



IPB University
— Bogor Indonesia —



SUSTAINABLE
DEVELOPMENT
GOALS



IPB UNIVERSITY SUSTAINABILITY DEVELOPMENT GOALS SDGs Report 2024



Book Titles:

SDGs Report 2024

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GLOSSARY

K

KLH : Kementrian Lingkungan Hidup (Ministry of Environment)

T

TRAP : Tampung-Resapkan-Alirkan-Pelihara (Collect-Absorb-Channel-Maintain)



Take urgent action to combat climate change and its impacts



Learning Program

In alignment with global and national commitments to combat climate change, IPB University has strategically integrated its learning programs to contribute to climate action and environmental sustainability. Among its key initiatives, IPB University has a learning program named **Human Ecology**. This course equips students with the knowledge and skills to understand and act on the ecological interactions between humans and their environment.

It introduces key concepts in ecology, environmental ethics, and contemporary ecological crises, encouraging students to respond to environmental challenges through both individual and collective actions. The course involves practical projects, such as multimedia creations and using social media platforms for **ecological movements**, to raise awareness and mobilize action on environmental issues.



By empowering students to engage in human ecology actions,



this course contributes to fostering climate awareness and promoting sustainable practices in line with global efforts to address climate change.

Additionally, IPB University offers a learning program in **Applied Climatology**, at the Department of Geophysics and Meteorology, Faculty of Mathematics and Natural Sciences. This program aims to develop professional graduates in the field of climatology and its applications.

Applied Climatology graduates are hoped to advance:

scientific
knowledge

technological
innovations

for managing atmospheric resources and their interactions

By focusing on long-term atmospheric dynamics, including weather and climate patterns, this program equips students with the skills needed to address climate-related challenges and support global climate action efforts. Through this program, IPB University plays a pivotal role in training the next generation of experts who can contribute to sustainable climate solutions.

Furthermore, the Faculty of Forestry and Environment organized the **International Summer Course on Forestry and Environment (ForSC 2024)** with the theme "Peran Pemuda dalam Pengelolaan Hutan untuk Mitigasi Krisis Iklim" (The Role of Youth in Forest Management for Climate Crisis Mitigation). The event involved 132 participants from 27 universities across 7 countries.

132
participants

from

27 universities
7 countries



Through a series of lectures, field visits to conservation areas such as the Gunung Walat Educational Forest and Mount Gede Pangrango National Park, and a Youth Initiative Contest (YIC), the program educated young participants on the importance of sustainable forest management in addressing climate change. The activities were designed to enhance participants' understanding of how forest ecosystems play a crucial role in carbon sequestration, climate regulation, and biodiversity conservation.





Take urgent action to combat climate change and its impacts

2 Research and Innovation

IPB University, as a leading agricultural institution in Indonesia, has demonstrated a strong commitment to Sustainable Development Goal (SDG) 13: Climate Action through its research and innovation efforts. Recognizing the significant impact of climate change on agriculture, IPB University has focused on developing strategies and technologies to enhance the resilience of Indonesian agriculture. One notable contribution is the publication of the book *Strategi Mempertahankan Produksi Pertanian dalam Menghadapi Perubahan Iklim: Pertanian Cerdas Iklim or "Strategies for Maintaining Agricultural Production in the Face of Climate Change: Climate-Smart Agriculture"* authored by Prof. Tania June and Yeli Sarvina.



This book delves into innovative strategies for maintaining agricultural productivity amidst climate challenges, emphasizing the importance of climate-smart agriculture practices. The publication has been recognized nationally, earning the first-place award in the Climate Change category at the 2024 National Library Awards.

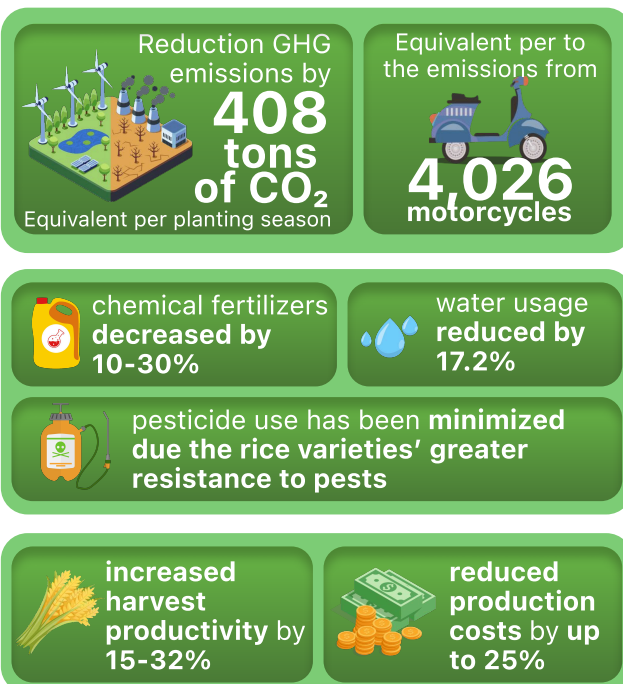


Building upon this foundation, IPB University has developed the Asta Catha Padi (Eight Innovations for Climate-Smart Rice Cultivation), a comprehensive technology package aimed at enhancing rice cultivation's resilience to climate change. This initiative includes the development of **climate-resilient rice varieties** such as

