas and marine resources for sustainable development



## RESTOCKING JATIBARANG RESERVOIR

15,000 baby fish, including freshwater milkfish and tawes, were introduced into the Jatibarang Reservoir in Semarang to boost local fish populations. Supported by the community and HIMASAKA from the Faculty of Fisheries at UNDIP, this initiative addresses ecological and food security needs. Muhammad Adi Kurniawan from BBWS Pemali Juwana praised the effort as essential for enriching the reservoir's natural fishery. This collaborative effort highlights the importance of community engagement in sustainable resource management and conservation.



## EDUCATING THE LOCAL OYUTH ON THE DANGERS OF MICROPLASTICS

UNDIP is actively addressing the issue of microplastics by educating students at Gupit Elementary School. Led by Umar Abdul Aziz, the initiative aims to raise awareness about the severe impacts of plastic waste on marine ecosystems and human health. Participants learned effective waste management techniques and received reusable bottles to promote sustainable habits. This initiative not only empowers young students but also fosters a culture of environmental responsibility within the community.



## RIVER CARE COMMUNITY FORMATION

UNDIP united government officials, military, businesses, and community leaders to enhance Waduk Diponegoro's sustainability. Led by thematic community service students, the event concluded with a commitment to protect the river, educational efforts, and a riverbank cleanup, reinforcing the importance of collaboration in environmental stewardship. This initiative aims to foster a sense of shared responsibility among all stakeholders for the preservation and restoration of local ecosystems.

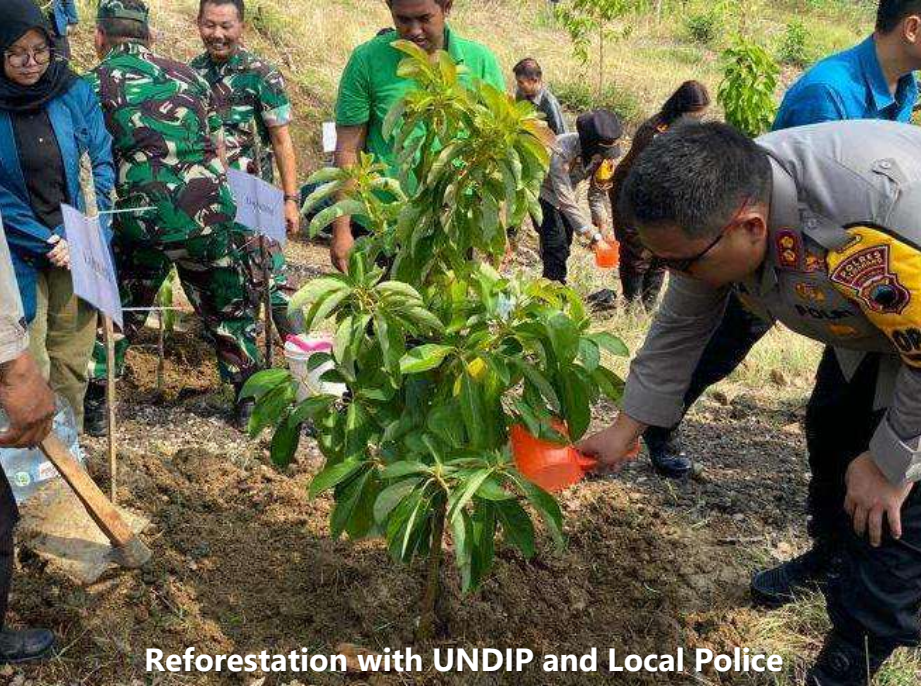


## ADVANCING SUSTAINABLE SHRIMP FARMING

UNDIP promotes sustainable fishery practices at its Marine Science Techno Park (MSTP) in Jepara, focusing on eco-friendly shrimp farming methods to address regional water quality challenges. Head of Business Management Dwi Cahyo Utomo highlights that MSTP, operational for two years, produced its first harvest of vannamei shrimp in 2021. As a training hub, MSTP supports over 100 students and vocational learners annually, covering all aspects of shrimp cultivation, with an annual production target of 400 tons. UNDIP aims to equip local farmers and investors with the necessary training and resources to foster sustainable aquaculture practices.



