

**ANNUAL REPORT  
SDGs REPORT  
IMPLEMENTATION OF CLIMATE ACTION PLAN 2023–2025**



**Center for Environmental and Sustainability  
Institute for Research and Community Service  
Universitas PGRI Semarang**

## **Executive Summary**

This document is compiled as both an annual report and an SDGs report to demonstrate the implementation of the Climate Action Plan of Universitas PGRI Semarang (UPGRIS) through research and community service agendas on the environment, sustainability, food security, energy, water, and community empowerment. This report is designed as a supporting document that can be linked to the institution's website, the LPPM website, or the UPGRIS sustainability page.

The implementation framework refers to the UPGRIS Climate Action Plan Institutional Strategic Plan 2023–2030, which defines five stages: Foundation & Mapping (2023–2025), Research & Collaboration (2026–2027), Innovation & Implementation (2028), Scaling & Policy Impact (2029), and Global Recognition (2030). During this reporting period, UPGRIS is in the phase of strengthening the baseline, mapping activities, and consolidating research clusters.

Research and community service data from the Indonesian Institute of Sciences (LPPM) shows that 111 research activities were identified in the environmental/sustainability-themed dataset, with total funding of approximately IDR 1.51 billion. On the community service side, there were 30 environmental-themed activities in 2024–2025, with total funding of approximately IDR 947.13 million. Overall, the analyzed data indicates total program support of approximately IDR 2.46 billion for activities relevant to climate action and the SDGs.

### **Document Basics and Data Sources**

- UPGRIS Climate Action Plan Institutional Strategic Plan 2023–2030 as the basis for policy direction, roadmap, strategic targets, and institutions.
- About LPPM UPGRIS as the basis for policies, strategies, research and community service objectives, and supporting data for LPPM performance.
- Environmental research data as a basis for summarizing internal research activities and grants from other sources
- LPPM Research Data on environmental themes as a basis for historical trends in environmental/sustainability themed research.
- Environmental research data as a basis for recapitulating internal community service activities and grants from other sources

## Key Indicators Overview

<b>Indicator</b>	<b>Number of Activities</b>	<b>Funding Support</b>	<b>Information</b>
Research 2025	111	Rp. 1.51 billion	Multidisciplinary research and strengthening publication/collaboration.
2024–2025 Community Service	30	Rp. 0.95 billion	Implementation of TTG, community empowerment, clean energy, zero waste, and sustainable villages/communities.
Total analyzed	141	Rp. 2.46 billion	Contribution to SDGs 6, 7, 11, 12, 13, 14, and 15.

