

UNIVERSITAS PADJADJARAN

# SUSTAINABILITY REPORT

2021



Presented by:  
SDGs Center Universitas Padjadjaran



# SUSTAINABILITY REPORT

## Universitas Padjadjaran

### DRAFTING TEAM

Universitas Padjadjaran SDGs Center Team:

Zuzy Anna

Syaiful Rahman Soenaria

Lantun Paradhita Dewanti

Pringgo Kusuma Dwi Noor Yadi Putra

Asa Inkris Mareta

Atika Fitriani

Shindi Maria

Hesty Nawaty Candra

Published by

UNIVERSITAS PADJADJARAN

2022



## Rector's Foreword

Since the Sustainable Development Goals (SDGs) were launched at the UN General Assembly in September 2015, Universitas Padjadjaran has been determined to become an actor who plays an active role in the implementation from 2016 to 2030. This is evidenced by the establishment of the UNIVERSITAS PADJADJARAN SDGs Center in April 2016 as one of the Centers of Excellence which is expected to be a think tank for the implementation of the SDGs in Indonesia. The SDGs Center is expected to be able to support the implementation of the SDGs in Indonesia by contributing to thoughts, research, and also being a facilitator for the implementation of the SDGs in Indonesia. This was followed up with the preparation of the Indonesia SDGs baseline study which was a milestone for the implementation of the SDGs in Indonesia, where this study was then used as the basis for the Indonesian government's policy regarding SDGs through Presidential Regulation No. 59 of 2017 on the Implementation of the Achievement of Sustainable Development Goals, which is a commitment for the implementation and achievement of the SDGs to be carried out in a participatory manner by involving all parties

Universitas Padjadjaran is also the first university in Indonesia to implement SDGs learning through the SDGs curriculum for first year students. Thus, the implementation of the SDGs has become an inseparable part of various activities of Universitas Padjadjaran through its Threefold Missions of Higher Education (*Tri Dharma Perguruan Tinggi*). The SDGs have also been implemented in the governance system of Universitas Padjadjaran. On the one hand, the SDGs provide an advantage for Universitas Padjadjaran because Universitas Padjadjaran uses its four-pillar scheme (Social, Economic, Environmental, and Legal and Governance), in the university governance system. On the other hand, Universitas Padjadjaran is also an important partner of the government and other actors in supporting the implementation of the SDGs at the local, national, and global levels.



As a proof that the commitment to sustainable development at Universitas Padjadjaran has been carried out, we compile a Sustainability Report, which will serve as a guide for us to communicate the environmental and social performance of the institution and its sustainability impact to our stakeholders. This Sustainability Report is prepared using a standardized global integrated standard, namely the Global Reporting Initiative (GRI) with Core Option. We hope that this report, apart from being feedback for improving organizational governance, can also be evidence of transparency regarding the risks and opportunities we face.

We would like to express our deepest gratitude to the drafting team of this report and also to all parties that assisted in the preparation of this report. We hope that the stakeholders of UNIVERSITAS PADJADJARAN and the community can benefit from this Sustainability Report, and for the UNIVERSITAS PADJADJARAN, hopefully it can make this report a culture in improving the organizational governance of Universitas Padjadjaran.

Rector of Universitas Padjadjaran



## The Board of Trustees' Foreword

The Board of Trustees (MWA) is grateful to Allah SWT and very happy to welcome the publication of this 2021 Universitas Padjadjaran (UNIVERSITAS PADJADJARAN) Sustainability Report. In addition to presenting various disclosures regarding organizational governance aspects, economic aspects, environmental aspects, and social aspects of the activities of UNIVERSITAS PADJADJARAN in 2020, this Sustainability Report also refers to and complies with international standards from Global Reporting Initiatives (GRI) by selecting the Core Option. This reference to GRI's international standards makes the information in this Sustainability Report more reliable.

UNIVERSITAS PADJADJARAN is the first university in Indonesia to use SDGs as a platform in its curriculum content in the first year of all students in all faculties. UNIVERSITAS PADJADJARAN is also the first, since the SDGs were set by the United Nations in 2016, to establish the SDGs Center (in 2016), and become the center for the production of ideas, advocacy, and strategic networks in the implementation of the 17 SDGs agenda in Indonesia.

The issuance of this 2021 UNIVERSITAS PADJADJARAN Sustainability Report is one of the pieces of evidence for the transparency and accountability of UNIVERSITAS PADJADJARAN to stakeholders. Hopefully the governance quality of UNIVERSITAS PADJADJARAN will be better with the publication of the UNIVERSITAS PADJADJARAN Sustainability Report on a regular basis (every year). To all stakeholders, it is hoped that they can use all the information in this 2021 UNIVERSITAS PADJADJARAN Sustainability Report for decision making.

Chair of the Board of Trustees of  
Universitas Padjadjaran

Dr. Ir. Arief Yahya



# Table of Contents

Rector’s Foreword .....	2
The Board of Trustees’ Foreword .....	4
Table of Contents.....	5
List of Figures.....	9
List of Tables .....	11
CHAPTER I.....	12
INTRODUCTION .....	12
CHAPTER II.....	16
GENERAL DISCLOSURE OF UNIVERSITAS PADJADJARAN ORGANIZATION .....	16
GRI 102-1 Organization name.....	16
GRI 102-2 Activities, brands, products, and services.....	16
GRI 102-3 Head Office Location .....	17
GRI 102-5 Ownership and Legal Form .....	18
GRI 102-6 Markets Served .....	18
GRI 102-7 Organizational Scale .....	19
GRI 102-8 Information about Employees and Other Workers .....	19
GRI 102-12 External Initiatives .....	20
GRI 102-14 Statements from Senior Decision Makers .....	21
GRI 102-15 Significant Impacts, Risks, and Opportunities.....	21
GRI 102-17 Mechanisms for Advice and Concerns about Ethics.....	22
GRI 102-18 Structure and Governance .....	23
GRI 102-19 Delegating Authorities .....	25
GRI 102-20 Executive Level Responsibilities for Economic, Environmental, and Social Topics .....	25
GRI 102- 21 Consulting the Stakeholders regarding Economic, Environmental, and Social Topics.....	26
GRI 102-22 Composition of the Supreme Governing Body and its Committees and GRI 102-24 Nominating and Selecting the Supreme Governing Body .....	26



GRI 102-23 Chair of the Supreme Governing Body .....	27
GRI 102-25 Conflicts of Interest.....	27
GRI 102-26 The Role of the Supreme Governing Body in setting Goals, Values, and Strategies.....	27
GRI 102-27 Collective Knowledge of the SupremenSupreme Governing Body ...	28
GRI 102-28 Evaluating the Performance of the Highest Governing Body .....	28
GRI 102-29 Identifying and Managing Economic, Environmental, and Social Impacts .....	28
GRI 102-30 Risk Management Effectiveness.....	29
GRI 102-31 Pengkajian Topik Ekonomi, Lingkungan dan Sosial .....	29
GRI 102-33 Communicating Critical Matters .....	30
GRI 102-35 Remuneration Policy .....	30
GRI 102-40 List of Stakeholder Groups.....	32
GRI 102-42 Identifying and Selecting Stakeholders.....	33
GRI 102-46 Defining Report Content and Topic Boundaries.....	33
GRI 102-47 List of Material Topics.....	34
GRI 102-50 Reporting Period .....	34
GRI 102-54 Claiming the Reporting to be in Accordance with the GRI Standards .....	34
CHAPTER III .....	35
ECONOMY SPECIFIC DISCLOSURE.....	35
GRI 201-1: Direct Economic Value Generated and Distributed.....	35
GRI 201-2: Financial Implications and Other Risks and Opportunities Due to Climate Change .....	36
GRI 201-3: Defined Benefit Retirement Obligations and Other Retirement Plans .....	39
GRI 201-4: Financial Assistance Received from the Government.....	40
GRI 202-2: Proportion of Senior Management Hired from the Local Community Seniors.....	40
GRI 203-1: Infrastructure Investments and Services Supported .....	41
GRI 203-2: Significant Indirect Economic Impacts .....	41
GRI 204-1: Proportion of Spending on Local Suppliers .....	41



CHAPTER IV .....	43
ENVIRONMENTAL SPECIFIC DISCLOSURE .....	43
GRI 301-1: Materials Used by Weight or Volume .....	43
GRI 301-2: Recycled Input Materials Used.....	43
GRI 301-3: Reclaimed Products and Their Packaging Materials .....	43
GRI 302-1: Energy Consumption in Organization .....	44
GRI 302-2 Energy consumption outside the organization.....	45
GRI 302-3 Energy intensity .....	45
GRI 302-4: Energy Consumption Reduction .....	45
GRI 302-5: Reduction of Energy Needed for Products and Services .....	49
GRI 303-1 Water Intake by Source .....	49
GRI 303-2: Water Sources Significantly Affected by Water Intake.....	49
GRI 303-3: Water Recycling and Reusing.....	49
GRI 304-1: Operational Locations Owned, Leased, Managed, or Adjacent to Protected Areas and Areas with High Biodiversity Value Outside Protected Areas .....	53
GRI 304-2: Significant Impact of Activities, Products, and Services on Biodiversity .....	53
GRI 304-3: Protected or Restored Habitats .....	54
GRI 304-4 Vegetation Growing in Protected Areas.....	54
ANNEX.....	58
GRI 305-1: Direct (Scope 1) GHG Emissions.....	58
GRI 305-2: Indirect (Scope 2) GHG Energy Emissions.....	59
GRI 305-3: Other Indirect (Scope 3) GHG Energy Emissions.....	59
GRI 305-4: Intensitas Emisi GRK.....	59
GRI 305-5: Emission Reduction (GRK) .....	59
GRI 305-6: Emissions of Ozone Depleting Substances (ODS) .....	68
GRI 305-7: Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions (NOx).....	68
GRI 306-1: Water Release Based on Quality and Purpose .....	69
GRI 306-2: Waste by Type and Disposal Method .....	72
GRI 306-3: Significant Spill .....	74



GRI 306-4: Hazardous Waste Transport.....	74
GRI 306-5: Water Bodies Affected By Water Release and/or Overflow .....	78
GRI 307-1: Non-compliance with Environmental Laws and Regulations .....	78
GRI 308-1: Selection of New Suppliers Using Environmental Criteria .....	78
GRI 308-2: Negative Environmental Impacts in the Supply Chain and Actions Taken .....	78
CHAPTER V .....	84
SOCIAL SPECIFIC DISCLOSURE .....	84
GRI 401: Employment.....	84
GRI 402-1: Labor/Management Relations.....	86
GRI 403-3: Occupational Health and Safety.....	86
GRI 404-2: Training and Education.....	87
GRI 405-2: Diversity and Equal Opportunity .....	89
GRI 414-2: Supplier Social Assessment.....	90
GRI 406: Non-Discrimination.....	95
GRI 407: Freedom of Association and Collective Bargaining .....	96
GRI 408: Child Labor .....	96
GRI 409: Forced or Compulsory Labor .....	96
GRI 410: Security Practices.....	97
GRI 412: Human Rights Assessment .....	97
GRI 413: Local Communities .....	97
GRI 416: Health and Safety.....	98
GRI 417: Labeling .....	98
GRI 418: Privacy .....	98
GRI 419: Socioeconomic Compliance .....	98
REFERENCES.....	99



# List of Figures

Figure 1. The Logo of Universitas Padjadjaran.....	17
Figure 2. Universitas Padjadjaran UI Greenmetrics Ranking Achievement in 2021 .....	21
Figure 3. Universitas Padjadjaran Organizational Structure .....	25
Figure 4. Calculation of Remuneration for Lecturers .....	31
Figure 5. Calculation of Remuneration for Education Personnel with Functional Positions.....	31
Figure 6. Remuneration Calculation for Educational Personnel with Implementing Positions .....	32
Figure 7. Income Report of Universitas Padjadjaran.....	36
Figure 8. The Use of Energy-saving Lights .....	37
Gambar 9. The Use of Natural Lightings and Natural Air Circulation System on Smart Buildings .....	37
Figure 10. The Use of <i>E-Office</i> to Reduce Paper Use .....	38
Figure 11. Replanting Activity in Green Area of Campus.....	38
Figure 12. Free Transportation Facilities for the Campus Society .....	38
Figure 13. Biogas Technology Management and Compost House as Waste Management .....	38
Figure 14. Liability Value of Universitas Padjadjaran.....	39
Figure 15. Total Revenue without Limitation of Universitas Padjadjaran .....	40
Figure 16. Organic Waste Compost House and Non-organic Residue.....	43
Figure 17. Energy Consumption of Universitas Padjadjaran Campus (2019-2021).....	44
Figure 18. Use of Integrated LED Lights and AC Inverters .....	46
Figure 19. Integrated CCTV, Alarm, dan Loudspeaker System.....	46
Figure 20. Use of Solar Panels for Street Lighting and Water Pumps .....	46
Figure 21. Use of Easybike and Biogas as Renewable Energy Sources .....	47
Figure 22. Map of Smart Buildings at Universitas Padjadjaran .....	48
Figure 23. Use of Natural Lighting and Good Air Circulation in the Design of Smart Buildings at Universitas Padjadjaran.....	49
Figure 24. Several Water Use Installations at Universitas Padjadjaran.....	52
Figure 25. Areas with Biodiversity Value .....	53
Figure 26. Total Area of Green Space Cluster 1 .....	55
Figure 27. Arboretum Area .....	56
Figure 28. Candlenut Garden and Mahogany Garden.....	56
Figure 29. Total Area of Green Space Cluster 1 .....	57
Figure 30. Vegetation in Green lanes and Campus Parks .....	58
Figure 31. Technical Guidebook and Green Campus Regulations.....	60



Figure 32. Provision of Campus Buses and Bikes for the Society of Universitas Padjadjaran.....	64
Figure 33. Centralized Parking Area for the Campus Society.....	64
Figure 34. Use of E-Office in Campus Administration.....	65
Gambar 35. Purwarupa PLTS dan Penggunaan Lampu LED.....	66
Figure 36. <i>Bale Tatanen Smart Green House</i> .....	66
Figure 37. Ciparanje TPS3R Area of Universitas Padjadjaran.....	68
Figure 38. Liquid Waste Management Schematic.....	69
Figure 39. Liquid Waste Management with Wastewater Treatment Plant (WWTP) in the Universitas Padjadjaran Area.....	70
Figure 40. Anaerobic and Aerobic Biofilter Waste Treatment System.....	71
Figure 41. Grease trap process schematic.....	72
Figure 42. Comparison of the increase in the number of students and the increase in waste.....	73
Figure 43. Waste Transport Process.....	74
Figure 44. Comparison of the increase in the number of students and the increase in waste.....	74
Figure 45. Hazardous Local Waste Management.....	76
Figure 46. Hazardous Waste Treatment Facility.....	77
Figure 47. Hazardous Waste Incineration and Segregation.....	78
Figure 48. Autoclave and Liquid Solvent for Hazardous Waste.....	78
Figure 49. Biogas Installation at Universitas Padjadjaran.....	79
Figure 50. Production of Organic Liquid Fertilizer.....	80
Figure 51. Compost House.....	80
Figure 52. Production of Catfish Pellets.....	81
Figure 53. Incinerator.....	83
Figure 54. Utilization of Burning Ash Remaining into Bricks.....	83



## List of Tables

Table 1. List of Energy Saving Equipment Usage.....	45
Table 2. Total Renewable Energy Production .....	47
Table 3. Number of individuals and distribution of Fabaceae family plants in RH cluster I (UNIVERSITAS PADJADJARAN Campus Forest, Jatinangor) .....	55
Table 4. Number of individuals and plant distribution of the Fabaceae family in RH cluster 2 (UNIVERSITAS PADJADJARAN Campus Forest, Jatinangor) ...	57
Table 5. Carbon Data from Universitas Padjadjaran based on the number of daily vehicles. (Metrics/Ton) .....	59
Table 6. Plant carbon sinks per zone and overall zone from Green space (RH) Cluster I (campus forest) Universitas Padjadjaran, Jatinangor and its area ....	61
Table 7. Plant Community Carbon Sinks from Green Space (RH) Cluster II (Green Lane, Parks and Green Parking Areas, Universitas Padjadjaran Campus, Jatinangor) .....	62
Table 8. Waste Mass Balance of Universitas Padjadjaran .....	73
Table 9. Toxic Properties Test with TCLP .....	76
Table 10. Total Lecturers and Education Personnel of Universitas Padjadjaran in 2020-2021 .....	84



## CHAPTER I

### INTRODUCTION

Environmental problems are one of the serious problems faced by the world, and likewise in Indonesia, the problems that arise are not only more numerous but continue to get worse so that solutions are needed to overcome them. Environmental problems continue to be in the public spotlight, along with increasing public awareness about the importance of maintaining the sustainability of nature for the sustainability of human life. The population that continues to increase, the use of natural resources, direct waste disposal without treatment, deforestation, and excessive use of groundwater contribute to the increasing environmental problems.

Awareness of the importance of the sustainability of nature does not only appear in the public sphere, but this awareness also arises in every existing organization. This is stated in the GRI standards handbook, where every organization has a desire to ensure the sustainability of its operations with the hope of obtaining long-term benefits through increased social justice and protection of the environment. This awareness continues to increase because all parties realize the importance of the sustainability of nature which ensures economic sustainability. Sustainability Reporting (SR) is applied to an organization such as a university which is expected to provide information about the operational activities of a university for its stakeholders.

In the world, the standard for compiling a Sustainability Report uses the GRI Sustainability Reporting Standards (GRI Standards) from the Global Reporting Initiative (GRI) and ISO. However, in compiling this sustainability report, the reference that will be used is the GRI Sustainability Reporting Standards issued by GRI which are adapted to the characteristics of the organization because this standard is the latest standard for compiling a Sustainability Report.

