



IPB University
— Bogor Indonesia —



Sustainability

Report 2025

Sustainability Without Compromising Quality

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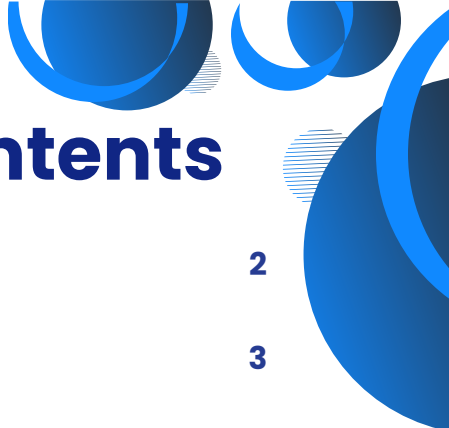


Table of Contents

Rector Message	2
Indonesia's SDGs Action Awards	3
THE Impact Rankings	4
QS Sustainability Rankings	5
UI GreenMetric World University Rankings	6
IPB Sustainability Value (IPB SuV)	7
Operational Campus	8
Programs	23
Action Plans	30



Rector Message

The Sustainability Report 2025 reflects IPB University's continuous journey toward building a more sustainable and resilient campus. The year 2025 represents an important milestone in the implementation of the IPB Sustainability Value (IPB SuV) Road Map, with a strong focus on strengthening Green Infrastructure and promoting Green Lifestyle across the university community.

Throughout 2025, IPB University has made steady progress in integrating sustainability into campus development and daily activities. Improvements in energy efficiency, the expansion of renewable energy initiatives, better waste and water management, and more sustainable transportation systems have contributed to reducing the environmental footprint of campus operations. At the same time, efforts to encourage sustainable lifestyles among students, academic staff, and employees have helped foster greater awareness and participation in sustainability practices.

These initiatives support IPB University's commitment to achieving carbon neutrality, guided by systematic monitoring and data-driven decision-making. The use of sustainability dashboards and performance indicators has strengthened transparency and accountability, ensuring that sustainability targets are translated into measurable actions.

The achievements of 2025 provide a strong foundation for the next phase of implementation. Looking ahead, 2026 will focus on Sustainable Campus Operations, where sustainability principles will be more deeply embedded into everyday operational processes, supported by stronger coordination, monitoring, and institutional governance.

This Sustainability Report 2025 is the result of collaboration across the IPB University community. I would like to express my appreciation to all parties who have contributed to advancing sustainability initiatives throughout the year. Together, we will continue to move forward in building a low-carbon, inclusive, and sustainable campus that contributes positively to national and global sustainability goals.



Dr. Alim Setiawan Slamet, STP., M.Si.

INDONESIA'S SDGS ACTION AWARDS



Indonesia's SDGs Action Awards 2025

IIPB University has once again won an award as one of the best universities in Indonesia's SDGs Action Awards (SAA) 2025 from the Ministry of National Development Planning/National Development Planning Agency (Ministry of PPN/Bappenas). This year, IPB University won second place in the Higher Education category.

The theme of the Indonesia's SDGs Action Awards (SAA) 2025 was "Food and Nutrition Innovation: Enhancing Human Capital Quality, Accelerating Sustainable Economic Growth, and Reducing Poverty."

Through this award program, the Ministry of National Development Planning (PPN/Bappenas), as the national coordinator for SDGs implementation in Indonesia, aims to encourage the wider replication of best practices by stakeholders and to accelerate the achievement of the SDGs targets during the "Decade of Action."



BAPPENAS

Kementerian Perencanaan Pembangunan Nasional/
Badan Perencanaan Pembangunan Nasional



THE IMPACT RANKINGS



IPB University maintained a strong global standing in the 2025 Times Higher Education (THE) Impact Rankings, earning a score of 89.2 and placing in the 101–200 band among 2,318 institutions worldwide. In the previous year, IPB University recorded a score of 89.6 and was ranked 94th out of 1,963 universities.

Overall Score

89.2

Overall Rank

101 – 200

Among the 17 Sustainable Development Goals (SDGs) assessed, IPB ranked within the global top 100 in several areas: 8th for SDG 1 (No Poverty), 14th for SDG 2 (Zero Hunger), 32nd for SDG 15 (Life on Land), 45th for SDG 8 (Decent Work and Economic Growth), 59th for SDG 14 (Life Below Water), and 71st for SDG 4 (Quality Education).

IPB University achieves global Top 100 recognition across multiple SDGs in 2025



QS WUR SUSTAINABILITY



QS World University Rankings: Sustainability reflects an institution's commitment to advancing sustainability through science and technology in response to climate challenges, as well as the impact of its research on achieving the 17 United Nations Sustainable Development Goals (SDGs)

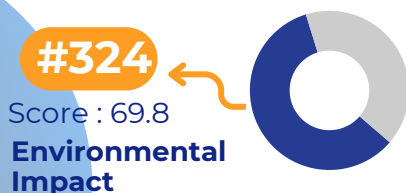
This ranking is designed to assess how well higher education institutions address major global issues related to environmental, social, and governance (ESG) dimensions. It evaluates the social and environmental impact of universities as centers of education and research—whose roles are increasingly comparable to large corporations in confronting sustainability challenges faced by complex organizations.

#4
at Indonesia

68/100
Overall Score

#126
at Asia

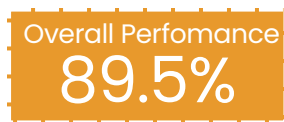
In the QS Sustainability Rankings 2026, announced on November 18, 2025, IPB University secured the 522nd position globally and ranked 4th nationally. Notably, in the Environmental Education category, IPB University achieved a global ranking of 80th, highlighting its strong commitment to environmental education and research addressing global ecological issues.



UI GREENMETRIC WORLD UNIVERSITY RANKINGS



The UI GreenMetric World University Ranking is a ranking on green campus and environmental sustainability. The ranking is based on six criteria (Setting and Infrastructure, Energy and Climate Change, Waste, Water, Transportation, and Education). IPB University achieved a total score of 8,950 out of 10,000 points, with a performance level of 89.5% in this sustainability ranking.



