



SDG 11

SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable

Goal 11 promotes inclusive and sustainable urbanisation. Making cities sustainable means creating career and business opportunities, safe and affordable housing, and building resilient societies and economies. It involves investment in public transport, creating green public spaces, and improving urban planning and management in participatory and inclusive ways.

In this report we are considering JKLU campus as a community and our observations and findings are limited within the campus community.

Group C

Ashitosh

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Primary Research

The initial phase of the project involved conducting primary research to understand the current state of sustainability at JKLU, particularly in green energy, clean water, waste management and landscaping. This research was conducted through a combination of field observations, interviews and data collection from various sources within the JKLU campus.

With our primary research we found out the following details in our selected parameters:

1. Green Energy- We currently have solar panels over most of the roofs in Campus.
2. Clean Water- We have identified that the waste water from the campus goes to the water treatment plant handled by a private contractor inside the campus.
3. Waste management- Campus wastage and food wastage from the mess are collected separately.
4. College landscape management – We have identified that maintenance staff are trimming the grass and the waste is moved out.

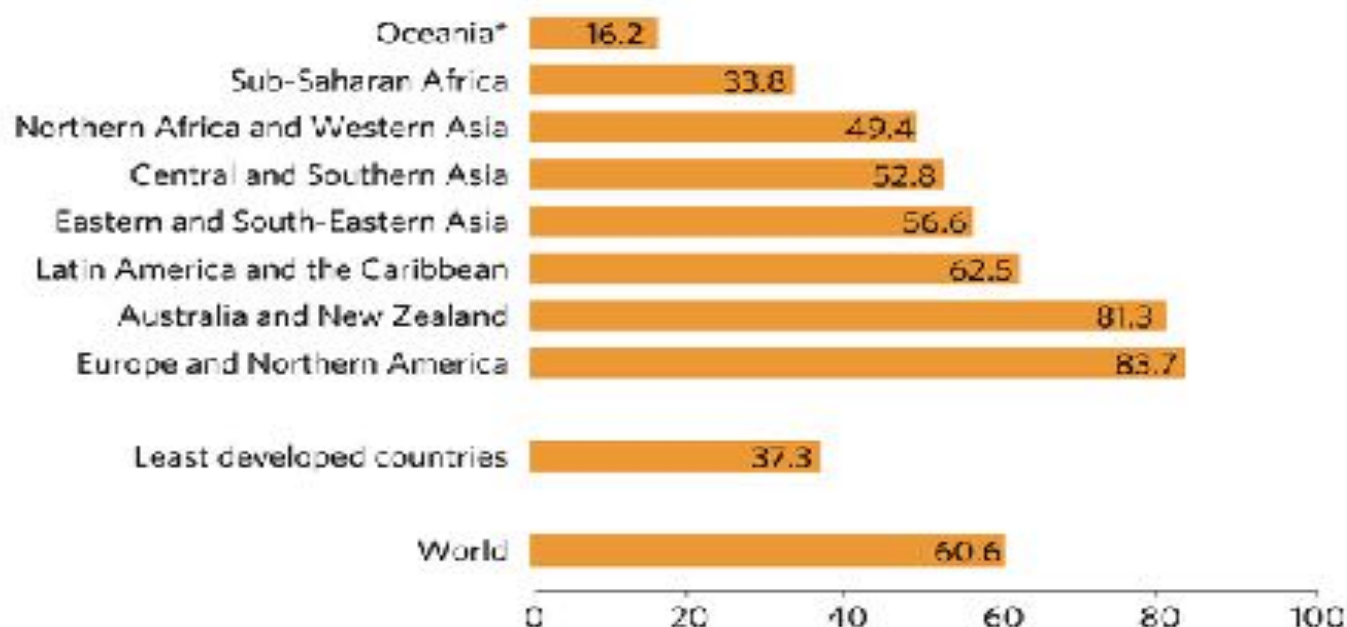
Secondary Research about your Topic and your SDG

Sustainable Development Goal (SDG) 11 focuses on making cities and human settlements inclusive, safe, resilient, and sustainable. With rapid urbanization, over half of the world's population now lives in cities, making urban development critical for global sustainability. SDG 11 addresses key challenges such as inadequate housing, pollution, and transportation systems, while ensuring access to safe and affordable infrastructure for all.

It also emphasizes reducing environmental impact by improving air quality, waste management, and public spaces. A significant aspect of this goal is to support least developed countries in building sustainable and resilient buildings, leveraging local materials.

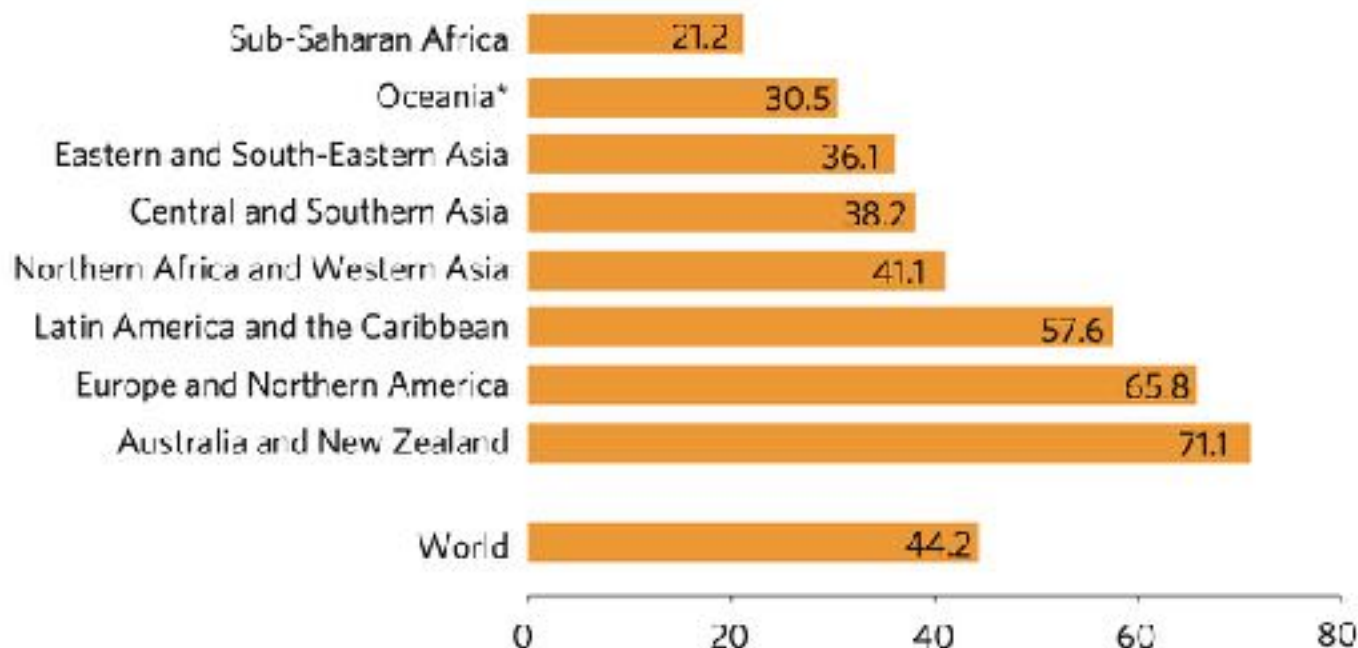
SDG 11 is interlinked with various other SDGs, including climate action (SDG 13), economic growth (SDG 8), and reducing inequalities (SDG 10). Achieving sustainable urban development can drive progress across these areas, ensuring that cities are centers of social inclusion, economic opportunity, and environmental sustainability for future generations.

Share of population with convenient access to public transportation in urban areas, 2023 (percentage)



* Excluding Australia and New Zealand.

Proportion of urban population with convenient access to open public spaces, within a 400-metre walking distance, 2020 (percentage)



* Excluding Australia and New Zealand.

<https://ourworldindata.org/sdgs/sustainable-cities>

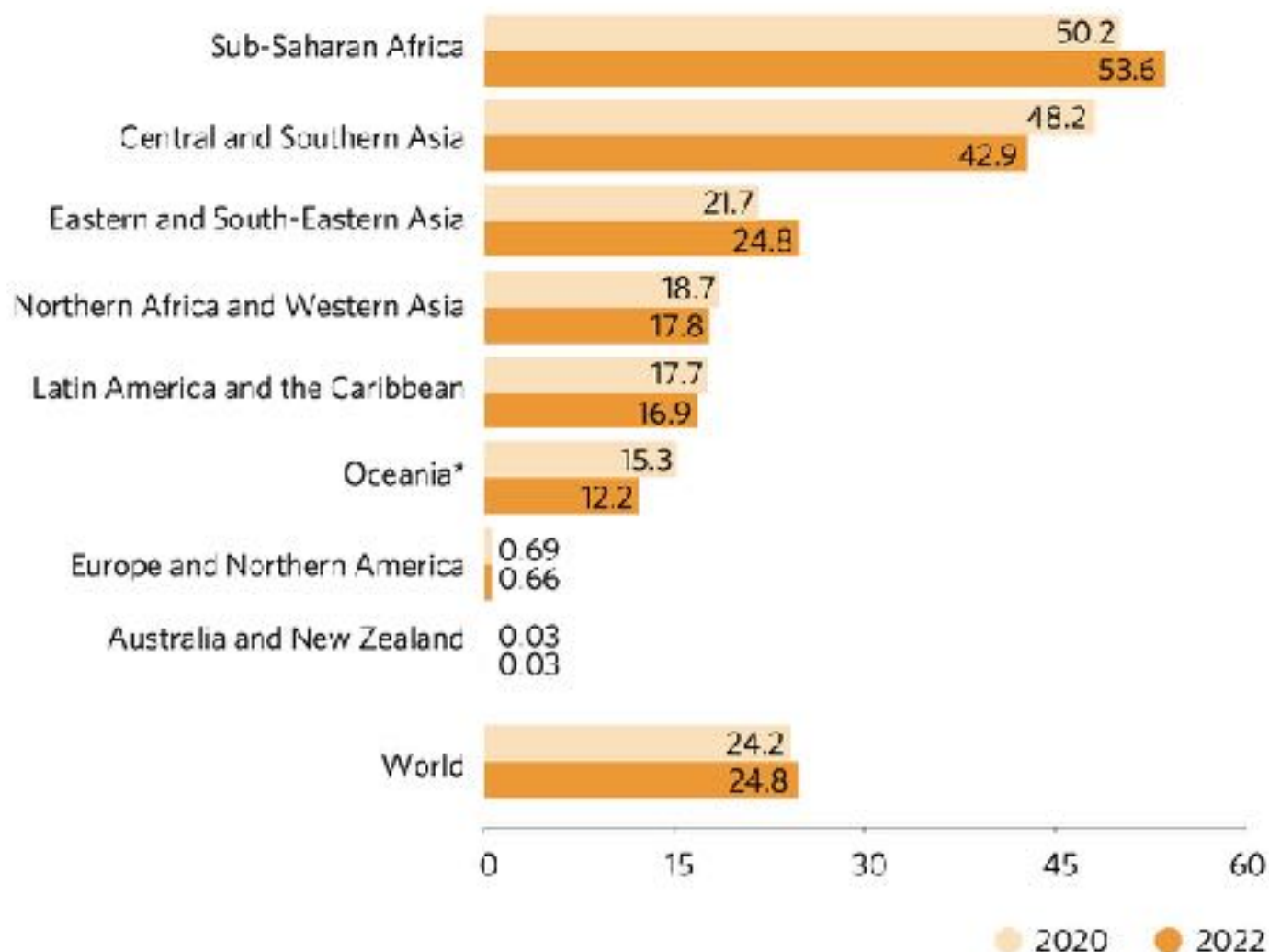
https://unhabitat.org/sites/default/files/2020/07/indicator_11.a.1_training_module_national_urban_policy.pdf

donation for sag <https://jointsdgfund.org/sustainable-development-goals/goal-11-sustainable-cities-and-communities>



<https://mdgs.un.org/sdgs/report/2016/goal-11/>

Proportion of global urban population living in slums, 2020 and 2022 (percentage)



* Excluding Australia and New Zealand.

Summary from stakeholder interviews

After talking to all the vendors of solar, waste- water management, mess, landscaping we learnt that an accountant in the administration department is managing the operations of these vendors.

We approached the accountant to understand his role in managing these vendors and to understand his interest towards sustainability.

It was learnt from him that all these vendors are given contracts for their activities and it is issued and managed by JKO leadership at Delhi. The accountant here manages and oversees the day-to-

day activities of these vendors such as arranging external water supply when there is shortage of water in the campus due to less water in the campus water sources or during special events. Ensure there is continuous electric supply in the campus during any breakdown of solar supply or Nigam supply to the campus. The campus greenery is maintained by the landscaping workers. Campus and mess waste is handled and flows out of the campus on timely manner.



Water tanker bringing in water to the campus.



Main water tank in the campus.



Main borewell [borewell controller as seen in pic] in campus.



Campus waste and food waste carrying vehicle.

Electricity Bill-

Electricity consumption bil

Stakeholders Listing-

Stakeholders
College President/Chancellor
Board of Trustees
Sustainability Committee
Facilities Director and Team
Solar vendor
Waste water treatment vendor
Campus waste Management
Groundskeeping and Landscaping Staff
Sustainability Faculty
All Faculty Members
Environmental/Sustainability Clubs
Student Government/Union
Sustainability Coordinator
Green Office Programs
Dining Services Management
Suppliers
IT Managers and Staff
Sustainability Procurement Officers
Financial Officers
Alumni Groups
Green Fund Donors
Local Government and Organizations
Corporate and NGO Partnerships

Stakeholder Mapping-

Interest	Power	Stakeholder
High	High	JKLU Leadership
High	Low	Landscaping
Low	High	Finance Accountant
Low	Low	All vendors



JAIPUR VIDYUT VITRAN NIGAM LIMITED
Registered Office : Indraprastha, Vardhola, Jaipur
PAN: INDIA 28CJ272K; GSTIN: 08AAJ2827271K127; HSN Code: 4714

Bill Date : 28/05/24
Name & Address of Office : Aardh, OM, DARGA

Bill Period : 01/05/2024 to 31/05/2024

Bill No.	02410865	Bill Month	05/2024	Bill No.	02410865
Bill Issue Date	13-05-2024	Net Billable Units	1330.72	Bill Issue Date	13-05-2024
Bill Status	R	Due Date	28-06-2024	Bill Status	R
Bill Period	1	Due Date	28-06-2024	Bill Period	1
Bill Period	1	Due Date	28-06-2024	Bill Period	1

CONSUMER BASIC DETAILS				BILL SUMMARY			
Account No.	0600112	Consumer Status	R	1. Energy Charges		118643.7	
Category	R	Tariff Code	23115	2. Fixed Charges		108163.9	
Urban / Rural	R	Meter Reading/Deposited	8300	3. Fuel Surcharge		8076.90	
Reader Code	0289712	Ownership of Meter	5	4. General surcharge		0	
Contract Demand	500	Reading Demand	687.37	5. Power factor surcharge/Incentive (%)		-13945.25	
Supply Voltage	33000	Measuring Voltage		6. Unauthorised User Charges		0.0	
Metering Type	HT	Power Factor	3.072	7. O&M Rent		44.00	
Date of Current Reading	01-05-2024	Date of Previous Reading	31-07-2023	8. Transformer Rent		0	
Consumption	83000	Sanctioned Load	3618.3075	9. Others Pay		0	
Security	0	Connected Load	3618.3075	10. J. Voltage Rebate		-50341.51	

SOLAR GENERATOR METER DETAILS			
SOLAR Generator Meter No.	Machine	0010447	
Installed Capacity of Solar P.V. (KW)		450	
Present KWH Reading (1)		12886.42	
Previous KWH Reading (2)		12896.76	
Difference (1 - 2)		134.41	
Measuring Factor (MF)		40	
Net Generation KWH (1/2/MF)		3360.25	
Net Use		23586.9	
Adjustable Generation		51640	
Total Consumption for HT Calculation		0	

CURRENT READING FOR ADDITIONAL METER DETAILS			
Disconnection meter No.	001007471		
1. Status	R	Export	Import
(A) Present Reading	01 KWH	3146.05	8345.938
	02 KWH	8351.5	20817.849
	03 KWH	4	41.181
(B) Previous Reading	00 KWH	2891.72	7426.7381
	01 KWH	8151.8	181614.8111
	02 KWH	8	8
(C) Net	01 KWH	155.24	5767.1513
	02 KWH	2	18550.8760
Measuring Factor		50	
Maximum Demand		5	687.37
Total Export (Export KWH)		23586.9	12472.21
Total Import (Import KWH)		0	1330.72

Billed Consumption for Last Twelve Billing Months											
Bill Month	2024-07	2024-08	2024-09	2024-10	2024-11	2024-12	2025-01	2025-02	2025-03	2025-04	2025-05
Total Export	312.68	8187.3	7730	38731	4201.1	50686	24740	34388	83072	38430	84800
Total Import	7875.94	102817.21	125913.47	75450	17198	5158	42174	60474	118730	172962	10714
Total Export	2861.7	31515	18740	8374	9120	5714	8558	4372	504	120	948

Signature

Bill Date : 28/05/24

JK Lakshmiipat University, Jaipur

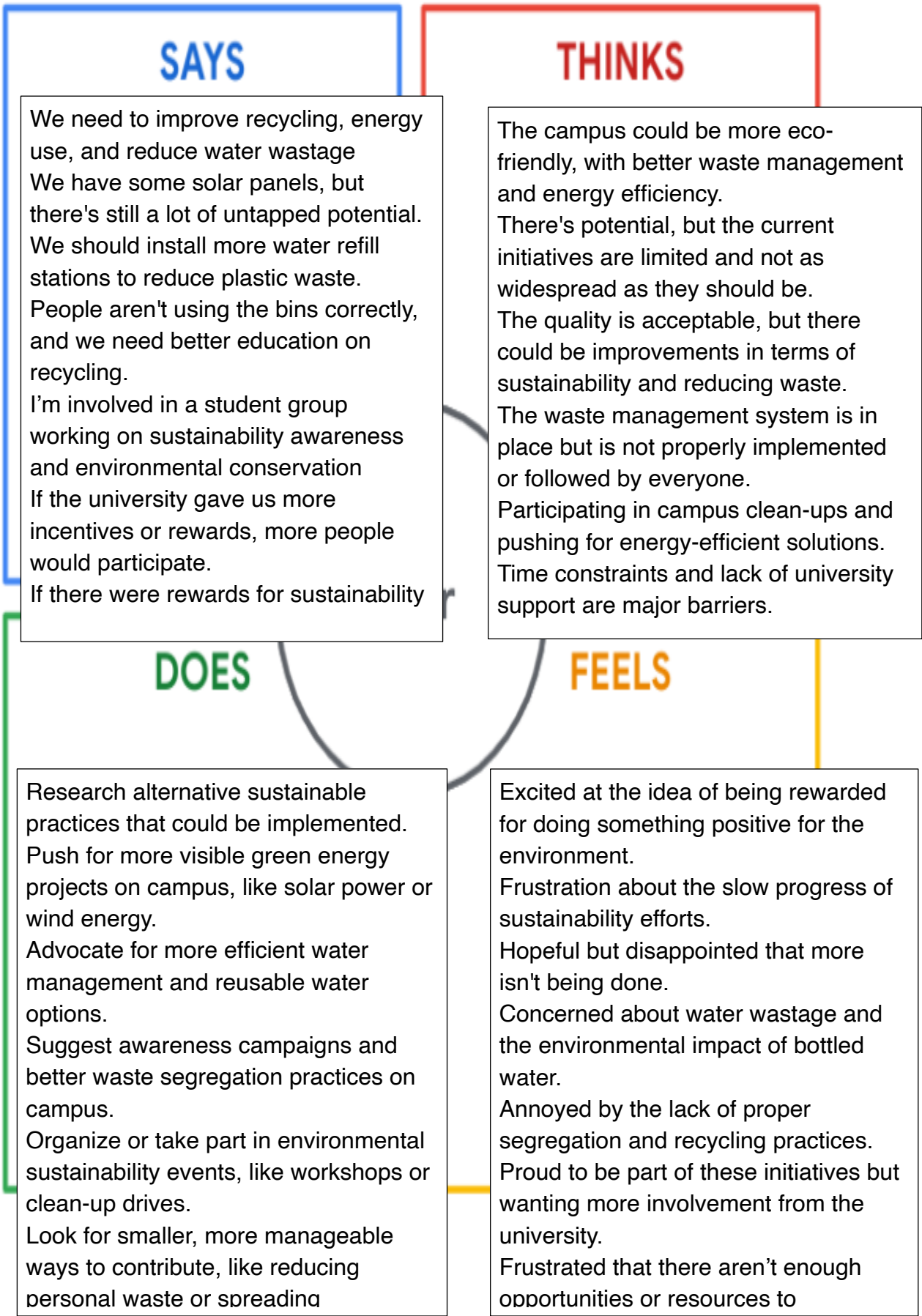
S. No.	Month	Total Units Consumed During the Current Year Corresponding Month (2023-24)				Total Units Consumed During the Previous Year Corresponding Month (2022-23)				Excess Unit Consumed as Compare to Previous Year
		Net Unit Imported from JVVNL	Units Generated from DG	Units Generated from Solar	Total Units	Net Units Imported from JVVNL	Units Generated from DG	Units Generated from Solar	Total Units	
1	July	72,072	1,851	38,488	112,421	58,608	2,325	37,008	97,941	14,480
2	August	156,582	134	39,617	196,353	105,492	-	39,780	144,772	51,581
3	September	171,486	388	41,018	214,799	153,132	3,425	39,480	196,046	38,753
4	October	117,720	120	43,540	161,789	82,056	18	40,044	122,118	39,671
5	November	56,508		30,808	87,316	51,044	-	33,114	94,158	(6,842)
6	December	63,924	400	29,798	94,122	59,756	2,420	27,879	70,055	24,067
7	January	28,632		30,324	58,956	53,128	50	30,550	82,728	(23,772)
8	February	38,112		39,951	78,063	50,744	2,496	40,223	73,463	4,600
9	March	61,212	329	50,673	112,714	57,192		49,194	106,386	5,828
10	April	130,145	524	48,919	179,588	106,008	409	50,794	157,211	22,377
11	May	100,332	421	49,372	150,125	108,550	2,801	52,169	163,130	(13,005)
	Total	998,735	3,152	442,934	1,295,621	746,180	11,143	387,575	987,667	118,366

JKLU leadership is the main stakeholder with High Interest and High Power but we were not able

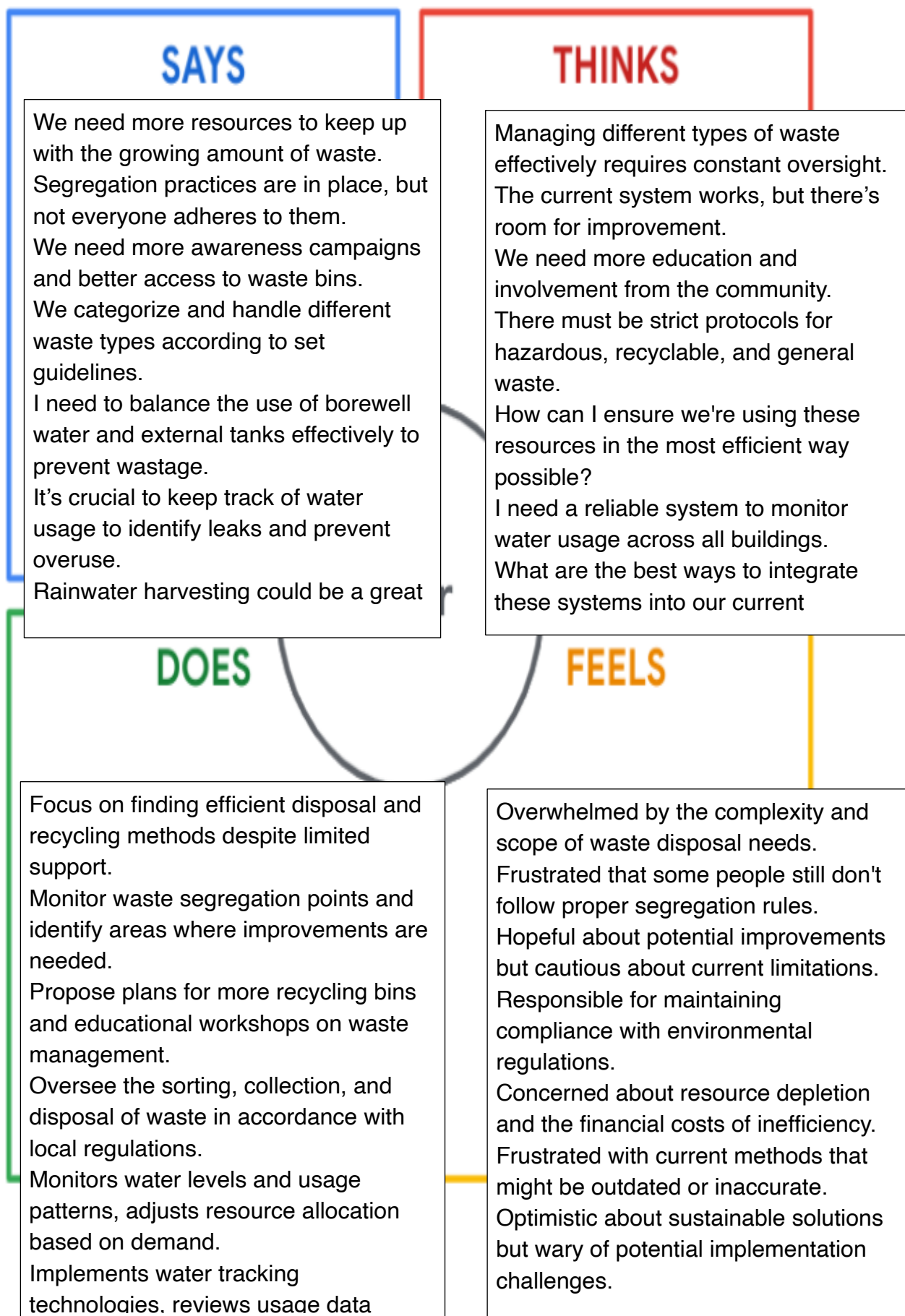
to reach to them and interview them to understand their interests for sustainability measures implementation in JKLU.

Hence we have no mention on JKLU leadership hereafter.

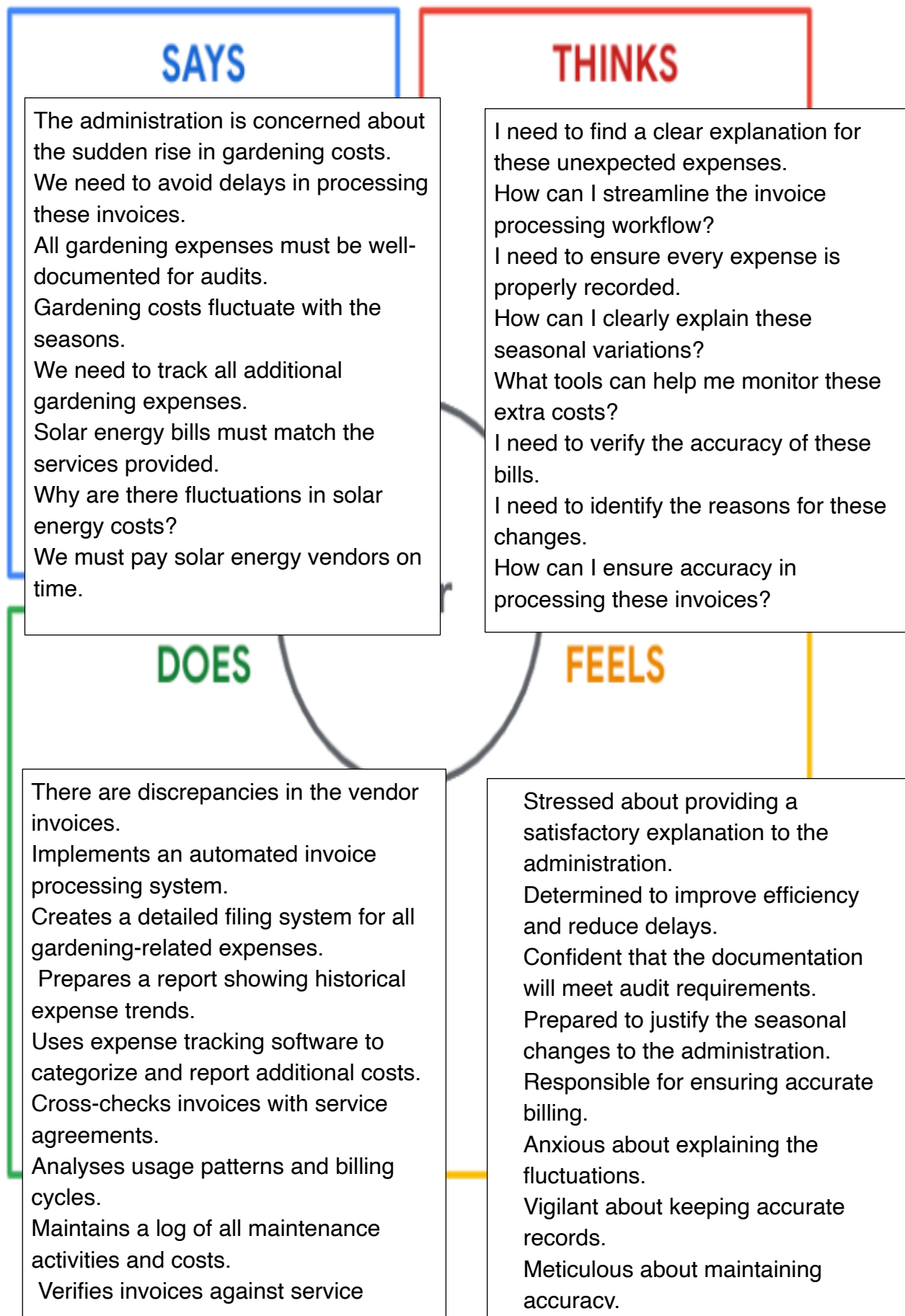
Empathy Mapping For Students:



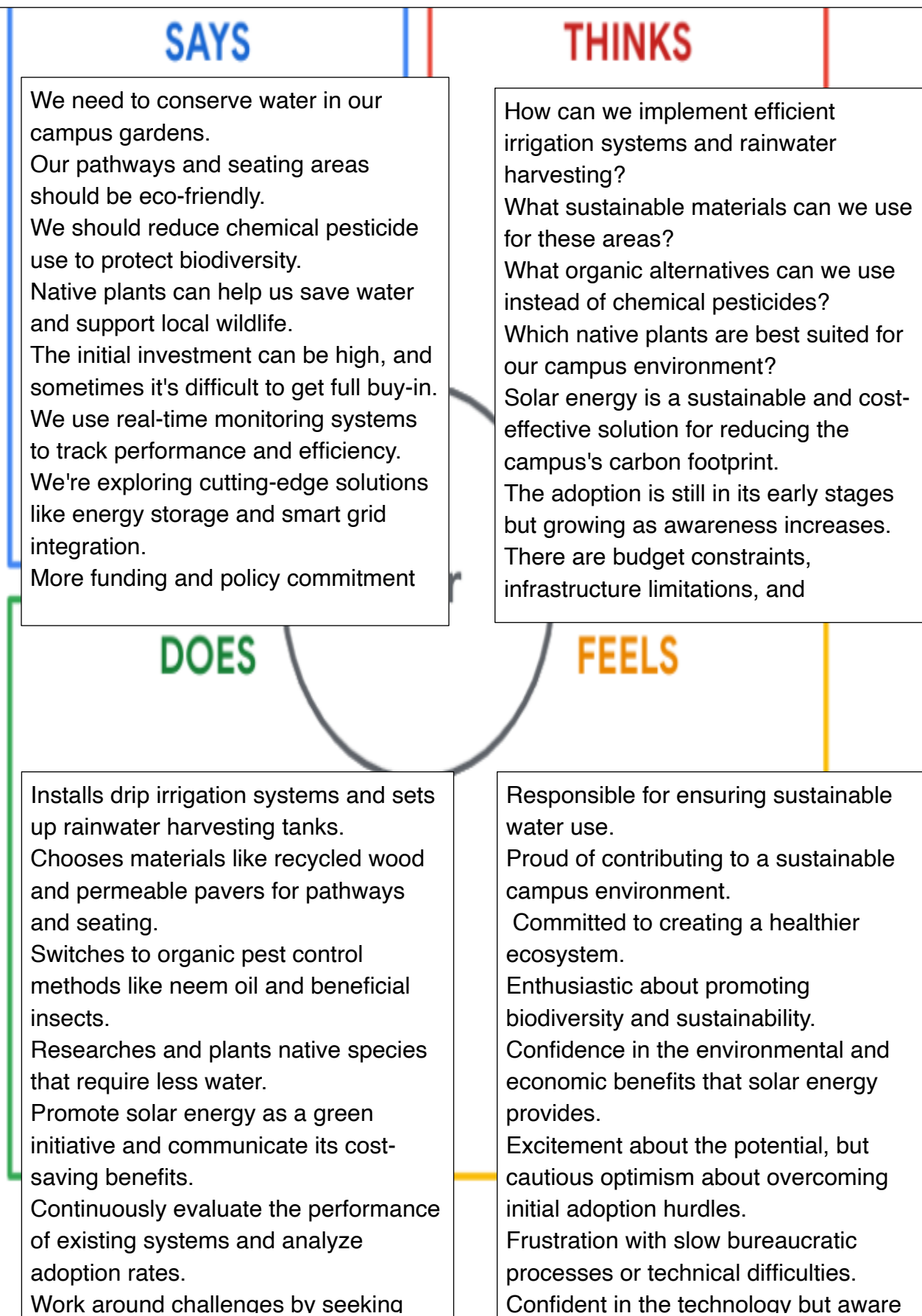
Empathy Mapping For Waste And Water



Empathy Mapping for Accountant :



Empathy Mapping For Campus Landscape And Solar Management Vendor:



Personas of our stakeholders:

Student persona-



Gokulkrishnan K
Design Student

Age: 23 years	Country: India
Sex: Male	Education: Graduate
Marital status: Single	Occupation: Student

Biography

A passionate graphic designer with a keen eye for visual storytelling. Currently honing my skills in Adobe Creative Suite and Figma. Eager to create visually impactful designs that resonate with audiences and leave a lasting impression.

Frestations

- Client Misunderstand ngs
- Tight Deadlines
- Creative Blocks
- Lack of Appreciation
- Financial Instability
- Software Glitches
- Staying away from home

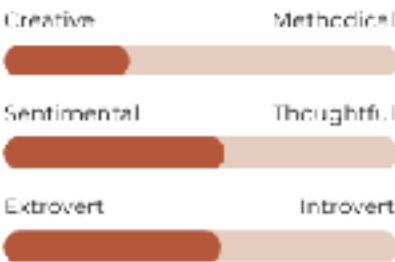
Goals and Objectives

- Skill Development
- Industry Networking
- Professional Recognition
- Impactful Work

Brands Used

- Steadler
- Zudio
- Oppo
- Ustraa
- Boat

Goals and Objectives



Technology



Waste water treatment vendor persona-



Deepak Chaturvedi
Water treatment plant vendor

Age: 51 years	Country: India
Sex: Male	Education: Primary Education
Marital status: Married	Occupation: Business

Biography

Dedicated water treatment solutions provider with 18 years of industry experience. Specializing in marketing and selling water treatment equipments. Committed to delivering high-quality, sustainable solutions.

Frestations

- Competitive Landscape
- Customer Education
- Project Delays
- Environmental Concerns
- Cost concerns
- Limited Market Reach
- Rapid Technological Advancements

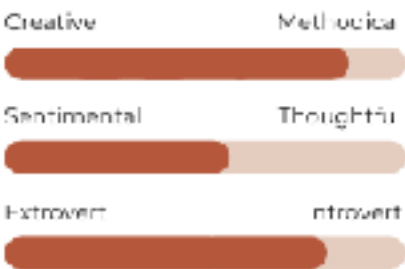
Goals and Objectives

- Profit
- Customer Satisfaction
- Innovation
- Personal Satisfaction
- Market Expansion
- Sustainability

Brands Used

- Glyseram
- Vima
- Dats
- Colgate
- Dettol

Personality



Technology



Finance accountant officer-



Shubham Mishra
Finance Officer

Age: 48 years	Country: India
Sex: Male	Education: CA Graduate
Marital status: Married	Occupation: Finance Officer

Biography

Finance Officer with a proven track record in financial analysis, budgeting, reporting. Dedicated to providing data-driven insights to inform decision-making and drive financial success. Committed to providing strategic financial guidance and supporting organizational growth.

Frustrations

- Data Accuracy
- Limited Resources
- Tight Deadlines
- Lack of Communication
- Workload
- Career Stagnation
- Conflicting Priorities

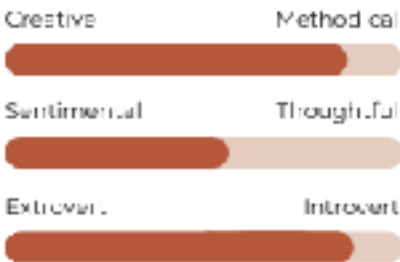
Goals and Objectives

- Problem Solving
- Analytical Thinking
- Contribution to Success
- Positive Impact
- Professional Growth
- Economic Conditions

Brands Used

- Lenovo
- Reebok
- Bajaj
- Hyundai
- Nestle

Personality



Technology



Solar vendor persona-



Shashank Gurjar

Solar Vendor

Age: 43 years	Country: India
Sex: Male	Education: Graduate
Marital status: Married	Occupation: Business

Biography

Dedicated solar energy solutions provider with 16 years of industry experience. Specializing in solar panel installation, dealing and maintenance. Committed to staying ahead of industry trends and delivering the latest advancements in solar energy.

Frestations

- Economic Fluctuations
- Supply Chain Issues
- Competition
- Lack of Awareness
- Installation Challenges
- Technological Limitations
- Maintenance Concerns

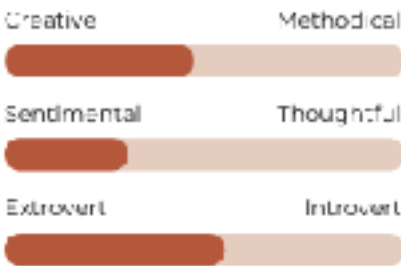
Goals and Objectives

- Financial Gains
- Customer Satisfaction
- Government Policies
- Customer Preferences
- Market Expansion
- Personal Satisfaction

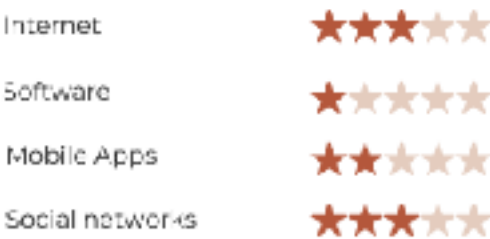
Brands Used

- Samsung
- Panasonic
- Cocrej
- Peter England
- Maruti Suzuki

Personality



Technology



Identification of key task flows & Customer Journey-

Problem Discovery Mapping- All problems that a stakeholder undergoes:

Students	Gardeners	Accountants	Facilities Management
Reduce energy use in classrooms	Minimize water in irrigation	Manage budgets for green initiatives	Cut energy use in campus buildings
Limit paper use in assignments	Use eco-friendly fertilizers	Ensure transparency in green expenses	Implement renewable energy solutions
Promote carpooling or cycling	Incorporate native plants	Track green project costs	Optimize HVAC systems for efficiency
Increase campus recycling rates	Design sustainable gardens	Evaluate ROI for sustainability	Improve water efficiency in plumbing
Reduce food waste in cafeterias	Introduce rainwater harvesting	Streamline sustainability reporting	Upgrade to energy-efficient lighting
Monitor electricity in common areas	Create a compost system with campus waste	Manage carbon credits and grants	Monitor and reduce campus emissions
Promote renewable energy use	Reduce chemical pesticide usage	Handle tax incentives for green efforts	Maintain eco-friendly building materials
Reduce water wastage campus-wide	Implement vertical gardening	Cut operational costs with green investments	Upgrade insulation for energy conservation
Push for zero-waste campus events	Compost landscaping waste	Monitor compliance with green regulations	Promote electric vehicle charging
Advocate for digital resources	Add pollinator-friendly plants	Integrate environmental impact into reports	Install motion-sensor lights for energy-saving
Organize community clean-up events	Use low-carbon landscaping tools	Secure environmental grants	Ensure energy-efficient building maintenance
Support sustainable procurement	Design eco-friendly paths and seating	Manage sustainability grants	Conduct sustainability audits campus-wide
Measure personal carbon footprint	Enhance soil health with cover crops	Reduce operational costs through green projects	Implement green building certifications
Promote native plants in landscaping	Reduce stormwater runoff with design	Track success of green investments	Upgrade campus infrastructure with green tech
Engage in peer sustainability education	Introduce green roofs to cut energy use	Create financial models for sustainability success	Improve waste management strategies
Create rewards for sustainable behavior	Increase biodiversity with native plants	Allocate resources for green projects	Maintain water conservation practices

Urban gardening to supply cafeteria	Use recycled materials in landscaping	Measure financial impact of green initiatives	Implement a campus e-waste recycling program
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Students	Gardeners	Accountants	Facilities Management
Design green roofs or walls	Install greenhouses for sustainable gardening	Track carbon credits and emissions	Reduce plastic usage in facilities
Promote sustainability in curriculum	Install water-efficient irrigation systems	Plan financial sustainability of eco-projects	Promote sustainable renovation projects
Create a ride-sharing app	Promote sensory gardens for well-being	Monitor costs of sustainability compliance	Introduce solar-powered charging stations
Organize green campus initiatives	Repurpose landscape waste as mulch	Forecast sustainability project profitability	Upgrade campus buildings with energy tech
Push for responsible e- waste disposal	Maintain tools for energy efficiency	Allocate funds for sustainability-focused departments	Improve campus-wide green infrastructure
Host eco-friendly workshops	Design green walls for natural air filtration	Track environmental impact of procurement decisions	Install rainwater harvesting systems
Use cafeteria waste for composting	Develop waste disposal for garden materials	Manage cash flow for green projects	Establish carbon-neutral campus goals
Partner with organizations for internships	Increase student participation in gardening programs	Assess financial risk of sustainability projects	Digital monitoring for energy consumption
Create solar-powered charging stations	Repurpose landscape waste for composting	Track expenditures for sustainability projects	Promote public transportation and eco-friendly travel
Develop sustainability simulation games	Use water-efficient irrigation systems	Track savings from green initiatives	Ensure sustainable construction practices
Promote public transportation	Promote eco-friendly campus pathways	Secure long-term funding for sustainability	Monitor energy use in all campus buildings
Design sustainability competitions	Install water-efficient landscapes	Set up financial models for sustainability	Promote environmental compliance in renovations
Foster sustainability in student clubs	Reduce fertilizer use while maintaining plant health	Track financial impact of green decisions	Establish carbon-neutral campus goals
Communicate sustainability goals	Install green roofs for energy efficiency	Forecast financial returns of green initiatives	Monitor energy usage across campus
Collaborate with professors on sustainability	Engage students in community gardening	Manage sustainability costs effectively	Enhance campus-wide green infrastructure
Implement green roof projects	Increase biodiversity in gardens	Plan long-term financial sustainability	Upgrade facilities with energy-efficient technology

W For waste & Water Management: d specifics of the problem

1. **How might we** introduce waste segregation systems **for** campus personnel **so that** we promote recycling and proper disposal?
2. **How might we** implement food waste composting programs **for** cafeterias and dormitories **so that** we reduce organic waste?
3. **How might we** create an efficient recycling system **for** students **so that** we actively engage them in recycling efforts?
4. **How might we** minimize the use of plastic packaging **for** campus food services **so that** we reduce plastic waste?
5. **How might we** implement technologies **for** tracking and monitoring waste and water usage levels **so that** we manage resources more effectively?
6. **How might we** develop water recycling systems **for** greywater usage **so that** we conserve water across campus buildings?
7. **How might we** introduce rainwater harvesting systems **for** campus use **so that** we supplement borewell water?
8. **How might we** introduce smart irrigation systems **for** campus landscaping **so that** we reduce water usage?
9. **How might we** properly compost or reuse landscaping waste **for** sustainability **so that** we minimize waste?
10. **How might we** optimize waste collection routes **for** campus personnel **so that** we minimize fuel consumption and improve efficiency?
11. **How might we** improve the recycling of paper, plastic, glass, and metal waste **for** the campus community **so that** we enhance recycling efforts?
12. **How might we** encourage the college community **for** reducing waste and promoting recycling **so that** we increase awareness and participation?
13. **How might we** develop educational materials **for** sustainable practices **so that** we inform and engage the campus community?
14. **How might we** monitor water usage **for** campus buildings **so that** we detect leaks and reduce wastage?
15. **How might we** reduce water consumption **for** restrooms and cafeterias **so that** we conserve water using smart fixtures?
16. **How might we** develop workshops **for** waste reduction and water conservation **so that** we educate students?
17. **How might we** introduce smart bins with sensors **for** waste collection **so that** we optimize collection schedules?
18. **How might we** collaborate with local vendors **for** sustainable packaging and waste reduction **so that** we adopt eco-friendly practices?
19. **How might we** introduce a zero-waste policy **for** large college events **so that** we minimize waste?

20. **How might we** develop a comprehensive waste and water audit **for** identifying areas for improvement **so that** we enhance sustainability efforts?
21. **How might we** develop partnerships with local businesses **for** waste repurposing and recycling **so that** we create a circular economy?
22. **How might we** implement dual water distribution systems **for** potable and non-potable water **so that** we optimize water usage across campus?
23. **How might we** reduce waste from packaging and shipping **for** campus supply chains **so that** we minimize environmental impact?
24. **How might we** incentivize the use of reusable containers and cutlery **for** dining facilities **so that** we reduce single-use waste?
25. **How might we** reduce water wastage **for** dormitories and buildings **so that** we conserve water through smart monitoring and leak detection?
26. **How might we** implement a smart water grid **for** resource allocation **so that** we manage water more efficiently across campus?
27. **How might we** motivate students **for** reducing waste and conserving water **so that** we foster a culture of sustainability through workshops and competitions?
28. **How might we** ensure the sustainable use of borewell water **for** irrigation **so that** we conserve water resources?
29. **How might we** improve collaboration with student groups and departments **for** minimizing paper and water waste **so that** we enhance sustainability efforts?
30. **How might we** develop awareness campaigns **for** reducing e-waste and proper disposal of outdated electronics **so that** we promote responsible recycling?
31. **How might we** set up water-efficient appliances **for** dormitories and cafeterias **so that** we reduce water consumption with the administration's support?
32. **How might we** use smart technology, such as IoT sensors, **for** measuring water levels in tanks **so that** we optimize borewell usage?

For Accountant

Gardening (Landscaping Vendors)

1. **How might we** ensure accurate bill processing for gardening services **for** the accountant **so that** expenses are tracked against the budget?
2. **How might we** clarify discrepancies between billed hours and services rendered **for** the accountant **so that** accurate records are maintained?
3. **How might we** handle queries about unexpected cost increases in gardening expenses **for** the accountant **so that** the administration is well-informed?
4. **How might we** efficiently process multiple invoices from different landscaping vendors **for** the accountant **so that** delays are avoided?
5. **How might we** ensure proper documentation of gardening-related expenses **for** the accountant **so that** auditing purposes are met?
6. **How might we** explain seasonal variations in gardening expenses **for** the accountant **so that** the administration understands cost fluctuations?

7. **How might we** respond to queries about the allocation of gardening costs **for** the accountant **so that** the administration is clear on cost distribution?
8. **How might we** track and report additional gardening expenses **for** the accountant **so that** equipment purchases or repairs are accurately recorded?
9. **How might we** handle queries regarding unapproved gardening expenses **for** the accountant **so that** vendor invoices are properly reviewed?
10. **How might we** ensure timely payment processing for landscaping vendors **for** the accountant **so that** service disruptions are avoided?

Solar (Energy Management Vendors)

11. **How might we** ensure that solar energy bills are accurately processed **for** the accountant **so that** they match the services provided by vendors?
12. **How might we** handle queries about unexpected fluctuations in solar energy expenses **for** the accountant **so that** the administration is informed?
13. **How might we** track ongoing maintenance costs for solar panels **for** the accountant **so that** they are accurately reflected in vendor invoices?
14. **How might we** ensure timely payment of solar energy vendors **for** the accountant **so that** clear records are maintained for future audits?
15. **How might we** respond to queries about discrepancies between projected and actual solar energy savings **for** the accountant **so that** the administration understands the differences?
16. **How might we** explain irregularities in solar vendor billing **for** the accountant **so that** overcharges or additional fees are clarified?
17. **How might we** handle multiple solar vendor invoices **for** the accountant **so that** proper expense categorization is ensured for reporting purposes?
18. **How might we** respond to inquiries regarding the financial performance of solar energy investments **for** the accountant **so that** the administration is well-informed?
19. **How might we** ensure that costs related to solar energy infrastructure are accurately tracked **for** the accountant **so that** payments are made correctly?
20. **How might we** assist the administration in understanding solar expenses **for** the accountant **so that** budget projections are aligned?

Waste Management Vendors

21. **How might we** ensure accurate invoice processing for waste management services **for** the accountant **so that** multiple waste streams (e.g., recycling, composting) are properly tracked?
22. **How might we** explain unexpected waste management cost increases **for** the accountant **so that** the administration understands the reasons during monthly expense reviews?
23. **How might we** track and report on waste management expenses **for** the accountant **so that** they align with the college's sustainability goals?
24. **How might we** ensure timely processing of waste management bills **for** the accountant **so that** penalties or service disruptions are avoided?
25. **How might we** address queries about additional waste management vendor charges **for** the accountant **so that** unbudgeted services are properly explained to the administration?

26. **How might we** maintain accurate records of waste management expenses **for** the accountant **so that** they are available for audit purposes and future budgeting discussions?
27. **How might we** handle discrepancies in vendor invoices **for** the accountant **so that** charges for missed pickups or additional waste loads are resolved?
28. **How might we** ensure accurate tracking of costs related to special waste disposal services **for** the accountant **so that** hazardous waste expenses are properly managed?
29. **How might we** assist the administration in understanding seasonal variations in waste management expenses **for** the accountant **so that** costs during events or holidays are clear?
30. **How might we** process invoices for different waste management vendors efficiently **for** the accountant **so that** related administration queries are handled smoothly?

Water Tankers (Water Supply Vendors)

31. **How might we** ensure accurate bill processing for water tanker services **for** the accountant **so that** usage and cost fluctuations are properly tracked?
32. **How might we** handle queries about sudden increases in water tanker expenses **for** the accountant **so that** the administration understands the impact during periods of drought or high demand?
33. **How might we** track and report on water tanker expenses **for** the accountant **so that** transparency is ensured for future budgeting purposes?
34. **How might we** respond to queries about discrepancies between water tanker deliveries and the billed amount **for** the accountant **so that** accurate records are maintained?
35. **How might we** maintain accurate records of water tanker costs **for** the accountant **so that** the administration can manage overall water expenses effectively?
36. **How might we** address issues when vendor invoices for water tanker services do not match the agreed-upon delivery schedule **for** the accountant **so that** discrepancies are resolved?
37. **How might we** ensure timely payments to water tanker vendors **for** the accountant **so that** unplanned water expenses are managed and service disruptions are avoided?
38. **How might we** explain cost overruns due to emergency water deliveries or shortages **for** the accountant **so that** the administration understands the financial impact?
39. **How might we** process invoices for different water supply vendors, including borewell maintenance **for** the accountant **so that** clear expense categorization is maintained?
40. **How might we** assist the administration in understanding the financial impact of high water usage and tanker deliveries **for** the accountant **so that** costs during special events or water shortages are clear?
How might we reduce energy consumption **for** students in college dorms and study areas **so that** we lower overall energy use?
41. **How might we** use eco-friendly methods **for** students to reduce paper usage in classwork and assignments **so that** we minimize paper waste?
42. **How might we** promote carpooling, cycling, or walking **for** students **so that** we reduce transportation emissions?
43. **How might we** create initiatives **for** students **so that** we increase recycling rates on campus?

44. **How might we** encourage responsible food consumption **for** students **so that** we reduce food waste in college cafeterias?
45. **How might we** design a system **for** students **so that** we monitor and reduce electricity consumption in common areas?
46. **How might we** encourage the use of renewable energy sources **for** students **so that** we increase sustainability on campus?
47. **How might we** help implement a college-wide initiative **for** students **so that** we reduce water wastage?
48. **How might we** develop and promote a zero-waste policy **for** students **so that** we minimize waste at campus events and festivals?
49. **How might we** propose innovative solutions **for** students **so that** we reduce the use of single-use plastics on campus?
50. **How might we** influence the adoption of digital resources **for** students **so that** we minimize the use of textbooks and print materials?
51. **How might we** collaborate with local governments or NGOs **for** students **so that** we organize community clean-up events?
52. **How might we** advocate for sustainable procurement policies **for** students **so that** we ensure eco-friendly college purchases?
53. **How might we** measure and reduce the carbon footprint **for** students **so that** we promote sustainability on campus?
54. **How might we** promote the use of native plants **for** students **so that** we conserve water in campus landscaping?
55. **How might we** create awareness campaigns **for** students **so that** we reduce the use of disposable water bottles?
56. **How might we** engage in peer-to-peer education **for** students **so that** we promote sustainable living on and off campus?
57. **How might we** develop apps **for** students **so that** we track and reduce personal resource consumption (e.g., water, electricity)?
58. **How might we** collaborate with administration **for** students **so that** we introduce solar panels in dormitories and classrooms?
59. **How might we** create a reward system **for** students **so that** we incentivize sustainable practices (e.g., energy saving, recycling)?
60. **How might we** implement an urban gardening project **for** students **so that** we supply the cafeteria with locally grown food?
61. **How might we** help design green roofs or living walls **for** students **so that** we reduce energy consumption in buildings?
62. **How might we** work with faculty **for** students **so that** we integrate sustainability into course curricula across disciplines?
63. **How might we** create an on-campus ride-sharing app **for** students **so that** we reduce the number of cars on the road?

64. **How might we** collaborate with the administration **for** students **so that** we make sustainable renovations to old campus buildings?
65. **How might we** organize a green campus initiative **for** students **so that** we encourage environmentally-friendly practices?
66. **How might we** promote responsible e-waste disposal methods **for** students **so that** we manage old gadgets and devices sustainably?
67. **How might we** organize eco-friendly events and seminars **for** students **so that** we focus on sustainable development goals?
68. **How might we** utilize waste from college cafeterias **for** students **so that** we promote composting and organic farming?
69. **How might we** build partnerships with external organizations **for** students **so that** we offer internships focused on sustainability?
70. **How might we** help reduce light pollution **for** students **so that** we create a more sustainable campus environment?
71. **How might we** create mobile charging stations powered by solar energy **for** students **so that** we promote renewable energy use?
72. **How might we** initiate sustainable waste management programs **for** students **so that** we manage waste in science and engineering labs?
73. **How might we** develop virtual simulation games **for** students **so that** we teach sustainability concepts in an engaging way?
74. **How might we** promote using public transport **for** students **so that** we create safe walkable routes to bus stops or train stations?
75. **How might we** design competitions **for** students **so that** we encourage innovation in sustainable practices among peers?
76. **How might we** engage in citizen science projects **for** students **so that** we monitor air and water quality on campus?
77. **How might we** foster a culture of sustainability **for** students **so that** we promote environmental-friendly practices in campus clubs and organizations?
78. **How might we** minimize water consumption through efficient irrigation systems **for** gardeners **so that** college gardens remain lush and sustainable?
79. **How might we** use eco-friendly fertilizers **for** gardeners **so that** we reduce environmental impact while maintaining plant health?
80. **How might we** incorporate native plants into campus landscapes **for** gardeners **so that** we promote biodiversity?
81. **How might we** design and maintain college gardens using permaculture principles **for** gardeners **so that** we create self-sustaining ecosystems?
82. **How might we** introduce rainwater harvesting systems **for** gardeners **so that** we provide sustainable irrigation solutions?
83. **How might we** create a composting system using waste from campus cafeterias **for** gardeners **so that** we reduce waste and enrich soil?
84. **How might we** reduce the use of chemical pesticides in favor of organic alternatives **for** gardeners **so that** we protect the environment and human health?
85. **How might we** design green roofs or rooftop gardens **for** gardeners **so that** we improve building insulation and reduce energy consumption?

86. **How might we** create urban gardens that serve as educational spaces **for gardeners** so that **students can learn about sustainability?**
87. **How might we** implement vertical gardening **for gardeners** so that **we save space and increase green cover?**
88. **How might we** reduce the carbon footprint of landscap
89. ing activities **for gardeners** so that **we use electric or manual tools?**
90. **How might we** introduce pollinator-friendly plants **for gardeners** so that **we attract bees, butterflies, and birds to campus?**
91. **How might we** reduce landscaping waste through mulching and composting strategies **for gardeners** so that **we create a zero-waste garden?**
92. **How might we** design water-efficient landscapes **for gardeners** so that **we rely on drought-resistant plants?**
93. **How might we** promote community gardening initiatives **for gardeners** so that **students and faculty can participate in sustainable practices?**
94. **How might we** create edible gardens **for gardeners** so that **we supply food to the campus cafeteria?**
95. **How might we** work with students to establish a native plant nursery **for gardeners** so that **we support local flora?**
96. **How might we** design eco-friendly pathways and seating areas **for gardeners** so that **we use sustainable materials?**
97. **How might we** install and maintain a system of solar-powered lighting **for gardeners** so that **we illuminate campus gardens sustainably?**
98. **How might we** develop an eco-friendly garden waste disposal system **for gardeners** so that **we manage waste responsibly?**
99. **How might we** implement smart irrigation technology **for gardeners** so that **we optimize water use?**
100. **How might we** use recycled or reclaimed materials **for gardeners** so that **we reduce the environmental impact of landscaping projects?**
101. **How might we** design sustainable green walls **for gardeners** so that **we create natural air filters for buildings?**
102. **How might we** develop a program for students to volunteer and learn about sustainable gardening practices **for gardeners** so that **we foster a culture of sustainability?**
103. **How might we** increase soil health by incorporating cover crops **for gardeners** so that **we improve garden productivity?**
104. **How might we** design campus landscapes to minimize stormwater runoff and prevent soil erosion **for gardeners** so that **we protect the environment?**
105. **How might we** create a wildlife-friendly habitat **for gardeners** so that **we support local fauna on campus?**
106. **How might we** promote green roofs **for gardeners** so that **we reduce energy consumption in college buildings?**
107. **How might we** collaborate with the biology department to research and promote sustainable plant varieties **for gardeners** so that **we enhance campus biodiversity?**
108. **How might we** install greenhouses **for gardeners** so that **we support year-round sustainable gardening?**
109. **How might we** implement landscape management plans that align with SDG 11 goals **for gardeners** so that **we create sustainable urban communities?**
110. **How might we** help the college meet its carbon neutrality goals **for gardeners** so that **we achieve sustainable landscaping?**
111. **How might we** create educational signage **for gardeners** so that **we raise awareness of sustainability efforts in campus gardens?**
112. **How might we** reduce the energy consumption of landscape maintenance equipment **for gardeners** so that **we lower our carbon footprint?**
113. **How might we** introduce water retention gardens **for gardeners** so that **we manage rainwater efficiently?**

114. **How might we ensure the aesthetic appeal of landscapes for gardeners so that we maintain sustainability principles?**
115. **How might we design sensory gardens for gardeners so that we promote student mental well-being?**
116. **How might we optimize plant selection for gardeners so that we improve air quality and reduce carbon levels?**
117. **How might we optimize the use of solar energy on campus buildings for electricity management personnel so that we maximize energy efficiency and sustainability?**
118. **How might we implement solar panels in areas with the highest sun exposure for electricity management personnel so that we achieve maximum efficiency?**
119. **How might we track and reduce the energy consumption of HVAC systems for electricity management personnel so that we lower overall energy usage on campus?**
120. **How might we implement solar water heating systems in dormitories and cafeterias for electricity management personnel so that we provide sustainable hot water solutions?**
121. **How might we improve energy efficiency through smart lighting systems for electricity management personnel so that we reduce energy consumption in classrooms and labs?**
122. **How might we introduce battery storage systems for electricity management personnel so that we store solar energy for use during non-sunny hours?**
123. **How might we implement demand-response strategies for electricity management personnel so that we reduce peak energy usage?**
124. **How might we design systems to measure the carbon savings from solar energy deployment for electricity management personnel so that we quantify environmental benefits?**
125. **How might we develop strategies to make solar installations financially sustainable for electricity management personnel so that we ensure long-term viability?**
126. **How might we identify and reduce phantom loads in campus buildings for electricity management personnel so that we minimize unnecessary energy consumption?**
127. **How might we develop a solar charging station for student laptops and mobile devices for electricity management personnel so that we provide renewable energy solutions for students?**
128. **How might we create a dashboard to monitor real-time solar energy production and usage for electricity management personnel so that we enhance energy management?**
129. **How might we encourage the use of renewable energy among students and faculty for electricity management personnel so that we foster a culture of sustainability?**
130. **How might we integrate solar power systems with existing grid infrastructure for electricity management personnel so that we ensure seamless transitions?**
131. **How might we utilize AI or IoT to optimize energy use from solar and conventional sources for electricity management personnel so that we enhance energy efficiency?**
132. **How might we reduce the energy footprint of campus labs with solar-powered solutions for electricity management personnel so that we promote sustainable research environments?**
133. **How might we optimize lighting systems using solar-powered LEDs for electricity management personnel so that we improve outdoor area lighting efficiency?**
134. **How might we reduce electrical waste by promoting energy-efficient appliances in dormitories for electricity management personnel so that we lower the campus's overall energy consumption?**
135. **How might we retrofit older buildings with solar-compatible technology for electricity management personnel so that we modernize campus infrastructure sustainably?**
136. **How might we expand solar energy coverage to cover parking lots with solar carports for electricity management personnel so that we increase renewable energy generation?**
137. **How might we develop emergency solar backup systems for critical campus functions for electricity management personnel so that we ensure energy resilience?**
138. **How might we create a campus-wide campaign for energy conservation alongside solar implementation for electricity management personnel so that we raise awareness and promote sustainable practices?**

139. **How might we** set up energy storage systems **for electricity management personnel** so that **we use solar power more efficiently?**
 140. **How might we** design hybrid systems combining wind and solar energy **for electricity management personnel** so that **we ensure year-round sustainability?**
 141. **How might we** reduce the environmental impact of electricity generation **for electricity management personnel** so that **we innovate with solar-powered solutions?**
 142. **How might we** ensure cost-effective installation and maintenance of solar panels **for electricity management personnel** so that **we optimize financial resources?**
 143. **How might we** work with local utility companies to sell excess solar energy back to the grid **for electricity management personnel** so that **we generate additional revenue?**
 144. **How might we** develop a solar microgrid for campus energy independence and resilience **for electricity management personnel** so that **we enhance energy security?**
 145. **How might we** improve student and staff awareness of the benefits of solar energy **for electricity management personnel** so that **we educate and engage the campus community?**
 146. **How might we** measure and report the long-term financial savings of solar investments **for electricity management personnel** so that **we demonstrate the economic benefits?**
- How might we** implement solar energy solutions to power sports facilities and events **for electricity management personnel** so that **we promote renewable energy use in all campus activities?**

Ideation- All the solutions for the identified problems:

1. Sustainability Clubs: Establish student-led clubs focused on promoting green initiatives in JKLU
2. Eco Ambassadors: Select student sustainability ambassadors from each class and promote these ambassadors by the Vice chancellor
3. Sustainability Workshops: Hold workshops on eco-friendly habits, recycling in the annual cultural fest "SARANG"
4. Eco Challenges: Organize sustainability challenges with rewards may be an app
5. Sustainability Handbook: Create a handbook with guidelines for sustainable practices and add it in the half yearly college handbook
6. Sustainability Week: Hold an annual Sustainability Week with themed events and bring in outside college students and social workers
7. Campus Sustainability App: Develop an app to track and encourage sustainable behaviors.
8. Green Orientation: Include sustainability in freshmen orientation.
9. Eco-Competitions: Host competitions to design sustainable products or projects.
10. Sustainability Curriculum: Integrate sustainability into various course syllabi like NSS in Tier-1 colleges
11. Zero-Waste Campaign: Run a zero-waste awareness campaign like the BDes students who created campaign for best out of waste

12. Monthly Green Newsletter: Distribute a digital newsletter about sustainable initiatives, a new club can be created and send these. College can give subscription of such international journals for the college
13. Energy-Saving Stickers: Place stickers on light switches reminding students to save energy, do a room decoration competition to raise awareness for stickers
14. Waste Separation Campaign: Promote proper waste segregation in dormitories and dining halls. college should provide separate dustbins
15. Eco-Friendly Certificates: Award certifications to eco-conscious students in felicitation ceremonies conducted in college programs like Ganesh Chaturti
16. Sustainable Housing Certification: Certify dorm rooms that meet sustainability standards by wardens. make the night attendance free for students keeping the room sustainable
17. Sustainable Move-In Checklist: Provide sustainable move-in guides for new hostellers.
18. Reusable Water Bottles: Give out reusable water bottles that everyone can use not just thin metal bottle
19. Water-Saving Campaigns: Encourage students to take shorter showers during day time to utilise solar and not in late nights
20. Eco Garden: Create a communal garden where students grow food sustainably along with the mess garden beside canteen.
21. Bus services: provide more comprehensive bus services that can cover more stop
22. Sustainable Transport Incentives: Reward students who use public transport and not bikes
23. Green Volunteer Hours: Offer volunteer hours for participating in eco-friendly activities.
24. Compost Program: Establish compost bins in dorms and dining areas, restart the closed biogas plant for at least food digestion
25. Eco-Suggestions Box: Set up a suggestion box for sustainable ideas on campus in front of the central library
26. Social Media Campaign: Promote sustainability through campus social media channels and HSB website on linkedin vs other medias
27. Green Graduation Pledge: Encourage students to pledge to uphold eco-friendly habits after graduation and before entering along with the ragging pledge
28. Sustainability Tours: Offer campus tours that highlight sustainable initiatives during the 1 month- orientation month
29. Student-Led Green Teams: Form teams that monitor energy and water usage and not just the accountant. there should be more visibility for internal accounts.
30. Recycling Points Rewards: Offer rewards for students who consistently recycle.
31. Green Exams: Allow students to take “green” exams (e.g., digital exams to save paper :p
32. Eco-Friendly Merch: Sell eco-friendly college merchandise and use the money for more solar panels

33. Reusable Packaging for Dining: Encourage reusable food containers in the cafeteria for staff who drinks in paper cups tea
34. Sustainability Awards: Host an annual awards ceremony for top sustainability advocates including staff, faculties and bring guests from JK office too
35. Plant Trees Campaign: Organize tree planting initiatives every month
36. Solar Energy Installations: Use solar panels to power certain campus buildings which are still not covered. we can use solar tiles too
37. Digital Posters: Replace physical posters with digital notice boards on the library websites and the college website
38. No-Print Days: Institute designated “no-print” days to save paper for all college admin offices and faculty offices
39. Campus Clean-Up Events: Organize regular clean-up drives around the campus and give holiday to cleaning staff
40. Green Dorm Audits: Perform regular audits to ensure dorms are meeting electricity criteria
41. Collaboration with Local Farms: Promote sustainable food by collaborating with local organic farms and grow more in the garden beside mess than the current area
42. Second-Hand Goods Market: Organize campus flea markets to encourage reuse.
43. Green Event Guidelines: Create guidelines for hosting eco-friendly events in the "SARANG" fest
44. Sustainable Guest Lectures: Invite experts to speak on sustainability along with CCCT faculties
45. Green Building Tours: Showcase the eco-friendly features of campus buildings. in the orientation to raise awareness among new comers
46. Sustainable Student Life Committee: Form a committee to oversee sustainability on campus.
47. Sustainability Badges: Give badges or credits for students' eco-friendly behavior.
48. Summer Sustainability Program: Keep students engaged with sustainability during summer breaks via clubs. the pass outs can handhold the next juniors
49. Eco-Friendly Furnishing: Encourage dorms to use eco-friendly furniture and materials.
50. Sustainable Art Competitions: Organize art competitions that use recycled materials.
51. Sustainability Ambassador Program: Empower students to promote sustainability within their dorms.
52. Green Commencement: Make graduation ceremonies more sustainable , make it virtual like my college during covid days
53. Energy Usage Dashboard: Display real-time energy consumption data on campus screens along with pollution boards

54. Sustainability Pledge Wall: Create a space where students can pledge sustainable actions may be in the assignment showroom of MDes students
55. Environmentally Friendly Study Guides: Encourage online or eco-printed study materials.
56. Green Cafeteria: Offer discounts for students who bring their own containers or utensils, plates
57. Eco-Friendly Laundry Practices: Promote cold water washing and drying clothes naturally than the laundry usage
58. Sustainable Cooking Classes: Hold workshops on sustainable cooking for mess in college and day scholars
59. Reusable Bag Campaign: Offer reusable bags to replace single-use plastic ones in the dustbins used in the hostels
60. Reduce Food Waste Program: Raise awareness about reducing food waste in dining halls.
61. Sustainable Sports Practices: Make athletic events more sustainable, raise awareness may be by banners
62. Swap Meets: We can organise swapping meets for items we dont wanna use but still usable for someone else
63. Sustainable Fashion Show: Host a fashion show using recycled materials.
64. Digital Library Resources: Promote e-books and digital research materials.
65. Plant-a-Tree Day: Designate a day where students can plant trees around the campus.
66. Solar-Powered Chargers: Install solar-powered phone charging stations.
67. Reusable Dorm Accessories: Encourage students to use reusable dorm items (e.g., water pitchers, dishware).
68. Eco-Community Projects: Involve students in community sustainability projects.
69. Digital Homework Submissions: Encourage students to submit assignments digitally.
70. Sustainable Thesis/Project Topics: Encourage students to work on sustainability-focused research in the major projects for the final year
71. Green Holiday Decorations: Use sustainable decorations during campus holidays or events.
72. Local Sourcing for Cafeteria: Source cafeteria food from local farms.
73. Rainwater Harvesting: Install rainwater collection systems for irrigation of the college gardens
74. Energy-Saving Contests: Create competitions between dorms to save the most energy.
75. Sustainable Dorm Move-Out: Implement a move-out program where items are reused or donated.
76. Upcycling Workshops: Teach students how to upcycle their old items.
77. Green Study Spots: Designate eco-friendly study areas around campus.
78. Sustainability Mentors: Pair freshmen with sustainability mentors and teachers

79. Sustainable Campus Podcast: Launch a podcast on sustainability topics relevant to the campus.
80. Eco-Friendly Lighting: Replace traditional bulbs with energy-efficient LED lighting in the streets or we can use solar powered street lights
81. Water Conservation Signage: Place signs reminding students to conserve water.
82. Sustainable Internship Program: Connect students with internships at green companies.
83. Green Printing Policies: Set up policies to reduce unnecessary printing.
84. Sustainability Scholarships: Offer scholarships for students who contribute significantly to sustainability every year to raise more awareness
85. Reusable Cutlery Kit: Provide students with reusable cutlery kits to reduce cafeteria waste for taking lunch as parcels
86. Online Sustainability Pledge: Allow students to make online pledges to follow sustainable practices.
87. Virtual Sustainability Workshops: Host online workshops to engage students during breaks.
88. E-Certificates for Volunteers: Give e-certificates for participation in green initiatives.
89. Sustainability Ambassador Shirts: Give branded shirts to sustainability ambassadors for visibility and other accessories like JKLU special branded bottles only for ambassadors
90. Green Dorm Competitions: Reward dorms that practice the most sustainable habits.
91. Promote Sustainable Transportation: promote more buses for day scholars
92. Solar-Powered Lighting: Install solar-powered outdoor lighting.
93. Green Careers Fairs: Host fairs focused on careers in sustainability.
94. Sustainability Suggestion App: Develop an app where students can suggest green ideas.
95. Waste-Free Days: Encourage students to try and go a day without producing waste.
96. Green Tech Lab: Establish a lab focused on green tech innovations.
97. Hostel Energy-Saving Teams: Form teams to focus on saving energy in hostels.
98. Solar Cookers in Hostels: Use solar cookers for hostel meals to demonstrate clean cooking.
99. Eco-Mindfulness Sessions: Organize mindfulness sessions that tie in with the theme of caring for the Earth, may be meditation programs, group dinner discussions
100. Yearly Sustainability Reports: Publish a yearly report on campus sustainability achievements.

Impact Effort Analysis of the different ideas generated, converge the ideas using dfv framework

High Impact, Low Effort	1. Sustainability Handbook
	2. Sustainability Ambassadors

- | |
|---------------------------------------|
| 3. Green Orientation |
| 4. Energy-Saving Stickers |
| 5. Waste Separation Campaign |
| 6. Water-Saving Campaigns |
| 7. Reusable Water Bottles |
| 8. Digital Posters |
| 9. No-Print Days |
| 10. Sustainability Pledge Wall |
| 11. Social Media Campaign |
| 12. Monthly Green Newsletter |
| 13. Zero-Waste Campaign |
| 14. Green Commencement |
| 15. Sustainability Badges |
| 16. Eco-Friendly Certificates |
| 17. Reusable Cutlery Kits |
| 18. Waste-Free Days |
| 19. Swap Meets |
| 20. Reusable Dorm Accessories |
| 21. Sustainability App |
| 22. E-Certificates for Volunteers |
| 23. Green Cafeteria Discounts |
| 24. Eco-Friendly Lighting (LED) |
| 25. Water Conservation Signage |
| 26. Sustainability Mentors |
| 27. Plant-a-Tree Day |
| 28. Plant Trees Campaign |
| 29. Sustainability Ambassador Shirts |
| 30. Sustainability Suggestion App |
| 31. Sustainable Study Guides |
| 32. Sustainable Housing Certification |
| 33. Sustainable Guest Lectures |

High Impact, High

1. Solar Energy Installations

Effort	2. Green Curriculum
	3. Sustainable Transport Incentives
	4. Reusable Packaging for Dining
	5. Compost Program
	6. Second-Hand Goods Market
	7. Bike Rentals
	8. Solar-Powered Chargers
	9. Green Exams
	10. Energy Usage Dashboard
	11. Sustainability Awards
	12. Upcycling Workshops
	13. Sustainable Event Guidelines
	14. Green Study Spots
	15. Local Sourcing for Cafeteria
	16. Sustainable Art Competitions
	17. Rainwater Harvesting
	18. Green Dorm Audits
	19. Solar Cookers in Hostels
	20. Green Building Tours
	21. Digital Homework Submissions
	22. Green Tech Lab
	23. Sustainable Move-In Checklist
	24. Virtual Sustainability Workshops
	25. Yearly Sustainability Reports
	26. Green Transportation (Incentives for biking, walking)
	27. Sustainable Internship Program
	28. Sustainability Student Committee
	29. Sustainable Campus Podcast
	30. Green Merchandising

Low Impact, Low Effort	1. Eco-Suggestions Box
	2. Sustainability Tours
	3. Sustainability Ambassador Shirts
	4. Green Holiday Decorations

	5. Online Sustainability Pledge
	6. Green Newsletter
	7. Digital Library Resources
	8. Green Volunteer Hours
	9. Green Community Projects
	10. Mindfulness for Eco Practices
	11. Promote Digital Learning Resources
	12. Sustainable Posters for Events
	13. Reusable Bags Campaign
	14. Sustainable Fashion Show
	15. Waste Separation in Study Areas
	16. Eco-Friendly Laundry Practices
	17. Sustainable Dormitory Furnishings
	18. Sustainable Design Competitions

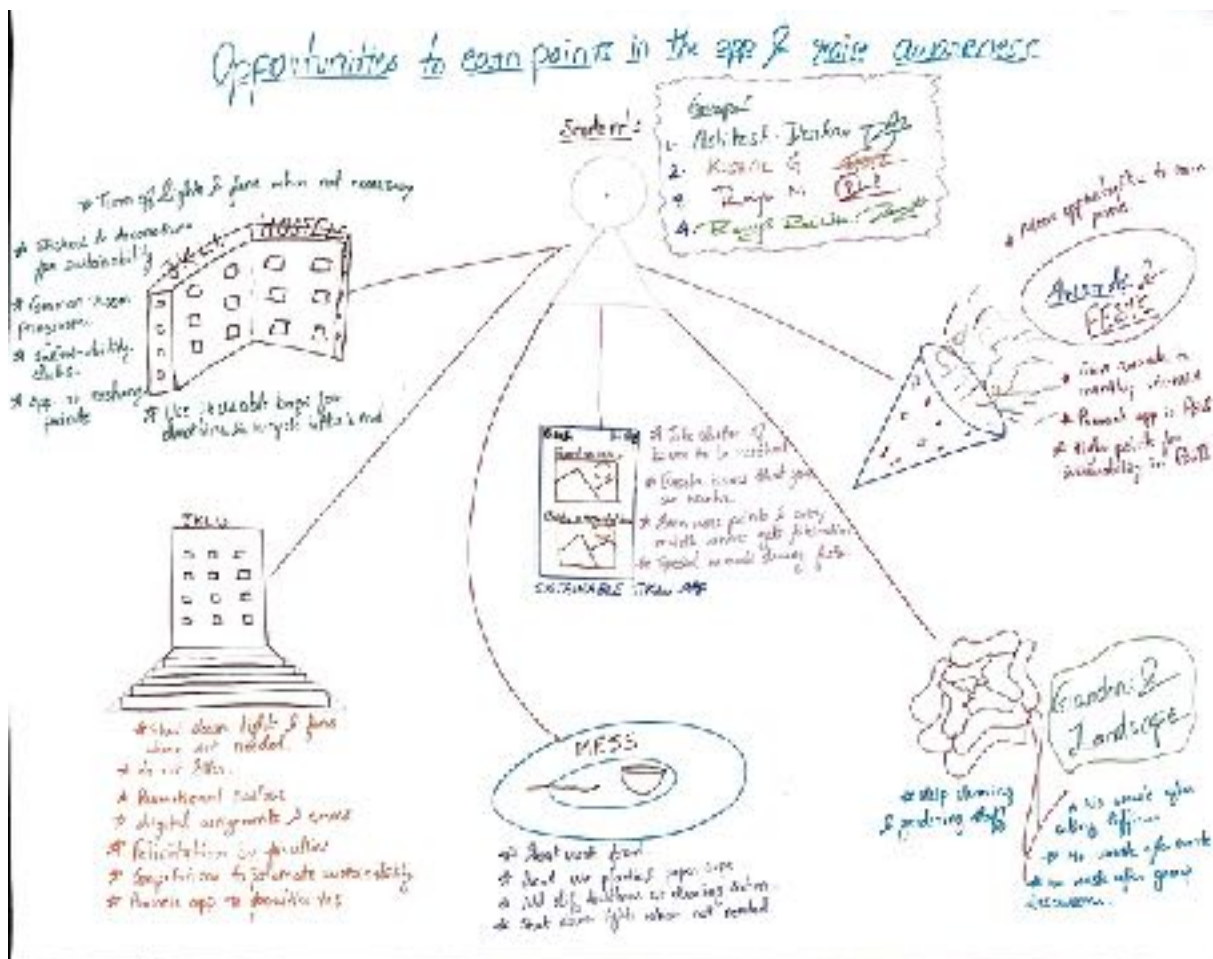
Low Impact, High Effort	1. Sustainability App
	2. Rainwater Harvesting
	3. Green Building Tours
	4. Solar Cookers in Hostels
	5. Green Dorm Audits
	6. Green Commencement
	7. Green Tech Lab
	8. Sustainability Student Committee
	9. Green Careers Fairs
	10. Virtual Sustainability Workshops
	11. Yearly Sustainability Reports
	12. Sustainable Move-In Checklists
	13. Sustainable Housing Certification
	14. Sustainable Transport Planning
	15. Sustainable Cooking Classes
	16. Second-Hand Goods Marketplace
	17. Bike Sharing Program

18. Green Festival Initiatives

19. Waste-Free Cafeteria Days

20. Green Technology Adoption for Campus Infrastructure

System Diagram of the solution-



Product Idea Identification

- The core idea behind this product is to offer a user-friendly platform for issue reporting, and resolution tracking.
- It aims to streamline issue resolution for students and staff alike.
- It aims to raise the awareness for the sustainability via rewarding the students for reporting and resolving the issues.
- In order to keep the flow of resolving and resolving the issues, points are needed to be given to

make this into a gamification scenario.

- With monthly leaderboard winners will be selected and felicitated by faculties. In order to increase the interest this needs to be promoted by faculties and rewards needs to be incentivized by higher faculties in college fests.

Key Features:

- Secure login and leader board management.
- Simple and efficient issue reporting and resolution.
- