



TRANSLATED COPY

**RECTOR REGULATION OF
UNIVERSITAS PADJADJARAN**

NUMBER 13 OF 2022

CONCERNING

**GREEN BUILDINGS
AT UNIVERSITAS PADJADJARAN**

BY THE GRACE OF GOD ALMIGHTY
THE RECTOR UNIVERSITAS PADJADJARAN,

- Considering : a. that the commitment to reducing carbon emissions is a manifestation of a safe, comfortable, and orderly campus environment, carrying out work security and safety, and conserving water and energy;
- b. that to support the dynamics of the development of campus life in a conducive academic climate to form new patterns of behavior for dynamic, global, and sustainable campus communities;
- c. that in order to realize the implementation of sustainable buildings that are efficient in the use of resources and contribute to the reduction of greenhouse gas emissions, it is necessary to fulfill the requirements for green buildings at each stage of the implementation in order to achieve a building performance that is measured to be significant, efficient, energy and water efficient, healthier, and more comfortable, and in accordance with the carrying capacity of the environment;
- d. that Universitas Padjadjaran as a Higher Education institution has the capacity to develop sustainable Science, Technology, and Arts which require the support of an environmentally and socially friendly campus environment in carrying out the implementation of the Threefold Missions of Higher Education (*Tridharma Perguruan Tinggi*);
- e. that for the implementation as referred to in points a, b, c, and d, it is necessary to stipulate a Rector Regulation of Universitas Padjadjaran.
- In view of : 1. Law of the Republic of Indonesia Number 12 of 2012 on Higher Education (State Gazette of the Republic of Indonesia of 2012 Number 158, Supplement to the State Gazette of the Republic of Indonesia Number 5336);
2. Government Regulation of the Republic of Indonesia Number 37 of 1957 on the Establishment of Universitas Padjadjaran (State Gazette of the Republic of Indonesia of 1957 Number 91, Supplement to the State Gazette of the Republic of Indonesia Number 1422);
3. Government Regulation of the Republic of Indonesia Number 4 of 2014 on the Implementation of Higher Education and Management of Universities (State Gazette of the Republic of Indonesia of 2014 Number 16 Supplement to the State Gazette of the Republic of Indonesia Number 5500);
4. Government Regulation of the Republic of Indonesia Number 80 of 2014 on the Designation of Universitas Padjadjaran as a Legal Entity State University (State Gazette of the Republic of Indonesia of 2014 Number 301);

5. Government Regulation of the Republic of Indonesia Number 51 of 2015 on the Statute of Universitas Padjadjaran (State Gazette of the Republic of Indonesia of 2015 Number 169, Supplement to the State Gazette Number 5720);
6. Regulation of the Minister of Public Works and Public Housing of the Republic of Indonesia Number 02/Prt/M/2015 on Green Buildings;
7. Decree of the Board of Trustees of Universitas Padjadjaran Number 15/UN6.MWA/KEP/2019 concerning the Appointment of the Rector of Universitas Padjadjaran for the 2019-2024 Period;
8. Rector Regulation of Universitas Padjadjaran No. 1 of 2020 concerning the Organizational Structure and Management of Universitas Padjadjaran;
9. Rector Regulation of Universitas Padjadjaran Number 3 of 2022 concerning the Management of Environmentally Friendly Campus of Universitas Padjadjaran.

HAS DECIDED;

To stipulate : RECTOR REGULATION OF UNIVERSITAS PADJADJARAN
CONCERNING GREEN BUILDINGS AT UNIVERSITAS
PADJADJARAN

CHAPTER I

GENERAL PROVISIONS

Article 1

In this Rector Regulation, the terms referred to as:

1. Universitas Padjadjaran, hereinafter abbreviated as Unpad, is a legal entity state university.
2. Rektor is an Unpad organ that leads the organization and management of Unpad.
3. Office is a management element that carries out certain technical and/or supporting tasks needed to carry out one or several specific operational functions in the Directorate.
4. Carbon Neutrality Commitment is a commitment to balance the amount of carbon dioxide or greenhouse gases released into the atmosphere by reducing greenhouse gas emissions in an activity.
5. Building is a physical form of construction work that is integrated with its domicile, partially or wholly located above and/or in the land and/or water, which functions as a place for humans to carry out their activities, either for housing or residence, religious activities, business activities, social and cultural activities, and special activities.
6. Green Buildings are buildings that meet building requirements and have significantly measurable performance in saving energy, water, and other resources through the application of green building principles in accordance with functions and classifications in each stage of its implementation.
7. The buildings in question are buildings on Universitas Padjadjaran campus.
8. Universitas Padjadjaran Campus Land is a state-owned parcel land which is authorized to Universitas Padjadjaran c.q. the Rector of Unpad in its use.
9. Energy use includes: planning for efficient, effective, and efficient energy control and use by utilizing technology and/or changing the behavior of the academic community and the public so that they can support teaching and learning activities optimally by considering the impact on climate change;

10. The development of new and renewable energy includes: planning for the control and use of new and renewable energy as an alternative energy source in various teaching and learning activities to reduce the use of fossil energy sources;
11. The Threefold Missions of Higher Education (*Tridharma Perguruan Tinggi*) is an activity that must be carried out by every society of academicians, including: development, education and teaching services, research, and community service.

CHAPTER II

PRINCIPLES AND SCOPE

Article 2

The general principles for realizing green building through its policies are based on:

1. Unpad Principal Scientific Patterns, Guidance on Law and the Environment in National Development;
2. Environmental foundation to maintain the ecological balance within the campus through program planning, sustainable action programs, and social responsibility;
3. Economic and management foundation to maintain policies and budget planning with environmental economic principles and organizational management based on sustainable governance;
4. Socio-cultural foundation for an environmentally friendly campus by considering social values and norms as well as the concern of the academic community related to the preservation, maintenance, and care for the balance of the natural and cultural environment based on local wisdom;
5. Ecological balance foundation includes the arrangement of the functions of the natural environment: soil, water, flora, fauna, energy, and society (individual and group) that support conducive teaching and learning activities.
6. The Environmental Foundation as referred to in paragraph (1) includes Unpad's policy on environmentally friendly campuses, program plans, sustainable action programs supported by the determination and suitability of the building site plan, socio-cultural responsibility, and budget;
7. The economic foundation of an environmentally friendly campus includes optimal utilization and control of water resources, electrical energy sources, and the development of new and renewable energy sources;
8. The ecological balance foundation includes structuring ecological functions and processes, improving ecosystem services as well as land, soil, water, flora, fauna, and social (individual and group) management that support teaching and learning activities and the environment around the campus.

Article 3

The scope of this Rector Regulation includes:

1. Commitment to Carbon Neutrality;
2. Green building principles;
3. Energy efficiency of energy-efficient buildings;
4. Water use efficiency.

CHAPTER III

COMMITMENT TO CARBON NEUTRALITY

Article 4

The commitment to implementing carbon neutrality at Unpad is carried out through climate change mitigation in buildings and energy utilization as well as adaptation to climate change in the water and energy sectors.

Article 5

The implementation of carbon neutrality at Unpad is carried out through:

- a. Determination of green buildings at Unpad;
- b. Energy and water efficiency at Unpad.

CHAPTER IV

GREEN BUILDING PRINCIPLES

Article 6

Green building principles include:

- a. formulation of common goals, understanding, and action plans;
- b. reduction in the use of resources in the form of land, materials, water, natural resources, and human resources (reduce);
- c. reduction of waste generation, both physical and non-physical ones;
- d. reuse of resources that have been used previously (reuse);
- e. use of recycled resources (recycle);
- f. protection and management of the environment through conservation efforts;
- g. mitigating of safety, health, climate change, and disaster risks;
- h. orientation to the life cycle;
- i. orientation to the achievement of the desired quality;
- j. technological innovation for continuous improvement; and
- k. Improvement in institutional support, leadership and management in implementation.

CHAPTER V

ENERGY EFFICIENCY AT UNPAD

Part One

General

Article 7

- (1) Energy efficiency at Unpad includes energy efficiency in the types of office buildings, lecture buildings, and dormitories.
- (2) The efforts for Energy Efficiency at Unpad in the existing Office Buildings, Lecture Buildings, and Dormitories are carried out in stages.
- (3) Planning for the construction of new Office Buildings, Lecture Buildings, and Dormitories at Unpad will be carried out by taking into account and applying the principles of green building.
- (4) Energy Efficiency Policies at Unpad include:
 - a. Public policies; and
 - b. special policies.

Part Two

Public Policies

Article 8

- (1) The public policies of energy efficiency at Unpad are applied to all types of buildings.
- (2) Public policies for energy efficiency in buildings at Unpad include:
 - a. Energy management policies and plans;
 - b. Minimum level of energy use;
 - c. Efficiency level of energy use;

- d. Application of energy system;
- e. Energy monitoring and supervision;
- f. Implementation and maintenance;
- g. Conditions for renewable energy utilization; and
- h. Availability of green open space.

Part Three Special Policies

Paragraph 1 Implementation of Special Policies

Article 9

The implementation of specific policies on energy efficiency at Unpad includes:

- a. applying working/operational hours on the use of all types of buildings.
- b. performing periodic maintenance on energy utilization equipment/facilities.
- c. gradually replacing lighting sources in buildings with more energy efficient lighting sources.
- d. The selection of the type and number of air conditioners to condition the humidity and stabilize the air temperature in buildings is carried out by considering energy efficiency and building comfort.

Paragraph 2 Office Buildings

Article 10

- (1) Working/operational hours are 8-10 hours per day.
- (2) The floor area used as a workspace is 70-80 percent.
- (3) The floor area is used as a public area, private area, and/or service area.
- (4) Service areas and toilets are centralized.
- (5) Building areas can use air conditioning to condition humidity and stabilize air temperature.
- (6) Thermal comfort and temperature are considerations in the use and installation of the type and number of air conditioners.

Part Four Lecture Buildings

Article 11

- (1) Working/operational hours are 8-14 hours per day.
- (2) The floor area used as a workspace is 70-80 percent.
- (3) The floor area is used as a public area and/or service area.
- (4) Service areas and toilets are centralized.
- (5) Building areas can use air conditioning to condition humidity and stabilize air temperature.
- (6) Thermal comfort and temperature are considerations in the use and installation of the type and number of air conditioners.

Part Five Dormitories

Article 12

- (1) Working/operational hours are 24 hours per day.
- (2) The floor area is used as a public area, restricted area, and/or service area.

- (3) Service areas and toilets can be centralized or distributed according to the needs.
- (4) Dormitories can use air conditioning to condition humidity and stabilize air temperature.
- (5) Thermal comfort and temperature are considerations in the use and installation of the type and number of air conditioners.

CHAPTER VI

WATER USE EFFICIENCY AT UNPAD

Article 13

Conservation and management of water resources include:

- a. Performing efficient use of clean water by using technology and having a change in behavior;
- b. Conserving water resources in water catchment areas and the campus environment through technology and vegetative multi programs as well as changes in land/soil use patterns;
- c. Protection and maintenance of springs and spring buffer areas within the campus environment and management of groundwater resource utilization;
- d. Building and maintaining water retention areas within the campus, constructing infiltration wells, and manufacturing biopores and rainwater harvesting systems;
- e. Applying the principle of zero run-off in the development of infrastructure and buildings in the campus environment by optimizing infiltration wells and rainwater harvesting ponds;
- f. Building new water reservoirs and maintaining Check Dam (Leuwi Padjadjaran 1), Fishery Reservoir Pond (Leuwi Padjadjaran 2), and Ciparanje Pond (Leuwi Padjadjaran 3);
- g. The application of the principle of reuse and recycle through the use of water from waste treatment to reduce the use of clean water in fire fighting, watering plants, and other activities.

Article 14

- (1) Efficiency of water use in Green Buildings includes the following requirements:
 - a. water sources;
 - b. water use; and
 - c. use of water-saving sanitary equipment (water fixtures).
- (2) Efficiency of water use in green buildings is intended to reduce the need for clean water in buildings, including:
 - a. Water Sources
 - 1) Water source planning must take into account the following things:
 - a) avoiding the use of groundwater as a primary water source;
 - b) availability of water supply from local service providers; and
 - c) if the water supply from the service provider is not adequate, then the maximum effort is made to provide independent water that is used for secondary needs;
 - 2) The independent supply of water for secondary needs is obtained through the use of recycled water, the use of rainwater, and the use of condensed water from the air conditioning unit.
 - 3) The volume of the rainwater collection system used in green buildings for independent water supply is calculated as $0.05 \times$ the building's ground floor area (m^2), or adjusted to local weather conditions.
 - 4) Provisions regarding procedures, requirements, sizes, and details of water sources in green buildings follow SNI 7065:2005 concerning Procedures for Planning Plumbing Systems or the latest edition.
 - b. Water Use
 - 1) Water use is calculated based on water needs for building occupants/users, cold and/or hot water needs, water needs for equipment and machines that require regular or continuous addition of water, water needs for pool water

- levels, and other water needs.
- 2) To increase the efficiency of water use, it is necessary to install a water use measuring device (submeter) on:
 - a) water usage system from water provider;
 - b) recycled water use system; and
 - c) other additional water supply systems if the two systems above are not adequate, then water supply is carried out independently.
 - 3) The use of primary water sources originating from service providers and ground water is calculated at a maximum of 90% of the total water demand without reducing the water requirement per person.
 - 4) The fulfillment of the difference in water needs that cannot be met by primary water sources as mentioned above must be obtained by independent water supply.
- c. Use of Water Saving Sanitary Equipment (Water Fixtures)
- 1) The use of water-saving sanitary equipment (water fixtures) is intended to increase the efficiency of water use in buildings.
 - 2) Water-saving sanitary equipment (water fixtures) in green buildings includes toilets, water faucets, urinals, showers, bidets, and others.
 - 3) The use of water-saving sanitary equipment (water fixtures) must have a calculated water-saving capacity.
 - 4) Provisions regarding procedures, requirements, sizes, and details of the application of the use of water-saving sanitary equipment (water fixtures) follow the technical guidelines and standards in accordance with the provisions of laws and regulations.

CHAPTER VII

CLOSING

Article 15

- (1) At the time this Rector's Regulation comes into effect, all provisions related to buildings still apply unless they conflict with the provisions of this Rector Regulation.
- (2) Matters that have not been regulated in this Rector Regulation will be regulated by separate provisions.

Article 16

This Rector Regulation is valid since its stipulation date.

Stipulated in Bandung
On May 31, 2022

RECTOR,

SIGNATURE

RINA INDIASTUTI

This copy conforms to the original
Director of Governance, Legal, and
Communication of Universitas Padjadjaran



Isis Ikhwansyah