IPB University ranked 33th globally in the 16th UI GreenMetric World University Rankings 2025, out of 1,745 universities from 105 countries. At the national level, IPB position as the 5th top university.



33th



5th

Most Sustainable University in The World

Most Sustainable University in Indonesia

Setting Infrastructure

1375/1500

Water

987.5/1000

Energy and Climate Change

1625/2100

Transportation

1562.5/1800

Waste

1725/1800

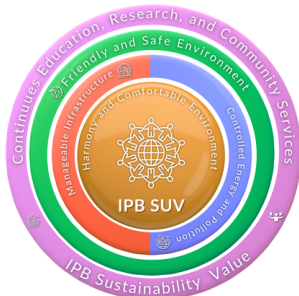
Education

1675/1800

IPB University achieved a total score of 8,950 out of 10,000 points (89.50%) in the UI GreenMetric ranking, reflecting the University's continued commitment to environmental sustainability and the achievement of the Sustainable Development Goals (SDGs). Strong performance was recorded in four categories with scores above 90%: Water (98.75%), Waste (95.83%), Education & Research (93.06%), and Setting & Infrastructure (91.67%). These results demonstrate IPB University's contributions to SDG 6 (Clean Water and Sanitation), SDG 11 (Sustainable Cities and Communities), SDG 12 (Responsible Consumption and Production), and SDG 4 (Quality Education).

The Energy & Climate Change category recorded the lowest score at 77.38% in 2025. Nevertheless, this marks an improvement from the previous year's score of 73.81%, indicating progress in addressing climate-related challenges and supporting SDG 13 (Climate Action), while highlighting an area that requires continued enhancement.

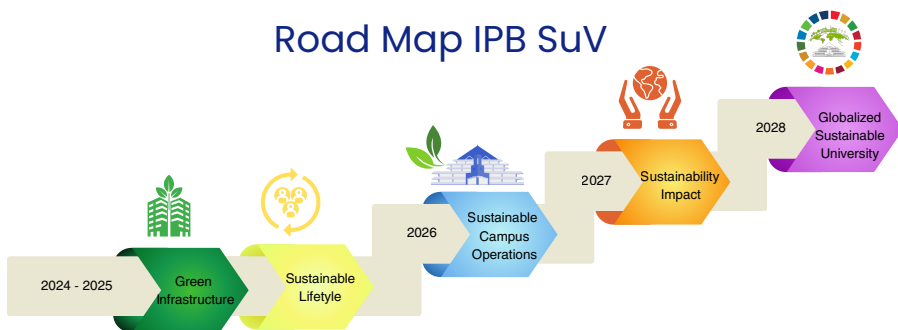
IPB Sustainability Value



The IPB vision 2024–2028 is "Being an innovative and resilient university for sustainable national progress in building a techno-socio entrepreneurial university that is excellent globally in agriculture, marine, and tropical bioscience". Toward this vision, IPB commit to be the **Globalized Sustainable University in 2028**. Creating a sustainable university entails incorporating social, cultural, and economic factors into the curriculum, research, infrastructure, and community involvement, among other areas of the institution's operations.

Sustainability in higher education relates to how the campus operation does not harm the environment and thus requires facilities and infrastructure to be set up in a way that becomes environmentally friendly.

Road Map IPB SuV



This roadmap serves as a strategic guide for IPB University to progressively realise its vision of becoming a **Globalized Sustainable University** by 2028. The outlined steps are designed to position IPB University as a globally impactful institution.

Building on the IPB SuV Road Map, 2025 marks the initial implementation phase of IPB University's sustainability transformation. This phase prioritises **Green Infrastructure** and **Sustainable Lifestyle** as foundational pillars for long-term campus sustainability. Green Infrastructure focuses on strengthening environmentally responsible physical systems, including energy-efficient buildings, sustainable utilities, green open spaces, and low-impact mobility across all campus sites. In parallel, Sustainable Lifestyle emphasises behavioural change within the campus community by promoting responsible consumption, waste reduction, sustainable mobility, and daily practices that support environmental stewardship. Together, these two focus areas establish the structural and cultural basis required to support subsequent phases, particularly the transition towards sustainable campus operations and broader sustainability impact in the following years.

Operational Campus

across all sites of IPB University

 Ground floor area of buildings
61.93 ha

 Campus Buildings Area
131.84 ha

 **94% Green Space**
52% Forest
41% Planted

 **18 Sites**

 Campus Area
1,669 ha

 Open Space
96% of Total Area

 **9 Faculties**
5 Schools
171 Program Studies

Animal Biodiversity

 **17** Amphibians
 **23** Mammals
 **51** Reptiles
 **118** Birds
 **128** Butterflies

Plant Biodiversity

 **40** Bamboos
 **127** Medicinal plants
 **173** Woody plants

Sustainability Programs

145 Sustainability Activities by Student
193 Sustainability Events by Institutions
77 Start Ups

Community Services

69,783 Affected Communities
3,939* Students Involved
625* Lecturers Involved
1,675 Partner Villages

International Collaborations

656 International Agreement
447 Institutions
60 Countries

 **5,450 Courses**
Distribution of SDGs

 **5** International Research Institute
23 Research Centers

*KKN-T and Dosen Pulang Kampung Program

Operational Campus 8

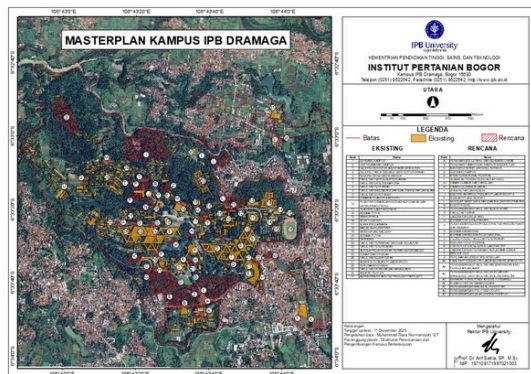
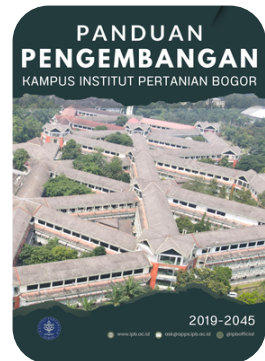
MANAGEABLE INFRASTRUCTURE

IPB University continues to strengthen its infrastructure governance through the implementation of campus masterplans and green infrastructure principles across all sites.



