



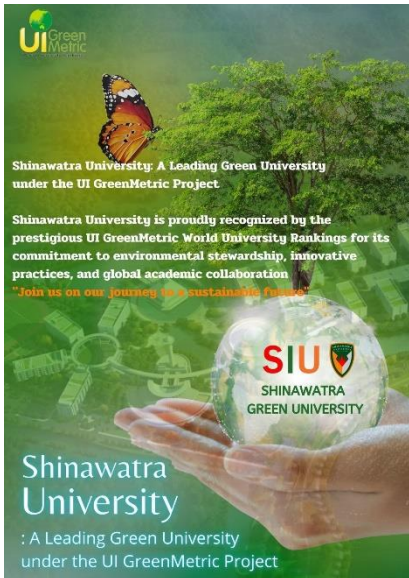



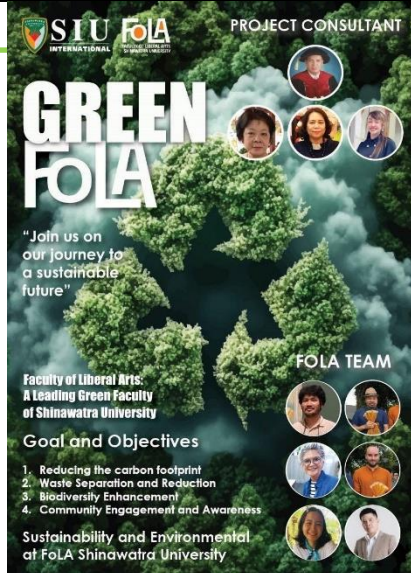
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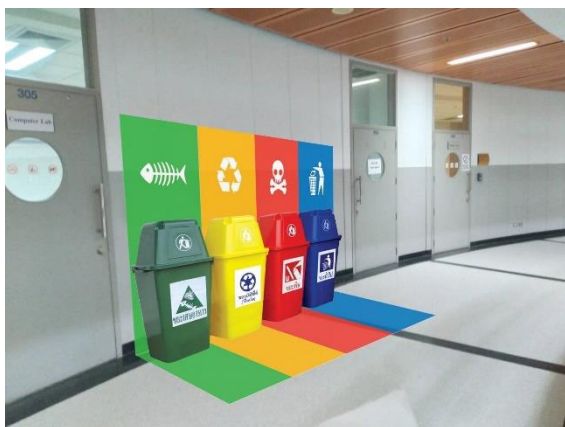
[3] Waste (WS)

[3.1] 3R (Reduce, Reuse and Recycle) Program for University

	
	
<p>Executive meeting for developing plans of Sustainability and Environmental Management under Green University policy including waste management with 3R principles.</p>	



Public relations on waste management and SIU Green University



Recycling Program for University Waste (Shinawatra University, Thailand)



Organic Fertilizer (Bio-extract) from organic waste (Recycle program)



Organic Fertilizer from food scraps and yard debris (Recycle program)



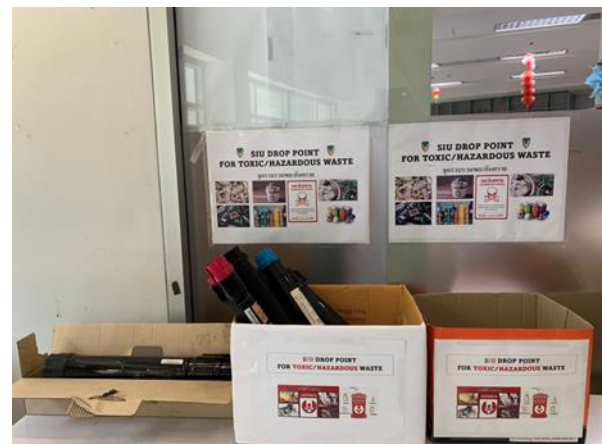
Organic Fertilizers are used for improving planted vegetation