GRI develops a reporting framework, which is intended as a generally accepted framework for reporting on the economic, environmental, and social



performance of an organization. This framework is designed for use by various organizations of different sizes, sectors, and locations. The framework also takes into account the practical considerations faced by a wide variety of organizations, from small companies to those with extensive operations spread across multiple locations. The GRI Reporting Framework contains general and sector-specific content that has been agreed by various stakeholders around the world and can be applied generally in reporting on the sustainability performance of an organization.

According to Ernst & Young, 2016 in CSR.ID magazine, only 30% of the 100 companies listed on the Indonesia Stock Exchange (IDX) make and publish Sustainability Reports. In total, there are 97 companies that have made Sustainability Reports in accordance with GRI standards since 2000. The preparation of Sustainability Reports continues to increase due to requests from investors who pay more attention to companies that have sustainability programs. This was revealed by Bob Eko Kurniawan as the Country Program Manager of GRI in Indonesia in CSR.ID magazine.

Based on GRI (2000-2011 GRI version 3.1.7), an SR must contain, among other things:

1. All matters related to the activities of the organization/entity that can generate significant impacts on sustainability (current or potential) and/or all important activities of the organization that affect the financial and operational policies of the organization.
2. All indicators used by the entity such as operational performance indicators.
3. Management performance indicators, either in a narrative or descriptive form or in quantitative form that describe the expenditures that have been made by the entity for environmental conservation or for social interests.
4. Organizational reports at least contain operational performance indicators and operational activity reporting that are disclosed using a management approach.



Through this sustainability report, stakeholders can get a clearer and more open picture of all sustainability development activities that have been carried out by the campus. The sustainability report specifically contains information related to the implementation and performance of sustainability in economic, social, and environmental aspects. Thus, it can improve the accountability, transparency, and management of the university that are presented to stakeholders.

Sustainability means ensuring the quality of an organization's business growth in the long term, where business growth also provides optimal benefits to stakeholders according to available resources and contributes to the efforts to preserve the environment together with the world's population. Sustainability also means to contribute optimally to global scale sustainability development initiatives as formulated in the Sustainable Development Goals (SDGs) which have also been ratified by the Indonesian government.

Universitas Padjadjaran is one of the state universities under the auspices of the Indonesian government. Universitas Padjadjaran has existed since 1957. Currently, Universitas Padjadjaran has the status as a Legal Entity State University (PTN-BH) after previously being a Public Service Agency (BLU). Universities with the status of PTN-BH are universities established by the government with the status of autonomous public legal entity.

A university is also a public body, which has a moral responsibility to the community and the government for the operation of the university. In a sustainability report, a university can describe the extent to which sustainable development has been implemented by the university. Sustainability reports can be one of the appropriate media to be applied in reporting produced by universities. With the implementation of the sustainability report, it is hoped that Universitas Padjadjaran can report activities related to sustainable development related to social impacts, so that the university can meet the information needs of all stakeholders.





# CHAPTER II

## GENERAL DISCLOSURE OF UNIVERSITAS PADJADJARAN ORGANIZATION

### GRI 102-1 Organization name

The name of the organization, namely Universitas Padjadjaran, is a Legal Entity State University (LAKIP UNIVERSITAS PADJADJARAN 2021).

### GRI 102-2 Activities, brands, products, and services

The main activity carried out by Universitas Padjadjaran is to implement the Threefold Missions of Higher Education (*Tridharma Perguruan Tinggi*). Universitas Padjadjaran has a Principal Scientific Pattern of “Development of Law and Environment in National Development” as a platform for multi- and interdisciplinary work, as well as carrying out activities related to education, research, and community service.

The brand owned by Universitas Padjadjaran is symbolized through the logo of Universitas Padjadjaran as a brand image that is known by the wider community. The shape and meaning of the symbol of Universitas Padjadjaran is determined based on the Rector Decree No. 903/H6.1/KEP/HK/2010 and was registered with the Ministry of Law and Human Rights No. 045978 on February 10, 2010. The symbol consists of 6 parts, namely:

- a. Torch, which symbolizes knowledge as a torch of illumination of life that brings a happy light to eternal greatness.



- b. Kujang, which is a Sundanese heirloom weapon as a symbol of strength and courage to protect rights and truth, which is the task of science.
- c. Wings (represented by the fern (*paku*) leaves), are an allusion to the city of Pakuan which contains the word "Paku" as the Center of the Presence and Kingdom of "Padjadjaran" and these fern leaves are the wings which mean always trying to achieve a higher level or quality.
- d. Wheel, is society, which, like the wheel, is always moving in the process of change and which is the hallmark of Universitas Padjadjaran.
- e. Lotus flower that is in bloom means eternal glory, eternal purity, a symbol of culture and education.
- f. Pentagon, the shield in the shape of a pentagon is Pancasila, the principle of the country which is the guideline for all university efforts and activities for the benefits of the country and nation.



Figure 1. The Logo of Universitas Padjadjaran

Source: [www.Universitas Padjadjaran.ac.id](http://www.Universitas Padjadjaran.ac.id)

## GRI 102-3 Head Office Location

Universitas Padjadjaran has several campuses spread across various regions in West Java. The head office of Universitas Padjadjaran is located on Jl. Ir, Soekarno KM.21, Hegarmanah, Jatinangor District, Sumedang Regency, West Java (LAKIP UNIVERSITY PADJADJARAN 2021).



## GRI 102-5 Ownership and Legal Form

Universitas Padjadjaran is a state-owned higher education institution under the auspices of the Ministry of Education, Culture, Research, and Technology. Meanwhile, since 2014, Universitas Padjadjaran has officially held the status as a Legal Entity State University (PTN-BH) from the previous status as a Public Service Agency (BLU) through Government Regulation No. 80 of 2014 on the Designation of Universitas Padjadjaran as a Legal Entity State University (PTN-BH)(LAKIP UNIVERSITAS PADJADJARAN 2021).

With the status of PTN-BH, Universitas Padjadjaran is given the authority to run its own autonomy without direct intervention from the government. In the academic field, Universitas Padjadjaran has the authority to develop study programs that can respond to market needs and strategic aspects in the government. Meanwhile, in the non-academic field, the autonomy carried out is to develop various productive assets to support the activities of the Threefold Missions of Higher Education (*Tri Dharma Perguruan Tinggi*), such as opening a business from a strategic unit. Universitas Padjadjaran fully managed as a PTNBH in 2017 with a transition period in 2015 and 2016 (LAKIP UNIVERSITAS PADJADJARAN 2021). However, this autonomy does not necessarily make Universitas Padjadjaran free to do everything. There are still limitations that must be met by Universitas Padjadjaran because unlike state-owned enterprises, state universities are still owned by the government, especially their assets.

## GRI 102-6 Markets Served

As one of the universities in Indonesia, the market served by Universitas Padjadjaran is all high school (SMA) graduates or equivalent who come from both within the country and from abroad inclusively. This means that Universitas Padjadjaran provides equal opportunities to gender, age, economic groups, and persons with



disabilities. In addition, Universitas Padjadjaran also serves everyone who wants to continue their education to a higher level such as master's degree, doctoral degree, and professional schools. Universitas Padjadjaran has an operation center in West Java, but the markets it serves reach all parts of Indonesia and even several other foreign countries.

## **GRI 102-7 Organizational Scale**

The organizational scale of Universitas Padjadjaran can be seen through several aspects including the total number of employees, total operations, net income, and the number of services provided. It is recorded that until 2021, Universitas Padjadjaran has a workforce consisting of permanent civil servants and non-civil servant workers, of which there are 2,085 lecturers and 2,040 educators. Furthermore, in terms of total operations, in general, Universitas Padjadjaran as a university only provides educational services based on the Threefold Missions of Higher Education (*Tri Dharma Pendidikan Tinggi*) which in their implementation are supported by various strategic business units. Then in 2021, based on its activity report, Universitas Padjadjaran was recorded to have 3 sources of income, namely revenue without limitation, revenue with limitation, and other comprehensive income. The total revenue without limitation owned by Universitas Padjadjaran in 2021 was Rp1,251,967,289,071 which consisted of APBN, PTNBH BP, services, and other income. Meanwhile, the revenue with limitation originating from grants/donations was recorded at Rp115,629.040,422 (2021 Consolidated Financial Report of Universitas Padjadjaran).

## **GRI 102-8 Information about Employees and Other Workers**

Universitas Padjadjaran has two types of contracts with employees, namely permanent civil servants and permanent non-civil servants. As for outside of those, there are outsources such as cleaning service



personnel. The number of lecturers is approximately 2,085 consisting of permanent civil servant lecturers and permanent non-civil servant lecturers, and there are also lecturers called NIDK who are lecturers from other ministries who are asked to teach at Universitas Padjadjaran such as lecturers at the faculty of medicine. Furthermore, Universitas Padjadjaran has 2,040 Educators to carry out operational activities of Universitas Padjadjaran.

To improve the quality of its workforce, Universitas Padjadjaran has various programs that are expected to be able to help improve the quality of existing resources at Universitas Padjadjaran. Among them is the 1,000 doctors program where Universitas Padjadjaran tries to encourage lecturers to continue their education to the doctoral level. Another program is an education program for educators to at least have competence and expertise in certain functional areas and have at least a bachelor's degree. In the future, Universitas Padjadjaran hopes that 80% of its lecturers have a doctorate degree and all of its educators have at least a bachelor's degree.

## **GRI 102-12 External Initiatives**

Universitas Padjadjaran has essentially included the concept of sustainability in carrying out its operational activities. This can be seen from the various award certificates achieved by Universitas Padjadjaran related to its efforts to improve the economic, social, and environmental welfare around its operational areas. One of them is the ranking obtained by Universitas Padjadjaran at UI Greenmetrics where in 2021, Universitas Padjadjaran occupied the 11th position of all universities in Indonesia. Another breakthrough that is done by Universitas Padjadjaran is the construction of the SDGs Center whose role is to help Indonesia achieve the SDGs by 2030. This means that it is not only to support its sustainability as an organization, but Universitas Padjadjaran has also made a breakthrough by giving contributions in the context of achieving sustainability for Indonesia.



It is not only for Universitas Padjadjaran, but also from Universitas Padjadjaran for Indonesia.



Figure 2. Universitas Padjadjaran UI Greenmetrics Ranking Achievement in 2021

## GRI 102-14 Statements from Senior Decision Makers

Universitas Padjadjaran has made the concept of sustainability the basis of its activities. Although it has never been stated explicitly in the vision, mission, and goals, if we dig deeper, in fact in each of these visions, missions, and goals, there are implications about how Universitas Padjadjaran strives to maintain its sustainability as an organization and to maintain the sustainability of all related parties involved. This is stated in the strategic plan which, if it is further investigated, turns out to contain the long-term plan of Universitas Padjadjaran and contains the methods that will be taken by Universitas Padjadjaran in order to maintain its relationship with stakeholders and to improve the quality of Universitas Padjadjaran as a university.

## GRI 102-15 Significant Impacts, Risks, and Opportunities

As an organization that is engaged in involving various things and various parties, Universitas Padjadjaran in carrying out its activities will certainly not be free from the risk that its activities will have impacts on various parties, both economic, social, and environmental



impacts. For example, with the existence of Universitas Padjadjaran in the Jatinangor area, then, directly or indirectly, Universitas Padjadjaran will have a considerable influence on economic, social, and environmental aspects. An example of the impact caused by Universitas Padjadjaran is the focus of community economic activities which now shifts to providing the needs of students who live around the campus area, starting from housing rental, cafes and places to eat, laundry, to public transportation and so on.

Meanwhile, the social impact caused is more related to how the interaction between the society of academicians of Universitas Padjadjaran which includes students, lecturers, and educators and the community around the campus area. These impacts must then be assessed and considered by Universitas Padjadjaran to then be given a response related to how best to prevent the risk of negative impacts that can be detrimental not only to Universitas Padjadjaran but also to the stakeholders involved in it. An example of a risk that may arise is the increasing use of energy to support educational activities at Universitas Padjadjaran followed by the increasing costs incurred by Universitas Padjadjaran especially at this time, Universitas Padjadjaran still does not have alternative energy sources that can support the energy needs of Universitas Padjadjaran. However, in the future, to prevent energy waste, Universitas Padjadjaran is building solar panels and already has smart buildings to reduce unnecessary energy waste and to reduce the risk of environmental damage due to non-optimal energy use.

## **GRI 102-17 Mechanisms for Advice and Concerns about Ethics**

In implementing ethics and organizational integrity, Universitas Padjadjaran carries out the process in accordance with the provisions that have been set. This is done by establishing the Board of Trustees whose duties are to determine, provide considerations for the implementation of general policies, and carry out supervision in the



non-academic field, then the Academic Senate which is an organ of Universitas Padjadjaran that sets policies, provides considerations, and conducts supervision in the academic field, and the Audit Committee which conducts supervision in the non-academic field of the organizers of Universitas Padjadjaran.

Currently, Universitas Padjadjaran opens two public information services, namely through the PPID of Universitas Padjadjaran (mandate of Law 2 Number 8 of 2014 concerning Openness of Public Publications) which is already available on the mobile application and through LAPOR (not a mandate from the law, but a mandate derived from the Ministry of Research and Technology). with the top authority being the KSP (Presidential Secretariat Office).

A tiered procedure for ethical issues already exists in study programs and is managed by the Academic Senate (SA). In the SA, there are commissions 1, 2, 3, and 4 where commission 4 is responsible for dealing with ethical issues. If there is an abuse or violation of ethics at Universitas Padjadjaran that must be escalated to the Academic Senate, it must be discussed in commission 4. Usually, complaints regarding the code of ethics are received via external or from parties who feel more comfortable submitting them through the services provided.

Meanwhile, violations committed by managers are resolved in stages. For example, if there is a student who cheats in an exam, it will be resolved at the study program level, if it is not possible, then it will be submitted to the dean of the faculty. Finally, if it still cannot be resolved, then the problem will be submitted to the director of education and student affairs (PP No. 51 of 2015).

## **GRI 102-18 Structure and Governance**

The governance structure at Universitas Padjadjaran consists of the Board of Trustees as the highest governance committee, the Rector as



the operational executor, and the Academic Senate as the supervisor. The Board of Trustees (MWA) as the highest governance committee at Universitas Padjadjaran consists of representatives from various stakeholders, including the government, students, the Rector, and the community. In this way, it can be seen that stakeholders have been reflected in the membership structure of MWA. Meanwhile, the role of MWA as the highest governance committee when it comes to sustainability is contained in the Strategic Plan owned by Universitas Padjadjaran. This is because the Strategic Plan is a derivative of the visions and missions of the Ministry of Research, Technology, and Higher Education which in its implementation must obtain approval from the MWA. Thus, it can be concluded that before Universitas Padjadjaran can carry out its visions and missions, the visions and missions must first be reviewed by the highest governance committee as a representative of the interests of stakeholders before they can be approved.

Even so, the MWA's performance also needs to be evaluated so that there are no deviations in goals and roles in order to maintain the representation of the interests of all stakeholders. The evaluation is carried out through a plenary meeting where the MWA is fully responsible to the Ministry of Research, Technology, and Higher Education. In addition, the issue of sustainability has become a topic that is concerned by Universitas Padjadjaran since 2016, through the establishment of the first Center for Sustainable Goals Studies (SDGs Center) in Indonesia and the introduction of the SDGs curriculum into TPB courses. The aim is to raise awareness of not only Universitas Padjadjaran, but also all stakeholders involved regarding the importance of sustainability issues in running an organization which in this case is an educational organization such as Universitas Padjadjaran.

On the other hand, in the operational field, Universitas Padjadjaran has a Directorate of Governance, Legal, and Communication under the Vice



Rector for Planning and Organization (WR4). Even in 2015-2019, Universitas Padjadjaran also had a HUKOR (legal and organizational) team, which was a team with a group of experts formed to support the functions of the WR 4.

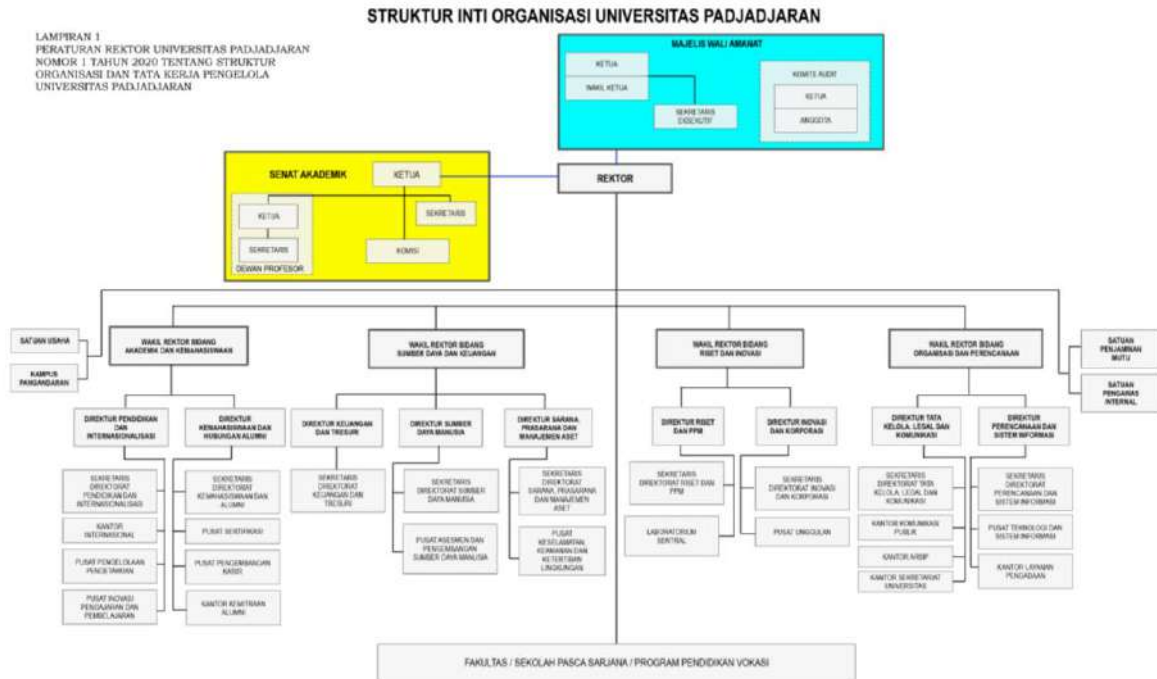


Figure 3. Universitas Padjadjaran Organizational Structure

Source: Rector Regulation No. 1 of 2020

## GRI 102-19 Delegating Authorities

Universitas Padjadjaran has several directorates that have been divided according to their functions, where every year, each directorate has targets that need to be achieved in accordance with the contract between the Rector and the Ministry of Education and Culture.