IPB University manages **18 sites**, comprising **four main campuses** designated for teaching and learning activities and **14 supporting sites**, including experimental farms, teaching farms, and other academic support facilities. As of the reporting year, **four campus masterplans have been formally endorsed**, while the masterplans for the remaining supporting sites are currently under development and progressive updating.

To ensure consistency in infrastructure development across all sites, IPB University has established a **development monitoring guideline** that governs all new construction and renovation projects. The guideline ensures alignment with green development principles and is supported by clear indicators and performance metrics. Its preparation was coordinated by the Vice Rector for Resource and Infrastructure Resilience (Vice Rector II), in collaboration with the Directorate of Sustainable Campus Planning and Development (Ditrenbang), the Directorate of General Affairs and Infrastructure (DUI), the Risk Management Office (KMR), and the Procurement Unit (UP).



Building upon this governance framework, IPB University's campus spatial conditions, including the proportion of green open spaces and zoning between green and built-up areas, provide a strong foundation for **green infrastructure readiness**. The extent of green space is managed not only as an ecological asset but also as part of a **long-term carbon sink strategy** supporting IPB's **Net Zero Carbon target by 2045**.

Green Building Readiness

As part of this readiness, a **self-evaluation of existing campus buildings** using the Greenship Existing Building assessment tool has been conducted to map the potential application of green building principles. The assessment results represent a baseline performance of selected buildings and serve as a reference for planning progressive improvements in support of IPB University's green infrastructure development.

Main Campus

Vocational School



**AM Satari
Building**



**Andi
Hakim Nasution Building**



**Delta
Building**

Effective infrastructure governance provides the foundation for controlled energy use, pollution management, and the creation of a safe and comfortable campus environment.



CONTROLLED ENERGY AND POLLUTION

Well-managed and controlled campus infrastructure provides a foundation for IPB University to manage resource consumption and minimise environmental impacts arising from campus activities. Accordingly, the Controlled Energy and Pollution indicator highlights IPB's efforts to ensure that energy use, water management, waste handling, and transportation systems are operated efficiently, measured systematically, and oriented towards emission reduction.

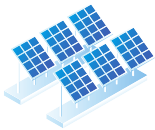
Electricity and Renewable Energy



**19,994,000
kWh/year**

As reflected in the annual electricity consumption presented beside, IPB University continues to strengthen energy efficiency and renewable integration across its campuses. IPB University recorded a **reduction in electricity consumption** of approximately **654,000 kWh** compared to 2024.

IPB University continues to improve energy efficiency while expanding the use of renewable energy systems across multiple campus sites, including solar panels, micro-hydro, wind power, and supporting generators, with an estimated total **renewable energy** potential of **313,967 kWh**.



Solar Panel
291,393 kWh



Generator
19,374 kWh



Microhydro
2,000 kWh



Wind Power
1,200 kWh

These initiatives reflect a structured transition toward cleaner energy sources and reduced dependence on fossil fuel-based electricity, in line with IPB University's long-term sustainability and decarbonisation targets.



Water Conservation

Water management at IPB University is implemented through an integrated clean water supply and distribution system, including the operation of water treatment facilities and drinking water refill stations across the campus. This system is designed to improve water use efficiency while supporting sustainable campus operations.

To support this approach, IPB University operates two Water Treatment Plants (WTPs), namely **WTP Ciapus** and **WTP Cihideung**. These facilities are able to supply **100% of water demand at the Dramaga Campus**, ensuring full reliance on treated water for daily campus operations.



At the university-wide level, in 2025, total water consumption across IPB University reached **873,278 m³**, of which approximately **84% was supplied by the internal WTP system**, while the remaining demand was met through **Municipal Waterworks (PDAM)** for non-Dramaga operational needs.



13 drinking water refill stations are distributed across **IPB Dramaga**

These stations help reduce reliance on single-use plastic water bottles, in line with the Green Campus concept and the Sustainable Development Goals (SDGs).



Complementing the built infrastructure, the SDGs Lake at IPB Dramaga Campus reflects the University's commitment to water conservation and sustainable resource management. The lake functions as a rainwater retention basin and natural infiltration system, playing a key role in maintaining the campus's hydrological balance.

Waste Generation and Management

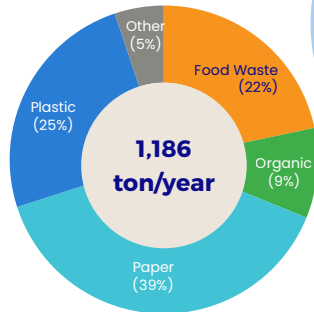
IPB University implements an integrated waste management system as part of its efforts to control operational pollution and reduce environmental pressure from campus activities



In 2025, IPB University recorded a reduction in total waste generation compared to the previous year. Average daily waste generation decreased from **3.5 tonnes per day (1,281 tonnes per year)** to **3.25 tonnes per day**, equivalent to **1,186 tonnes annually**.

On a per capita basis, waste generation reached **0.12 kg per person per day**, indicating improved efficiency in campus waste management practices.

This reduction reflects strengthened waste management operations supported by a data-driven monitoring approach. One of the key initiatives is the use of portable wheel scales to weigh dump trucks transporting campus waste, enabling more accurate measurement and tracking of waste flows.



Waste Composition in 2025



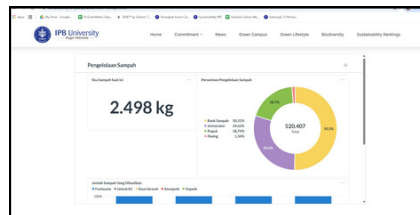
0.12 kg
/person
/day



Portable wheel scales

To further optimise waste handling, IPB University has developed a waste transportation route map to visualise and improve the efficiency of waste transport across campus areas.

