



# Waste Management of **UNIVERSITAS PADJADJARAN**



# Recycling Program

Various parties carry out waste management education, students being one of them, through various media such as Instagram posts. In addition, Universitas Padjadjaran has also published articles on strategies to increase awareness of environmental issues.

DOI: <https://doi.org/10.24198/kumawula.v3i1.24598>



# Recycling Program



**Pressing Machine**



**Chooping Machine**

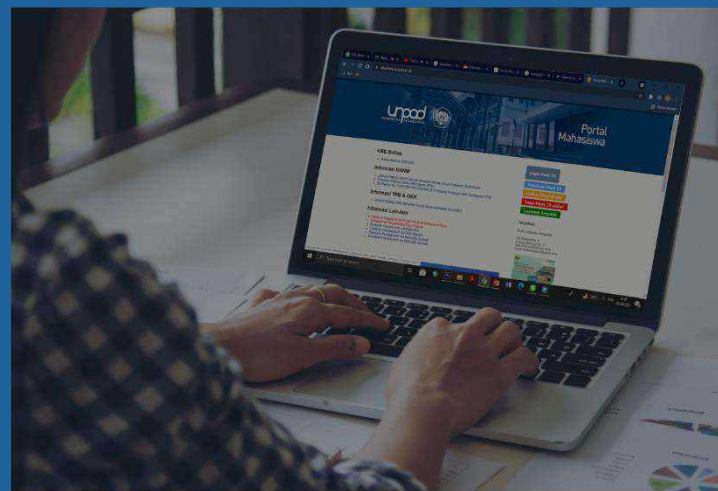
# Paper Reduction Program

3.1

## - E- Office -

3.2

Licensing, correspondence, registration of soft file & online-based campus activities. Since 2011, Unpad has contributed to reducing paper use from 260,314 to 334,510 sheets, which is equivalent to 33 - 42 trees/year. **Over the past 11 years, Unpad has saved a forest the size of 10 volleyball courts**



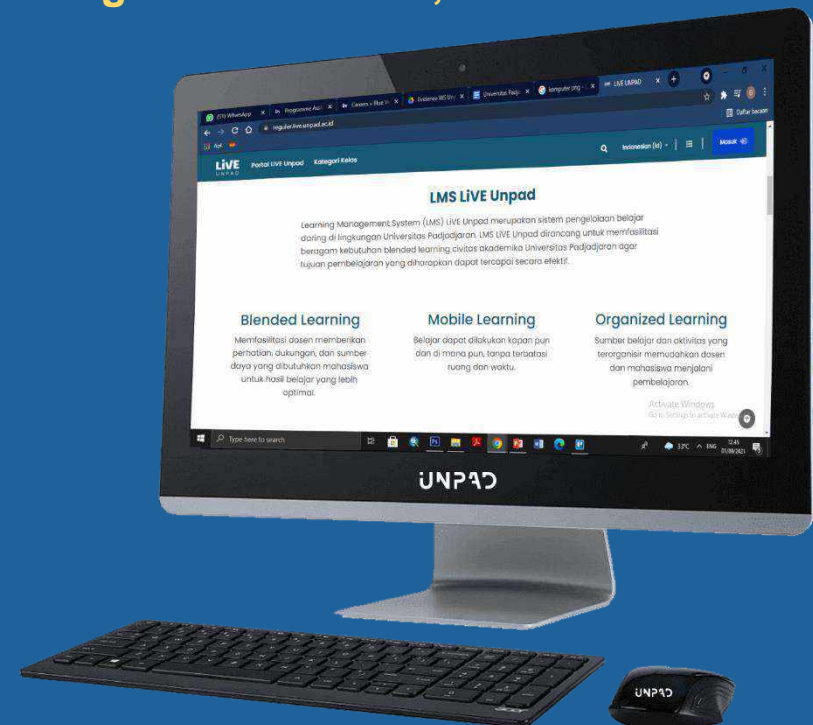
# Paper Reduction Program

3.1

## - LIVE UNPAD -

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Learning in Virtual Environment Universitas Padjadjaran (LIVE Unpad) is an e-learning platform that allows lecturers and students to interact such as providing learning materials, collecting assignments, conducting online exams, etc..



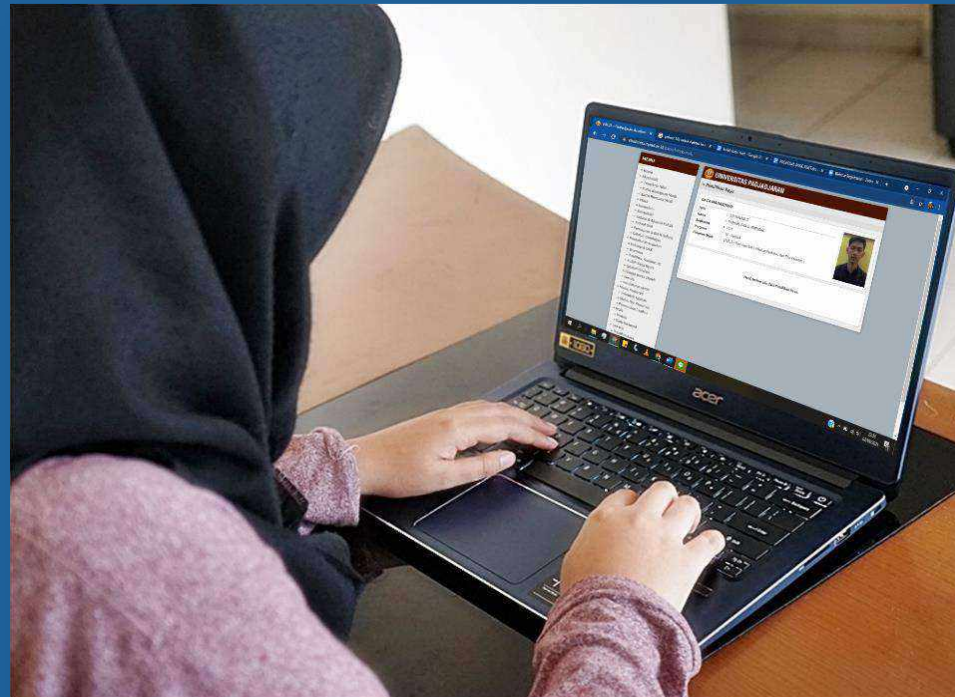
# Paper Reduction Program

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## - PRAMA -

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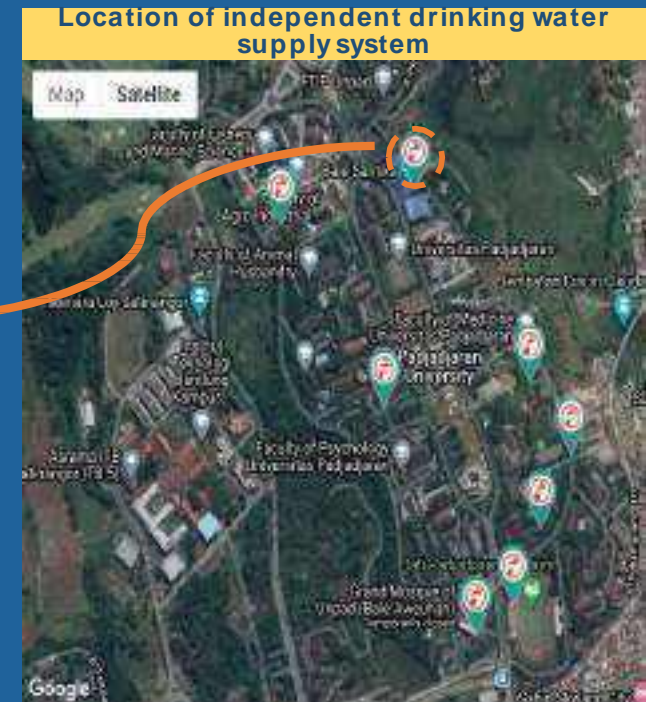
The public election at Padjadjaran University has implemented an online system using the university's email account. In addition to facilitating the public elections, it also reduces ballot papers and voting booths.



# Plastic Reduction

## - JALATISTA -

Independent drinking water supply system scattered throughout the campus. At Universitas Padjadjaran, Jatinangor Campus, eight independent drinking water supply systems have been installed. They are installed in various faculties and public facilities such as the Unpad Grand Mosque, Jati Padjadjaran Stadium, and Bale Santika.



# Plastic Reduction

## - PLASTIC REDUCTION CAMPAINGS -

To reduce the use of plastic drinking bottles –  
Tumblers produced by Universitas Padjadjaran





# Environmental Campaign Program

3.1

## - Environmental Campaign and River Clean Up Program-

3.2

One of the Universitas Padjadjaran Community Service Activities with the theme "Citarum Harum" was carried out on the Citarum River. Activities carried out in the form of education and community service to clean the river.