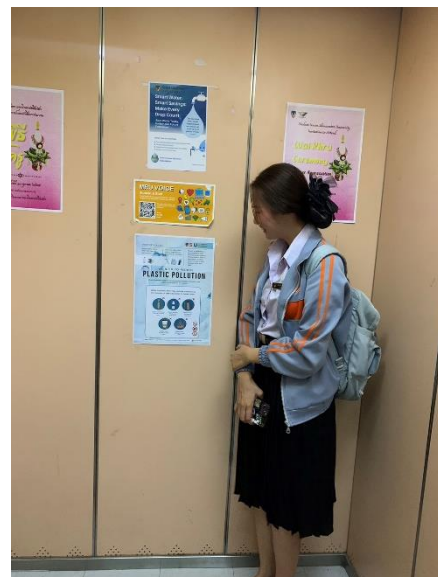
Recycle waste is collected and transported to an external recycling company

SIU DROP POINT FOR TOXIC/HAZARDOUS WASTE

จุดรวบรวมขยะอันตราย



Collecting toxic/hazardous waste at SIU drop point



Public relations on plastic reduction



SIU Go Paperless

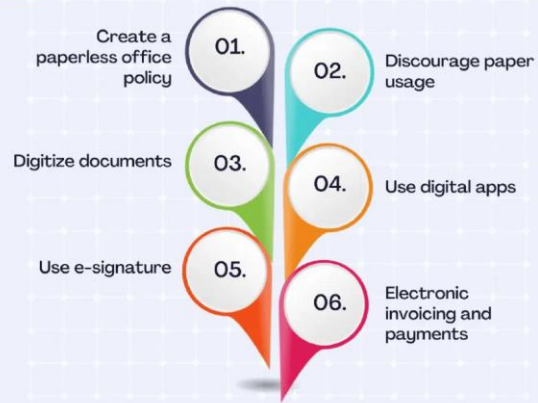
Paperless Office Policy



E-document

SAVE OUR WORLD

Steps to go paperless at office



Paperless Office

Double side-printing and print when necessary



Training on waste management according to the 3R principles and environmental Sustainability



Description:

The average university waste is 9.0163 tons per month. It is divided into 5 types of waste: wet waste (Food waste/ vegetable waste) 3.325 tons per month, general waste 2.900 tons per month, recycling waste 0.332 tons per month, leaf/grass 2.450 tons per month, and toxic waste 0.0093 tons per month. Food/vegetable waste has been composted in tanks to produce Liquid Organic Fertilizers for watering garden grass and planted vegetable in campus. Recycle waste will be transported to external company for recycling.

General waste has also been disposed of by the local authorities responsible for storage and disposal. However, the university has organized waste sorting and reduction projects within the university. The campaign consists of the following activities: The university provide any campaign to reduce plastic bags and plastic bottles, the usage of recycled paper to reduce paper in the university, and the recycling of Electronic Waste and ink-cartridges from printers as E-wastes that should not be disposed of in the normal trash due to their high concentrations of toxic substances and heavy metals. Student, faculty, and staff easily determine what they can and cannot recycle. Additionally, the university organizes the 3R training project for all staff to educate them to know waste management.



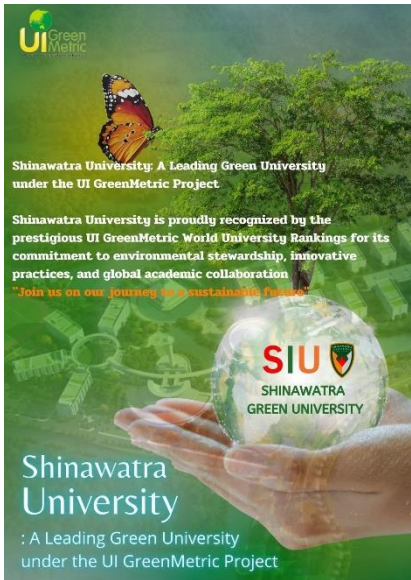
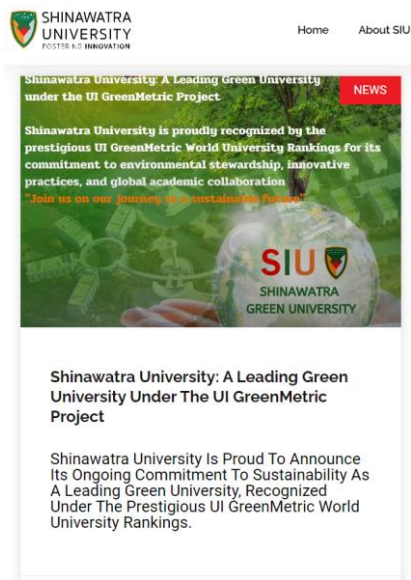


