

Penyelenggara:



ISIF 2023

INDONESIA SOCIAL INVESTMENT FORUM

AKSELERASI PENCAPAIAN SDGs PASCA-COVID-19

Partner:



NUTRICIA



PT KALTIM PRIMA COAL



BREAKOUT 1 - ORCHID ROOM

PENCAPAIAN KINERJA PEMBANGUNAN LINGKUNGAN 2015-2022

Narasumber:

**Prof. Dr. Ir. Damayanti Buchori, M.Sc.
IPB University**

The Westin Resort Nusa Dua, Bali

13 Desember 2023

PERAN PERGURUAN TINGGI DALAM PENCAPAIAN KINERJA PEMBANGUNAN LINGKUNGAN 2015-2022



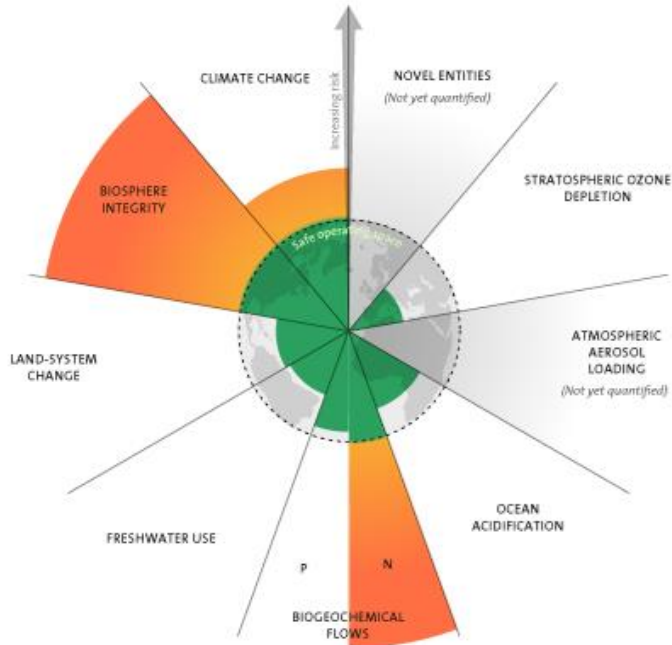
Prof Damayanti Buchori, MSc PhD
Center For Transdisciplinary and Sustainability Sciences, IPB University

ISIF, Bali 13-14 Desember 2023

PLANETARY HEALTH

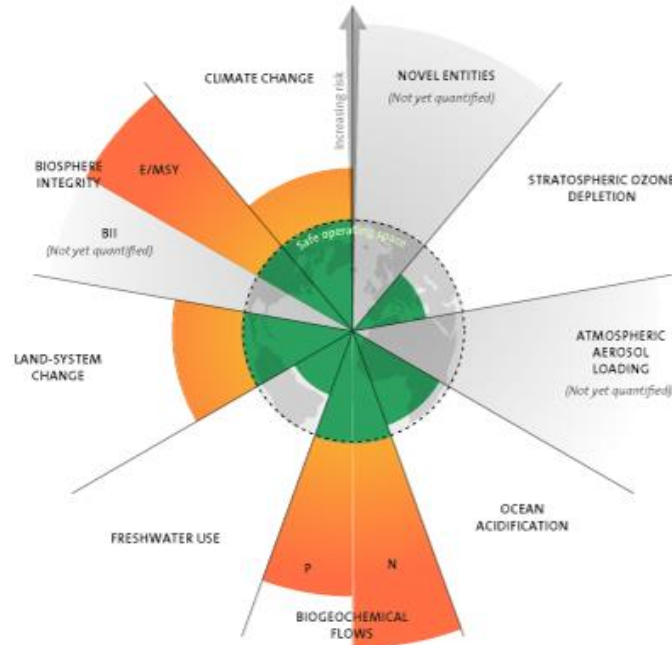
Nine processes that regulate the stability and resilience of the Earth system.