# Paper Reduction Program

## - Application of Enterprise Resource Planning (ERP) -

Software system for every business activity carried out on campus

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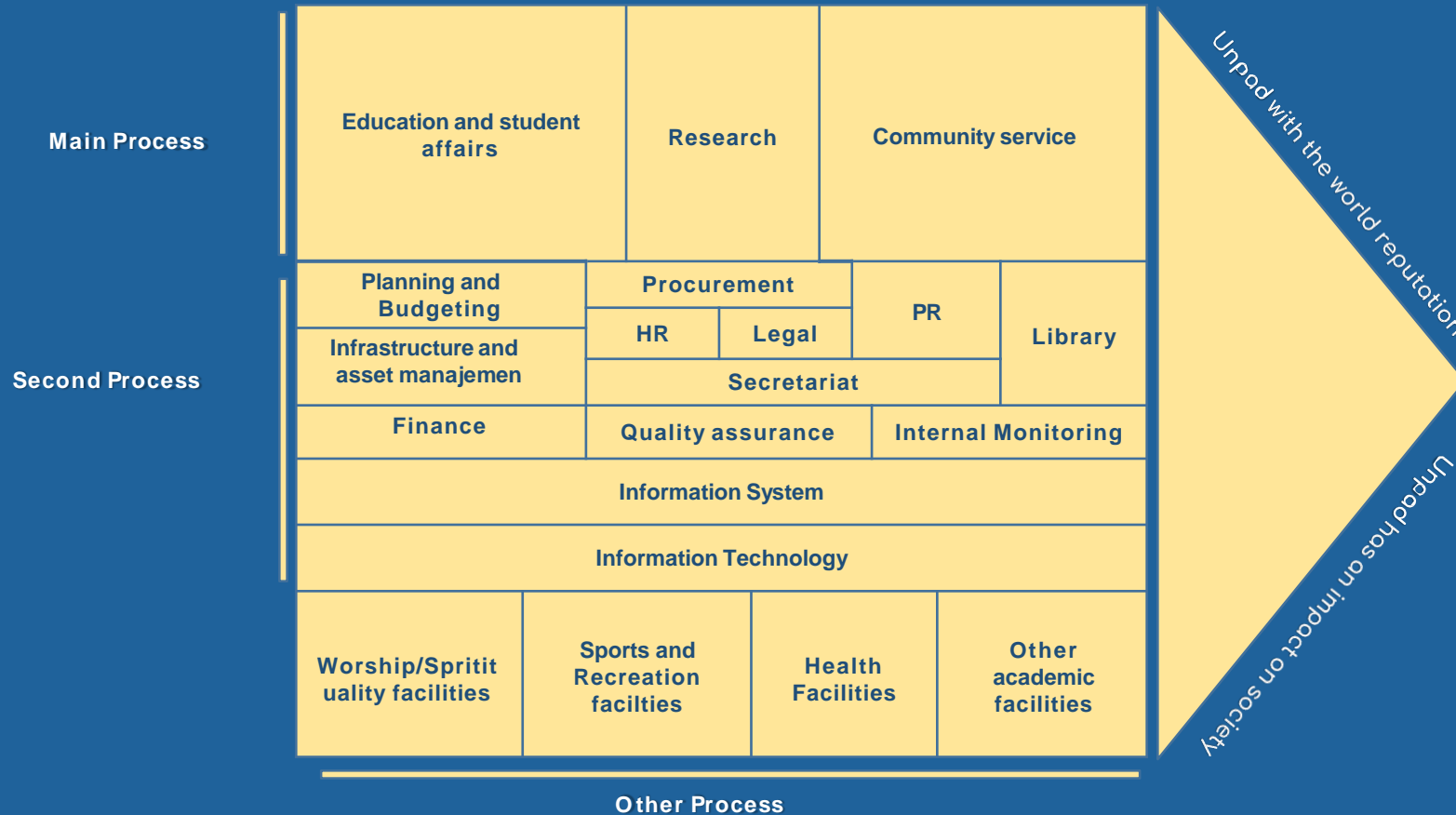