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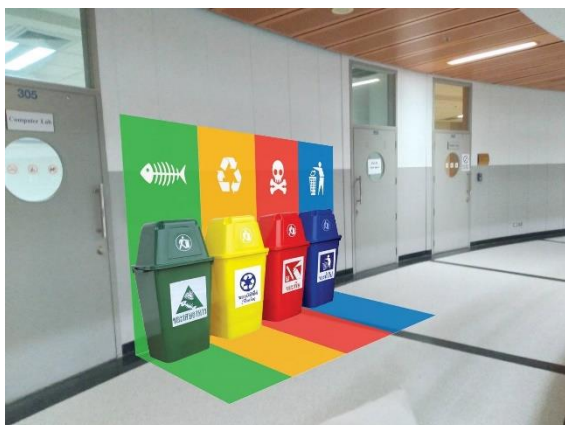
[3] Waste (WS)

[3.1] 3R (Reduce, Reuse and Recycle) Program for University

	
	
Executive meeting for developing plans of Sustainability and Environmental Management under Green University policy including waste management with 3R principles.	



Public relations on waste management and SIU Green University



Recycling Program for University Waste (Shinawatra University, Thailand)



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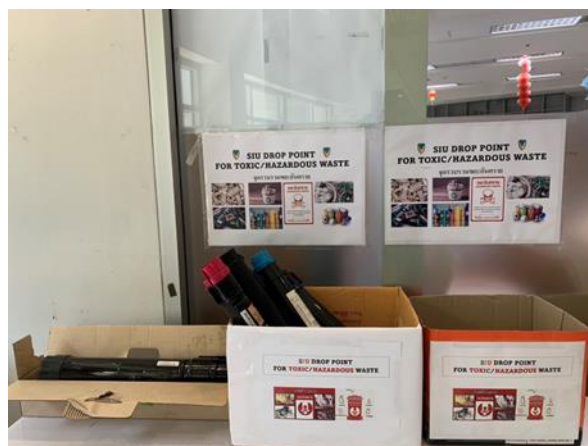
Organic Fertilizers are used for improving planted vegetation



Recycle waste is collected and transported to an external recycling company

SIU DROP POINT FOR TOXIC/HAZARDOUS WASTE

จุดรวบรวมขยะอันตราย



Collecting toxic/hazardous waste at SIU drop point



Public relations on plastic reduction



SIU Go Paperless

Paperless Office Policy



E-document

SAVE OUR WORLD

Steps to go paperless at office

01. Create a paperless office policy
02. Discourage paper usage
03. Digitize documents
04. Use digital apps
05. Use e-signature
06. Electronic invoicing and payments



Paperless Office

Double side-printing and print when necessary



Training on waste management according to the 3R principles and environmental Sustainability



Description:

The average university waste is 9.0163 tons per month. It is divided into 5 types of waste: wet waste (Food waste/ vegetable waste) 3.325 tons per month, general waste 2.900 tons per month, recycling waste 0.332 tons per month, leaf/grass 2.450 tons per month, and toxic waste 0.0093 tons per month. Food/vegetable waste has been composted in tanks to produce Liquid Organic Fertilizers for watering garden grass and planted vegetable in campus. Recycle waste will be transported to external company for recycling.