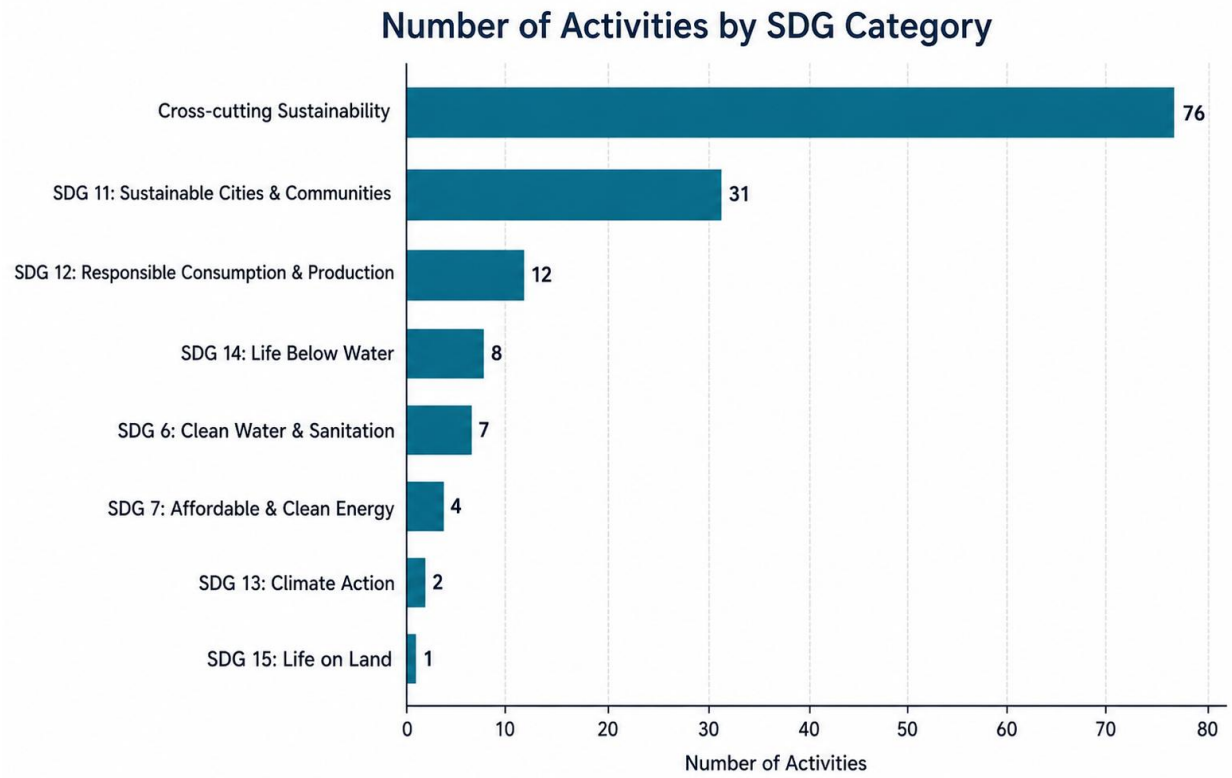
## **1. Context of Climate Action Plan Implementation**

The UPGRIS Climate Action Plan positions universities as key actors in climate change mitigation and adaptation through campus operations, education, research, community service, and sustainable governance. The strategic plan document emphasizes the need for UPGRIS to integrate sustainability into the Four Pillars of Higher Education (Catur Dharma Perguruan Tinggi) so that climate action extends beyond policy to academic activities and social impact.

In the 2023–2025 period, the focus of implementation will be on strengthening the foundation and mapping. This phase includes the development of sustainability baseline data, mapping research potential, and establishing environment-based research clusters. Therefore, this annual/SDGs report emphasizes research and community service activity data as early indicators of Climate Action Plan implementation.

### **1.1 Linkage to SDGs**

- SDG 6: water quality, sanitation, liquid waste management, biopores, and water resource conservation.
- SDG 7: utilization of clean energy, solar panels, energy efficiency, and supporting technologies.
- SDG 11: sustainable villages, resilient cities, local tourism, and resilient communities.
- SDG 12: zero waste, waste management, responsible production and consumption, and circular economy.
- SDG 13: climate action, green economy, environmental sustainability, and community-based adaptation.
- SDG 14 and SDG 15: fisheries, mangroves, biofloc, aquaponics, agriculture, and terrestrial ecosystems.



*Figure 1. Distribution of activities according to the SDGs/Climate Action theme based on the keyword classification of activity titles.*

## 2. Implementation through Environmental Themed Research

Research is a key instrument for building a scientific knowledge base, technological innovation, and evidence-based policy recommendations. The UPGRIS Research and Development Institute (LPPM UPGRIS) policy places Engineering, Science, and the Environment, as well as Food Security, among its leading areas, allowing environmental research data to be used as an indicator of the institution's contribution to the Climate Action Plan.

### 2.1 Research Performance

The research dataset shows 111 research titles with a total funding of approximately Rp 1.51 billion. These activities comprise internal research from UPGRIS and research from the DPPM/DRTPM, spread across faculties and study programs. This cross-unit distribution demonstrates that climate action is not confined to a single discipline but is beginning to become mainstream within a multidisciplinary research agenda.