# Paper Reduction Program

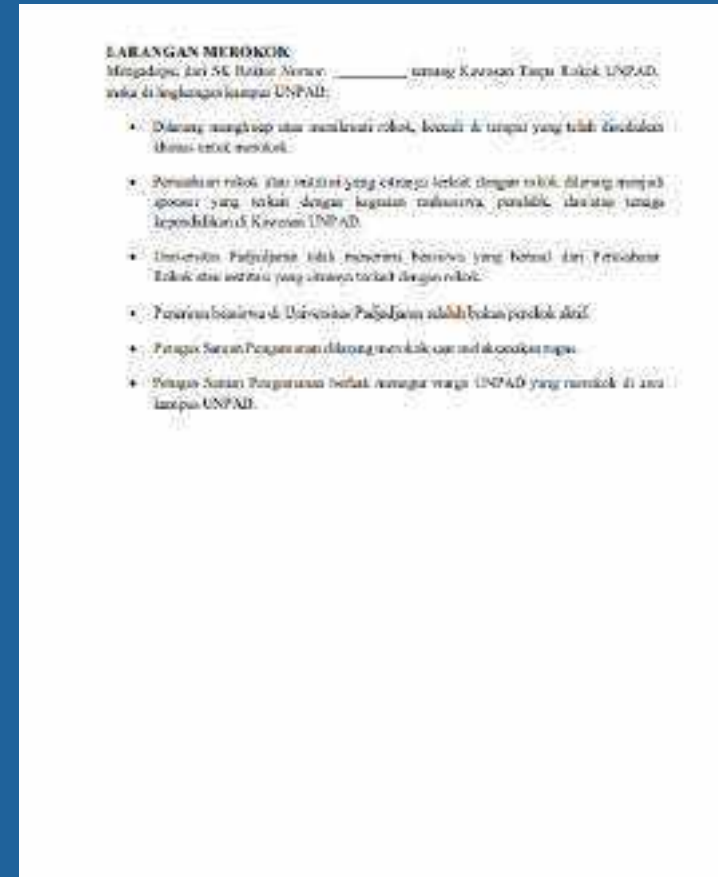
3.1

## - MAP BUSINESS PROJECT-

3.2



# Clean Air Program



To support clean air program around the campus, Universitas Padjadjaran officially limit the smoking area in Regulation of the Rector of the University of Padjadjaran No. 45 Years of 2016 Concerning The Technical Guidelines for Order, Security, and Safety in the Campus Environment.

# Organic Waste Treatment

3.1

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Organic waste production: 49% of total waste (42,92 m<sup>3</sup>/month)

# Organic Waste Treatment

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**Peat Pellet Production**

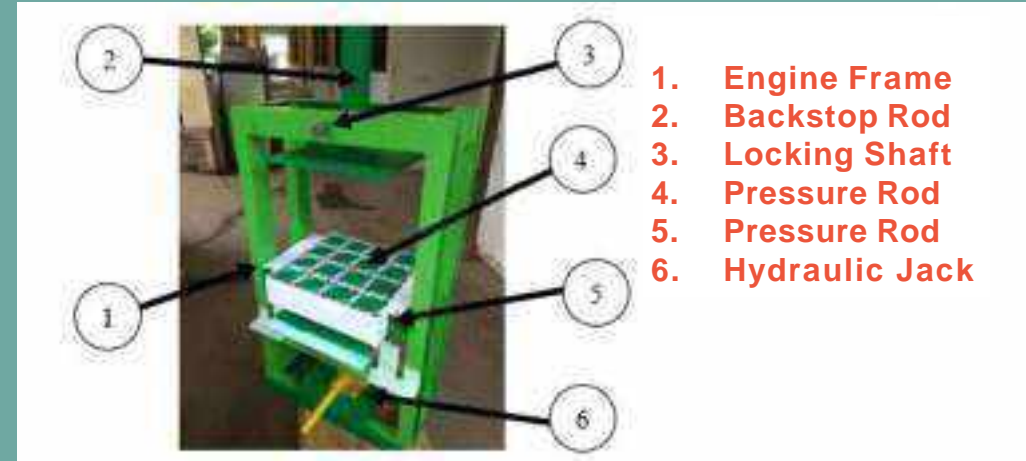
# Organic Waste Treatment

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## The Peat Pellets Maker



Comparison of self-produced peat pellets (right) with product sold in the Market (left)

## Peat Pellet Production

# Inorganic Waste Treatment



**Inorganic waste production: 17% of total waste (14,89 m<sup>3</sup>/month)**

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# Toxic Waste Treatment

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- F. Pharmacy
- F. Agriculture
- F. Veterinary
- F. Nursery
- F. TG
- F. TIP
- F. PIK
- F. Nursery
- F. Medicine
- F. Dentistry
- Central Lab.