All collected data are integrated into the IPB University Sustainability Dashboard, enabling real-time monitoring and supporting informed decision-making, including assessments related to operational carbon emissions.



Dashboard interface on the IPB Sustainability Website

Green Transportation

In 2025, the number of vehicles entering the campus, motorcycles decreased from 14,197 to 13,921, and 11 shuttle buses. Compared to the previous year, this marks a **1.94% decrease** in motorcycles use. While the number of shuttle buses remained unchanged.

Motorcycle



13,921

Daily
Average

Car



11,458

Daily
Average

Green Transportation Facilities



Shuttle bus

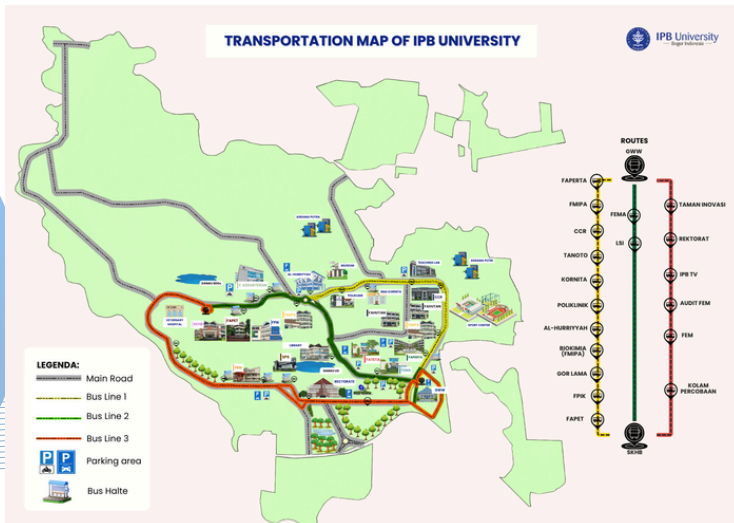


643 bicycles provided for the IPB community



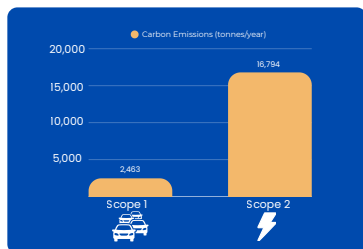
13 electric golf cars for campus mobility

Shuttle bus routes are also being developed to improve connectivity to academic and student activity areas. The university is also **planning centralized parking areas** at campus entry points to reduce inner-campus traffic and emissions.



Net Zero Carbon Achievement and Monitoring

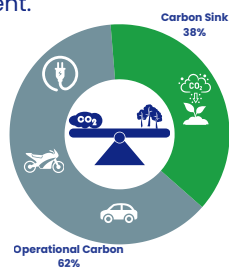
IPB University has established a strategic pathway towards achieving Net Zero Carbon by 2045, supported by a monitoring framework designed to ensure measurable and consistent tracking of greenhouse gas emissions and carbon sinks.



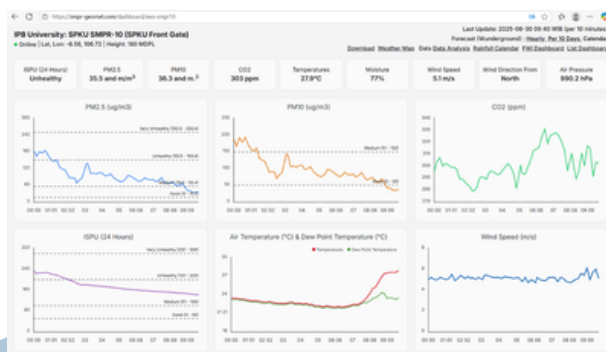
IPB University conducted a greenhouse gas emissions inventory in 2025 to quantify emissions from campus operations. **Scope 1** emissions totalled **2,463 tonnes** CO₂e per year, mainly from on-campus vehicle activities, while **Scope 2** emissions reached **16,794 tonnes** CO₂e per year, largely driven by electricity consumption from the national grid (PLN), as shown in the accompanying figure.

Scope 3 emissions currently reported amount to **0.51 tonnes** CO₂e per year, originating from the off-site treatment of hazardous laboratory waste by a licensed third-party operator and are disclosed separately as part of the University's progressive emissions inventory development.

The emissions inventory illustrates the current balance between operational carbon emissions and carbon sink capacity at IPB University, showing that **38%** of operational emissions were offset by existing **carbon sinks** in 2025, while **62%** remained as net **operational emissions**. This distribution provides the baseline for the **Net Zero Carbon Roadmap** towards 2045.



To complement carbon management efforts, IPB University operates **air quality monitoring stations** across the campus, measuring real-time particulate matter, gaseous pollutants, and weather conditions. The data are integrated into the University's sustainability dashboard to support ongoing environmental monitoring.



FRIENDLY AND SAFE ENVIRONMENT

Security Support Facilities for a Safe Campus Environment


204
personel

137
certified

67
on progress

In 2025, IPB University employs **204 security personnel** who operate in rotating shifts to ensure continuous **24-hour coverage and maintain safety and order across the campus**. Their responsibilities extend beyond routine surveillance, including the monitoring and control of traffic violations, such as the use of helmets and compliance with vehicle standards, as well as efforts to minimize disturbances caused by excessive noise.

In addition, security personnel actively enforce institutional regulations, including the campus curfew policy stipulated in **IPB Rector's Regulation No. 3 of 2025**. Through these coordinated measures, the university fosters a safe, orderly, and conducive environment that supports academic activities and enhances the overall well-being of the campus community.



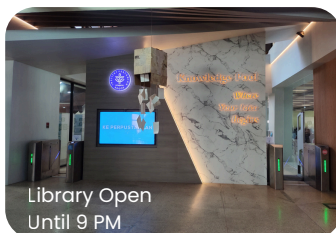
The Integrity Zone

The Integrity Zone reflects IPB University's commitment to strengthening transparent, accountable, and ethical governance through the implementation of integrity-based policies, digitalized public services, and active stakeholder engagement, as stipulated in **IPB University Rector's Regulation No. 3 of 2025**. This initiative is further supported by the provision of a structured and accessible whistleblowing system, enabling the reporting and proper handling of potential violations within the university environment.