## GRI 102-20 Executive Level Responsibilities for Economic, Environmental, and Social Topics

The division of economic, social, and environmental topics is divided into several directorates. The Directorate of Finance holds the economic



topic, the Directorate of Governance, Legal, and Communication holds the social topic, and the Directorate of Facilities and Infrastructure holds the environmental topic under the supervision of the Board of Trustees of Universitas Padjadjaran (Rector Regulation No. 1 of 2020).

## **GRI 102- 21 Consulting the Stakeholders regarding Economic, Environmental, and Social Topics**

The stakeholders of Universitas Padjadjaran can be seen in the highest institution of Universitas Padjadjaran, namely the Board of Trustees, where the Board of Trustees consists of 17 people who come from various elements, namely elements of the community, ex-officio leaders, government, and students. So, each stakeholder can report directly in meetings held every quarter.

In this meeting, each representative of the stakeholders discusses various matters related to the performance and finances of Universitas Padjadjaran which include economic, environmental, and social aspects as well as various interests that can have an impact on the stakeholders. The results of the next meeting are reported to the ministry as a form of accountability as well as suggestions and inputs that will be used as the basis for Universitas Padjadjaran to improve its performance in the future.

## **GRI 102-22 Composition of the Supreme Governing Body and its Committees and GRI 102-24 Nominating and Selecting the Supreme Governing Body**

The supreme governing body at Universitas Padjadjaran or the MWA consists of 17 people who represent every stakeholder in Universitas Padjadjaran. Its membership consists of the minister, rector, student representatives, community representatives, alumni, and the academic senate. Representatives from the community element are obtained through selection. Usually, Universitas Padjadjaran will ask them to



send portfolios which will then be selected to determine four people who will be representatives of the community and MWA membership.

## **GRI 102-23 Chair of the Supreme Governing Body**

Currently, the Chair of the highest governing body or the MWA of Universitas Padjadjaran is the former Minister of Tourism and Creative Economy of the Republic of Indonesia, namely Dr. Ir. Arief Yahya, M.Sc. Currently, he does not have an executive position at Universitas Padjadjaran.

## **GRI 102-25 Conflicts of Interest**

Issues related to conflicts of interest that arise and have the potential to arise are discussed by the MWA in regular meetings held every quarter. The goal is that conflicts of interest can be resolved by involving all interested parties so that further conflicts can be avoided. This is because the composition of the MWA membership itself is already the representatives of the stakeholders so that if it is discussed together, then all parties will be able to provide inputs and find solutions related to the problem and how the problem can then be avoided.

## **GRI 102-26 The Role of the Supreme Governing Body in setting Goals, Values, and Strategies**

In running the organization, the Rector acts as the leader of the implementation and management of Universitas Padjadjaran. Meanwhile, the Board of Trustees has the task of determining, giving consideration to the implementation of general policies, and carrying out supervision in the non-academic field. Then, the Academic Senate (SA) is an organ of Universitas Padjadjaran that establishes policies, provides considerations, and conducts supervision in the academic



field. And finally, the Audit Committee (KA) conducts supervision in the non-academic field of organizers of Universitas Padjadjaran (PP No. 51 of 2015). So, processes of developing and updating the goals, values or mission statements, strategies, policies, and targets of Universitas Padjadjaran are determined by the Rector and supervised by the MWA, SA, and KA.

## **GRI 102-27 Collective Knowledge of the Supreme Governing Body**

Sustainability has been the main focus of Universitas Padjadjaran since 2016. The SDGs Center of Universitas Padjadjaran was established as a body that conducts research and studies on various sectors, which focuses on the topic of sustainability. Universitas Padjadjaran also has a Center for Environment and Sustainability Science (CESS). This shows that both the MWA as the highest governing body and the Rector and his/her staff as operational implementers already have sufficient knowledge related to sustainability so that they can include it in every step and strategy at Universitas Padjadjaran in order to achieve the goal.

## **GRI 102-28 Evaluating the Performance of the Highest Governing Body**

The MWA is an agency that is responsible to the Ministry of Education, Culture, Research, and Technology because it is the highest supervisory body like the MPR. The MWA performance evaluation is carried out through a plenary meeting every year which is then reported to the ministry. This is related to the status of Universitas Padjadjaran as a legal entity state university (PTNBH).

## **GRI 102-29 Identifying and Managing Economic, Environmental, and Social Impacts**

The role of the highest governing body in identifying economic,



environmental, and social impacts at Universitas Padjadjaran can be seen from the role of the Board of Trustees in discussing and ratifying the strategic plan that will be carried out by Universitas Padjadjaran within a period. As has been explained, the concern of Universitas Padjadjaran related to sustainability is stated in the strategic plan which is then revealed to be the visions, missions, goals, and policies. Therefore, by reviewing the strategic plan by the MWA, this is the same as the process of identifying economic, social, and environmental impacts that are at risk of arising from the implementation of the strategies of Universitas Padjadjaran. In addition, issues related to these impacts are always controlled and discussed in regular meetings held by the MWA every quarter.

## **GRI 102-30 Risk Management Effectiveness**

The Supreme Governing Body or the Board of Trustees has a very large role in identifying and managing its economic, environmental, and social topics as well as their impacts, risks and opportunities. Once the Annual Work Plan and Strategic Plan have been determined, they must be approved by the MWA. In this case, the MWA will simultaneously assess the risk management owned the Universitas Padjadjaran. This can be seen through whether all existing risks have been included in the strategic plan, and whether the response to these risks has been determined or prepared by Universitas Padjadjaran. Good risk management at Universitas Padjadjaran should have predicted this and taken into account in formulating strategies for the future (PP No. 51 of 2015).

## **GRI 102-31 Pengkajian Topik Ekonomi, Lingkungan dan Sosial**

Proses pengkajian oleh MWA secara keseluruhan dilakukan setiap kuartal, sesuai dengan kewajiban melapor kepada kementerian, dalam bentuk Laporan Kinerja dan Keuangan (PP No 51 No 2015).



## GRI 102-33 Communicating Critical Matters

Mekanisme dalam menyelesaikan permasalahan kritis dilakukan dalam dua tahap. Tahapan pertama masalah tersebut diselesaikan oleh Rektor dan SA. Namun apabila Rektor dan SA tidak dapat menyelesaikan masalah tersebut dalam jangka waktu tiga bulan, maka keputusan tertinggi terhadap permasalahan tersebut akan di berikan kepada Menteri (PP No 51 No 2015).

## GRI 102-35 Remuneration Policy

Remuneration is employee benefits that can be in the form of salary, honorarium, fixed allowances, incentives, bonuses for achievements, and/or pensions. Remuneration is given to Lecturers, Education Personnel, and Administrators of Universitas Padjadjaran based on the positions, roles, responsibilities, and performance targets assigned (Rector Regulation of Universitas Padjadjaran No. 14 of 2022).

The remuneration structure for Lecturers at Universitas Padjadjaran refers to the Government Regulation Number 37 of 2009 on Lecturers, Regulation of the Minister of State Apparatus Empowerment and Bureaucratic Reform of the Republic of Indonesia Number 46 of 2013 on the Amendments to the Regulation of the Minister of Empowerment of State Apparatus and Bureaucratic Reform Number 17 of 2013 on the Functional Positions of Lecturers and Their Credit Scores, and the Decree of the Director General of Higher Education of the Ministry of Education, Culture, Research, and Technology Number 12/E/KP/2021 concerning Operational Guidelines for Lecturer Workloads that are aligned with the achievement of the Vision, Mission, Development Master Plan (Renip), Strategic Plan (Renstra) and Performance Indicators of Universitas Padjadjaran.

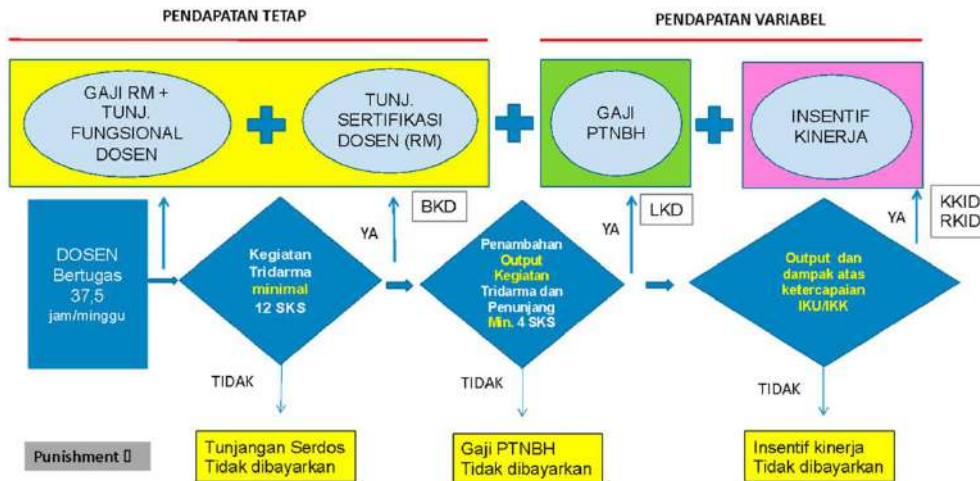


Figure 4. Calculation of Remuneration for Lecturers

Fixed Income consists of basic salary, Lecturer Functional Allowance (Pure Rupiah or Community Funds), Lecturer Certification Allowance, and Professor Honorarium Allowance (Pure Rupiah). Variable Income consists of PTNBH Salary and Variable Work Incentives (Community Funds). Lecturer's workload includes main activities, namely planning learning, implementing the learning process, evaluating learning, guiding and training, conducting research, carrying out additional tasks, and doing community service. The workload is at least equivalent to 12 (twelve) semester credit units (Rector Regulation of Universitas Padjadjaran No. 14 of 2022).

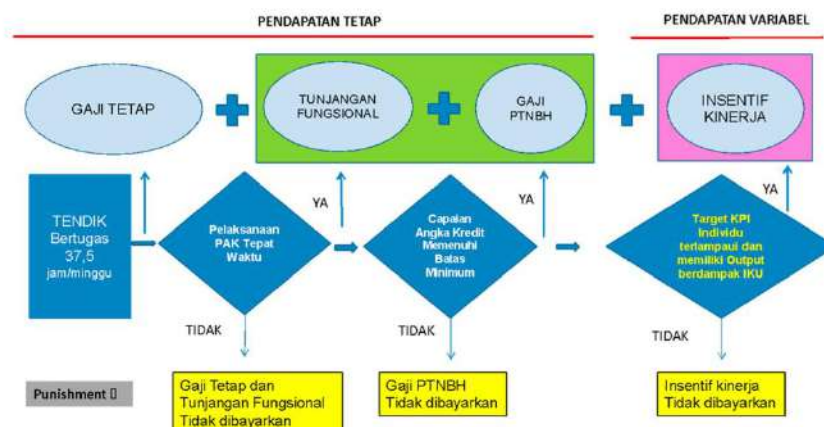


Figure 5. Calculation of Remuneration for Education Personnel with Functional Positions

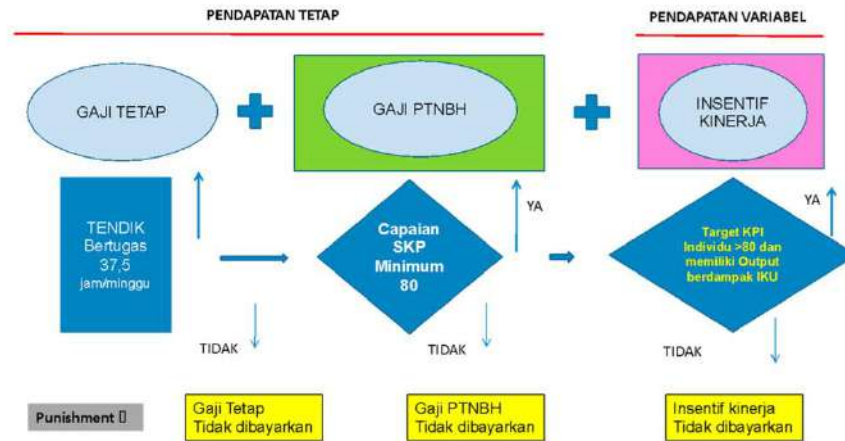


Figure 6. Remuneration Calculation for Educational Personnel with Implementing Positions

Education Personnel (Tendik) both civil servants and non-civil servants in this case Educational Personnel with Functional Positions and/or Implementing Positions have the right to get a fixed salary with the obligation to work equal to 37.5 hours/week.

Education Personnel who have Functional Positions are required to carry out activities in accordance with the minimum target of the Credit Score for their respective functional positions as stipulated in the credit score reporting regulations. The failure to achieve the reporting of credit score that has been set results in the temporary suspension of Functional Allowances sourced from Community Funds or from APBN/RM and there is no opportunity to get PTNBH Salaries and Performance Incentives.

Educational Personnel who have Implementing Positions are required to meet an Employee Performance Target (SKP) score of at least 80 according to their level and class of position to be able to obtain PTNBH Salaries. If the SKP reporting score does not reach 80, then the PTNBH Salary cannot be given.

## GRI 102-40 List of Stakeholder Groups

The stakeholder groups at Universitas Padjadjaran to date consist of:



Students, Lecturers, Educators, Management, Local Communities, Alumni, Government, and Cooperation Partners.

## **GRI 102-42 Identifying and Selecting Stakeholders**

The determination of Universitas Padjadjaran stakeholders can be seen from the members who make up the Board of Trustees of Universitas Padjadjaran. Where members of the Board of Trustees are representatives of every existing stakeholder. Basically, stakeholders for Universitas Padjadjaran are parties that have a direct or indirect impact on Universitas Padjadjaran as well as parties affected either directly or indirectly due to the activities of Universitas Padjadjaran as an organization engaged in education (PP No. 51 of 2015).

## **GRI 102-46 Defining Report Content and Topic Boundaries**

In determining the content of the report and the topic boundaries of the Universitas Padjadjaran sustainability report, several steps are taken, namely by conducting direct interviews and through document analysis to collect the information needed in preparing the sustainability report. The information is then reviewed to determine the extent to which the information can be presented in a sustainability report. This is determined by whether the information may be disclosed to the public or not. If so, then the extent to which such information may be disclosed is determined. Through interviews with directors at Universitas Padjadjaran, the information that may be presented as well as the limits of that information from each existing directorate is obtained, because each directorate has a different level of confidentiality of information. The information disclosed in the sustainability report is information that is in accordance with GRI standards as well as information that is owned and relevant to be disclosed in the sustainability report.



## GRI 102-47 List of Material Topics

Material topics in sustainability are determined by the importance of the economic, environmental, and social impacts and how these impacts can substantially influence the decision making by stakeholders. Currently, Universitas Padjadjaran has not been able to clearly determine the list of material topics that exist and may arise in the implementation of its activities. This is because over the past few years, the concept of sustainability itself has been embedded in every strategy, policy, and goal made by Universitas Padjadjaran. That is, there is no special post to discuss sustainability, but sustainability is inherent in every strategy owned by Universitas Padjadjaran.

As previously explained. Universitas Padjadjaran does not have an executive position that is specifically authorized regarding sustainability at Universitas Padjadjaran, but this function can be represented by functions from other directorates. As a result, it can be concluded that economic, environmental, and social topics are implicitly managed by almost all directorates depending on sustainability issues that arise and have a significant effect on Universitas Padjadjaran.

## GRI 102-50 Reporting Period

The reporting period for this Universitas Padjadjaran sustainability report is 2022.

## GRI 102-54 Claiming the Reporting to be in Accordance with the GRI Standards

This report has been prepared in accordance with the GRI Standards: Core Choices.



# CHAPTER III

## ECONOMY SPECIFIC DISCLOSURE

### GRI 201-1: Direct Economic Value Generated and Distributed

Universitas Padjadjaran is a non-profit educational organization. The surplus revenue earned by Universitas Padjadjaran will be allocated for the operating expense. Based on GRI standard, this revenue is defined as direct economic value generated, whereas the operating expense is defined as direct economic value distributed. The information related to the revenue and the operating expense is presented in the activity report which is different with the profit and loss generated report of a business organization.