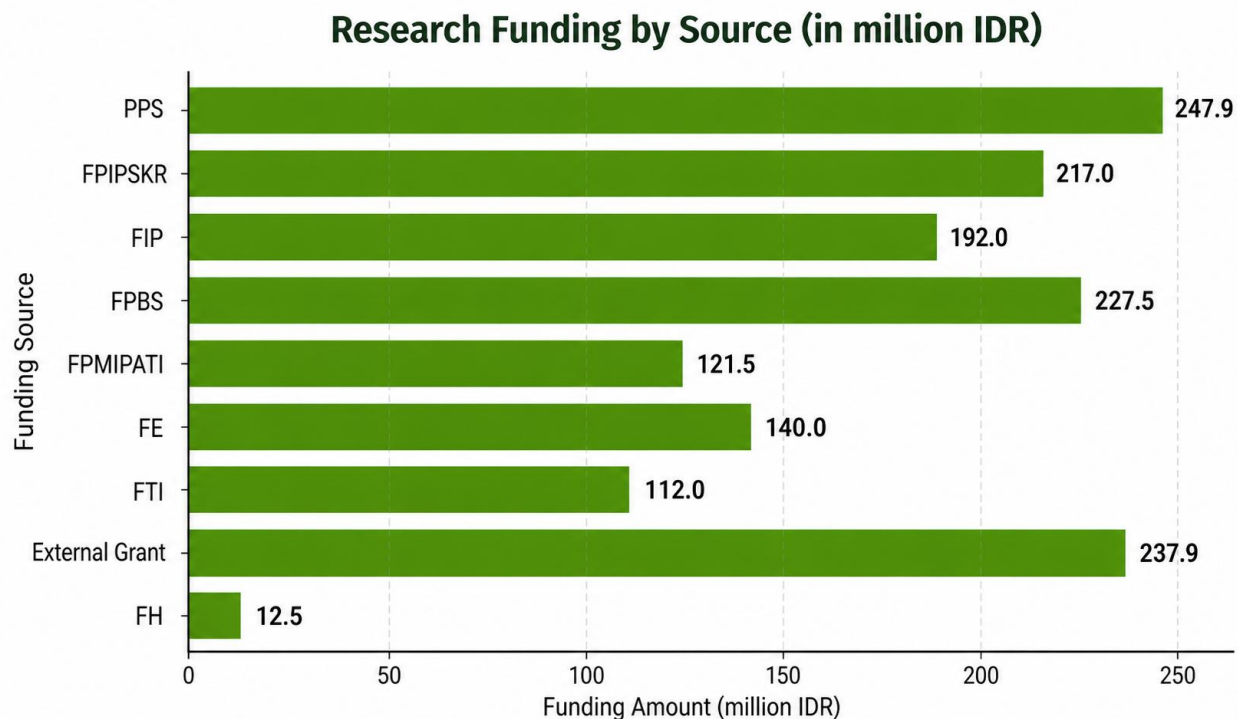


Figure 2. Research funding according to LPPM data

### 2.2 Examples of Relevant Research Activities

Short Title	Scheme	Funds
Potential of Ecoenzyme with <i>Saccharomyces cerevisiae</i> Starter for <i>Cherax</i> Production...	Fundamental Research Regular	- Rp. 114,760,000
STEAM-SDGs-Based Science Learning Innovation as a Strategy to Improve Literacy...	Master's Thesis Research	Rp. 34,410,000

<b>Short Title</b>	<b>Scheme</b>	<b>Funds</b>
Mangrove Forest Exploration as an ESD-Oriented Educational Transformation for...	Master's Thesis Research	Rp. 34,070,000
Physics learning design with a STEAM-SDGs approach on renewable energy material for...	Master's Thesis Research	Rp. 32,210,000
Analysis of Concrete Compressive Strength with the Addition of Foaming Agent and Fly Ash...	Foreign Cooperation	Rp. 25,000,000
Cross-Cultural Classroom Discourse: A Comparative Study of English Language Teaching Practices in...	Foreign Cooperation	Rp. 25,000,000

### 3. Implementation through Community Service

Community service is a direct implementation path for the Climate Action Plan because it connects campus innovations with the needs of residents, villages, business groups, and communities. LPPM's strategy emphasizes the utilization of research findings, strategic partnerships, and knowledge/technology transfer so that community service programs are not merely ceremonial but also generate changes in community behavior and capacity.