# Types of Hazardous and Toxic Waste



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# Toxic Waste Treatment

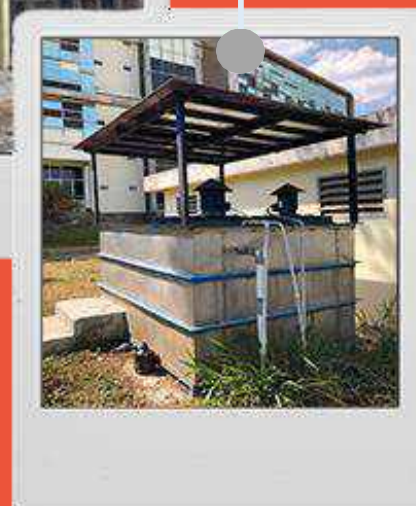
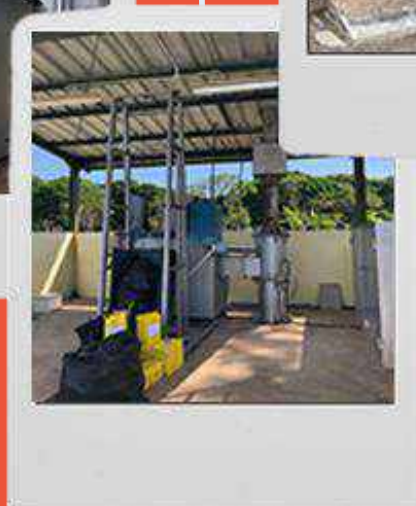
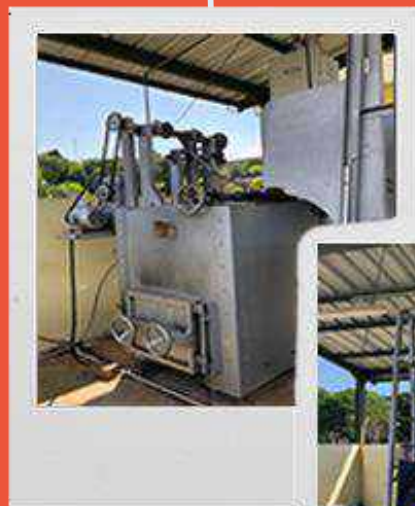
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# Evidence Carrying of Toxic Waste

**SINERGI BRAGA MANDIRI**  
Jl. Sekeloa Timur 1, 40132, Braga, Kabupaten Bagan Tikapur, Kepulauan Riau  
sinergi@unpad.com

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## KUITANSI

Nomor: 013/Ks/SBM-UNPAD-RSGM/XI/19


Untuk dan dari: Rektor Universitas Padjadjaran

Banyaknya Uang: dua puluh tiga juta enam puluh dua ribu lima ratus satu rupiah

Untuk Pembayaran: Pengadaan Jasa Pemusteran Kajian Pengaliran Limbah 83 RSGM Universitas Padjadjaran berdasarkan SPK No. 19061/UNP.PPA/TU/2019 Tanggal 31 Oktober 2019 dan Berte-Akara Serah Terima Hasil Pekerjaan No. 17435/UNP.PBU/SP/2019 Tanggal 28 November 2019 sesuai dengan rincian pekerjaan pada faktur terlampir

Jumlah: Rp. 23.062.501,00

Bandung, 29 November 2019  
Hormat Kami,  
Dr. Syarif Razaq Mulya  
Ketua RSGM



# Medical Waste Treatment

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Collecting and Sorting

No	Kategori / Jenis Limbah	Cairan Waduk 1				jumlah	Cairan Waduk 2				jumlah	Cairan Waduk 3				jumlah
		1	2	3	4		1	2	3	4		1	2	3	4	
<b>D. Lab. Biokimia</b>																
1	Gel aglutinasi	3				3					3					3
2	Buffer Tis	1				1					1					1
3	Ekstrak Serum	3				3					3					3
4	H <sub>2</sub> O	4				4					4					4
5	Aminoflavin	3				3					3					3
6	Benedict	4				4					4					4
7	KOH	3				3					3					3
8	TKA	3				3					3					3
9	Desferal	3				3					3					3
10	Papanik	4				4					4					4
<b>E. Lab. Patologi Klinik</b>																
1	Urea	1				1					1					1
2	Kreatin	2				2					2					2
3	Gemak	3				3					3					3
4	Gliserol	4				4					4					4
5	Glukosa	4				4					4					4
6	Sulfamid	4				4					4					4
7	Etanol	5				5					5					5
8	Paraset	3				3					3					3
<b>F. Lab. Anatomi</b>																
1	Formalin	1				1					1					1
2	Paraset	2				2					2					2
3	KOH	3				3					3					3
4	Ammoniak	4				4					4					4