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[3] Waste (WS)

[3.3] Total volume organic waste produced

Type of organic waste	Total Produced (ton)
- food waste	39.9
- leaf and grass	29.4



Organic waste from leaves and grass



Organic waste from vegetables and food scraps



Description:

The average organic waste amount is 5.775 tons per month (69.3 tons per year). Organic waste is separated into 2 categories; 3.325 tons of food waste (39.9 tons per year), and 2.450 tons of leaf waste and yard waste (29.4 tons per year). It is composted and fermented to be an organic fertilizer for improving the garden and plants of the university.



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[3] Waste (WS)

[3.4] Total volume organic waste treated

Type of waste	amount (ton)				
	total	reduced	reused	down-cycled	up-cycled
organic	69.3	6.6	-	-	17.325
- food and vegetable wastes	39.9	3.292	-	-	9.576
- leaf and grass	29.4	3.267	-	-	6.533

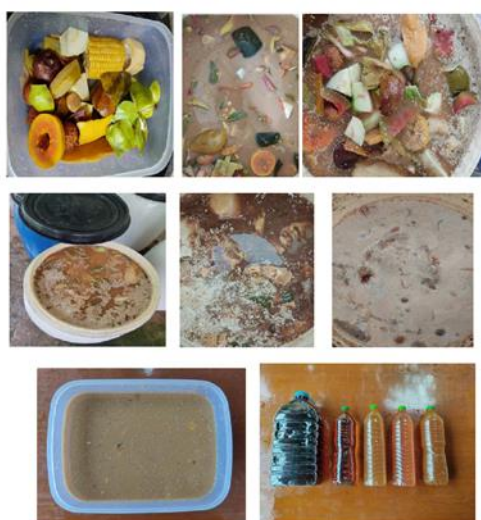


Organic waste from leaves and grass





Production of bio-fermented water (EM) from food wastes



Organic waste from vegetables and food scraps

Description:

The average organic waste amount is 5.775 tons per month (69.3 tons per month). Organic waste (food scraps, leaves, and grass) is treated as fertilizer for improving soil and plants in the university.



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[3] Waste (WS)

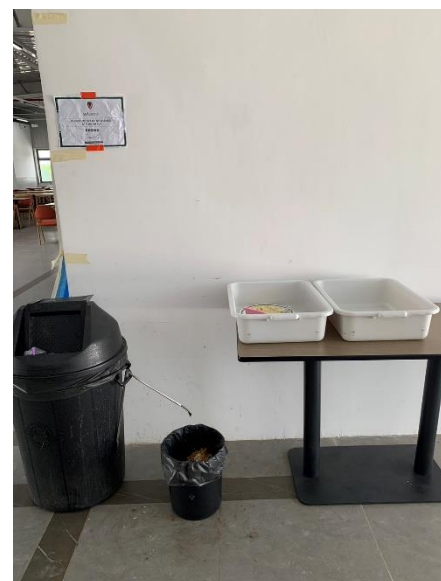
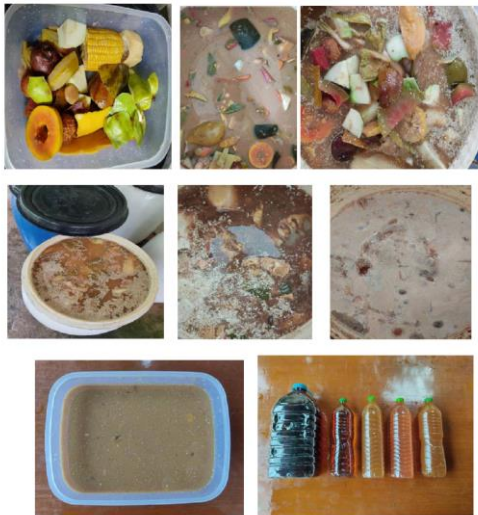
[3.5] Organic Waste Treatment



Managing the remaining organic waste by a local authorized waste treatment plant



Production of bio-fermented water (EM) from food wastes



Organic fertilizer from organic waste

Description:

The main sources that produce organic waste are canteens and dormitories. It is composed of fertilizer. The remaining waste is delivered and managed by a local authorized waste treatment plant.