The activity report explains the revenue which is classified into revenue with limitation and revenue without limitation. The revenue with limitation is managed by management policy which does not limit the revenue allocation. Sources of the revenue are from the donation and activity initiated independently. The revenue without limitation is acquired from the donation, but its purpose and allocated time have been determined by the donator. Whereas the revenue with permanent limitation has clear limitation of the allocation and does not determine the allocation time. The same thing applies on the operating expense which is also classified into cost with limitation and cost without limitaitaion.

<b>I. Revenue Without Limitation</b>		<b>IDR</b>
A	APBN	330,113,453,315
B	BPPTN BH	106,191,019,605
C	Revenue of Services Provided:	
	Educational Revenue Service	533,199,274,487
	Educational Cooperation and PPM	157,929,472,881
	Others	10,741,035,943
		<b>701,869,783,311</b>
D	Grant/Donation Revenue	-



E	Other Revenue:	
	Business Unit Management	57,666,716,192
	Rent	2,434,438,233
	Language Center, BIPA and Puspa Sehat	450,981,629
	Deposit Interest and Giro Service	6,355,131,658
	Electricity and Water Replacement Expenses	397,044,700
	Others	46,488,729,428
		<hr/>
		113,793,041,839
		1,251,967,298,070.6
	Total Revenue Without Limitation	8
II	<b>Revenue With Limitation</b>	
A	Service Provided	-
B	Grant/Donation	115,629,040,422
C	Others	-
		<hr/>
	Total Revenue With Limitation	115,629,040,422.00
	<b>TOTAL REVENUE</b>	<b>1,367,596,338,493</b>

Figure 7. Income Report of Universitas Padjadjaran

Source: Financial Report of Universitas Padjadjaran 2020

Based on the figure above, it can be stated that the revenue with limitation is from APBN and PTNBH and services. The revenue of Service Provided is acquired from donation and grant. The difference between the revenue and operating expense is shown as netto asset with has either surplus or deficit value. The activity report of Universitas Padjadjaran of 2021 indicated that Universitas Padjadjaran generated nett asset with positive or surplus value of Rp1,367,596,338,493.

## GRI 201-2: Financial Implications and Other Risks and Opportunities Due to Climate Change

The climate change has significant effect on society which keep adapting to it. This may have indirect effect on financial capability which may later affect the organizations including Universitas Padjadjaran. The climate change has both negative and positive impact



on Universitas Padjadjaran. The negative impact is indicated by the increasing use, maintenance, and procurement of Air Conditioner (AC). The positive impact is indicated by various emerging programs which encourage the awareness of the importance in maintaining and managing the environment.

Universitas Padjadjaran has applied various programs in order to increase energy efficiency as the efforts in maintaining and managing the environment such as using energy-saving devices, optimizing smart building, reducing paper use, replanting the plants, providing transportation facilities for society of academicians, dan conducting waste management program.



Figure 8. The Use of Energy-saving Lights



Gambar 9. The Use of Natural Lightings and Natural Air Circulation System on Smart Buildings



Figure 10. The Use of *E-Office* to Reduce Paper Use



Figure 11. Replanting Activity in Green Area of Campus



Figure 12. Free Transportation Facilities for the Campus Society



Figure 13. Biogas Technology Management and Compost House as Waste Management



## GRI 201-3: Defined Benefit Retirement Obligations and Other Retirement Plans

The retirement plan provided by Universitas Padjadjaran for civil servant employees and non-civil servant employees has differences. The civil servant employees are fully guaranteed by the government, while the non-civil-servant employees are directly guaranteed by Universitas Padjadjaran using different plans. However, Universitas Padjadjaran keeps on providing the same treatment between civil servant employees and non-civil servant employees by providing retirement funding through national social security (*BPJS Ketenagakerjaan*).

<b>LIABILITY</b>	<b>IDR</b>
<b>Short Term Liability</b>	
Business Debt	13,115,155,421.88
Tax Debt	2,341,349,447.00
Expenses to pay	45,624,323,927.67
Unearned Revenue	47,945,537,973.94
Long Term Liability with one-year due date	600,833,346.00
Other Short Term Liability	65,094,725,907.81
<b>Total Short Term Liability</b>	<b>174,721,926,024.30</b>
<b>Long Term Liability</b>	
Long Term Debt	3,427,107,575.80
Postemployment Wage Liability	4,448,931,008.00
<b>Total Long Term Liability</b>	<b>7,876,038,583.80</b>
<b>Total Liability</b>	<b>182,597,964,608.09</b>

Figure 14. Liability Value of Universitas Padjadjaran

Source: Financial Report of Universitas Padjadjaran 2021

Universitas Padjadjaran attempts to provide prosperity guarantee for the employees until their retirement. This is reflected in the training programs which are provided for the employees who will retire. The program aims to provide both new skills and knowledge as their preparation before their retirement in Universitas Padjadjaran.



## GRI 201-4: Financial Assistance Received from the Government

Universitas Padjadjaran has been one of universities with a Legal Entity State University (PTNBH) status since 2014. Therefore, Universitas Padjadjaran has funding source supported by the government.

<b>Revenue Without Limitation:</b>		<b>IDR</b>
A	APBN	330,113,453,315
B	BPPTN BH	106,191,019,605
C	Revenue of Service Provided:	
	Educational Revenue Service	533,199,274,487
	Educational Cooperation and PPM	157,929,472,881
	Others	10,741,035,943
		<b>701,869,783,311</b>

Figure 15. Total Revenue without Limitation of Universitas Padjadjaran

Source: Directorate of Finance 2021

The picture above indicates that the funding source of Universitas Padjadjaran which comes from the government is 47.01% which is presented in the revenue without limitation from APBN and BPPTNBH. The report notes that in 2021 the employee salary from the government is around 330 billion rupiahs. Moreover, there is additional fund of 106 billion rupiahs from government because Universitas Padjadjaran holds the PTNBH status.

## Market Existence

### GRI 202-2: Proportion of Senior Management Hired from the Local Community Seniors

Universitas Padjadjaran which is one of universities in West Java, is located in Jatinangor, Sumedang Regency. There are members of local community who become senior management in Universitas Padjadjaran. Senior management are strategic position for those who are involved in management activity of Universitas Padjadjaran. Currently, the management senior consists of the lecturers or education personnel who have been devoting themselves in Universitas Padjadjaran for a long time.



## Indirect Economic Impacts

### GRI 203-1: Infrastructure Investments and Services Supported

Each facility constructed by Universitas Padjadjaran aims to support threefold missions of higher education (*Tri Dharma Perguruan Tinggi*). Recently, 17 buildings have been constructed for improving education and research activities. Among those buildings are Dormitory Building and Campus Building of PSDKU (Program Studi di Luar Kampus Utama)<sup>1</sup> in Pangandaran. Moreover, Universitas Padjadjaran also plans to establish other facilities such as medical facility for public and aims to provide medical practice for students of Faculty of Medicine. Besides, Universitas Padjadjaran also plans to establish centered-canteen which can be used by all students of Universitas Padjadjaran.

### GRI 203-2: Significant Indirect Economic Impacts

The existence of Universitas Padjadjaran campus indirectly has economic impacts for its neighborhood. This is indicated in the change of activity or construction around the campus like the emerging service providers of boarding house (*kos-kosan*), eateries, shops, transportation services, and other products and services providers which help to support students' activity. The appearance of these product and services providers were the effect of many students who come to continue their study in Universitas Padjadjaran from all regions of Indonesia. Besides, the new job opportunities provided by Universitas Padjadjaran are meant to hire the employees from the campus' surroundings.

## Procurement Practice

### GRI 204-1: Proportion of Spending on Local Suppliers

The main area of Universitas Padjadjaran located in Jatinangor Sumedang Regency. This helps promote Jatinangor as the local area where Universitas Padjadjaran implement its activities. Next, the suppliers who cooperate with Universitas Padjadjaran in procurement sector which come from Jatinangor and surroundings area are the local suppliers.



Universitas Padjadjaran generally implement the procurement system based on transparent, open, independent (does not affiliate to any party) principles. Although the logistic and stationery (ATK) procurement applies some systems, there is one system which involves local supplier called direct appointment system. The direct appointment is implemented for the goods procurement with little cost and commonly uses the suppliers from Universitas Padjadjaran surrounding areas, like consumption procurement on meetings or certain events. The procurement which applies this system has budget limitation of 250 million. Therefore, Universitas Padjadjaran still utilises the suppliers from campus surrounding areas for some procurement with certain budget limitation.

Other procurement is by using auction system and e-catalog. These two systems are applied on goods procurement with the budget of more than 250 million. The auction system is implemented when Universitas Padjadjaran makes list of goods or logistics needed and implement the procurement by having auction for interested suppliers. Next, Universitas Padjadjaran will select the supplier which is able to provide the goods needed with good quality and affordable price. The other scheme is e-catalog, in which Universitas Padjadjaran will select the goods needed based on the goods displayed on the e-catalog.



## CHAPTER IV

### ENVIRONMENTAL SPECIFIC DISCLOSURE

#### GRI 301-1: Materials Used by Weight or Volume

Data not available

#### GRI 301-2: Recycled Input Materials Used

Universitas Padjadjaran uses several materials from materials or activities to be recycled so that they can be useful again for the environment. Some of these materials consist of single-use plastic waste for beverage packaging, cardboard, residual waste (mixture), organic waste (such as leaves/twigs), and animal waste. The solid waste comes from the campus of Universitas Padjadjaran, Jatinangor, and cattle pens in Ciparanje. As much as 2-3 tons/day of organic waste and animal waste on average of 100kg/day are all recycled into compost and biogas. The waste management produces 100 kg of compost per day or  $\pm 1$  to 2 tons of compost per month, 50kg of liquid fertilizer per month from leachate fermentation, and 2-3 kg of biogas per day which is used for cooking in a confined environment. Meanwhile, less than 5% or 100 kg/month of plastic waste is recycled into shredded plastic as plastic pellet material. In addition to organic waste, Universitas Padjadjaran can utilize the ash from the combustion of non-organic waste. The ash is used to produce bricks.



Figure 16. Organic Waste Compost House and Non-organic Residue

#### GRI 301-3: Reclaimed Products and Their Packaging Materials

Data not available



## GRI 302-1: Energy Consumption in Organization

Currently, the main energy source for Universitas Padjadjaran still comes from PLN, while other energy sources are still under development and further testing. Energy consumption on the main campus of Universitas Padjadjaran in Jatinangor is very volatile every month. The highest energy use occurs around April to June and October to January. The use of this energy is following the lecture activities of students.

The use of electrical energy in the 2019-2021 period is 3,767,559.53 kWh. The average energy consumption during the pandemic was 2,213.61 kWh/individual with an average of 1,702 people who were active on campus. Meanwhile, the average energy consumption under normal conditions is 108,485 kWh/individual with 34,729 people. The use of energy is following student activities at that time and the implementation of PPKM (imposition of restrictions on community activities) that reduces the number of community members and their use of energy. The consumption of energy use on the Universitas Padjadjaran campus is shown in the figure below.



Figure 17. Energy Consumption of Universitas Padjadjaran Campus (2019-2021)



## GRI 302-2 Energy consumption outside the organization

Data not available

## GRI 302-3 Energy intensity

Data not available

## GRI 302-4: Energy Consumption Reduction

Universitas Padjadjaran is committed to carrying out programs and concrete actions to become a green campus, one of which is energy efficiency. Some of the things that have been done are replacing equipment that uses large amounts of energy with equipment that is more efficient in energy use.

Table 1. List of Energy Saving Equipment Usage

Appliance	Total Number	Total Number Energy Efficient appliances	Percentage
<b>LED Lamp</b>	19,771	1720	8,70%
<b>Fan</b>	427	323	75,64%
<b>AC-AC inverter</b>	2912	455	15,3%
Average Percentage			33,32%

The table above shows that Universitas Padjadjaran has started using energy-efficient equipment. In 2022, Universitas Padjadjaran used 33.32% of energy-efficient equipment which includes the use of LED lights, as well as split, cassette, and standing inverter air conditioners. In addition, Universitas Padjadjaran also uses an integrated system of air conditioning, CCTV, alarms, and loudspeakers.



Figure 18. Use of Integrated LED Lights and AC Inverters



Figure 19. Integrated CCTV, Alarm, dan Loudspeaker System

Universitas Padjadjaran continues to shift the use of energy-efficient equipment. In addition to the use of energy-efficient equipment, Universitas Padjadjaran also uses renewable energy sources such as solar panels. Solar panels are used to supply electricity to water pumps, street lighting, and easy bikes. Universitas Padjadjaran also uses biogas as another renewable energy source.



Figure 20. Use of Solar Panels for Street Lighting and Water Pumps



Figure 21. Use of Easybike and Biogas as Renewable Energy Sources

The production of renewable energy-generating technology in 2021 will increase from the previous year, which was 226.86 kWh or around 0.0084% of the total demand at Universitas Padjadjaran, which was 2,699,152.26kWh. Meanwhile, in 2020 it only reach 182.36 kWh or around 0.0065%. The increase in renewable energy production is influenced by the increase in the use of solar panel power from 66 kWh to 110.5 kWh and a decrease in the total energy used at Universitas Padjadjaran due to the pandemic in 2021. The increase in renewable energy production strengthens the commitment of Universitas Padjadjaran to continue and develop renewable energy technology. The total production of renewable energy at Universitas Padjadjaran can be seen in Table 2.

Table 2. Total Renewable Energy Production

Renewable Energy	Appliance	Production (kWh)
Solar Panel	Nannobubble/WTP/Lamp	110.5 kWh
	JPU	72 kWh
	Easy Bike	44 kWh
Biomass	Lamp	0.3 kWh
<b>Total Production</b>		<b>226.86 kWh</b>

Universitas Padjadjaran has also implemented a reduction in energy consumption through the construction of smart buildings. Universitas Padjadjaran has a smart building covering an area of 53,354 m<sup>2</sup> out of a total building area of 159,410 m<sup>2</sup>. Smart building implementation is carried out by designing buildings that have access to lighting and good



air circulation, use integrated AC and CCTV systems, and monitoring environmental facilities such as:

- Water level.
- Air quality, carbon dioxide and other gases such as carbon monoxide in a confined area of the room.
- Quality of water, waste and lead.
- Air temperature and humidity.



Figure 22. Map of Smart Buildings at Universitas Padjadjaran



Figure 23. Use of Natural Lighting and Good Air Circulation in the Design of Smart Buildings at Universitas Padjadjaran

## GRI 302-5: Reduction of Energy Needed for Products and Services

Data not available

## GRI 303-1 Water Intake by Source

60% of the water at Universitas Padjadjaran comes from PDAM Sumedang Regency and 40% comes from campus water source. The data for 2021 shows that Universitas Padjadjaran had 14 water wells based on the Groundwater Utilization Permit (SIPA).

## GRI 303-2: Water Sources Significantly Affected by Water Intake

Data not available

## GRI 303-3: Water Recycling and Reusing

According to the Universitas Padjadjaran Campus Environmental Manager, one of the efforts to improve water use efficiency is through



the use of water taps and flush toilets in every building. In addition, Universitas Padjadjaran also has an integrated water channel that empties into the university check dam downstream which is then used to water plants around the university area regularly. Not only that, Universitas Padjadjaran also has many water catchment areas to optimize rainwater absorption. The university also has integrated water drainage that leads to the water reservoir.

Currently, Universitas Padjadjaran has recycling facilities specifically for consumption services, including *Jalatista*, *Nanobubble print-G*, and a *G-print* greenhouse complex with a limited laboratory scale. In addition, Universitas Padjadjaran also has an injection well to treat dirty water which is then channeled into a 50-60 m check dam with a biopore system on the surface.



*Jalatista* drinking water recycling facility



Campus forest as a catchment area



Water reservoir








<p>Integrated drainage system</p>

<p>The drainage system that empties into the checkdam of Universitas Padjadjaran</p>

<p>Water tank truck</p>

<p>Watertap and toilet flush</p>

Figure 24. Several Water Use Installations at Universitas Padjadjaran



## GRI 304-1: Operational Locations Owned, Leased, Managed, or Adjacent to Protected Areas and Areas with High Biodiversity Value Outside Protected Areas

The campus of Universitas Padjadjaran in Jatinangor covering an area of 178 hectares has 45% green area and has a biodiversity value that is divided into two clusters. Cluster 1 has eight forest areas consisting of Arboretum, Candlenuts Garden, Experimental Land and Veterinary Medicine, Pertamina Oxygen Cylinder I, Pertamina II Oxygen Cylinder, Java and Madura Plant Nurseries, Rubber Gardens, Mahogany Gardens. Meanwhile, cluster 2 consists of buildings, parks, and roads.