2009



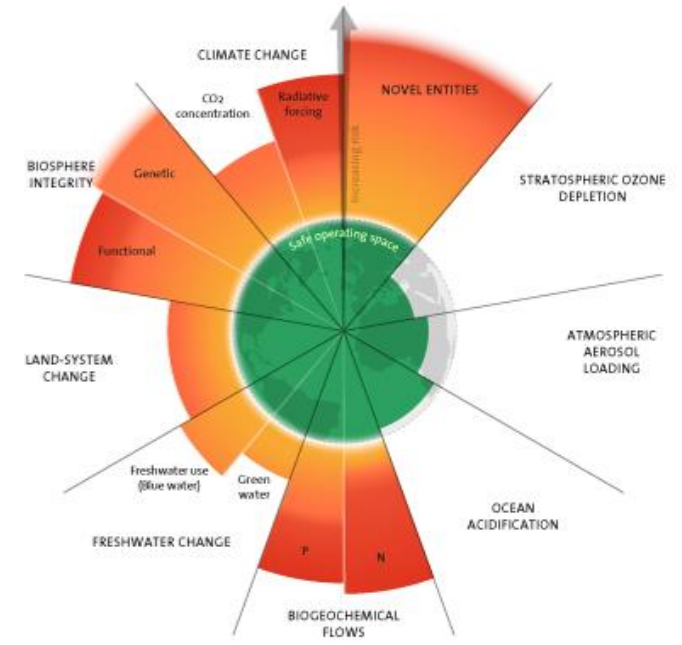
3 boundaries crossed

2015



4 boundaries crossed

2023

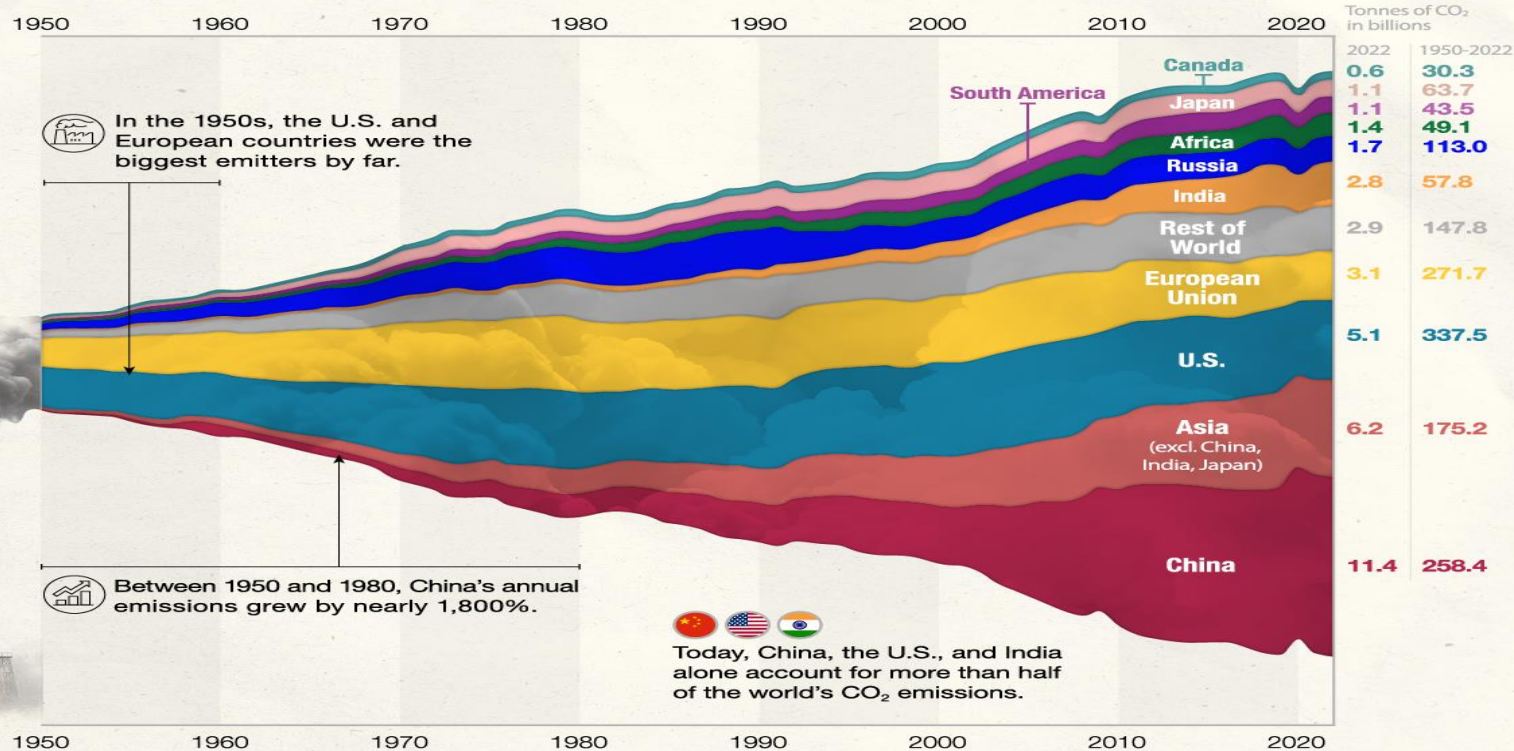


6 boundaries crossed

CO₂ Emissions Through Time

1950-2022

Global CO₂ emissions have grown six-fold since 1950.
Here's how each world region has contributed to this growth.



Here's the full list of per capita emissions by country, ranked from highest to lowest.