The analyzed environmental community service data covers 30 activities with total funding of approximately Rp 947.13 million. Prominent themes include zero waste, household waste management, biopores, solar energy, green economy, tourism villages, standardized fish smoking, and the Blue Economy-based Catfish Thematic Village.

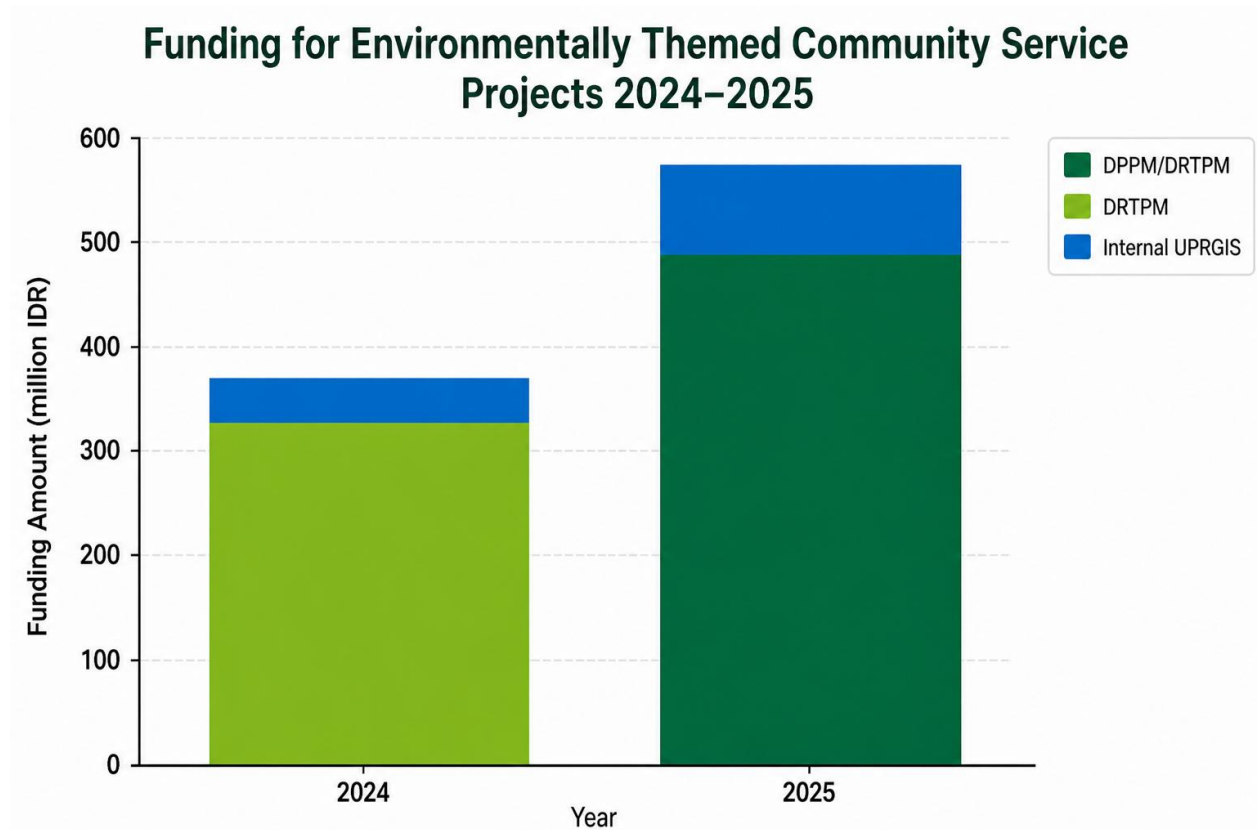