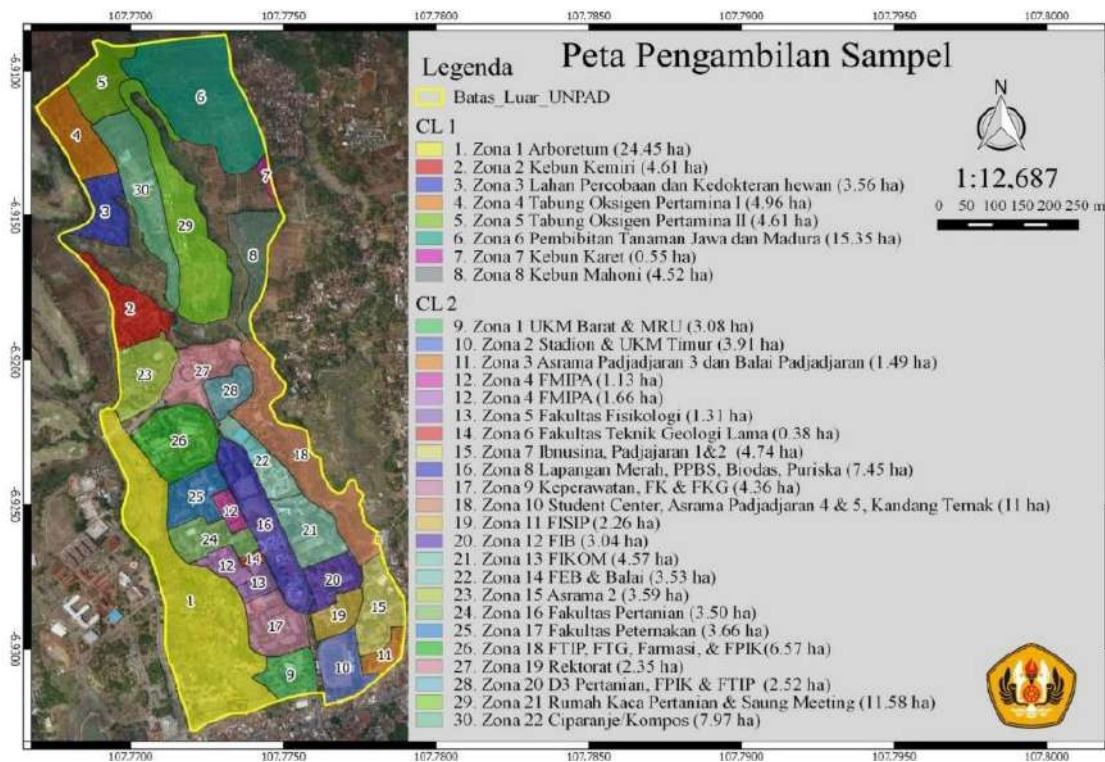


Figure 25. Areas with Biodiversity Value

## GRI 304-2: Significant Impact of Activities, Products, and Services on Biodiversity

The Campus Green Area is a habitat for campus wildlife such as wild birds, mammals, herpetofauna, insects, etc., and provides water conservation support with the emergence of 5 new springs since reforestation 30 years ago. In addition, the green area also captures carbon and produces oxygen for the campus area and its surroundings.



On the other hand, this area is also used as a means of education, exploration, research, and learning for students.

## GRI 304-3: Protected or Restored Habitats

Universitas Padjadjaran has vegetation in the campus forest area. The university continues to develop vegetation through reforestation in the campus forest area. This activity is carried out to reduce carbon gas production and maintain biodiversity in the campus environment. These activities include planting several types of bamboo, rare plants, and local fruit plants. One of the protected habitats is the Arboretum area which has more than 300 collections of plants from West Java and several other areas of Indonesia. The Arboretum area also has a collection of rare plants and is protected under Indonesian law. This 12.5 ha area has approximately 25 species of rare West Java plants consisting of 16 medicinal plants, 7 production trees, experimental ponds, and about 60 of the more than 80 species in the entire Jatinangor area. Some of them are in protected statuses, such as monarch butterflies, migratory birds, reptiles, frogs, and snakes. Until now the Arboretum has more than 200 species of plants, 25 species of birds, 16 species of butterflies, 9 species of spiders, and several other unregistered animals such as reptiles, insects, and weasels.

## GRI 304-4 Vegetation Growing in Protected Areas

The plant vegetation in the Universitas Padjadjaran is spread out in Green Space (*Ruang Hijau/RH*) clusters one or two. RH cluster 1 is an artificial forest that is designed like a natural forest and has conservation value. The total area of RH is 178 Ha or 45% of the total area of Universitas Padjadjaran. The area of RH cluster 1 is 812,695.83 m<sup>2</sup> or 45.63% of the total campus area. In general, the campus forest is located in the Arboretum and the upper campus forest is concentrated in candlenut and mahogany gardens. The RH area in cluster 1 functions as a water catchment, improving air quality, and as a habitat for campus biodiversity.

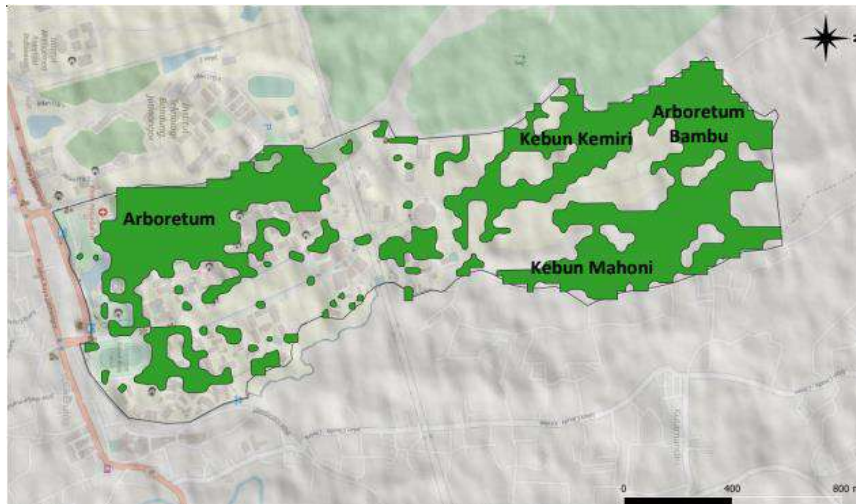


Figure 26. Total Area of Green Space Cluster 1

The vegetation in the Universitas Padjadjaran area is very diverse and there is no exact record of the number of individuals, but spatial data shows that this area consists of 3 Ha Mahogany Forest with a density of 2 individuals/16 m<sup>2</sup>, as well as Muncang Garden Forest. Density will increase in bamboo and teak forests. This area has 12,000 plants of road shade plants with the assumption that the distance between plants is 4 meters on about 5 km of roads. On the other hand, Nurjaman's research (2018) shows that the Green Space (Ruang Hijau/RH) area of the Universitas Padjadjaran campus has a variety of vegetation from the Fabaceae family. The number of individuals and the distribution of Fabaceae family plants in RH cluster I (UNIVERSITAS PADJADJARAN Campus Forest, Jatinangor) are presented in the table below.

Table 3. Number of individuals and distribution of Fabaceae family plants in RH cluster I (UNIVERSITAS PADJADJARAN Campus Forest, Jatinangor)

No	Plant Name		Number of individuals
	Indonesian	Scientific	
1	Akasia	<i>Acacia mangium</i> Willd	17
2	Akasia	<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	5
3	Angsana	<i>Pterocarpus indicus</i> Willd.(1802)	7
4	Dadap Cangkring	<i>Erythrina microcarpa</i> Lour.	2
5	Flamboyan	<i>Delonix regia</i> (Hook.) Raf.	14



6	Jengkol	<i>Archidendron pauciflorum</i> (Benth.)	2
7	Johar	<i>Senna siamea</i> (Lamk.) Irwin et Barneby	3
8	Kopi Anjing	<i>Cynometra cauliflora</i> L.	5
9	Lantorogung	<i>Leucaena leucocephala</i> (Lamk.) de Wit, 1961	5
10	Petai	<i>Parkia speciosa</i> Hassk.	5
11	Pohon kupu-kupu	<i>Bauhinia purpurea</i> (L.) Benth.	2
12	Saga besar	<i>Abrus precatorius</i> L.	7
13	Sengon biasa	<i>Albizia falcataria</i> (Osbeck) Merr.	18
14	Sengon buto	<i>Enterolobium cyclocarpum</i> (Osbeck) Merr.	42
15	Sono keeling	<i>Dalbergia latifolia</i> Roxb.	2

Source: Nurjaman (2018)



Figure 27. Arboretum Area



Figure 28. Candlenut Garden and Mahogany Garden

RH cluster 2 is located in the middle of the campus which includes green lanes and parks. The vegetation in RH cluster 2 has an area of 443,522,33 m<sup>2</sup>. The existence of vegetation on the green lane at Universitas Padjadjaran functions as road shade, water absorption, pollutant absorber, dust absorber, and reduces noise. RH cluster 2 also functions aesthetically in the garden area which gives a beautiful and comfortable impression for the society of academicians and guests that visit the campus.



Figure 29. Total Area of Green Space Cluster 1

Table 4. Number of individuals and plant distribution of the Fabaceae family in RH cluster 2 (UNIVERSITAS PADJADJARAN Campus Forest, Jatinangor)

No	Plant name		Number of individuals
	Indonesian	Scientific	
1	Akasia	<i>Acacia mangium</i> Willd	23
2	Akasia	<i>Acacia auriculiformis</i> A.Cunn. ex Benth.	24
3	Angsana	<i>Pterocarpus indicus</i> Willd.(1802)	54
4	Dadap cangkring	<i>Erythrina microcarpa</i> Lour.	5
5	Flamboyan	<i>Delonix regia</i> (Hook.) Raf.	66
6	Jengkol	<i>Archidendron pauciflorum</i> (Benth.) I.C.Nielsen	1
7	Johar	<i>Cassia siamea</i> (Lamk.) Irwin et Barneby	4
8	Kelor	<i>Moringa oleifera</i> Gaertn	3
9	Lantorogung	<i>Leucaena leucocephala</i> (Lamk.) de Wit, 1961	33
10	Petai	<i>Parkia speciosa</i> Hassk.	2
11	Pohon Kupu-kupu	<i>Bauhinia purpurea</i> (L.) Benth.	31
12	Saga besar	<i>Abrus precatorius</i> L.	5
13	Sengon biasa	<i>Albizia falcataria</i> (Osbeck) Merr.	21
14	Sengon buto	<i>Enterolobium cyclocarpum</i> (Osbeck) Merr.	9
15	Sono keling	<i>Dalbergia latifolia</i> Roxb.	3
16	Trembesi	<i>Samanea saman</i> (Jacq.) Merr.	2

Source: Nurjaman (2018)



Figure 30. Vegetation in Green lanes and Campus Parks

## ANNEX

### Emissions-Related Policy

#### GRI 305-1: Direct (Scope 1) GHG Emissions

Universitas Padjadjaran carries out various programs to reduce the number of emissions generated by campus activities. The number of carbon gases produced from the use of electricity, buses, cars, and motorcycles. The total carbon gas produced is 3,789.8 Metrics/Ton. Based on data on carbon gas produced, electricity consumption is the largest contributor to carbon gas in the campus environment. Carbon gas generated by the use of electricity almost dominates the total carbon gas generated from the high use of electricity in each unit. In addition, the second largest contributor to carbon gas is motor vehicles. Carbon data from Universitas Padjadjaran based on the number of daily vehicles is presented in the table below.



Table 5. Carbon Data from Universitas Padjadjaran based on the number of daily vehicles. (Metrics/Ton)

**CO<sub>2</sub> (electricity)**

$$= \frac{\text{electricity usage per year (kWh)}}{1000} \times 0,84$$

$$= \frac{3767559.53 \text{ kWh}}{1000} \times 0,84$$

$$= 3164.75 \text{ metric tons}$$

**CO<sub>2</sub> (bus)**

$$= \frac{\text{number of shuttle bus in your university} \times \text{total trips for shuttle bus service each day} \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,01$$

$$= \frac{15 \times 5 \times 4 \times 240}{100} \times 0,01$$

$$= 7.2 \text{ metric tons}$$

**CO<sub>2</sub> (cars)**

$$= \frac{\text{number of cars entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,02$$

$$= \frac{309 \times 2 \times 4 \times 240}{100} \times 0,02$$

$$= 118.65 \text{ metric tons}$$

**CO<sub>2</sub> (motorcycle)**

$$= \frac{\text{number of motorcycle entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,01$$

$$= \frac{1040 \times 2 \times 4 \times 240}{100} \times 0,01$$

$$= 499.2 \text{ metric tons}$$

**CO<sub>2</sub> (total)**

$$= 3164.75 + 7.2 + 118.65 + 499.2$$

$$= 3789.8 \text{ metric tons}$$

**Carbon footprint in 2021 = 3,789.8 metric tons**

GRI 305-2: Indirect (Scope 2) GHG Energy Emissions

Data not available

GRI 305-3: Other Indirect (Scope 3) GHG Energy Emissions

Data not available

GRI 305-4: Intensitas Emisi GRK

Data not available

GRI 305-5: Emission Reduction (GRK)

Universitas Padjadjaran has several programs to reduce greenhouse gases such as 1) Regulations; 2) a reforestation program, 3) zero emission vehicle policy; 4) a program to reduce the use of paper and plastic; 5) the

Use of LED lights, Solar Panels and water efficiency; 6) Bale Tatanen; 7) Waste management program;

## 1) Regulations

Universitas Padjadjaran has published regulations, as well as technical manuals. The green campus regulations that are currently being implemented are under the Rector's Decree and the occupational safety and health manual.



Figure 31. Technical Guidebook and Green Campus Regulations

## 2) Reforestation

The reforestation program is implemented to reduce the production of carbon gases that cause greenhouse gas effects. Reforestation is carried out around the campus area to maintain biodiversity by planting a collection of rare plant species and local fruit plants. Reforestation is carried out in RH cluster 1 and cluster 2.

### Cluster 1

The calculated value of carbon sinks in RH cluster I (Universitas Padjadjaran Campus Forest, Jatinangor) is expressed in DC (Carbon Density) in tonsC/Ha and DDC (CO<sub>2</sub> Reserve Density) in tonsCO<sub>2</sub>/Ha units. From the potential amount of biomass and biomass density (DB) it can also be seen that CO<sub>2</sub> can be absorbed by plants. The following is a table of the results of the calculation of the potential for carbon sinks



using the biomass content approach developed by IPCC (2006). Plant carbon sinks per zone and all zones from Green space (RH) Cluster I (campus forest) Universitas Padjadjaran, Jatinangor and its area are shown in the table below.

Table 6. Plant carbon sinks per zone and overall zone from Green space (RH) Cluster I (campus forest) Universitas Padjadjaran, Jatinangor and its area

No	Green space Cluster I, Universitas Padjadjaran Campus, Jatinangor Per Zone	Area		Total Carbon Sink (Kg)	DC (ton C/Ha)	DCC (ton CO <sub>2</sub> /Ha)
		width_ha	width_m <sup>2</sup>			
1	Zone 1 (Arboretum)	24.44	244482.06	286369.72	11.71	86.68
2	Zone 2 (Candlenut garden)	4.60	46087.84	267714.83	63.61	470.70
3	Zone 3 (Experimental field and veterinary medicine (Mr. Kundrat))	3.56	35650.38	266973.04	74.89	5541.59
4	Zone 4 (Pertamina I oxygen cylinder)	4.95	49569.97	34886.91	49.84	368.82
5	Zone 5 (Pertamina II oxygen cylinder)	4.60	46083.42	8168.01	2.71	20.06
6	Zone 6 (Java and Madura nurseries, posyandu)	15.34	153475.75	100527.21	2.27	16.82
7	Zone 7 (Rubber garden)	0.54	5451.42	247058.24	14.98	110.88
8	Zone 8 ( Mahogany Garden)	4.51	45150.15	12491.98	22.27	164.76
	Total	62.59	625951.01	1224189.93	242.28	6780.31

The results of the calculation of the analysis of carbon sinks per zone from RH cluster I (Universitas Padjadjaran Campus Forest, Jatinangor) obtained the value of the number of carbon sinks in zone 1 (Arboretum)



of 286369.72 kg, with an area of 24.44 Ha. The value of the number of low carbon sinks is in zone 5 (Pertamina II Oxygen Cylinders) which is 8168.01 kg with an area of 4.60 Ha. Calculation of the number of carbon sinks also shows the value of carbon density (DC) and the density of CO<sub>2</sub> reserves.

## Cluster2

The carbon sink value in RH cluster II (Green lane, Park, and Green Parking Area, Universitas Padjadjaran Campus, Jatinangor) is expressed in DC (Carbon Density) in tonsC/Ha and DCC (CO<sub>2</sub> Reserve Density) in tonsCO<sub>2</sub>/Ha units. The biomass potential can indicate CO<sub>2</sub> that can be absorbed by the biomass. The following is a table of the results of the calculation of the potential for carbon sinks using the biomass content approach developed by IPCC (2006). Plant Community Carbon Sink from Green space (RH) Cluster II (Green lane, Park and Green Parking Area, Universitas Padjadjaran Campus, Jatinangor) is shown in the table below.