Labelling and Register



Incineration

# Sewage and Treatment Disposal



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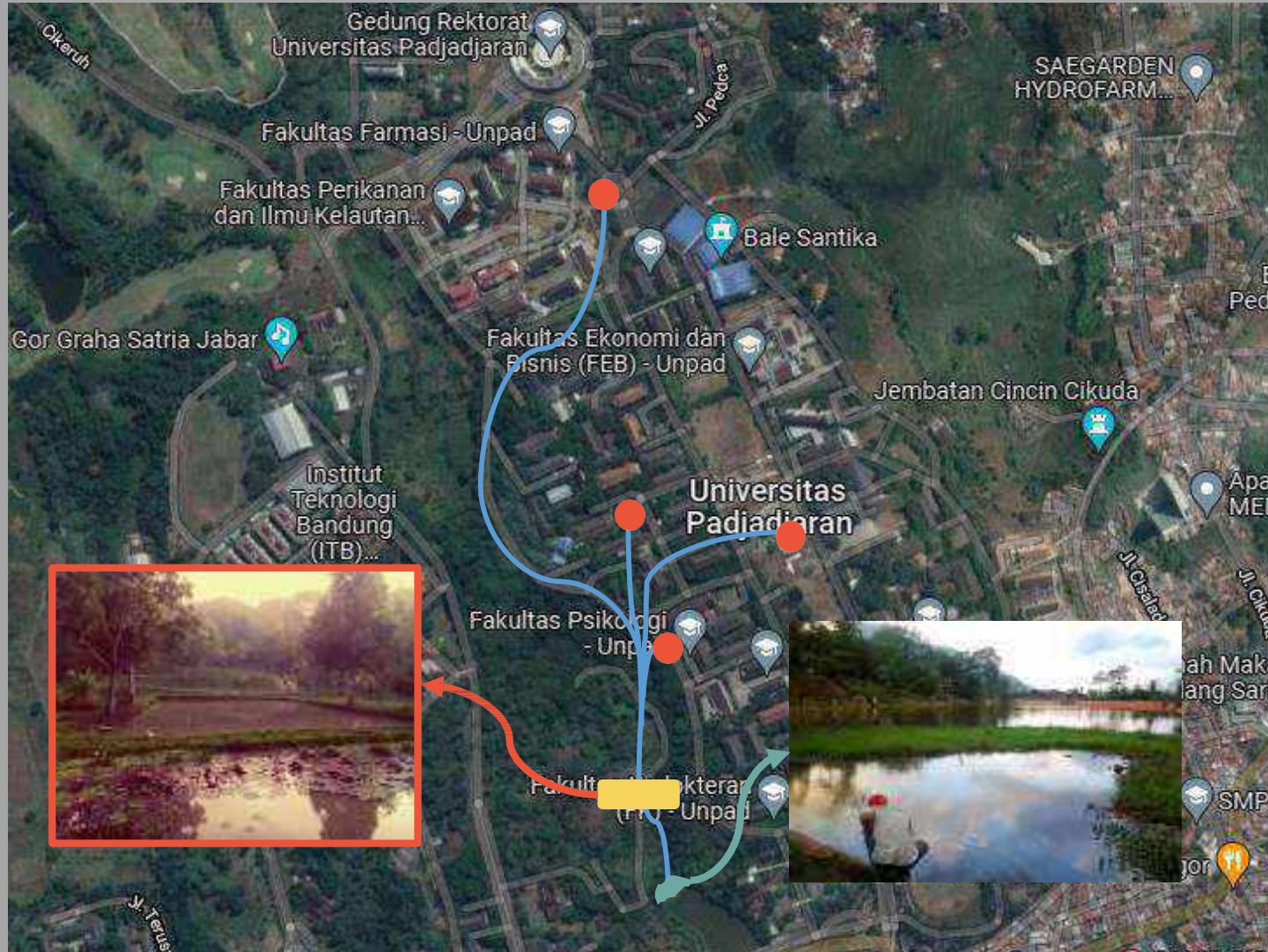
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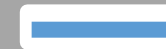
3.5

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# Sewage and Treatment Disposal



**Sludge Pond**



**Sludge Pipeline**



**Control Pond**



**Storage Tank**

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# Sewage Disposal Monitoring



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