Artificial Fish Apartments in Batang



**Reforestation with UNDIP and Local Police**



Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



### PROMOTING TECHNOLOGY MANAGEMENT

UNDIP introduced biopore technology to the school's canteen staff through a team from the Vocational School, led by Anggun Puspitarini Siswanto. This environmentally friendly method turns organic waste into compost while helping prevent flooding and improving groundwater quality. The staff received hands-on training, learning how this simple tool can help them manage organic waste more effectively, reducing unpleasant odors and environmental contamination. mproved waste management.

### FOR BIOPORE WASTE



### TRANSFORMING WEEDS INTO NATURAL PEST CONTROL FOR LOCAL FARMERS

UNDIP has introduced the use of bandotan (*Ageratum conyzoides*) as a biopesticide to help crystal guava farmers in Wates Village, Semarang. Excessive chemical pesticide use had raised costs, and the team's solution uses weeds to create an eco-friendly pest repellent. Farmers learned how to process bandotan into a natural pesticide, reducing pests without harming the environment. This initiative promotes sustainable farming and enhances guava crop quality without costly chemicals. By empowering farmers with this knowledge, UNDIP is fostering a shift towards more sustainable agricultural practices in the region.



### REFORESTATION WITH LOCAL POLICE

UNDIP planted around 1,020 productive trees, including avocado and mango, at KHDTK Wanadipa in a joint effort with Semarang Police and local government. This initiative is part of a nationwide campaign to plant 10 million trees, aimed at reducing disaster risks and addressing climate change, while also benefiting local communities economically through sustainable cultivation efforts. By engaging various stakeholders, UNDIP is fostering community involvement and promoting environmental stewardship in the region.



**312**

publications to 2023  
based on UN-SDGs  
keywords



**248**

educational activities,  
researches and  
community services



**28**

collaborations at local,  
regional, national, and  
international level





# Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss



## KHDTK UNDIP

The Special Purpose Forest Area (KHDTK) at Universitas Diponegoro serves as a vital hub for research, education, and community involvement in forestry and environmental conservation. It focuses on cultivating native and productive plant species while promoting biodiversity and sustainable practices that benefit local communities and the environment. Through initiatives like tree planting and environmental education, KHDTK aims to enhance ecological awareness and foster a culture of conservation among students and residents. Additionally, the area serves as an outdoor classroom for students, providing hands-on experience in environmental science and sustainability. By engaging the community in conservation efforts, KHDTK strengthens partnerships between the university and local residents, promoting collective responsibility for the environment.



## MAPPING LANDSLIDE VULNERABILITY IN BANDUNG VILLAGE

UNDIP student Hesti Chandra Paramadhita Pambudi has developed landslide vulnerability maps for Desa Bandung, which is prone to natural disasters. The village, located at coordinates 6°59'21"S, 109°51'20"E, covers 581 km<sup>2</sup> and is home to around 2,000 residents. Hesti's project utilized field mapping and remote sensing to identify at-risk areas, employing ArcGIS 10.3 for analysis. The resulting posters aim to increase community awareness of landslide risks and encourage environmental vigilance. This initiative not only provides valuable data for disaster preparedness but also fosters a proactive approach to risk management within the community.



## LAUNCHING ESSENTIAL OIL PLANT GROWTH PROGRAM

UNDIP's Thematic Community Service Program has distributed citronella and patchouli seedlings to residents of Susukan Village, Ungaran Timur. This initiative aims to boost local economic potential by promoting essential oil plants used in perfumes, cosmetics, and medicines, while also focusing on environmental conservation and offering a sustainable income source for villagers. By empowering local communities with these resources, UNDIP is fostering entrepreneurship and encouraging environmentally friendly agricultural practices. Additionally, the program helps raise awareness about the benefits of cultivating native plants, contributing to biodiversity conservation in the area.



## INTERNATIONAL DISEASE MANAGEMENT FROM PESTS TRAINING

Undip collaborated with Prevenue Corporation Sdn Bhd in Malaysia to deliver a training program on "Disease Vector and Pest Management Strategy." Involving 30 students from various health disciplines, the program addressed vital pest control and disease management topics while offering visits to Malaysian research institutions. This collaboration not only enhanced students' practical skills but also fostered international partnerships in public health education.



Landslide vulnerability layout in Bandung Village





Officiation of Anti-Corruption MoU with KPK



Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

## **LEGAL PROTECTION FOR INDONESIAN MIGRANT WORKERS**

Research by Dr. Elfia Farida from the Faculty of Law at UNDIP examines ideal legal protections for PMIs and their families, using a socio-legal approach that combines law and social studies. The findings indicate a growing recognition of PMIs' rights through international conventions. To strengthen protections, the study recommends creating local regulations and establishing bilateral agreements with host countries, ensuring the dignity and rights of workers are upheld. Additionally, the research highlights the importance of community-based support systems for returning PMIs to facilitate their reintegration.

## **NATIONAL DEVELOPMENT PLANNING**

UNDIP's SDG Centre participated in a public consultation organized by BAPPENAS to discuss the draft of the National Long-Term Development Plan (RPJPN) 2025-2045, with a focus on Quality Family and Gender Equality. Representing UNDIP, Dessy Ariyanti, Ph.D., emphasized the importance of fostering strong family units and ensuring gender equality as cornerstones of Indonesia's future progress, aligning with global Sustainable Development Goals. She also stressed that inclusive policies should address the diverse challenges faced by Indonesian families to achieve long-lasting development impacts. The consultation also covered strategies to integrate gender-sensitive approaches into policy-making, ensuring that economic and social inequalities are reduced.

## **UNDIP HOSTS PUBLIC LECTURE ON FINANCIAL ACCOUNTABILITY AND CORRUPTION ERADICATION**

UNDIP's SDG Centre participated in a public consultation organized by BAPPENAS to discuss the draft of the National Long-Term Development Plan (RPJPN) 2025-2045. Representing UNDIP, Dessy Ariyanti, Ph.D., emphasized the importance of fostering strong family units and ensuring gender equality as cornerstones of Indonesia's future progress, aligning with global Sustainable Development Goals. She also highlighted that empowering women and addressing gender-based disparities can significantly boost economic growth and social development. The discussions also reinforced the need for targeted programs that support vulnerable groups, particularly women and children, in overcoming systemic challenges.



**298**

publications to 2023  
based on UN-SDGs  
keywords



**181**

educational activities,  
researches and  
community services



**27**

collaborations at local,  
regional, national, and  
international level



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### ADDRESSING YOUTH DELINQUENCY IN MESOYI VILLAGE

UNDIP students in the Community Service Program conducted a socialization event in Mesoyi Village to address youth delinquency. The program at SMPN 1 ATAP educated students about the types and dangers of behaviors such as smoking and gang involvement, aiming to foster awareness and promote positive behavior. Through interactive discussions and engaging games, the students were encouraged to reflect on their choices and the impact they have on their future. This initiative also involved local community leaders, who reinforced the message of staying on a positive path and avoiding risky behaviors. By fostering a supportive environment, UNDIP's program aims to inspire long-term change among the youth in Mesoyi Village.



Anti-teenaged delinquency socialization at Atap Mesoyi Highschool



### COMMUNITY EDUCATION ON THE DANGERS OF ILLEGAL ONLINE LOANS

UNDIP students conducted a community outreach program in Klewor Village to educate residents about the risks associated with illegal online loans. Amid rising cases of online loan scams, Aizzatin Nada, a student from the Business Administration program, led a workshop focusing on financial literacy, including how to verify the legality of online loans and report illegal practices. The initiative aimed to empower local small business owners and community members to recognize and avoid predatory lending, fostering a more informed and cautious approach to financial decisions. Additionally, the program provided practical tips on managing personal finances and maintaining healthy credit practices. By promoting financial literacy, UNDIP hopes to reduce the vulnerability of residents to financial fraud and enhance overall community resilience.



### COLLABORATION WITH ILO TO LAUNCH CAMPAIGN FOR DECENT WORK

The International Labour Organization (ILO) has initiated a campaign to promote decent work in Indonesia's fishing industry, addressing labor protection issues, particularly for workers on foreign fishing vessels. Key topics included human trafficking and illegal fishing, with plans for a Migrant Worker Center in Pemalang to enhance protections for local laborers. UNDIP is actively supporting this initiative by contributing research and expertise on labor rights in the fishing sector.



### ENCOURAGING AWARENESS OF CYBERSECURITY

UNDIP conducted a Cybersecurity Awareness event to address the growing threats of cyberattacks in the digital age. The event, held at the Prof. Soedarto Building, emphasized the importance of cybersecurity measures to protect systems, networks, and data from unauthorized access. Experts from the university's IT department provided insights on the latest cyber threats and prevention strategies, urging participants to adopt stronger digital security practices. The event also included sessions to help students and staff identify potential cyber risks and safeguard personal and institutional information.

Semarang, 29<sup>th</sup> August 2023

**17** PARTNERSHIPS  
FOR THE GOALS



Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development

Officiation of collaboration in achieving SDG 8 with the International Labour Organization



## STRENGTHENING ACADEMIC TIES BETWEEN UNDIP AND MALAYSIAN UNIVERSITIES

UNDIP is strengthening partnerships with nearby countries to benefit its academic community. Led by Prof. Dr. Mohammad Djaeni, UNDIP has secured a draft Memorandum of Understanding (MoU) with Nottingham University Malaysia and others. Planned initiatives include the International Symposium on Food and Agro-biodiversity 2024 and joint lectures, with an aim to enhance international exposure for students and faculty, contributing to UNDIP's goal of ranking among the top 500 global universities.



## COLLABORATION WITH WOXHEN UNIVERSITY

UNDIP has signed a Memorandum of Understanding (MoU) with Woxsen University in Telangana, India, aimed at fostering collaboration in education, research, and community service. The agreement focuses on joint research initiatives, staff and student exchanges, and collaborative mentoring for postgraduate students. This partnership is expected to strengthen UNDIP's position in becoming a top 500 world-class university, especially in fields such as Economics, Business, Engineering, Law, and Cultural Studies. The MoU also opens doors for UNDIP to expand its international network, promoting cross-cultural understanding and innovative solutions to global challenges. With this collaboration, both universities aim to enhance the quality of academic programs and contribute to impactful research.



## ENHANCED COLLABORATION WITH INDONESIAN MINISTRY OF DEFENSE

UNDIP has established a partnership with the Indonesian Ministry of Defense through a signed MoU aimed at enhancing education and research in defense science and technology. The collaboration will span five years and focuses on training, knowledge exchange, and improving Indonesia's defense capabilities. Rektor Prof. Dr. Yos Johan Utama expressed hopes for mutual benefits for both institutions and society. This initiative is expected to contribute significantly to the development of a robust national defense strategy while fostering innovation in related fields.





## Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development



### ADDRESSING LABOUR STANDARDS WITH THE INTERNATIONAL LABOUR ORGANIZATION

UNDIP, represented by Rektor Prof. Dr. Yos Johan Utama, has signed a collaboration agreement with the International Labour Organization (ILO), led by Michiko Miyamoto. This partnership focuses on enhancing education and addressing labor issues such as child labor, forced labor, and discrimination. ILO previously recognized Undip as a leading university in promoting decent work in the fisheries sector and plans to offer training opportunities for students and faculty. Prof. Yos emphasized expanding cooperation across faculties to strengthen this initiative.



**Officiation of collaboration in security with the Indonesian Ministry of Defense**



### PT NANOTECH JOINS FORCES WITH UNDIP ALUMNI

An MoU has been signed between PT Nanotech Indonesia Global Tbk. and the Central Management Board of the Undip Alumni Association (IKA UNDIP) at Hotel Aryaduta in Jakarta. The agreement, signed by CEO Suryandaru and IKA UNDIP Chairman Abdul Kadir Karding, focuses on education, research and development, and technology-based business collaboration. The event also marked the inauguration of the new IKA UNDIP Board for 2022-2027, with Suryandaru joining as a member of the Expert Council. This partnership aims to leverage the strengths of both organizations to foster innovation and enhance the quality of education and research at UNDIP.



**Officiation of collaboration in education with Woxen University**



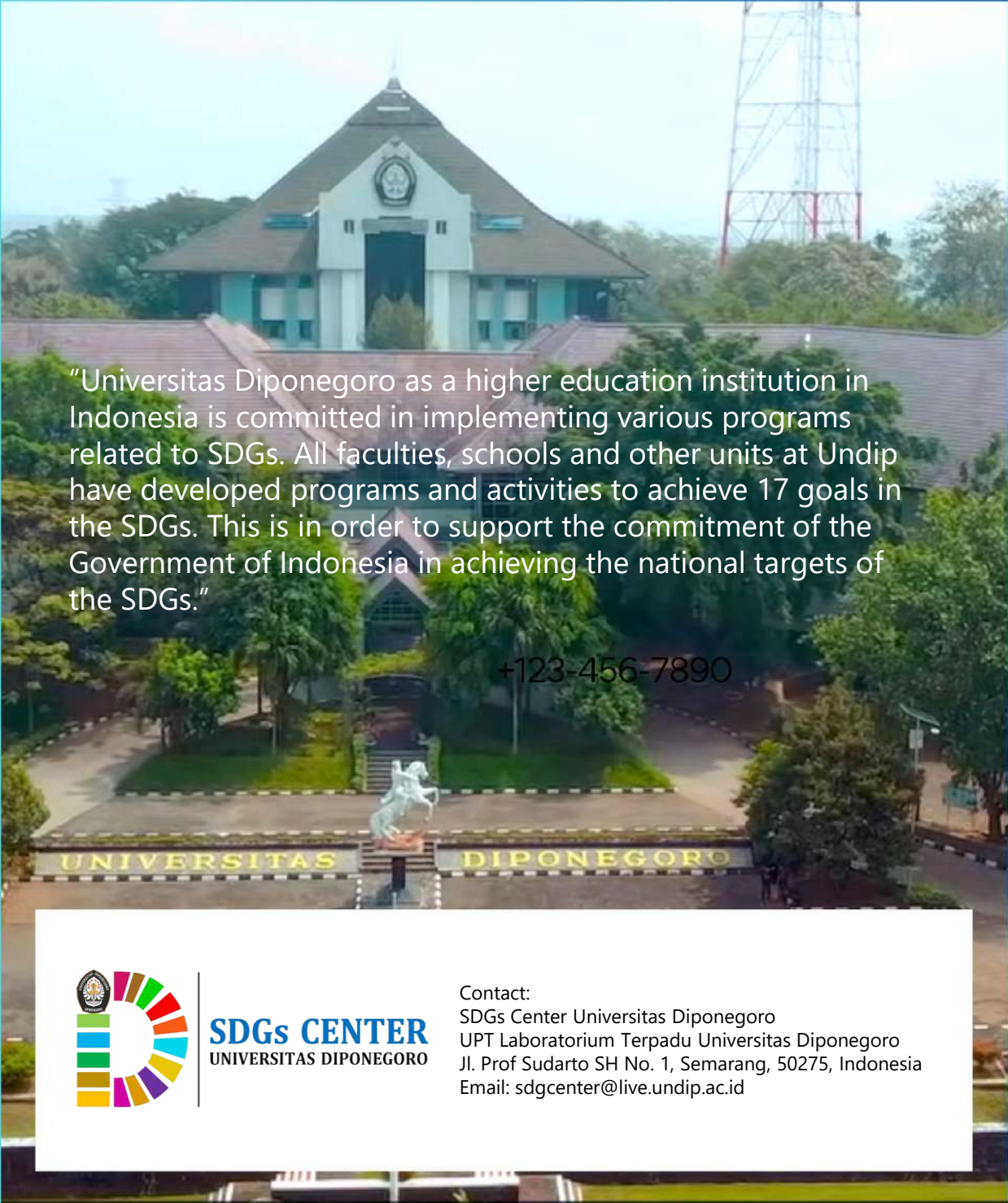
### UNDIP AND KOREA-INDONESIA MTCRC FORGE MARINE RESEARCH PARTNERSHIP

The agreement, signed by Rektor Prof. Dr. Yos Johan Utama and MTCRC representatives, aims to enhance sectors like marine science, oceanography, and smart aquaculture through joint research and staff exchanges. The partnership will also focus on addressing maritime challenges, with both sides expressing optimism about its positive impact on Indonesia's maritime sector. This collaboration is expected to facilitate knowledge sharing and innovation.



### UNDIP PARTNERS WITH TANOTO FOUNDATION FOR EDUCATIONAL ADVANCEMENT

The agreement, signed by Rektor Prof. Dr. Yos Johan Utama and Tanoto Foundation representatives, aims to support scholarships, training, and development programs for students and faculty. This collaboration is expected to strengthen UNDIP's commitment to academic excellence and contribute positively to the broader community by improving educational access and quality. Additionally, it will foster innovation and empower students to become leaders in their respective fields.



"Universitas Diponegoro as a higher education institution in Indonesia is committed in implementing various programs related to SDGs. All faculties, schools and other units at Undip have developed programs and activities to achieve 17 goals in the SDGs. This is in order to support the commitment of the Government of Indonesia in achieving the national targets of the SDGs."

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