Table 7. Plant Community Carbon Sinks from Green Space (RH) Cluster II (Green Lane, Parks and Green Parking Areas, Universitas Padjadjaran Campus, Jatinangor)

No	Green space Cluster II campus of Universitas Padjadjaran, Jatinangor Per Zone	Area		Total Carbon Sink (Kg)	DC (ton C/Ha)	DCC (ton CO <sub>2</sub> /Ha )
		Width_ ha	Width_m2			
1	Zone 1 (West UKM & MRU)	3.08	30810.96	45122.44	14.6	108.4
2	Zone 2 (East Stadium and UKM)	3.91	39063.71	50517.72	12.9	95.7
3	Zone 3 (Padjadjaran 3 Dormitory (Pharmaceutical Dormitory) and Padjadjaran Hall)	1.49	14880.68	21059.24	14.2	104.7
4	Zone 4 (FMIPA (Mathematics, statistics, physics, chemistry and biology))	2.80	28043.79	70977.31	25.3	187.3
5	Zone 5 (faculty of Psychology)	1.31	13113.43	25510.99	20.2	149.2
6	Zone 6 (Old Geological Engineering Faculty)	0.38	3835.05	9553.92	24.9	184.3
7	Zone 7 (The vegetation of the tree category of Ibn Sina, Padjadjaran 1, Padjajaran 2, Fedka Puspa Sehat)	4.74	47417.67	40441.24	8.5	63.1



8	Zone 8 (Lapangan Merah, PPBS, Biodas, collaborative research center)	7.45	75531.50	51443.18	6.9	51.1
9	Zone 9 (Nursing, Faculty of Medicine & Faculty of Dentistry)	4.36	43558.75	78634.93	18.1	133.6
10	Zone 10 (Location of Padjadjaran Dormitory, 4, 5, Student center, cattle pens, poultry cages, sheep pens)	11.00	110022.93	36070.44	2.3	17.1
11	Zone 11 (Faculty of Social and Politic Sciences)	2.26	22590.94	25041.90	11.1	82.0
12	Zone 12 (Faculty of Cultural Sciences)	3.04	30358.34	29143.39	9.7	71.9
13	Zone 13 (Faculty of Communication Science)	4.57	48869.60	33204,66	7.3	53.8
14	Zone 14 (Faculty of Economics and Business & Balai Santika)	3.53	35278.34	6980.81	2.0	14.6
15	Zone 15 (Dormitory near the rectorate)	3.59	46087.84	17873.55	4.2	31.3
16	Zone 16 (Faculty of Agriculture)	3.50	33984.66	67048.16	19.1	141.7
17	Zone 17 (Faculty of Animal Husbandry)	3.66	36584.76	66201.67	18.1	133.9
18	Zone 18 (Faculty of Agricultural Industrial Technology, Faculty of Geological Engineering, Faculty of Pharmacy, and Faculty of Fishery and Marine Science)	6.57	65669.32	35912.47	5.5	40.5
19	Zone 19 (Rectorate)	2.35	2350.00	8600.71	1.8	13.6
20	Zone 20 (Diploma 3 of Agriculture, Faculty of Fishery and Marine Science, and Faculty of Agricultural Industrial Technology)	2.52	25189.58	51729.13	20.5	152.0
21	Zone 21 (Agricultural greenhouse zone, meeting hall)	11.58	115798.47	29861.17	2.8	20.8
22	Zone 22 (ciparanje/ compost)	7.97	79653.57	22887.34	2.9	21.3
	Total	95.65	948693.88	790611.71	252.9	1871.8

Source: Nurjaman (2018)

The results of the calculation of carbon sinks in cluster II (Green lane, Parks and Green Parking Areas, Universitas Padjadjaran, Jatinangor) show the number of carbon sinks, carbon density (DC), and CO<sub>2</sub> reserve density (DCC) per zone and all zones in cluster II. Based on the calculation, the highest number of carbon sinks was found in zone 9 (Nursing, Medicine & Dentistry) with a value of 78634.93 kg with an area of 4.36 Ha. The lowest carbon sink value is in zone 14 (FEB & Balai



Santika) with a value of 6980.81 kg, with an area of 3.53 Ha. The total number of carbon sinks in cluster II (Green Road, Park and Green Parking Area Campus, Universitas Padjadjaran, Jatinangor) is 790611.71 kg with a total area of 95.65 Ha.

### 3) *Zero emission vehicle*

Universitas Padjadjaran also provides various transportation facilities that can be used by the campus community, such as buses, bicycles, and electric cars. Pedestrian facilities are also improved to provide more comfort for pedestrians in carrying out activities on campus. In addition, the provision of centralized parking lots and dormitories is also expected to reduce the intensity of vehicle use. GHG emissions at the university generally come from the operation of vehicles within the campus environment, so to reduce them, the university prioritizes campus transportation, walking, and the Universitas Padjadjaran *Nyepedah* movement (cycling).



Figure 32. Provision of Campus Buses and Bikes for the Society of Universitas Padjadjaran



Figure 33. Centralized Parking Area for the Campus Society

### 4) *Programs to reduce the use of paper and plastics in campus*



Other programs also continue to be carried out such as reduction in the use of paper and plastics, the use e-office for campus administration purposes, implementation of 3R programs (reuse, reduce, recycle), and the use tumblers and own cutlery.



Figure 34. Use of E-Office in Campus Administration

### 5) *The Use of LED Lights, Solar Panels, and Water Efficiency*

A great effort in reducing carbon emissions in the Universitas Padjadjaran campus area is also implemented through the use of LED lights, solar panels, and water efficiency. The development of solar panels and LED lights is an effort from Universitas Padjadjaran in supporting the application of new and renewable energy in the campus environment. This step is expected to reduce energy use significantly. The use of LED lamps in the Universitas Padjadjaran Campus area can reduce electricity consumption by 85% compared to incandescent lamps or other lamps at the same lighting intensity and lifetime.

In 2021, Universitas Padjadjaran and SOEs increased efforts to reduce emissions in the campus environment through the installation of a Rooftop Solar Power Plant with a capacity of 3 KWp at the Faculty of



Economics & Business, Universitas Padjadjaran and plan to use the same power plant in 13 buildings on the campus of Universitas Padjadjaran, Jatinangor.

Gambar 35. Purwarupa PLTS dan Penggunaan Lampu LED

## 6) *Bale Tatanen*

*Bale Tatanen* Padjadjaran is a combination of the development of hydroponic agriculture and technology. *Bale Tatanen* is located in the Hydroponic Green House of the Faculty of Agriculture, Universitas Padjadjaran, Jatinangor. Currently, the university has five greenhouses that have been reactivated. The development of the *Bale Tatanen* smart greenhouse is integrated with the Internet of Thing (IoT) concept related to microclimate control and the provision of plant nutrients so that plant cultivation in the greenhouses can run automatically, precisely, and in control. *Bale Tatanen* is also integrated with the Smart Watering Kit innovation which is a smart hydroponic device, using the principle of a zero-electric self-watering system. The use of Smart Watering can increase efficiency in the use of water and nutrients.



Figure 36. *Bale Tatanen Smart Green House*



## *7) Waste management program*

Universitas Padjadjaran has its waste management unit called the Environmental K3 Center (*Pusat K3 Lingkungan/PK3L*). Waste management at Universitas Padjadjaran uses an Integrated Solid Waste Management/ISWM system that combines techniques, technology, and management. Since the 2000s, waste management at Universitas Padjadjaran has been carried out using the 3R (reduce, reuse, and recycle) method. The waste management system is centralized in the Ciparanje Reduce-Reuse-Recycle (TPS3R) Waste Management Site covering an area of 2,000 m<sup>2</sup> which is located 300 meters north of the Universitas Padjadjaran Campus, Jatinangor. The waste management process at TPS3R Ciparanje includes: 1) sorting organic and inorganic waste; 2) composting of canteen and office organic waste, as well as laboratory livestock manure; 3) burning of solid waste residues; 4) treatment of toxic and hazardous waste (B3) using an incinerator.



Figure 37. Ciparanje TPS3R Area of Universitas Padjadjaran

GRI 305-6: Emissions of Ozone Depleting Substances (ODS)

Data not available

GRI 305-7: Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions (NOx)

Data not available

## GRI 306-1: Water Release Based on Quality and Purpose

### Laboratory Liquid Waste Management

In general, practicum activities (laboratory) at Universitas Padjadjaran, Jatinangor produce liquid waste. Waste from these activities (chemical laboratory, pharmacy, and PPBS) is taken and processed at the Waste Water Treatment Plant (WWTP) before being discharged into the receiving water body (campus drainage channel, and collected in a water reservoir (check dam)). Liquid waste at Universitas Padjadjaran, Jatinangor has good management because waste from domestic activities is collected in septic tanks in every building in each faculty. The wastewater treatment system manages liquid waste from the laboratory to produce output that does not exceed the quality standard. However, the current WWTP storage needs to be expanded due to the increasing amount of laboratory waste generated by student practicum.

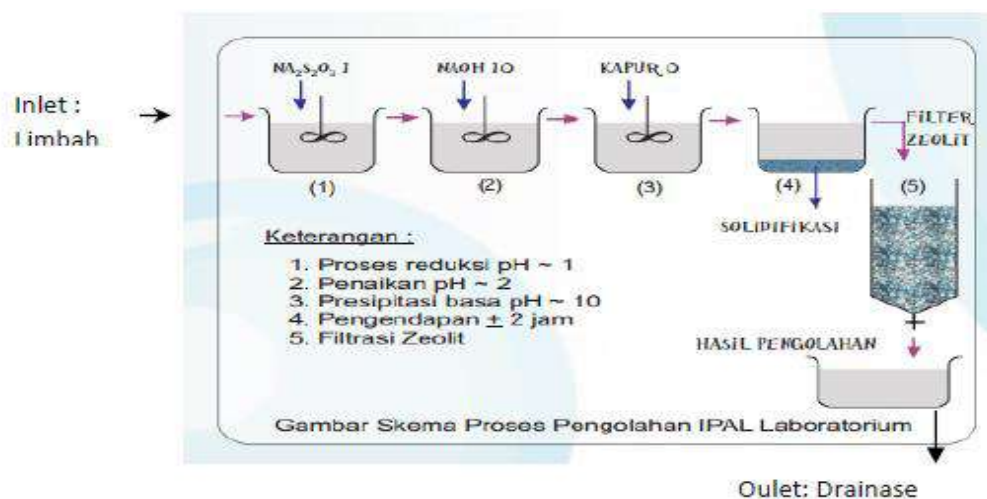


Figure 38. Liquid Waste Management Schematic

Universitas Padjadjaran has 5 WWTPs capable of processing laboratory waste in an integrated manner, including the WWTP system of the Faculty of Medicine, Faculty of Nursing, Faculty of Psychology, Faculty of Mathematics and Natural Sciences, Faculty of Agriculture, and Central Laboratory. Other WWTP systems include the Faculty of Geological Engineering, the Faculty of Agricultural Technology, and the Faculty of Animal Husbandry, as well as the Faculty of Pharmacy, and the Faculty of Fisheries and Marine Sciences.



Figure 39. Liquid Waste Management with Wastewater Treatment Plant (WWTP) in the Universitas Padjadjaran Area

### Grey Water Treatment

The domestic activities of Universitas Padjadjaran, Jatiningor come from office buildings, lecture buildings, and dormitories. All three produce quite large gray water. The use of simple technologies such as septic tank systems with natural processes allows excess waste to spill into water bodies. The septic tank treats gray water (from the lavatory - wastewater

for bathing, washing, toilet, and kitchen) using a bio septic tank or conventional septic tank.

This technology can suppress or remove up to 90% organic content and reduce 50-60% of nitrogen and phosphate waste in the environment. This equipment can reduce 80% of the organic content of environmental pollutants. The Jatinangor campus has implemented this technology since 2016 in new buildings that apply the principles of smart building and eco-building.

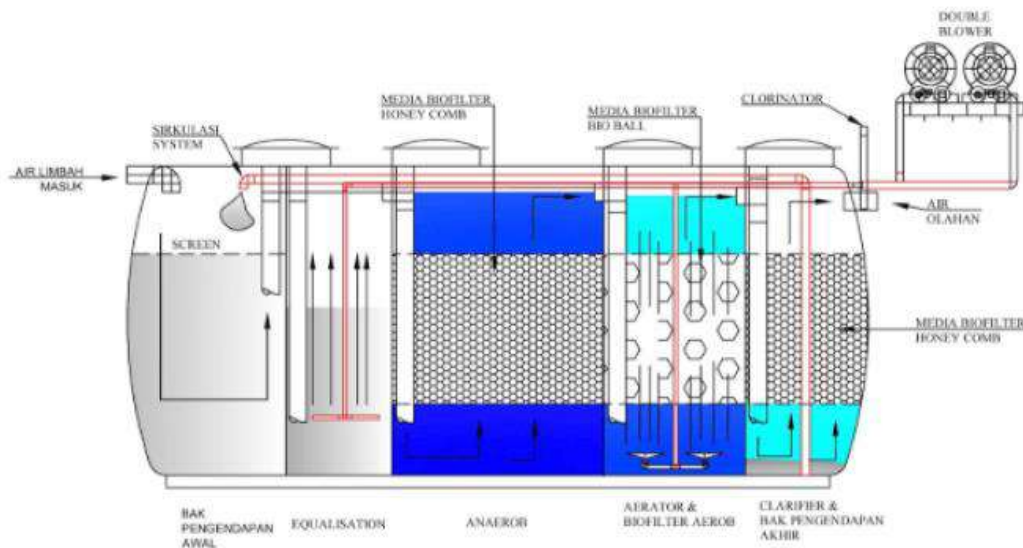


Figure 40. Anaerobic and Aerobic Biofilter Waste Treatment System

## Canteen Wastewater Management

The canteen area at Universitas Padjadjaran, Jatinangor generally produces liquid waste that is accommodated by grease traps, but this depends on the physical characteristics of the wastewater. Grease traps can separate floating substances (grease and oils) that cannot be decomposed organically because they are easily carried away by currents. Insulation walls are useful for reducing turbulence and retaining substances that float in wastewater. Filtered oils and grease need to be cleaned manually every week (Gotzenberger, 2009).

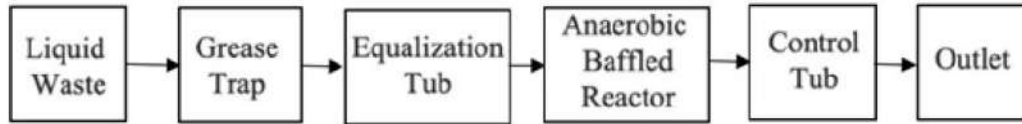


Figure 41. Grease trap process schematic

### Storage Tank Monitoring

The water quality in the storage tank is monitored regularly once a year. The results of the examination showed that the values of ammonia, COD, and pH of the water in the storage tank were 0.006 mg/L, 47.79 mg/L, and 7. This was following the Ministry of Environment Regulation No. 68 of 2016 concerning Quality Standards for Gray water which shows that biological treatment in control ponds provides significant benefits.

### GRI 306-2: Waste by Type and Disposal Method

The amount of waste generated by Universitas Padjadjaran continues to increase every year. One of the reasons for this increase was the increase in the number of students. This can be seen from the increase in the amount of waste from 2015 to 2019. From 2020 to 2021 the volume of waste at Universitas Padjadjaran experienced a drastic decrease due to the pandemic, but normal lecture activities in 2022 increased the volume of waste significantly. The volume of waste generated based on the output of each building as well as a comparison of the increase in the number of students followed by an increase in waste is shown in Figure 38 and Table 8.

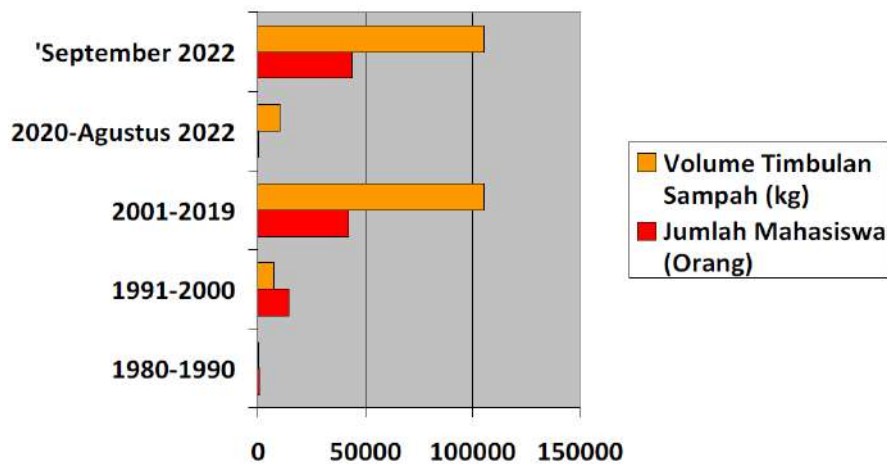




Figure 42. Comparison of the increase in the number of students and the increase in waste

Table 8. Waste Mass Balance of Universitas Padjadjaran

Input	Volume						
	Dormitory	Building	Canteen	Mosque	UKM	Rectorate	PK3L
Paper	101,435	108,923	262	36,921	28,000	128,360	0
Fabrics/Textile Products	6,180	880	1	1,290	4,600	1,150	0
plastic bag	22,055	21,703	47	19,807	5,780	29,100	0
Styrofoam	55,080	22,648	123	15,976	15,450	21,222	0
Office Plastic	12,205	13,234	10	5,688	2,210	2,880	0
Rubber Products	1,360	1,594	0	335	320	1,200	0
Office Waste Wood	0	312	5	550	80	350	0
Glass Material	0	207	1	765	130	5,460	0
All Kinds of Metal	4,010	1,545	8	320	8,890	2,050	0
Sand/stone	10,510	4,551	50	3,864	3,290	4,601	0
Leftovers	0	107	1	0	2,520	4,350	0
Leaves/Twigs							2,563
Laboratory Animals	207,960	95,490	761	32,602	41,710	129,510	0
Plant Wet Specimen						13,770	2,563
Animal waste						0	0

Universitas Padjadjaran has a waste treatment system that is currently running well. Waste treatment starts with providing trash bins for organic, non-organic, and mixed waste. These three types of waste are collected at an agreed place in each faculty. Every day the garbage will be transported by two trucks from seven to one in the afternoon. However, during transportation, waste sorting is not carried out. Then the lift trucks carry the garbage to TPS3R in Ciparanje which is fully managed by Universitas Padjadjaran.



Figure 43. Waste Transport Process

The waste will be separated into plastic waste that can be resold, mixed plastic waste that cannot be sold, paper, cardboard, cardboard, compost, waste that is processed outside the campus, and residue. The types and volumes of waste each year are presented in the figure below.