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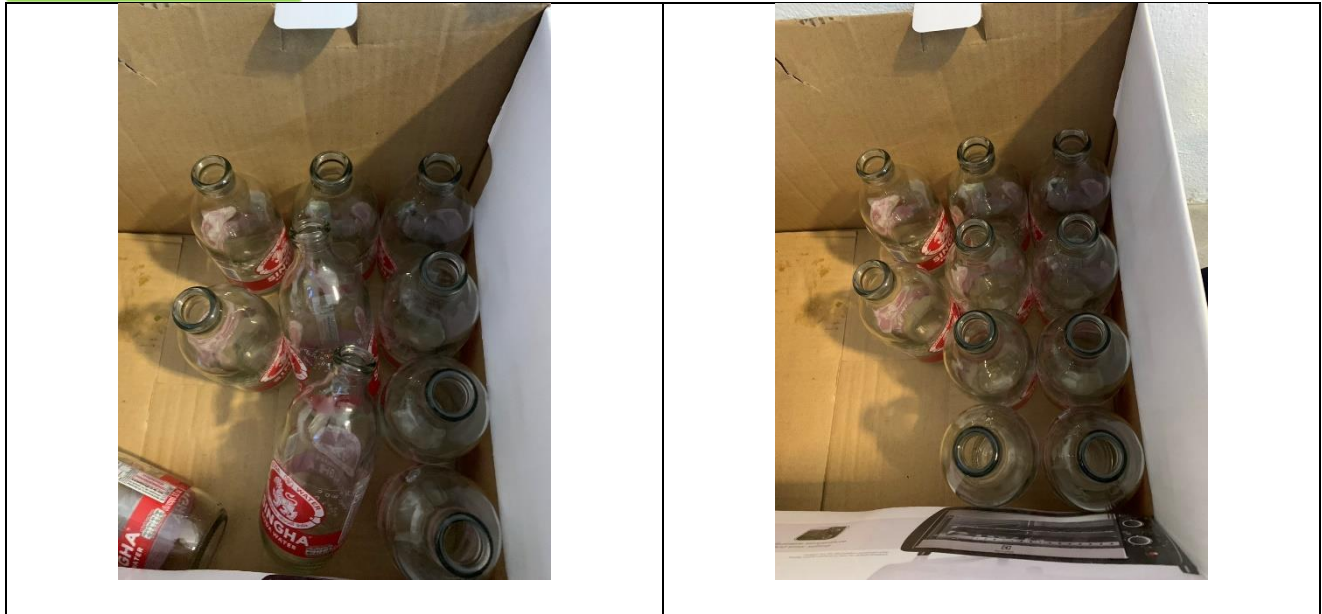
[3] Waste (WS)

[3.6] Total volume inorganic waste produced

Type of inorganic waste	Total Produced (ton)
- paper	0.1162
- plastic	0.1328
- glass	0.0498
- metal	0.0332



Inorganic waste : paper



Inorganic waste : glass



Inorganic waste : plastic

Description:

The average inorganic waste amount is 3.325 tons per month (39.900 tons per year). Inorganic waste is separated into 2 categories; 2.993 tons of general waste and 0.332 tons of recycled waste (0.1162 tons of paper, 0.0498 tons of glass, 0.01328 tons of plastic, and 0.0332 tons of metal). It is managed and recycled by a local authorized waste treatment plant.



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[3] Waste (WS)

[3.7] Total volume inorganic waste treated

Type of waste	amuount (ton)				
	total	reduced	reused	down-cycled	up-cycled
inorganic non-toxic	39.9	7.63	43.38		
- paper	19.95	4.00	14.36		
- plastic	16.75	3.63	29.02		
- glass	2.00				
- metal	1.20				





Inorganic waste delivery and management

Description:

The average inorganic waste amount is 3.232 tons per month (38.784 tons per year). Inorganic waste is separated into 2 categories; 2.9 kg of general waste and 0.332 kg of recycled waste (19.95 tons of paper, 2.0 tons of glass, 16.75 tons of plastic, and 1.20 tons of metal). It is managed and recycled by a local authorized waste treatment plant.