Search:

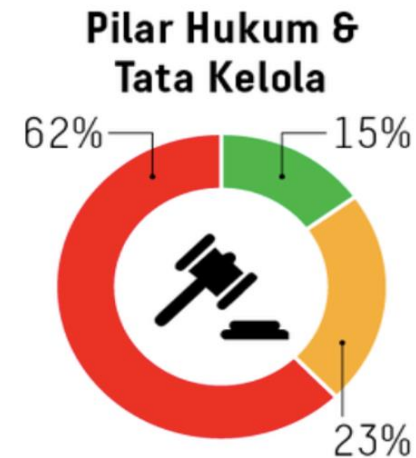
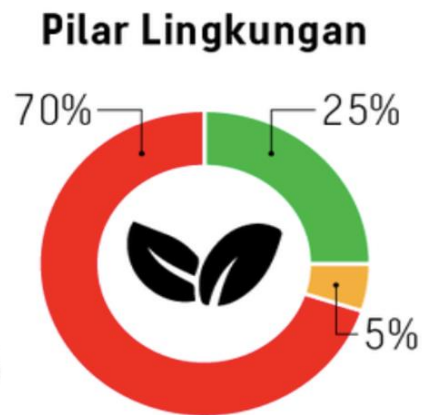
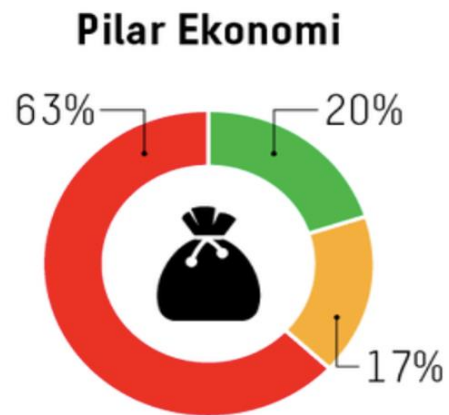
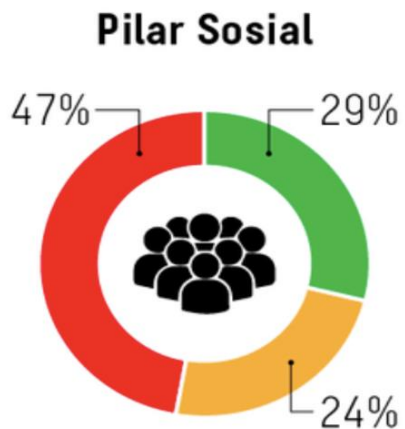
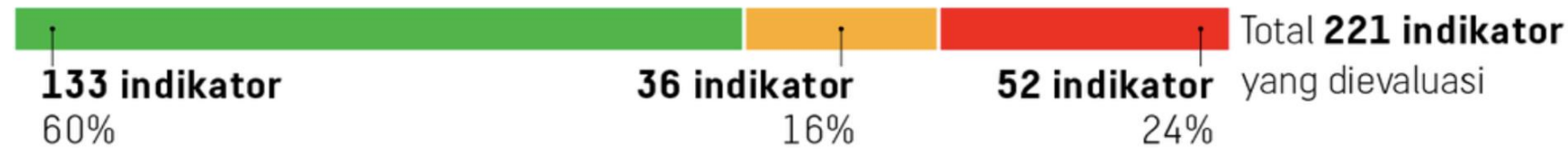
Rank	Country/Territory	CO ₂ per capita (t)
1	Qatar	35.6
2	Bahrain	26.7
3	Kuwait	25.0
4	Trinidad & Tobago	23.7
5	Brunei	23.5
6	UAE	21.8
7	New Caledonia	19.1
8	Saudi Arabia	18.7
9	Oman	17.9
10	Australia	15.1