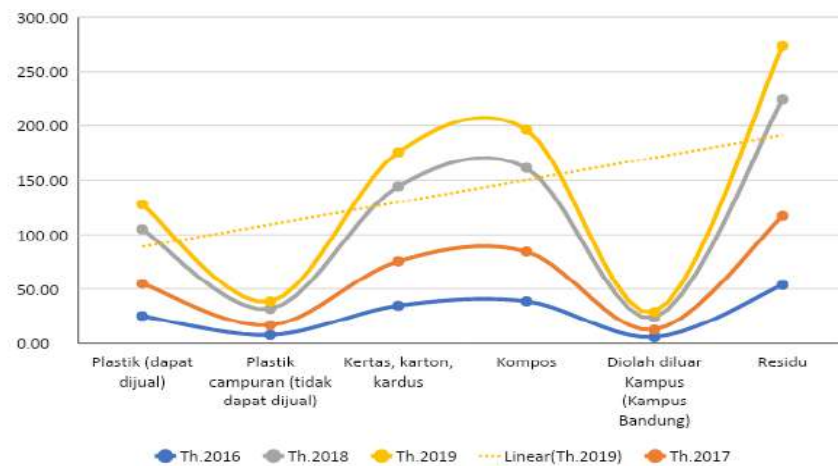


Figure 44. Comparison of the increase in the number of students and the increase in waste

### GRI 306-3: Significant Spill

Data not available

### GRI 306-4: Hazardous Waste Transport

Hazardous and toxic waste management is carried out and handled specifically and thoroughly with an integrated system and collaboration with third parties (vendors). The third party that cooperates with Universitas Padjadjaran is CV. Sinergi Braga Mandiri (SPK No.



16061/UN6.PPA/TU/2019). The handling of toxic waste in the Universitas Padjadjaran is regulated under:

- Rector Regulation of Universitas Padjadjaran Number 40 of 2016 concerning the Organization and Work Procedure of Universitas Padjadjaran
- Rector Regulation of Universitas Padjadjaran Number 45 of 2016, concerning Technical Guidelines for Order, Security, and Environmental Security of Universitas Padjadjaran
- Technical Guidelines for Order and Security of the Universitas Padjadjaran campus.

The collected waste from the 11 work units is transported by trained technicians from the Occupational Health and Safety Unit to the Temporary Waste Shelter (temporary landfills) located in Ciparanje. This temporary landfills is designed to store LB3 safely until it is taken from a company authorized to treat B3 waste (eg PPLI). All packaging and labeling waste and accompanying documents are provided to comply with national and international regulations (refer to Government Regulation of the Republic of Indonesia Number 101 of 2014 concerning Management of Hazardous and Toxic Waste (LB3)).

Each faculty at Universitas Padjadjaran is required to identify and handle all B3 waste it produces based on the waste category. Identification and management are carried out based on Government Regulation of the Republic of Indonesia No. 101 of 2014 concerning the Management of Hazardous and Toxic Waste. After being identified and handled by the faculty, the B3 waste is then transported to a temporary shelter for B3 waste in Ciparanje by the K3L unit. B3 waste from various faculties is accommodated at Ciparanje temporary landfills and transported by a third party (vendor/CV. Sinergi Braga Mandiri). However, medical waste produced in this laboratory is then processed by burning in an incinerator located near the laboratory. After that, the ash produced from the combustion process is collected. Then further management of



medical waste is handled by a third party certified by the government, namely PT. Layanan Medivest.

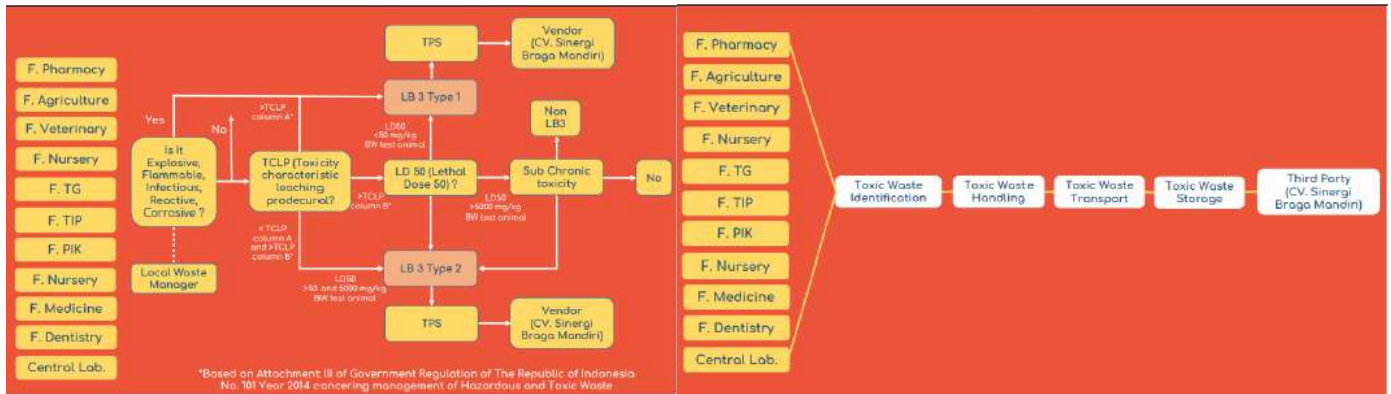


Figure 45. Hazardous Local Waste Management

The local manager of each faculty identifies the waste, separates it according to its category, and labels it accordingly. Based on Government Regulation no. 101 of 2014, waste is classified into 3 categories, namely Type 1 B3 Waste, Type 2 B3 Waste, and Non-B3 Waste. Type 1 B3 waste has the following characteristics: explosive, flammable, reactive, infectious, corrosive, and/or toxic. These properties were tested according to the procedure in Appendix II of PP No. 101 of 2014, except for the toxic properties tested by TCLP (Toxicity Characteristic Leaching Procedure) and LD<sub>50</sub> Test.

Table 9. Toxic Properties Test with TCLP

Pollutant Concentration	Waste Type	LD <sub>50</sub> oral test, 7 days (in mice)
≤ TCLP-A	B3 Type 1	≤ 50 mg/kg body weight
≤TCLP-A and > TCLP-B	B3 Type 2	≤ 50 mg/kg body weight ≤ 5000 mg/kg body weight

Sub-chronic toxicology test on hazardous and toxic waste is identified as Type 2 B3 Waste if it shows sub-chronic toxicity within 90 (ninety) days in mice. Other factors considered include observations on growth, accumulation, or bioconcentration, studies of interresponsive behavior,



individual test animals, and/or histopathologists. For example, chloroform is a solvent commonly used for the extraction of natural compounds at FPIK.

Chloroform concentration above 24 mg/L is categorized as Type 1 B3 Waste, but if it is less than 3 mg/L it is categorized as Non-B3 Waste. Chloroform can also be categorized as Type 2 B3 Waste because it has an LD50 of 704 mg/L. Another example is EDTA (Ethylene diamine tetra acetic acid) which is commonly used in laboratories for genetic analysis. If the EDTA concentration is above 180 mg/L, it is categorized as type 1 B3 waste. If the concentration is less than 30 mg/L with an LD50 of 1000 mg/L, it is categorized as type 2 B3 waste. a label with some information, for example, solvent name, concentration (TCLP), and waste category. The labeled hazardous and toxic waste from the faculty is then transported to a temporary shelter in Ciparanje by the K3L unit. All B3 waste will be stored at the TEMPORARY LANDFILLS until a third party or vendor arrives to transfer it.



Figure 46. Hazardous Waste Treatment Facility



Figure 47. Hazardous Waste Incineration and Segregation



Figure 48. Autoclave and Liquid Solvent for Hazardous Waste

GRI 306-5: Water Bodies Affected By Water Release and/or Overflow

Data not available

GRI 307-1: Non-compliance with Environmental Laws and Regulations

Data not available

GRI 308-1: Selection of New Suppliers Using Environmental Criteria

There are only general criteria, but not specific to the environment.

GRI 308-2: Negative Environmental Impacts in the Supply Chain and Actions Taken

Waste management

Universitas Padjadjaran treats waste based on two categories, namely organic and non-organic waste treatment. The management of organic



waste carried out by Universitas Padjadjaran is to process organic waste into biogas, compost, and catfish feed. Biogas technology is only used to treat livestock manure. Biogas is an anaerobic system with a closed system. Organic matter that is put into the biodigester is broken down by special bacteria that produce methane through a modification mechanism to produce biogas. Biogas produced as much as 3 kg/day will be used as fuel for cooking, brooders, and electrical energy.

Biogas management is carried out by the Environmental Management Unit for the Universitas Padjadjaran campus and the Faculty of Animal Husbandry using the Biomethagreen concept. Biomethagreen is an environmentally friendly on-site waste management concept that can be useful, especially for the campus environment. Processing is carried out by collecting livestock waste in airtight tubes. From this airtight tube, bacteria produce methane gas which is then accommodated in a plastic tube (gas container). This tube is then supplied to the generator or directly to the stove hose. This biogas is useful as a substitute for LPG or electricity generation.



Figure 49. Biogas Installation at Universitas Padjadjaran

The garbage also comes from 28 canteens throughout the Universitas Padjadjaran area. Some of the food waste generated from the canteen is collected in plastic containers and used for fish feed. In addition, the waste generated from food waste can also be used for composting technology. The processing of waste into fertilizer through compost technology at Universitas Padjadjaran currently produces as much as 100 kg per day or an average of 1.5 tons per month.



Figure 50. Production of Organic Liquid Fertilizer

The compost produced is sold to the community around the campus. At Universitas Padjadjaran, this waste composting system has been started since 2002 at the Jatinangor Campus. Most of the raw materials come from cow dung produced by the Faculty of Animal Husbandry (FAPET). Manure from FAPET cattle pens is used for composting. Currently, FAPET has approximately 5 cows. Previously, FAPET had 1,000 head of cattle but due to certain policies the number decreased drastically. The aerobic composting process is carried out on an area of 1,500 square meters with a compost processing building area of about 200 square meters. Currently, 15 workers sort and process waste. All workers come from residents around the Jatinangor campus.



Figure 51. Compost House

Composting activities build students' awareness of separating organic and inorganic waste. Universitas Padjadjaran, Jatinangor has separate organic and inorganic waste bins, although currently they are not used



properly. Composting time is hampered by additional time to sort organic and inorganic waste.

Organic waste management also produces catfish pellets. Pellets derived from processed maggot reach an average of 150 kg per day, but it is very dependent on the supply of leftover food available. Universitas Padjadjaran has also succeeded in producing peat pellets by utilizing organic waste. The chopper and press machine used for the production of peat pellets were designed by lecturers and students of Universitas Padjadjaran. The quality of pellets made by Universitas Padjadjaran is equivalent to pellets available in the market.



Figure 52. Production of Catfish Pellets

In addition, the processing of non-organic waste is carried out according to the Sumedang Regency Regional Regulation No. 2 of 2014 and regarding the Management of Household Waste and Types of Household Waste in Sumedang Regency, Chapter XIV Article 44 Prohibition of burning waste.

Universitas Padjadjaran has two technologies in the waste combustion process. The first technology is a furnace with a combustion power of 400 °C, operated to burn waste residue every day. This process is carried out without using fuel as fuel and without a recuperator to catch smoke, but using air circulation and a blower system. The furnace is only used to burn residual waste generated from the campus environment, the residual volume never exceeds 25% of the total waste. That is, the residual waste that is destroyed using a furnace is 100%.



The second technology is an incinerator, which can burn up to a temperature of 800°C-1000°C. The incinerator uses a misting system from diesel fuel with a burning capacity of more than 10kg per operation. This furnace is equipped with a recuperator to catch the smoke from the combustion after the volume of waste reaches the maximum amount. The incinerator furnace is devoted to burning medical waste, practical waste which is categorized as infectious after being sterilized. Currently, the incinerator machine does not operate every day, because it has to wait for the volume of waste to reach 15 tons to save on operations. Therefore, it is only held once a week, namely operating on Saturdays. Management with incinerators requires scrubber maintenance to ensure that the gas produced is clean of pollutants before being released into the atmosphere. However, the heat generated by the Universitas Padjadjaran incinerator cannot be used as energy for electricity production. Incinerators can reduce the volume of waste by up to 95-96%, depending on the composition and level of waste reuse capability. This means that burning does not completely replace a final disposal site, but significantly reduces the volume of the waste. Currently, the incinerator at Universitas Padjadjaran has collaborated with PT. Bumi Resik for waste management, and currently the incinerator is only available at the Central Lab installation of Universitas Padjadjaran which is placed in the Ciparanje landfills of 2000 m<sup>2</sup>. Pure waste operations are financed by PT. Bumi Resik, both for labor wages and operational costs of 15 million per month. Incinerators at Universitas Padjadjaran are only available at the Central Lab installation of Universitas Padjadjaran.



Figure 53. Incinerator

Currently, the ash produced (especially the ash at the bottom) has been used as a mixture of bricks and cast manually. The bricks were used to construct the incinerator building on site. If the incinerator production is by the maximum production capacity, more raw materials will be used for brick production.



Figure 54. Utilization of Burning Ash Remaining into Bricks



# CHAPTER V

## SOCIAL SPECIFIC DISCLOSURE

### Appropriate Labor and Job Practices

#### GRI 401: Employment

Generally, there are two types of labor in Universitas Padjadjaran, namely permanent civil worker and non-civil worker. The current total lecturers in Universitas Padjadjaran are 2.085 consisting of civil servant permanent lecturers and non-civil servant lecturers. Whereas, the total education personnel are 2.040 which also consist of civil servant education personnel and non-civil servant education personnel. Universitas Padjadjaran also recruits NIDK Lecturers. NIDK is the lecturer teaching in UNPAD who comes from other ministries beside higher education ministry. There are 250 NIDK lecturers who are commonly the lecturers of Faculty of Medicine. They are required by Health Ministry to teach and are not paid by Unpad.

Table 10. Total Lecturers and Education Personnel of Universitas Padjajaran in 2020-2021

Year	Lecturer		Education Personnel		Total
	Civil Servant	Non Civil Servant	Civil Servant	Non Civil Servant	
2020	1652	439	1505	638	4234
2021	1613	472	1401	639	4125

The composition of employment classification in Universitas Padjadjaran has been explained in detailed in Rector Regulation of Universitas Padjadjaran Number 3 of 2018 as follows:

1. Civil Servant Employee, these are known as ASN



2. Non-Civil Servant Employees, these are permanent employees who are determined specifically based on Rector Regulation of Universitas Padjadjaran with full responsibility of using internal or Society Fund budgets.
3. Outsource, contract employees, and extraordinary lecturers, they are employees determined based on contract agreement for certain period. The responsibility fully funded by internal or Society Fund budgets.

Both permanent and non-permanent employees of Universitas Padjadjaran have the rights of remuneration. Remuneration is the whole income received by all employees in Universitas Padjadjaran, both permanent and non-permanent ones, including salary, allowance, lecturer certification allowance, PTNBH (State University as Legal Entity) allowance, and incentive. Law regulation related to civil servant employee refers to Indonesian Government No. 25 of 2010. Whereas, the non-civil servant employees also get the same treatment as civil servant employees get, both in salary and career development. The incentive in Universitas Padjadjaran is regulated internally.

Currently, Universitas Padjadjaran focuses on internationalization, which means that the articles of lecturers are not only published in national journal, but also in international journal like Scopus. This can be used as the basic of policy change related to remuneration, for example this year remuneration is for the ones whose articles published in international journal. Annually, Universitas Padjadjaran Objectives have tendency to change due to the evaluation of the objectives which have been achieved by Universitas Padjadjaran. Despite non-existent remuneration consultant in Universitas Padjadjaran, Universitas Padjadjaran has had the experts from Faculty of Economics and Business or Faculty of Social and Politic Sciences who are reliable in discussing remuneration.



## GRI 402-1: Labor/Management Relations

Operational changes within the Universitas Padjadjaran are always socialized within a week or a month in advance. Collective negotiations with the Rector and the staffs are always held before implementing new regulations. Universitas Padjadjaran applies the corporate system, in which there are office leader and unit leaders. If bad communication occurs, it mostly occurs not in the main office, but there is a bias occurs in unit or office leaders when they communicate with lower ranks employees based on rectorate directions. Additionally, changes or in operational rules are also reviewed on a cohort basis. For example, by looking at the 5-year trend of Universitas Padjadjaran for projecting its policy direction. Universitas Padjadjaran applies a bottom-up and top-down system. After being socialized from the rectorate to the departmental management, then there will be supervision from the bottom up or follow-up through the dean team.

Currently, Universitas Padjadjaran will hold a program of "Motekar Universitas Padjadjaran in Sapta Karsa Compiling", the rector socialize and asks for feedback on this program from the dean, academic senates, board of professors, and MWA. If there is feedback from related parties, it is necessary to consider whether the rectorate will make readjustment to the regulations which will be applied, whether it will be changed, deleted or added and then resubmitted to those who has provided the feedback previously. Therefore, Universitas Padjadjaran enforces regulations collectively, instead of only in separate directorate in policy-making. Everyone is involved in composing new regulations, the more feedback you get before composing new regulations, the more chance for the regulations to have better implementation in Universitas Padjadjaran.

## GRI 403-3: Occupational Health and Safety

Universitas Padjadjaran is one of state-owned institutions which engages in education sector. Basically, Universitas Padjadjaran is not a state-owned institution with high-risk work process, but Universitas



Padjadjaran still has policies related to medical insurance or work accidents occur. The policy is related to the assistance which will be obtained from Universitas Padjadjaran itself and also BPJS Kesehatan (state-owned health insurance) which Universitas Padjadjaran has collaborated with.