HARMONY AND COMFORTABLE ENVIRONMENT

IPB University provides a well-equipped central library designed to support academic excellence and personal development. To accommodate diverse study schedules and enhance accessibility, **the library** extends its **opening hours until 9 PM** from Monday until Saturday. IPB University has introduced the **Collaboration Room** at its Library as a modern, dynamic with smart classroom type.



> **853**
Library visitors per day



IPB University operates two library buildings that provide a range of learning spaces, including reading areas, discussion rooms, private study rooms, and well-organized collection zones to support academic activities. **These facilities are designed to encourage efficient and resource-conscious use of space.** Additionally, Library Building A features an adjacent café, creating an integrated and convenient environment for users while supporting a more sustainable campus through multifunctional infrastructure and improved accessibility.



30+ Garden

To complement its learning facilities, IPB University provides numerous thematic gardens across the campus to support a comfortable study environment and promote the well-being of its academic community.



Smart Classroom originally planned for 2024, was implemented in 2025 as a strategic step to integrate artificial intelligence (AI) technology into the learning system. This initiative is expected to improve the quality of learning by making it more adaptive and data-driven.



- 26 sets of equipment at CCR (Common Classroom) for teaching first year program
- 1 sets of equipment at Faculty of Medicine and Vocational School
- 1 set of equipment at Smart Collaboration Room at IPB Library



Training was also provided for all PPKU teaching staff to maximize the use of smart classroom equipment. In addition, a user guide for the smart classroom equipment is available to support teaching and learning activities.

To promote healthy living and well-being, **IPB University provides sports facilities**, ranging from a stadium to a mini soccer field, which will be completed in 2025. The provision of these facilities is accompanied by regular maintenance to ensure they remain in good condition for comfortable use.



Indoor Sport Center



Outdoor Sport Center



Mini Soccer Field

CONTINUOUS EDUCATION, RESEARCH, AND COMMUNITY SERVICES

IPB University is committed to advancing sustainability through **continuous education**, **impactful research**, and **community service** initiatives that align with the Sustainable Development Goals (SDGs).

Education

All (100%) study programmes at IPB University have been mapped to relevant Sustainable Development Goals (SDGs).



100%
study programs
relevant to SDGs



72.4% courses
related to SDG

At the course level, the strongest alignment is with SDG 4 (Quality Education), followed by SDG 15 (Life on Land) and SDG 17 (Partnerships for the Goals), reflecting systematic integration of sustainability across education.



> 90%
courses
related to
SDG 4
SDG 15
SDG 17

SUSTAINABILITY HABIT

According to the IPB SuV Roadmap, 2025 marks the phase of fostering a **sustainable lifestyle to establish sustainable habits**. Several initiatives are being implemented to encourage the campus community to adopt sustainable values.



JAPAS 2025



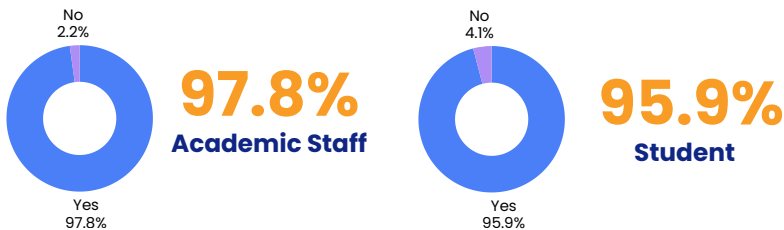
IPB Run 2025

Sustainability literacy surveys

Sustainability literacy surveys are essential for assessing the awareness and understanding of sustainability issues among **students and academic staff**. The results provide insights to evaluate existing initiatives and guide the development of more effective education and engagement programs, supporting the integration of sustainability into campus practices.

1. Sustainability Literacy

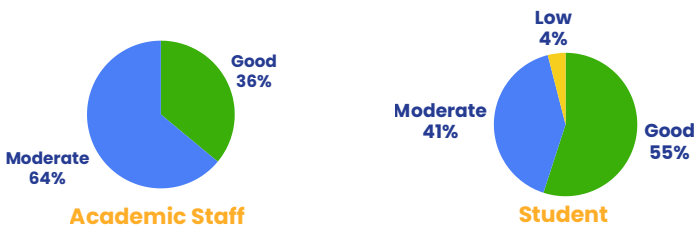
Measures respondents' knowledge of sustainability concepts and issues.



Both students and academic staffs understand the concept and issue of sustainability

2. Sustainability Behavior

Reflects respondents' **daily behaviors** in applying sustainability practices



3. Sustainability Awareness dan Perception

Indicates respondents' **awareness, perceptions, and attitudes** toward sustainability and its implementation on campus.

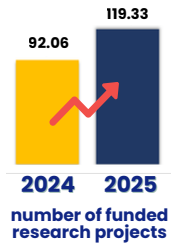


Both students and academic staffs demonstrate a well-informed perspective and strong awareness of sustainability issues

Research



In 2025, IPB received the 2025 DiktiSaintek Science and Technology Award, specifically the Silver Award in the category of **the most productive public university in the fields of science, technology, engineering, and mathematics (STEM)**. This was evidenced by 2025 research data, which showed a **29.63% increase** compared to the previous year.

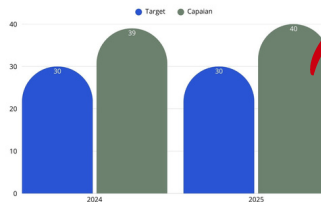


Scopus-indexed publications

2,343



ELSEVIER
Scopus



40

Book titles that received funding

IPB's Leading Innovations 2025



AQIMoS Air Quality Monitoring System

An innovation designed to speed up and simplify real-time **monitoring of the Air Pollutant Standard Index (ISPU)**. It is capable of reducing reporting time from 24 hours to just 1.6 minutes. QIMOS is equipped with various sensors to measure airborne particles smaller than 2.5 microns (PM2.5) and 10 microns (PM10), as well as various air pollutants

AWS Community

An innovation designed to speed up and simplify real-time **monitoring of the Air Pollutant Standard Index (ISPU)**. It is capable of reducing reporting time from 24 hours to just 1.6 minutes. QIMOS is equipped with various sensors to measure airborne particles smaller than 2.5 microns (PM2.5) and 10 microns (PM10), as well as various air pollutants



1,675
accumulation of
partner villages

6,524
students
involved

902
lecturers
involved

69,783
affected
communities

Community Services

As part of its commitment to inclusive and sustainable development, IPB University continues to strengthen its community service efforts by implementing programs that are aligned with the SDGs and directly address local needs.

In 2025 IPB University implemented various community service programs, including KKN-Tematik, Dosen Pulang Kampung Program, Sekolah Keluarga Berkualitas, and The Patriot Expedition Program.

The Patriot Expedition Program

This Program is an initiative organized by the Ministry of Transmigration of the Republic of Indonesia. The Teams are tasked with conducting strategic assessments in transmigration areas to identify social, cultural, economic, environmental, institutional, and infrastructure potential, as well as investment opportunities.



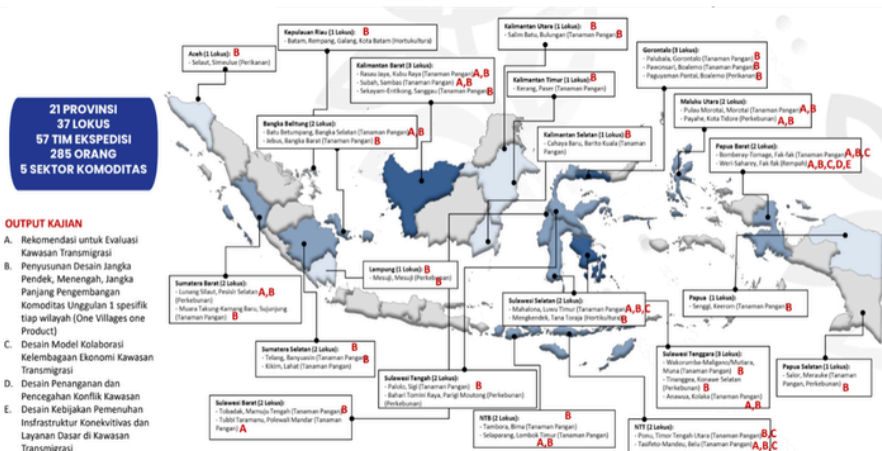
In addition, the team develops research-based policy recommendations, provides guidance, and promotes the improvement of human resources in transmigration areas

57
Teams

228
Members

57
Lecturers/
Educational Staffs

21
Provinces



Programs

Padi IPB untuk Negeri:

IPB University's Contribution to Food Security



IPB University had **Padi IPB untuk Negeri** as a strategic initiative to strengthen Indonesia's food system through research, innovation, and technology transfer. The program connects university research with on-the-ground agricultural practice by promoting superior rice varieties such as **IPB 3S, IPB 9G, and IPB 15S**, which offer high productivity, more efficient use of water and fertilizer, and stronger resilience to climate variability and pest pressure.

15
Superior Varieties
(IPB 1R, IPB 2R, IPB 3S, IPB 4S, IPB 5R-7R, IPB 8G-9G, IPB 11S-15S)

Production Cost
Decreased to
25%

GHG Emission
Reduction
408 ton
per planting season
(equivalent to reducing
emissions from 4,026
motorcycles)

Implemented across **33 provinces**, the program has provided practical solutions to major challenges in Indonesia's rice sector. Improved varieties such as IPB 3S and IPB 9G have **increased yields by around 15-32%** compared with conventional varieties, while climate-smart technologies including *Automatic Weather Stations* (AWS), AI, IoT, drones, and precision fertilization **help farmers make more informed decisions and reduce production risks**.

Beyond production, Padi IPB untuk Negeri also **strengthens farmer capacity** through Farmer Field Schools, Innovation Villages, and the IPB Digitani application, while supporting downstream development through partnerships that expand market access. Its contribution was further recognized nationally when the program **received the Second Best award at the Indonesia's SDGs Action Awards 2025**, reflecting its role in advancing food security, agricultural innovation, and sustainable rural development.



Programs

Agromaritime Sociopreneur Academy: *Strengthening Youth Entrepreneurship for Sustainable Agromaritime Development*

IPB University strengthened **youth entrepreneurship in the agromaritime sector** through the Agromaritime Sociopreneur Academy (ASA) 2025, a structured capacity-building initiative led by the Directorate of Agromaritime Community Development. The program is **designed to equip students with entrepreneurial and sociopreneurial capabilities** through practical business learning, innovation, and field-based experience that generate both economic and social value.

In 2025, ASA recorded **409 applicants** and offered **six thematic tracks**: CEO School, Young Agripreneur Camp, Drone Mapping School, Quality Youth School, Coffee Commodity School, and the newly introduced Avocado School. Through the Avocado School, participants received agribusiness-oriented training and were connected to a business ecosystem developed by IPB University and its **strategic partners across 2,000 hectares of land**, including opportunities to engage in **harvesting activities on around 300 hectares**.



4 QUALITY EDUCATION
Building students' entrepreneurial skills through structured training, practical learning, and field-based capacity development



2 ZERO HUNGER
Supporting agricultural productivity and farmers' welfare by preparing young sociopreneurs to strengthen agromaritime value chains



8 CREATING YOUTH EMPLOYMENT DAN PELUANG BISNIS EKONOMI
Creating youth employment and business opportunities through entrepreneurship training, and market access



9 INDUSTRY INNOVATION AND INFRASTRUCTURE
Promoting innovation in agriculture through applied business models, drone mapping and value-chain-based agribusiness programs

The program has also contributed to **measurable entrepreneurial outcomes**. IPB University students successfully exported sweet potatoes to Singapore and Malaysia, with **demand reaching up to 20 tons per month**. Through ASA, IPB University continues to **foster a new generation of young sociopreneurs** who are commercially capable, socially responsible, and committed to improving farmers' welfare and strengthening sustainable agromaritime development.

Programs

Gunung Walat University Forest:

Advancing Education, Conservation, and Climate Action

The Gunung Walat University Forest (GWUF) is a **359-hectare state forest area** in Sukabumi, West Java, managed by the Faculty of Forestry and Environment of IPB University. It serves as a living laboratory for forestry education and research while also **demonstrating sustainable forest management in practice**. Originally dominated by grassland, the area has gradually been restored since the 1950s and now has **forest cover of around 95 percent**, allowing it to function as an important life-supporting ecosystem.



IPB University has also strengthened the role of GWUF in climate action through the implementation of a **Voluntary Carbon Trading scheme since 2009**. Through partnerships with PT Tanabe Japan, PT Toso Company, PT NYK Group, and PT ConocoPhillips Indonesia, the program **supports forest planting and maintenance** while documenting annual carbon sequestration as a form of **verified environmental compensation**.



Beyond managing the forest itself, IPB University actively uses GWUF to **generate academic, environmental, and social value**. The university integrates the forest into field practicum, research, training, and international learning programs, while also **involving local communities** in restoration, forest maintenance, biodiversity monitoring, and ecotourism-based activities.



Conserving and restoring forest ecosystems through sustainable management and biodiversity protection



Supporting climate action through forest restoration, carbon sequestration, and low-emission land management



Providing hands-on forestry education, research, and experiential learning through the Gunung Walat University Forest as a living laboratory

Programs

Automatic Weather Station for Smarter Farming

IPB University has developed the AWS (Automatic Weather Station) as a **practical response to climate uncertainty in agriculture**. Using IoT-based sensors, each station records key weather parameters automatically every five minutes, with data stored in the cloud and made available online for farmers and other users. **The system helps farmers make more informed decisions** on planting, fertilization, pest control, and harvesting **based on local weather conditions**. This community-based approach makes the technology more accessible and relevant to local needs. It also helps connect scientific data with day-to-day farming practices.

Launched through a participatory approach, the **initiative had installed 82 units across 11 provinces**, located in farmer group areas, agricultural extension offices, universities, and pesantren. By September 2025, the innovation had **been applied in 100 areas** across Java, Sumatra, and Bali, including **support for precision aquaculture** in Pekalongan. This wide deployment demonstrates the initiative's scalability across diverse agricultural and institutional contexts. It also reflects the importance of collaboration between the university, local communities, and partner institutions in advancing climate-resilient agriculture.



9 INDUSTRY, INNOVATION
AND INFRASTRUCTURE



Promoting agricultural innovation through IoT weather stations and data-driven farming

13 CLIMATE
ACTION



Strengthening agricultural climate resilience through community-based monitoring and early warning systems

17 PARTNERSHIPS
FOR THE GOALS



Expanding climate-smart agriculture through partnerships with farmers, extension services, and local communities

Beyond weather monitoring, AWS Community also **strengthens farmer resilience** through training and Farmer Field Schools. It also serves as a practical learning platform where weather data are used as teaching material to help farmers interpret meteorological information and adjust farming practices more effectively. Its data are used to **build location-specific forecasting models**, including for rice pests and diseases, and have supported **responses to the 2025 shallot disease** outbreak in Demak as well as **early warnings for brown planthopper attacks** in Java.

Programs

Solar-Powered Refrigeration for Sustainable Small-Scale Fisheries



As part of its **commitment to an inclusive and low-carbon blue economy**, IPB University has developed the Solar-Powered Refrigerated Hold (Palka Pendingin Tenaga Surya/PPTS), a **solar-based cooling innovation** for small-scale fishing vessels designed to **keep catches fresh without relying on block ice or fossil fuels**. The innovation was developed to address the high cost and inefficiency of ice-dependent fish storage, especially for fishers operating in remote coastal areas.

The technology uses solar panels with a **capacity of 1–5 kWp**, LiFePO₄ batteries, a smart control system, and a 300-liter freezer capable of maintaining temperatures below 4°C for 24 hours. It has been tested on fishing vessels in Palabuhanratu, Cirebon, and Brebes, where it **demonstrated stable performance**. The system is also integrated with IoT to monitor cold-storage temperature, vessel position, and battery condition in real time. Trials on three small-scale fishing vessels showed that the system operated reliably over one month of voyages while maintaining ideal fish storage conditions. Early implementation has **shown tangible economic benefits**, including a **reduction in fishers' operating costs by up to 30%** and an **increase in fish selling prices by 10–15%**. At the same time, the system has strengthened cold-chain quality, **improved the efficiency of capture fisheries**, and supported the welfare of coastal communities.

7 AFFORDABLE AND CLEAN ENERGY



Advancing clean energy in coastal livelihoods through solar-powered refrigeration systems that reduce fossil fuel dependence

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



Promoting innovation in small-scale fisheries through solar-powered cold-chain technology to improve efficiency and product quality

14 LIFE BELOW WATER



Improving post-harvest handling, reducing fish loss, and strengthening small-scale coastal livelihoods

Following pilot testing in West Java, IPB University expanded its **collaboration with the Ministry of Marine Affairs and Fisheries**, UNDP, and industry partners for further implementation in Tanimbar and Morotai, in line with the SeaBLUE Palka Pendingin Project, which **targets 300 fishing vessels** and has begun **installations in several coastal villages**. This initiative highlights IPB University's role in delivering innovation that is not only **environmentally friendly**, but also **empowers small-scale fishers** through access to more efficient, resilient, and sustainable technology.

Programs

Supporting Employee Welfare through Family Education

As part of its **commitment to building a harmonious and comfortable environment**, IPB University continues to **strengthen employee welfare** through **educational support for the families** of lecturers and education staff. In 2025, IPB University launched the IPB Talent Scholarship (Beasiswa Talenta IPB/BTI) for the children of employees who are pursuing their studies at IPB University. This initiative expands the Tuition Fee Assistance program (Bantuan Biaya Pendidikan/BBP), which has **supported employees' children at school level** since 2023.