IPB 3S IPB 10G IPB 11S BEPE IPB 14S
IPB 9G IPB 12S IPB 13S IPB 15S



which are characterized by their high productivity, resistance to climatic stresses like flooding and drought, and efficient use of water and fertilizers. These innovations have led to significant environmental and economic benefits, such as:



This holistic strategy not only addresses the immediate challenges posed by climate change but also contributes to the long-term sustainability of Indonesia's rice production.



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Research in Number



419

scholarly output
in 2020-2024



141

FWCI in
2020-2024



4390

citation count
in 2020-2024



14,77%

of all Indonesian
citation count



8,63%

of all Indonesian
scholarly output

In addition, IPB University, in collaboration with Toyota Auto2000 and the Bogor Regency Environmental Agency, conducted **free vehicle emission tests** for IPB residents, covering both two-wheeled and four-wheeled vehicles. The results of these tests are integrated into the SIUMI (Emission Test Information System) application managed by Indonesia's Ministry of Environment (KLH). **A key follow-up action from this program is the restriction on vehicles that fail the emission test to prevent them from entering the campus area.** This initiative has also brought several significant benefits, including a cleaner and healthier environment, the potential for policy development to reduce the number of vehicles on campus, and the creation of a sustainability database using the emission test results.



Campus Operation

Based on Rector's Decree No. 298/IT3/LK/2020:

IPB University is committed to achieving carbon neutrality by 2030

To support this commitment, IPB University has launched several initiatives, **including the installation of air quality monitoring stations and the free vehicle emission testing program.** In 2024, IPB University installed several air quality monitoring stations across the campus, equipped with sensors to measure real-time air pollution parameters such as particulate matter (PM), harmful gases, and weather conditions. The collected data is integrated into IPB's sustainability dashboard, enabling comprehensive environmental monitoring.

Community Engagement

IPB University has demonstrated its commitment to SDG 13 through impactful community-engagement initiatives in 2024. A group of IPB University's lecturers under the "Dosen Pulang Kampung" program in Desa Pangumbahan, Sukabumi **introduced the Automatic Weather Station (AWS) system** to local farmers and village officials. The AWS technology enables real-time monitoring of weather parameters such as temperature, humidity and rainfall, thereby enhancing farmers' ability to make informed decisions on irrigation, fertilisation and pest management under increasingly unpredictable climatic conditions





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IPB University alumni's disaster-response team, ARM HA IPB University (Aksi Relawan Mandiri), carried out a **rapid assessment and distributed initial aid to communities** affected by floods and landslides in Sukabumi, specifically in Cibitung and Jampang Kulon. The team provided essential supplies such as tarpaulins, ready-to-eat meals, bottled water, instant noodles, and biscuits to:

Aid recipients



79
households
202
individuals

They also conducted quick on-site evaluations to assess damage and identify the needs of vulnerable groups, including infants, pregnant women, the elderly, and people with disabilities. The results of this assessment will serve as the foundation for future emergency response and recovery actions of the hydrometeorology disaster.

empower the local community in soil and water conservation, sustainable agriculture practices, and integrated waste and water management. The activities include building embung (water conservation structure that collects rainwater, runoff, or seepage water) using methods like "Tampung-Resapkan-Alirkan-Pelihara (TRAP)" and employing sediment traps, establishing phytoremediation systems to treat domestic wastewater, and promoting organic waste processing.



Moreover, a team of IPB University's students from the KKNT-Inovasi program held **climate education and emotion-based activities**. The initiative included interactive competitions alongside climate awareness sessions, aimed at nurturing environmental literacy among young residents and encouraging youth participation in addressing climate change.



Student Activity

IPB University actively organizes community-based programs to support climate action. In 2024, a team of IPB University's students arranged a program called "Desa Tanggap Iklim" (**Climate-Responsive Village**) in Desa Leuweung Kolot, Bogor. One of the main activities in this program is to implement a Circular Water System. This program seeks to





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"Climate justice means no one gets left on the frontlines."



SDGs Report 2024 : Supplementary Report