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[3] Waste (WS)

[3.8] Inorganic Waste Treatment





Drop point of Inorganic Waste and Inorganic Waste Treatment

Description:

1. Inorganic waste that can not recycled is delivered to a local authorized waste treatment plant (Khlongkhwai Subdistrict Administrative Organization).
2. Recycled waste (paper, plastic, and glass) is collected and delivered to a local authorized waste treatment plant (Khlongkhwai Subdistrict Administrative Organization).



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[3] Waste (WS)

[3.9] Total volume toxic waste produced

Type of toxic waste	Total Produced (ton)
- Batteries and electronics	0.0564
- Chemicals substances	0.0552





Collecting and managing toxic wastes

Description:

The toxic waste such as chemicals substances, batteries, electronic devices in the university are very few. The toxic waste is produced about 0.0093 tons per month or 0.1116 tons per year (chemical substances 0.0552 tons per year and batteries & electronic devices 0.0564 tons per year).

The university does not have a toxic waste recycling center. However, the university has separated and managed hazardous waste and then delivered to an outside agency/unit that is licensed to dispose of toxic waste.



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[3] Waste (WS)

[3.10] Total volume toxic waste treated

Type of waste	amuount (ton)				
	total	reduced	reused	down-cycled	up-cycled
toxic	0.1116	0.01674			
- Batteries & electronic devices	0.0564	0.006696			
- Chemical substances	0.0552	0.010044			



Delivering and managing toxic waste

Description:

The toxic waste such as chemicals substances, batteries, electronic devices in the university are very few. The toxic waste is produced about 0.0093 tons per month or 0.1116 tons per year (chemical substances 0.0552 tons per year and batteries & electronic devices 0.0564 tons per year).

The toxic waste is treated 0.01674 tons per year. The university does not have a toxic waste recycling center. However, the university has separated and managed hazardous waste and then delivered to an outside agency/unit that is licensed to dispose of toxic waste.



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[3] Waste (WS)

[3.11] Toxic Waste Treatment



Toxic Waste Treatment



Description:

The toxic waste such as chemical substances, batteries, and electronic devices in the university are very few. The university does not have a toxic waste recycling center. However, the university has separated and managed hazardous waste. It is packed, labeled, and delivered to an outside agency/unit that is licensed to dispose of toxic waste.



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[3] Waste (WS)

[3.12] Sewage Disposal

	
	
Wastewater treatment system	



 	
Septic tank system	
Sewerage Disposal System	

Description:

SIU has a sewerage management system with septic tanks, which are collected and treated by our university's wastewater treatment system



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[3] Waste (WS)

[3.12] Sewage Disposal



Wastewater treatment system



 	
Septic tank system	
Sewerage Disposal System	

Description:

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[3] Waste (WS)

[3.13] Planning, implementation, monitoring and/or evaluation of all programs related to Waste Management through the utilization of Information and Communication Technology (ICT)

Stage	Activities/Programs	ICT Utilization	Evidence	Timeline	Responsible Team/Department
Planning	Develop 3R strategy, set targets for waste reduction	Waste audit software, data analytics tools	Strategic plan documents, waste audit reports	Jan 2024 - Feb 2024	Sustainability Office, ICT Dept
Implementation	Install recycling bins, initiate waste segregation	RFID tags for bins, waste management software	Installation logs, waste segregation reports	Mar 2024 - Apr 2024	Facility Management, ICT Dept
Monitoring	Track waste collection and recycling rates	Smart waste bins, real-time tracking software	Recycling rate reports, efficiency analytics	Ongoing	Sustainability Office, ICT Dept
Evaluation	Assess effectiveness of 3R program	Data analysis tools, feedback systems	Program evaluation reports, stakeholder feedback	Annually	Sustainability Office, ICT Dept





The meeting to plan and develop a comprehensive 3R strategy and relevant aspects

Description:

SIU has been meeting and planning to develop a comprehensive 3R strategy and set measurable targets for waste reduction, but it is not yet complete.