Source: <https://www.visualcapitalist.com/ranked-per-capita-carbon-emissions-by-country/>
Indonesia: 2.3 tonnes CO₂/capita (2021)

I. TANTANGAN PEMBANGUNAN LINGKUNGAN DI INDONESIA

Pencapaian Target Sustainable Development Goals (SDGs) Indonesia pada Tahun 2023

■ Tercapai ■ Membaik/akan tercapai ■ Perlu perhatian khusus



- Air bersih dan sanitasi layak,
- Kota dan pemukiman layak
- Konsumsi dan produksi yang bertanggung jawab,
- Penanganan Perubahan iklim,
- Ekosistem laut,
- Ekosistem darat.

Source: Bappenas, 2023



Tantangan Pembangunan: SDA

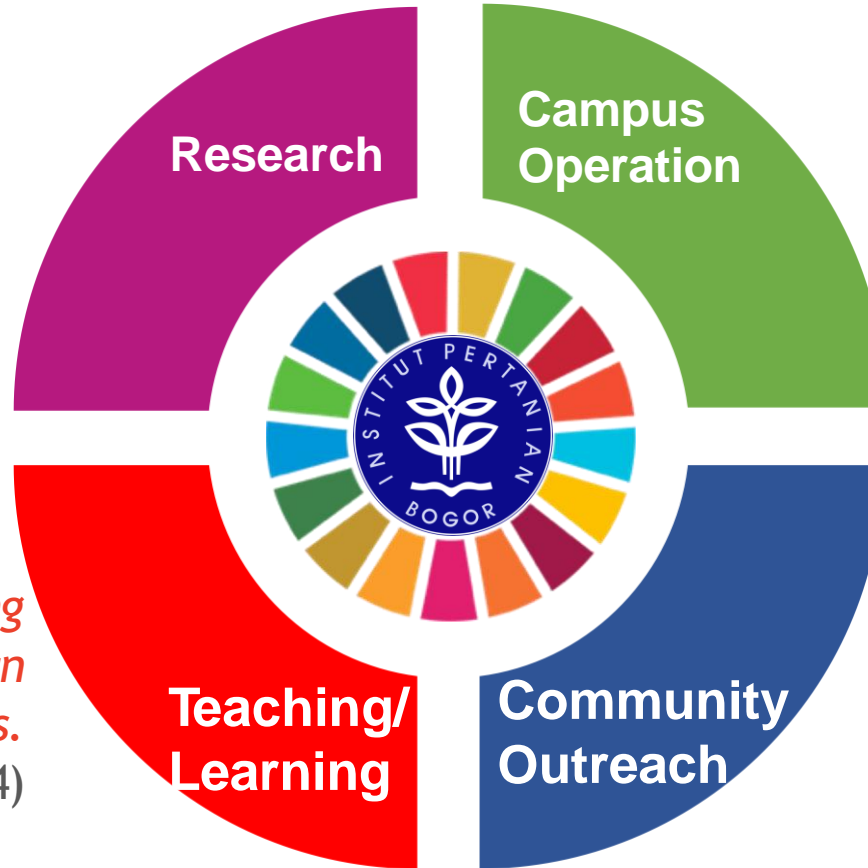
- Land Use Change: land conversion, exploitation, deforestation and degradation
- Transisi energi
- Memahami karakteristik Kepulauan (archipelagic state)
- Sains & Teknologi: Pengembangan teknologi hijau
- Regulasi yang kondusif untuk menghasilkan teknologi hijau dan implementasi teknologi hijau

II. UPAYA YANG TELAH DILAKUKAN IPB:

4 Aspek Kegiatan SDGs di Perguruan Tinggi

Semua aktivitas yang berkaitan dengan riset/penelitian bisa disertai proses pengembangannya hingga menjadi sebuah inovasi.
Contoh: Inovasi IPB3S (#1)

Aktivitas pembelajaran yang bertujuan untuk meningkatkan keterampilan dan kompetensi SDGs.
Contoh: K-2020 (#4), Edelweis (#4)



Aktivitas yang berhubungan dengan kegiatan operasional kampus & stewardship, misalnya dalam penghematan energi, pengelolaan sampah, dll. Contoh: Green Campus, Kampus Biodiversitas, Kampus Ramah Difabel

Aktivitas terkait pengabdian maupun pemberdayaan kepada komunitas baik didalam maupun luar kampus IPB. Contoh: Mahasiswa & Dosen Mengabdi

Partnership: Aktivitas kerjasama yang dilakukan dengan Pemerintah (Government), lembaga profit atau perusahaan swasta (Private), Lembaga swadaya masyarakat (NGO), ataupun konsorsium riset (Consortium).



VISI 2045

Menjadi Techno-Socio-Entrepreneurial University yang terdepan dalam memperkokoh martabat bangsa melalui pendidikan tinggi unggul pada tingkat global di bidang **pertanian, kelautan, dan biosains tropika**.



POLICY

Peraturan Senat Akademik No.36/IT3.SA/P/2020 tentang **Norma dan Kebijakan Pencapaian Tujuan Pembangunan Berkelanjutan**
Peraturan Rektor No.133/IT3/LK/2020 tentang **Komitmen dalam Pencapaian TPB**
Peraturan Rektor No. 298/IT3/LK/2020 tentang **Komitmen Netral Karbon 2030**

FRAMEWORK

Agro Maritim 5.0 (Inovasi 4.0 & SDGs)

IMPLEMENTASI



PENGGERAK

MAHASISWA

DOSEN

PENELITI

PEGAWAI

MITRA

MEDIA

Ragam Kebijakan SDGs di Kampus IPB

- Kebijakan Penerimaan Mahasiswa Barudari Keluarga Miskin
- Kebijakan Dukungan Universitas untuk Mahasiswa Tidak Mampu (beasiswa, bantuan pangan, perumahan, transportasi, Kesehatan, dll)
- Kebijakan pengurangan & *measurement of foodwaste*
- *Affordable, sustainable and healthy food*
- *Prioritise purchase of products from local, sustainable sources*
- Dukungan untuk petani dan akses ke fasilitas, laboratorium, inovasi dan teknologi di perguruan tinggi



<https://sustainability.ipb.ac.id/>



Website: sustainability.ipb.ac.id

☰
Sustainability

IPB University
Bogor Indonesia

Preface

In today's world, the development of higher education institution (HEI) is facing more complex problems associated with uncertainties that require new solutions. Based on CCAP (2017), there are practically seven biggest problems the nation faces with respect to its universities' development, including the huge increase in the cost of universities. On the other hand, universities are expected to contribute more actively in addressing nation's problems that require a new approach due to the complexity of the aforementioned problems. Sustaining our national development requires knowledge that is adaptive to the issues, particularly for IPB Tridharma activities, such as sustainability issues on agriculture, renewable energy and other land and marine based sector development. Gaps in the implementation are identified due to non-comprehensive approaches leading to the failure of the target achievement. In order to tackle those obstacles and enhance Tridharma quality and its impacts.

Vision

To become a research-based university and leading in innovation for national independence towards a techno-social entrepreneurial university that excels at the global level in agriculture, marine, tropical biosciences.

SDGs



Sustainability Reports



Sustainability Report IPB



Report by Faculties and Research Center



Report by SDGs

Our Programs



Green Campus Operations

We are committed to strive for sustainability through inspiring innovations with integrity

<p>46</p> <p>Total area in campus covered with forests (%)</p>	<p>74</p> <p>Total area in campus covered with forests (%)</p>	<p>83</p> <p>Total area in campus intended for water absorption beside forests and planted vegetations (%)</p>	<p>26.50</p> <p>Total area in campus intended for water absorption beside forests and planted vegetations (%)</p>
<p>4</p> <p>Number of renewable energy sources in campus</p>	<p>80.45</p> <p>The total carbon footprints divided by total campus population (metric ton per person)</p>	<p>35</p> <p>Number of electric cars</p>	<p>690</p> <p>Number of bicycles in campus</p>
<p>725</p> <p>Average number of zero emission vehicles</p>	<p>2</p> <p>The ratio of Zero Emission Vehicles (ZEV) divided by total campus population (%)</p>	<p>7427</p> <p>Total parking area (m2)</p>	<p>5</p> <p>Transportation initiatives to decrease private vehicles in campus</p>
<p>11</p> <p>Solar power provides capacity in KVA</p>	<p>11</p> <p>Green buses: 6 Biofuel- and 5 Gas-Based</p>		





IPB Food Bank

Program Makanan/Minuman Gratis untuk Mahasiswa Aktif Multistrata IPB yang membutuhkan.

Waktu Pelaksanaan :
HARI JUM'AT
09 SEPTEMBER 2022
PUKUL 13.00 - 14.00 WIB
 di Direktorat Kemahasiswaan dan Pengembangan Karir
 Gd. Rektorat Lantai 1

Jangan Lupa Bawa KTM
Tidak Bisa Diwakilkan ya 😊

"Hari ini Saya yang menerima, besok nanti Saya yang akan memberi"
#FoodBankIPB #ZeroWaste
#ReceiveAndGive #AksiSolidaritas



Informasi Lebih Lanjut :
Herry Wahyu (0857-7775-4472)
Sugesti (0812-2527-9559)

SDGs POLICY IN CAMPUS



Research on SDGs



EcoSystem Ver. 2.0: Sistem Pintar Deteksi Cepat Konversi Lahan

Sistem monitoring tutupan lahan:

- 1) Monitoring perubahan tutupan lahan;
- 2) Early Warning System untuk perubahan tutupan vegetasi per 8 hari
- 3) Memberikan data dan informasi deforestasi pada kawasan tersebut secara cepat.

Otomatisasi metode deteksi perubahan tutupan hutan skala nasional dilakukan pada tahun 2018-2020..

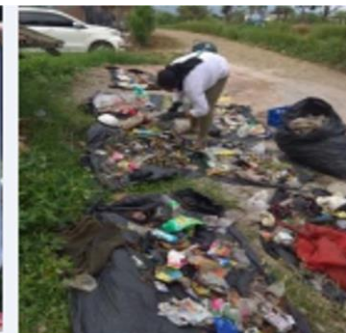


Rehabilitation Of Coral Reefs on Mandangin Island, Madura



Macroplastic in Citarum River

IPB University - Norwegian Institute for Water Research (NIVA)



Pertanian & Peternakan di Desa Sendangsari (soon)