Tuition Fee Assistance 2025

Education Level	Amount Paid
Primary School	IDR 247,000,000
Junior High School	IDR 156,750,000
Senior High School	IDR 166,000,000
Grand Total	IDR 569,750,000

The program is designed to **help ease the financial burden of education**, expand **access to higher education for employees' families**, and affirm that a supportive working environment is built not only through institutional facilities, but also through **attention to long-term family well-being**. Through this approach, IPB University fosters a campus ecosystem that is more caring, inclusive, and comfortable, where human resource development goes hand in hand with improving the quality of life of the broader university community. In the odd semester of the 2025/2026 academic year, **BTI disbursed a total of IDR 635,525,000 to 244 employees' children**, including those of **99 faculty members** and **145 education staff**.

IPB Talent Scholarship 2025

Tuition Fee	Scholarship Coverage
IDR 1,000,000	100%
IDR 1,000,000 - 2,500,000	75%
IDR 2,500,000 - 5,000,000	60%
IDR 5,000,000 - 8,000,000	40%
above IDR 8,000,000	25%



4 QUALITY EDUCATION
Expanding access to higher education through scholarships for the children of lecturers and education staff



8 DECENT WORK AND ECONOMIC GROWTH
Promoting decent work and employee well-being by supporting staff families' educational needs

Programs

From Local Communities to Global Markets



IPB University remains **committed to advancing agriculture** in ways that create meaningful benefits for communities, ranging from strengthening technical capacity and local skills to **expanding access to broader markets**. In 2025, in collaboration with Astra, the university **supported the export of community-grown** sweet potatoes and coffee to Malaysia, Singapore, and Algeria.

In Bogor, IPB University and Astra have **developed a sweet potato business ecosystem** across more than **13 villages**, enabling local communities to access technology, financing, and export markets. By the first half of 2025, this ecosystem had **exported more than 65 tons of sweet potatoes**. The initiative also generated clear socio-economic benefits: **90% of farmers' harvest was absorbed by the market**, around half entered export channels, **160 jobs were created**, and **farmers' income reportedly increased by up to 100%**.



IPB University has also **accompanied the community in Cibulao since 2014** through sustained field assistance. Over time, this support has enabled residents to transition into conservation coffee farming, expand **cultivated land from 2 hectares to more than 120 hectares**, and diversify local livelihoods. It has also helped **open access to international buyers**, including in Algeria, demonstrating how long-term community engagement can strengthen both rural resilience and economic opportunity.

1 NO POVERTY

Reducing rural poverty by increasing farmers' income, creating local jobs, and expanding access to higher-value markets

15 LIFE ON LAND

Promoting sustainable land use and conservation-based farming through long-term support for community-led coffee cultivation

8 DECENT WORK AND ECONOMIC GROWTH

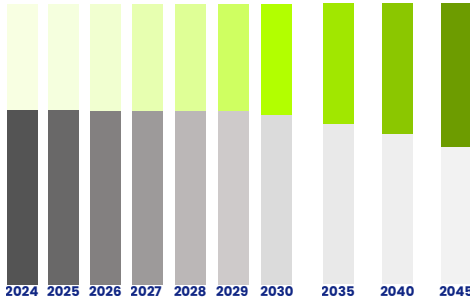
Reducing rural poverty by increasing farmers' income, creating local jobs, and expanding access to higher-value markets

17 PARTNERSHIPS FOR THE GOALS

Building partnerships among universities, communities, and industry to expand the impact of agricultural development.

Action Plans

Carbon Neutrality Roadmap



Since 2024, IPB University has been developing a roadmap to achieve carbon neutrality by 2045. This roadmap updates and reinforces the University's commitment to carbon neutrality, while providing a long-term framework for phased emissions reduction and sustainable campus transformation.

Energy Audit



As part of its commitment to strengthening environmental governance on campus, IPB University plans to energy efficiency measures include replacing standard light bulbs with LED bulbs and standard air conditioners with inverter-type air conditioners. These replacements have already begun, but periodic audits and monitoring are needed to track their quantity and status in each campus building.

Energy management includes scheduling power outages, having staff monitor lights and air conditioning after each activity ends, and establishing student and staff initiatives to promote energy efficiency.



Transportation Audit



Number of transportations

As part of its campus carbon reduction efforts, IPB University also plans to conduct a transportation audit. This initiative involves counting the number of vehicles entering each gate and assessing parking capacity in designated areas.



Mapping Campus Bus Stops

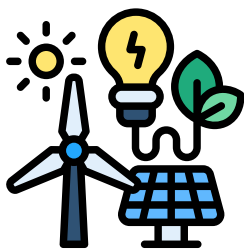
This data will be used to develop policies aimed at reducing private vehicle use and centralizing parking areas for individual vehicles. Additionally, a map of campus bus stops will be created to maximize the use of campus buses.

Waste Management

To promote the 3R culture (reduce, reuse, and recycle), efforts are being made to encourage campus community members to adopt these habits. These efforts include bringing reusable water bottles and utensils, using reusable bags, and reducing paper consumption by transitioning to digital systems for academic and administrative activities. Additionally, students are reminded to sort their waste according to the designated recycling bins.



Integrated of Energy Monitoring



The integration of an energy monitoring system is essential to optimize the management of renewable energy infrastructure on campus. Currently, a number of solar panels have not yet been registered within the system, resulting in unmonitored energy generation. By incorporating these assets into a centralized monitoring platform, the university can improve data accuracy, enhance operational efficiency, and facilitate more effective maintenance of the equipment.

Biodiversity Database

Regular biodiversity surveys on the IPB campus are essential for assessing the diversity and current status of species within the university environment. These surveys provide important data to support evidence-based management and conservation efforts. In addition, forest vegetation assessments are conducted to generate reliable data for carbon stock estimation, contributing to the university's broader sustainability and climate-related initiatives.



ICT-Enabled Sustainable Website Development

ICT-Enabled Sustainable Website Development refers to the development of a digital platform that utilizes ICT to support and enhance campus sustainability initiatives. It enables efficient data management, improved transparency, and centralized access to key sustainability indicators such as energy, waste, water, and carbon. Additionally, it supports informed decision-making, contributing to a more efficient and sustainable campus environment.





IPB University

— Bogor Indonesia —

SUSTAINABILITY REPORT 2025



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