Universitas Padjadjaran always gives complete attention and continues to improve health service for lecturers and education personnel. As the attempt for strengthening health service for employees and their families, in the first quarter of 2021, Unpad Health Clinic and PT. Telkom Medika had made cooperation. Especially in 2021, during the pandemic, Unpad has held both preventive and curative programs. The preventive programs which have been implemented include Unpad Wellness, a health maintenance and improvement program through the approach of exercise and physical activity, balanced nutrition intake, and appropriate stress/psychological management. This program is implemented in 2 batches, batch I participants are from management officials and Batch II participants are from education personnel. In addition, Universitas Padjadjaran has also formed a COVID-19 Task Force which is assigned for handling various services related to COVID-19 for Unpad communities. These services include: providing antigen or PCR test, conducting vaccination for lecturers, education personnels, students and their families, providing two dormitories in Jatinangor and the Hospital Building (Eijkman) as an independent isolation facility with various facilities and infrastructure, as well as assistance for medical personnels, psychologists, and assistance/compensation for health care and bereavement compensation.

## GRI 404-2: Training and Education

Since 2017, Universitas Padjadjaran has been implementing several functional positions to ensure that a person is a professional. For example, a lecturer has certain functional position (JFT), so it can be inferred that a lecturer of Universitas Padjadjaran is not an ordinary civil



servant. The same thing applies on education personnel like the laboratory assistants who work in the laboratory, archivists who have archiving duties, and computer administrators who play a role in IT development. Universitas Padjadjaran instructs all staffs and lecturers to access certain functional positions. In this JFT, lecturers and staffs receive both formal and informal coaching. The support is provided through trainings, courses and certifications. Meanwhile, formal support is given to provide further education assistance which will be implemented by the lecturers and staffs of Universitas Padjadjaran. Currently, there is approximately 50% of Universitas Padjadjaran staffs are high school graduates or lower. Universitas Padjadjaran attempts to facilitate their education for their career advancement.

The provisions in regards to the frequency of further studies for lecturers and staffs are regulated in the Rector Regulation Number 29 of 2016 which states that there are criteria and requirements related to assistance provided by Universitas Padjadjaran. The Human Resources Department of Universitas Padjadjaran also asked the Dean and Deputy Dean of the Faculty to prepare special study program for education personnel (*tendik*) of Universitas Padjadjaran. Therefore, Unpad plans to launch a special study program with various fields and schedule which does not interrupt the work area of the education personnels in order to assist the direction.

Universitas Padjadjaran has various trainings for researchers/lecturers in 2021. One of the implemented programs is data processing training and manuscript writing training which focuses on research and innovation programs. This training was held in order to increase the researchers capability in disseminating their research results. Besides, as the effort to the pandemic situation which limits meetings and face to face learning activities, Universitas Padjadjaran held digital teaching skills training for hybrid class management for lecturers, while the education personnel received the training for hybrid class management, LMS, and English.



## GRI 405-2: Diversity and Equal Opportunity

All employees of Universitas Padjadjaran receive the total income each month which includes basic salary, allowances, lecturer certification allowance (lecturers), PTN-BH salaries, and incentives. There is no difference between the basic salary and remuneration ratio between female and male employees. The basic salary for permanent civil servants is given in accordance with the Government Regulation of the Republic of Indonesia Number 25 of 2010. and Law of the Republic of Indonesia Number 5 of 2014. Furthermore, the basic salary for non-civil servant permanent employees also receives the same basic salary as the permanent civil servant employees, but the source of funds comes from the Universitas Padjadjaran.

Remuneration which includes allowances is regulated in the Rector Regulation of Universitas Padjadjaran Number 16 of 2017 concerning on Procedures for Making, Withholding, and Terminating of Performance Allowance Payment for Education Personnel of Universitas Padjadjaran, Number 3 of 2018 concerning Guidelines for Functional Positions, Remuneration and Calculation of the Education Personnel Performance of Universitas Padjadjaran, and Number 24 of 2018 concerning Guidelines for the Implementation of Performance Allowances for Lecturers of Universitas Padjadjaran.

In addition, they also get equal opportunities based on achievement and performance related to promotions and positions. This is regulated in Rector Regulation Number 3 of 2018 concerning Guidelines for Functional Positions, Remuneration and Performance Calculation of Education Personnel of Universitas Padjadjaran and Number 18 of 2018 concerning on Management of Civil Servant Education Personnel of Universitas Padjadjaran.



## GRI 414-2: Supplier Social Assessment

The social aspect with the sub-category of community refers to the disclosure of Universitas Padjadjaran contribution to the community around the campus environment and how Universitas Padjadjaran cooperates with its business partners. Universitas Padjadjaran contribution to the community around the campus can be observed from the policies taken by Universitas Padjadjaran. Furthermore, there are researches implemented related to community service which are packaged in student service (KKN). In terms of supporting the economy of the community around Jatinangor especially, Universitas Padjadjaran facilitates SMEs<sup>2</sup> in Oorange, which is the business incubator for Universitas Padjadjaran, and prepares the science and technology building area (KST) which can be used to facilitate and incubate the start-ups. Universitas Padjadjaran which is situated in Sumedang Regency has expectation to encourage the community around Jatinangor or Sumedang broadly to establish their own business.

This program socioeconomic responsibility of Universitas Padjadjaran in for the community living around Universitas Padjadjaran. In 2017, Universitas Padjadjaran won the International Council for Small Business (ICSB) Indonesia Presidential Award 2017 for the researcher & academician category. The award was given for the dedication and commitment of Universitas Padjadjaran in supporting the progress of small and medium enterprises in West Java. With various facilities and business incubation units of Universitas Padjadjaran, various SMEs groups are gathered. This group consists of the society of academicians and the public community. The SMEs actors consider that the mentoring program implemented by Universitas Padjadjaran had facilitated and supported them well. For this reason, ISCB, as an international non-profit organization engaged in the development of the small business sector, views Universitas Padjadjaran as an educational institution which is committed to developing SMEs.



During the 2021 pandemic, Universitas Padjadjaran through the Oorange business incubator, had collaborated with the Ministry of Social Affairs in implementing the ProKUS program. ProKUS is a social empowerment program for poor families which combines business and social activities as well as business approach to prevent and overcome social risks and problems. The mentoring programs include: (1) TOT (Training of Trainers) for the mentors; (2) data validation and business grouping based on clusters; (3) Business concept; (4) Workshops; (5) Mentoring/business assistance, including: making business legalities, determining product costs, managing financial accounting, determining marketing strategies, having e-commerce assistance, designing product packaging, assisting legality of P-IRT<sup>3</sup> food products; (6) Virtual expo; (7) Monitoring KPM business improvement; (8) Monitoring community empowerment and bank access.

Indirect economic values, like intellectual values are disseminated to all parties which are expected to be in accordance with the tagline of Universitas Padjadjaran "From West Java for Indonesia to the World through Sustainable Development Goals" by increasing the capacity of various parties. Universitas Padjadjaran accompanied the declaration of Ciletuh Geopark which has been approved by UNESCO. The Ciletuh Geopark development is expected to boost the economy of the surrounding community. Universitas Padjadjaran has conducted various scientific studies for the development of this Geopark. Moreover, Universitas Padjadjaran is currently asked by the Pangandaran Regency Government to help developing the Geopark in Pangandaran area. This Geopark development is not only expected to maintain sustainability in Universitas Padjadjaran, but also in West Java entirely. Besides providing intellectual property support, Universitas Padjadjaran also provided fund support for the Geopark construction. Universitas Padjadjaran also has facilities which can be used by the public community around Universitas Padjadjaran, such as water, fields, and stadium facilities. The laboratory



can also be used by the public community if they are able to meet certain requirements of using the laboratory.

In terms of cooperation, the Directorate of Innovation and Corporate is a gateway for partners who want to establish cooperation with Universitas Padjadjaran. The first consideration before cooperating with both domestic and foreign partners, is by considering the cooperation goals, whether it has mutual benefit, such as whether it is beneficial for us, but not for others, and vice versa. Cooperation is based on priorities of Universitas Padjadjaran. The regulation concerning on the cooperation is explained further in Rector Regulation Number 5 of 2016. The implementation is also regulated in its copy, Rector Decree Number 523. Therefore, the cooperation is implemented based on those two regulations.

The implementation of cooperations between Universitas Padjadjaran and external parties are expected to have real and long-term benefits, for example studies submitted to Universitas Padjadjaran can be used for development because Universitas Padjadjaran must develop the threefold missions of higher education (*Tri Dharma Perguruan Tinggi*). There are also grants, such as PSDKU in Pangandaran or cooperation between Universitas Padjadjaran and the West Java Provincial Government. Other benefits include increased cooperation in education sector, for example curriculum development with abroad guest lecturers. So, some benefits are real and some are investment with benefits which are proved after the cooperation ends. In terms of objectives, for example, cooperation in education sector like student exchange programs and cooperation with Ministry of Health staffs who enable them to conduct studies at Universitas Padjadjaran and their research is implemented in Ministry of Health. This may have long term benefits for Universitas Padjadjaran as there will be graduates who work in Ministry of Health.

There are stages which need to be implemented before establishing cooperation agreement, namely pioneering, validating, implementing,



monitoring, evaluating, and reporting. Universitas Padjadjaran instructs what kind of cooperation will be implemented by always paying attention to the development of the the threefold missions of of higher education. There are several cooperation priorities which must be developed with the partners to ensure that the planned cooperation can support the priorities of Universitas Padjadjaran. As for the planned procurement of Universitas Padjadjaran is explained in the Rector Regulation of Universitas Padjadjaran Number 6 of 2017 concerning on the Procurement of Goods/Services within the Universitas Padjadjaran, Rector Regulation Number 7 of 2017 concerning on the Selection of Business Cooperation Partners of the Universitas Padjadjaran, and the Rector Regulation Number 2 of 2018 concerning on the Procurement of Goods/Services Sourced from the State Budget and the Regional Budget. Generally, those three regulations emphasize that the procurement to implement in Universitas Padjadjaran is based on the applicable laws and regulations.

Universitas Padjadjaran was established as the will manifestation of West Java community in order to improve the welfare of West Java community. Universitas Padjadjaran is committed to contributing to the development of West Java. The direction and objectives of West Java development have been planned with the Common Goals (CGs) establishment of West Java. Therefore, the increased contribution of Universitas Padjadjaran of West Java development is manifested in strategic program to increase the participation of Universitas Padjadjaran in succeeding West Java CGs (Universitas Padjadjaran Program Nyaah ka Jabar). The Universitas Padjadjaran Nyaah ka Jabar program has started as an affirmation program for students from West Java which has increased the opportunity West Java community to study at Universitas Padjadjaran . This program was developed in several indicative activities, namely providing assistance to local governments in West Java in implementing development programs, providing assistance to universities in West Java, accelerating regional development through the Profesor Masuk Desa



(PMD) program, and developing a scholarship program for the West Java service bond. The historical aspect and track record of the of Universitas Padjadjaran contribution are expected to make Universitas Padjadjaran as the main choice for West Java community to continue their study. The main choice will be achieved because of the excellence of Universitas Padjadjaran and the knowledge and community recognition of these advantages. To achieve this, a strategic program was implemented, namely increasing public interest in choosing Universitas Padjadjaran as the main choice (Universitas Padjadjaran *Kahiji* Program). This strategic program is implemented with two indicative activities: increasing the promotion of superior products from Universitas Padjadjaran and developing a media center. Promotion of Universitas Padjadjaran 's superior products is implemented through media owned by Universitas Padjadjaran as well as collaboration with the media as a form of pentahelix cooperation. The media owned by Universitas Padjadjaran is developed into media center which also become one of excellent programs of Universitas Padjadjaran.

As the time passes and community demands, Universitas Padjadjaran is expected by the industrial community and the business world to play active role in overcoming problems related to efficiency and productivity. Universitas Padjadjaran is expected by the community to be able to portray itself as the agent of research and development. Various cooperations between Universitas Padjadjaran and the industrial world are developing, as either expert services or innovation development from the society academicians of Universitas Padjadjaran. The current educational outcomes of Universitas Padjadjaran are not only in the form of graduates who are ready to work (employability aspect), but also entrepreneurial aspects (entrepreneurship). The community expect that the graduates are not only job seekers, but also become employers. This expectation continues until now, the community hopes that Universitas Padjadjaran can play more important role as the development center of science and technology diffusion (agent of knowledge and technology



transfer) which has impact on the economic development of the community and nation for sustainable welfare or benefits for community (agent of economic development for sustainable prosperity) in general and for West Java community in particular. Universitas Padjadjaran is required to keep producing innovations in the threefold missions (Tridharma) of higher education which can provide economic benefits for the wider community.

In the research and innovation sectors, a regional innovation system has been developed and needs support from actors of universities. This research and innovation are expected to lead to an increase in the community economy and welfare as well as accelerating development in various sectors in accordance with the West Java Sustainable Development Goals (SDGs) and Common Goals (CGs). Education and the researches implemented and community service (for example through the KKN program) have been intended to accommodate the SDGs.

Related to the policy, Universitas Padjadjaran has involved the community for determining the policies which will have impact on surrounding community. For example, Universitas Padjadjaran had coordination with Sumedang Regency Government in determining policies related to KKN (student service).

## Human Rights

### GRI 406: Non-Discrimination

Universitas Padjadjaran is a vast university with diverse students within. Universitas Padjadjaran has accepted various students who come from all regions in Indonesia and abroad with their various backgrounds. Universitas Padjadjaran also inclusively provides access and services for students. Every student has the equal opportunity to continue their study and develop themselves in Universitas Padjadjaran regardless of their background. Universitas Padjadjaran always strives to be a university with friendly culture to attract more international students. Every year, the number of international students in Universitas Padjadjaran



continues to grow. Besides, international students are also given the opportunity to learn about Indonesian culture and join the community in which domestic and abroad community blend as one community.

## GRI 407: Freedom of Association and Collective Bargaining

Universitas Padjadjaran has many student organizations which serve to support student activities and goals. Every student has the same right to join and participate in various types of organizations. Students have the opportunity to create and develop the programs in order to improve their soft skills.

## GRI 408: Child Labor

The employees of Universitas Padjadjaran have appropriate age category and have certificates to support their professionalism. The entire employees of Universitas Padjadjaran are in their working age, however Universitas Padjadjaran also accepts internship students who are placed in certain sections, such as the International Office of Universitas Padjadjaran, Center for SDGs of Universitas Padjadjaran and many others. These students are allowed to do internships under certain conditions such as permission from their school or to instruction to attend the internship program provided by the school. Thus, their internship participation is their own decision (not forced by certain parties) and will get the appropriate salary.

## GRI 409: Forced or Compulsory Labor

Universitas Padjadjaran does not have any forced or compulsory laboring practice. Each employee is paid according to the work and activities they have done. For example, lecturers will receive incentives when they have completed their research. Besides, academic personnel will also be included in training and certifications which may support their career advancement. In addition, employees who are doing internships will also be given suitable working hours.



## GRI 410: Security Practices

All security officers at Universitas Padjadjaran are equipped with certificates to support their duties and have also undergone special training prior to doing their duty. Security officers of Universitas Padjadjaran have three levels, namely Garda Pratama, Garda 2 and Garda Utama. Currently, from the total of 300 existing employees in Universitas Padjadjaran, there are eighty-eight security officers who work directly for Universitas Padjadjaran.

## GRI 412: Human Rights Assessment

Universitas Padjadjaran is an educational institution that always strives to always prioritize human rights and prioritize equality. Until now, there have been no complaints regarding aspects of human rights at Universitas Padjadjaran.

## GRI 413: Local Communities

Universitas Padjadjaran has program as the effort to continuously participate in developing and helping the community who live around the campus. Some of these programs are integrated with threefold missions of higher education (*Tri Dharma Perguruan Tinggi*) activities such as OKK and also KKN. In these activities, every lecturer and student will be involved to help local and regional communities to improve their livings, especially in the business sector. Besides, Universitas Padjadjaran also has a business incubation program called OORANGE where every local business can register, receive the training, and also sponsorships. Until now, there have been no complaints from people living around Universitas Padjadjaran related to the existence of Universitas Padjadjaran.

## Safety



## GRI 416: Health and Safety

Universitas Padjadjaran has infrastructure and facilities specifically designed to support educational activities. There are many footpaths designed for pedestrians to help supporting the health of Unpad community, construction and building repairs are continuously implemented in order to maintain the safety of the Unpad community. Each faculty facility also has safety procedures for students, lecturers and other employees to follow in order to prevent the risk of accidents and damage, as seen in Faculty of Pharmacy of Universitas Padjadjaran which provides infrastructure such as pedestrian paths for the disabled ones.

## GRI 417: Labeling

As a PTNBH and state-owned institution, Universitas Padjadjaran is not allowed to commercially market or promote names and product.

## GRI 418: Privacy

Universitas Padjadjaran always cares for each user's privacy registered in its information system. Until now, there has been no complaint related to information leak published by the university.

## GRI 419: Socioeconomic Compliance

Universitas Padjadjaran has complied with the socioeconomic rules and has not received any punishment.



## REFERENCES

Universitas Padjadjaran Financial Report 2018

Universitas Padjadjaran Consolidated Financial Report 2020

Government Regulation No. 51 of 2015 on the Statute of Universitas Padjadjaran

Rector Regulation of Universitas Padjadjaran No. 20 of 2017 concerning the Second Amendment to the Rector Regulation of Universitas Padjadjaran No. 40 of 2016 concerning the Organization and Management of Universitas Padjadjaran.

Rector Regulation of Universitas Padjadjaran No. 01 of 2020 concerning the Organization and Governance of Universitas Padjadjaran.

Rector Regulation Number 61 of 2014 concerning the Guidelines for the Implementation of BLU Remuneration of Universitas Padjadjaran.

2015-2019 Strategic Plan of Universitas Padjadjaran and the SA draft of the 2020-2024 Strategic Plan of Universitas Padjadjaran.