THE University Ranking based on SDGs 2022

Sustainable Development Goals	Indonesia Ranking	World Ranking
SDG 1: No poverty	2	9
SDG 2: Zero hunger	2	10
SDG 3: Good health and well-being	9	401-600
SDG 4: Quality education	5	101-200
SDG 5: Gender equality	2	42
SDG 6: Clean water and sanitation	2	50
SDG 7: Affordable and clean energy	5	48
SDG 8: Decent work and economic growth	1	1
SDG 9: Industry, innovation, and infrastructure	5	101-200
SDG 10: Reduce inequalities	6	401-600
SDG 11: Sustainable cities and communities	3	101-200
SDG 12: Responsible consumption and production	1	65
SDG 13: Climate action	3	101-200
SDG 14: Life below water	1	20
SDG 15: Life on land	1	30
SDG 16: Peace, justice, and strong institution	3	101-200
SDG 17: Partnership for the goals	3	101-200

IPB University has earned a spot among the top 10 universities worldwide that support the accomplishment of the Sustainable Development Goals (SDGs). The ranking conducted by Times Higher Education (THE) places IPB's contribution in the ranks of the world's top 10 in three SDGs goals, namely SDG 8 (Decent work and Economic growth) which ranks 1st in the world, SDG-1 (no poverty) in the ninth rank of the world and SDG-2 (zero hunger) which ranks tenth in the world.

III. MENGAPA PERGURUAN TINGGI PENTING DALAM PENCAPAIAN KINERJA PEMBANGUNAN LINGKUNGAN

- Perguruan Tinggi: crucial pillar of the pursuit of SDG
- Provide knowledge, skills and mindsets for solution
- Melatih dan Menciptakan SDM untuk masa depan:
 - Memberikan Skills
 - Mengasah *Critical thinking*, daya analisis, sintesis dan problem solving
- Mengembangkan riset yang menghasilkan inovasi2 teknologi ramah lingkungan
- Integrasi SDG's kedalam Pendidikan (kuliah2), penelitian, dan pengabdian pada masyarakat.
- Influencing policies (from research to policies)
- Membantu diplomasi internasional (climate change, EUDR, carbon dst)

IV. BAGAIMANA PERGURUAN TINGGI DAPAT MENGAKSELERASI PENCAPAIAN KINERJA PEMBANGUNAN LINGKUNGAN DI INDONESIA

- Melakukan riset yang menghasilkan output yang langsung berdampak pada SDG
- Implementasi hasil riset untuk pengembangan masyarakat dan pemecahan masalah di lapang





ZSL
LET'S WORK
FOR WILDLIFE



IPB University
Bogor Indonesia



Project Impact: 3539
Ha/ 440,000 Ha of
land, (forest and
peatland) protected
or reduced risk from
fires in the landscape

**Social Forestry
Scheme**

Project Impact :
Supporting 2,400 of
85,000 people to
cope with effects of
climate change

Project Outcome: 2
of 8 sustainable
livelihoods
developed and
piloted

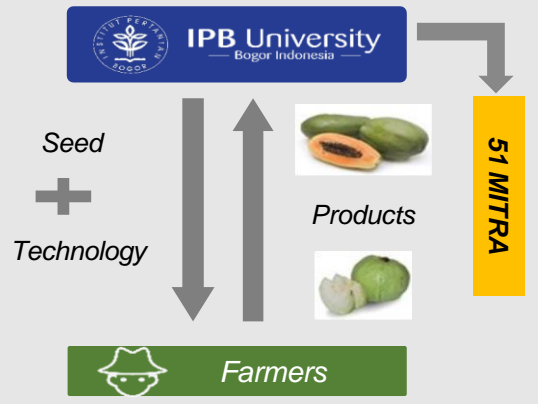
- Identification and Verification of land-use and Economic and Social land tenure issues.
- Zoning design: (i) Agroforestry zones (ii) Protected areas (deep peat) (iii) Community settlements (iv) Agrosilvo-pastoral zones
- Social Forestry proposal and workplan (RKU)
- Strengthening KTH : (i) institutional (ii) business (iii) conservation (iv) forest and land fire control and peatland management.

*Forest and land fire are
constant threats in
Lalan Mendis, Muba,
South Sumatra*

*Land clearing using
fire, conflict and
buying and selling
land, land rights of the
community*



Agribusiness & Technology Park (ATP)



Sasaran



SERTIFIKASI ORGANIK-INOVICE



SNI 6729:216
No.272/INOVICE/LSO-003-IDN/10/20

- DAMPAK**
- Petani Mitra**
100++ Petani Mitra
 - Luas Lahan**
65,01 Ha Non-organik
13,78 Ha Organik
 - Market**
51 Mitra Pasar

DIGITANI
INOVASI PERTANIAN DAN PEDESAAN



1.990 pengguna DigiTani
42 Dewan Pakar
1.173 petani



Padi IPB 3S



Sasaran



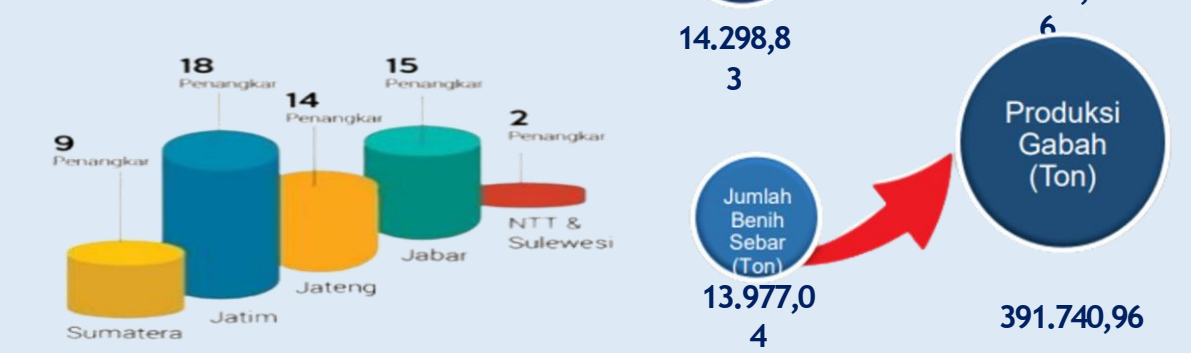
0,48 %
Berkontribusi terhadap Produksi Padi Nasional

Rata-rata hasil 7 ton/Ha	Potensi Hasil 11,2 ton/Ha	Tekstur Nasi Pulen	Jumlah Gabah 300 Butir/malai
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Nilai Penjualan Benih Komersial **Rp 1,14M**

Nilai Ekonomi Berbasis Gabah **Rp 1,76T**

Multiplier effect Inovasi Padi IPB 3S: Tersebar di 26 Provinsi



Kajian-kajian SDGs: Pengembangan Pengetahuan Baru



Center for Transdisciplinary and Sustainability Science (CTSS) IPB University menyelenggarakan Bimonthly Talk on Sustainable Development Goals (SDGs)

A promotional poster for a talk titled 'Sustainable Technologies for Environmental Management'. The background is dark blue with a pattern of white dots. At the top, there are logos for 'Direktorat Konektivitas Global' and 'Kampus Merdeka'. The title 'SUSTAINABLE TECHNOLOGIES FOR ENVIRONMENTAL MANAGEMENT' is written in large, white, bold letters. Below the title, it says '*Supported by World Class Professor 2023 Program'. There are three circular portraits of speakers: Prof. Masaru Mizoguchi, Dr. Ardiansyah, and Dr. Riani Muharromah. Below each portrait is their name and affiliation. At the bottom left, there is a portrait of the host, Dr. Chusnul Arif. At the bottom right, there is a 'REGISTER NOW' button and a link 'ipb.link/regis-ipbt97'. The date and time are also listed: 'Date 13 September, 2025' and 'Time 09:00 - 13:00'. The IPB University logo is in the top right corner.

ICO@APPS.IPB.AC.ID @ICO_IPB ICO.IPB.AC.ID

The IPB Talks on Complexity and Sustainability Sciences