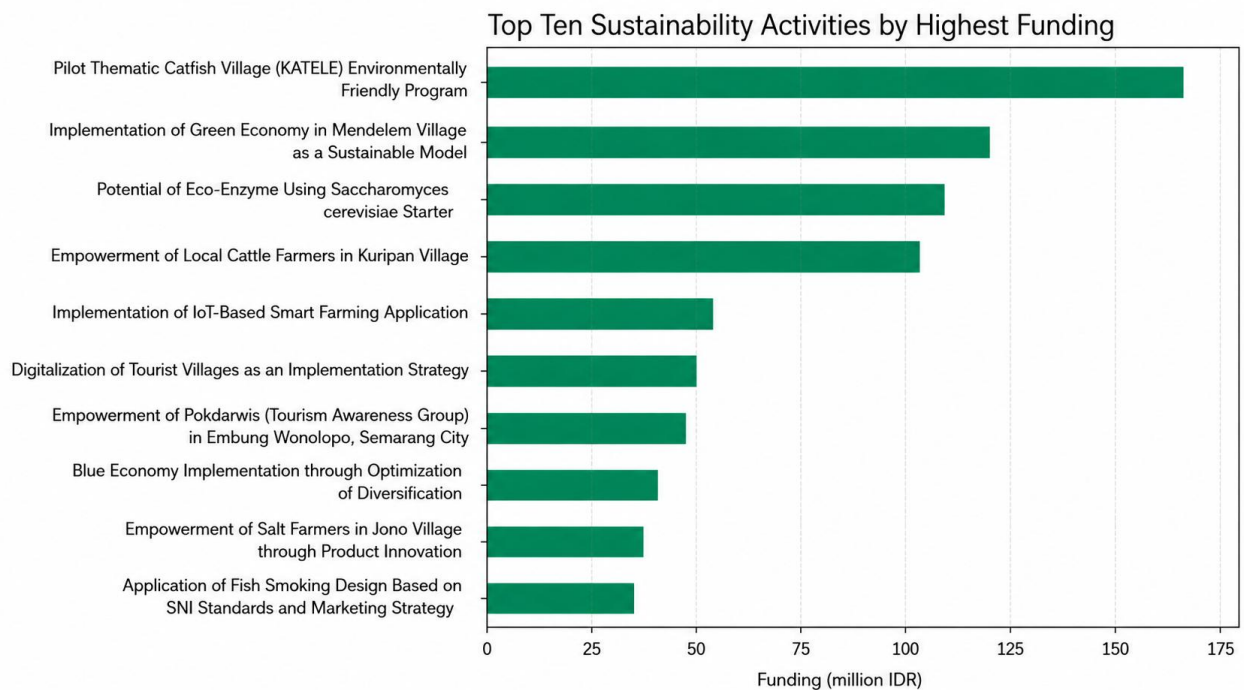


Figure 3. Funding for environmental-themed community service 2024–2025 based on funding sources.

#### 3.1 Examples of Relevant Community Service Programs

Programs/Activities	Scheme	Funds
PW Pioneering Environmentally Friendly Catfish Thematic Village (KATELE) with Digital Technology based on Blue...	Regional Empowerment	Rp. 160,576,000

Programs/Activities	Scheme	Funds
GDP Implementation of Green Economy in Mendelem Village as a Pineapple Center to Increase Income...	Empowerment of Fostered Villages	Rp. 116,609,000
Empowerment of Local Cattle Breeders in Kuripan Village, Karangawen District, Demak Regency...	Empowerment of Fostered Villages	Rp. 112,357,000
Implementation of the Internet of Things Smartfarming Application (IOS-A) as a solution for fruit and...	Community Partnership Empowerment	Rp. 47,486,000
Digitalizing Tourist Villages as an Effort to Implement Village SDGs Through the Creation of a...	Community Partnership Empowerment	Rp. 47,459,000
Empowerment of the Embung Wonolopo Village Tourism Community Group (Pokdarwis) in Semarang City Based on Local Wisdom Supports...	Community Partnership Empowerment	Rp. 46,750,000
PKM Implements Blue Economy Through Optimizing Fishery Product Diversification and Marketing...	Community Partnership Empowerment	Rp. 46,000,000



*Figure 4. Ten activities with the largest funding support for Community Service with the Theme of Sustainability.*

#### 4. Analysis of the Integration of the Climate Action Plan and SDGs

Data shows that research activities will receive greater funding support in 2025, while community service demonstrates an implementation path that directly addresses community needs. Both should be viewed as a single implementation chain: research generates knowledge base, technology design, and scientific evidence; community service translates these results into changes in community practice.

The distribution of SDG themes shows a strong trend toward SDG 11 and SDG 12, particularly through village/community-based programs, zero waste, waste management, responsible production, and local economic empowerment. Activities under SDG 6, SDG 7, SDG 13, SDG 14, and SDG 15 also emerge, indicating that the Climate Action Plan agenda has moved across issues, from water and energy to aquatic and terrestrial ecosystems.

##### 4.1 Contribution Matrix to the Climate Action Plan

CAP Area	Proof of Implementation	Strategic Meaning
Energy and Emissions	Solar panels, energy efficiency, control systems, clean energy based lighting.	Strengthening the energy efficiency agenda and reducing operational/community carbon footprint.
Water and Waste	Biopores, zero waste, plastic waste management, ecoenzymes, sanitation and green environment.	Supporting integrated waste management and resource conservation.
Research and Innovation	Environmental research, technology, food security, and data-driven systems.	Becoming the foundation of Research & Collaboration 2026–2027.
Devotion and Appropriate Technology	Catfish thematic village, village green economy, standard fish smoking, farmer/community empowerment.	Encourage the implementation of appropriate technology and social impact.
Governance and Monitoring	Annual recap, SDGs map, funding indicators and number of activities.	Serve as baseline monitoring for annual sustainability reports.

#### 5. Annual Reporting Recommendations and SDGs

1. **Develop an annual Climate Action Plan dashboard.** The dashboard should include, at a minimum, the number of activities, funding, faculty/study program, SDG themes, outputs, locations, and impact indicators.

2. **Standardize activity metadata.** Every research and community service project should be tagged with SDGs, climate action, location, output type, and impact indicators from the proposal stage.
3. **Integrating research and community service data.** Research with potential for downstreaming needs to be linked to community service/TTG to demonstrate the research-to-impact chain.
4. **Prepare an annual SDGs report.** The report can be published annually on the LPPM website or the UPGRIS sustainability website as evidence of transparency and accountability.
5. **Strengthening the 2026–2027 phase.** The Research & Collaboration phase should be directed toward national/international collaboration, reputable publications, prototypes, and quantitative impact measurement.

### **Closing**

This report demonstrates that the implementation of the UPGRIS Climate Action Plan has a policy and institutional basis, and evidence of activities through research and community service. The available activity data can be developed into a more robust annual reporting system, particularly by adding indicators of outputs, impacts, emissions, resource efficiency, and quantitative contributions to the SDGs.

By strengthening the dashboard, standardizing metadata, and open reporting, UPGRIS can demonstrate its direction towards a green campus, a sustainable campus, and a real contribution to global climate action.

### **Reference List**

1. Strategic Plan of the Climate Action Plan Institution of Universitas PGRI Semarang 2023–2030.
2. About LPPM UPGRIS: Policies, Strategies, and Objectives of Research and Community Service.
3. Environmental theme research data
4. Environmental theme service data.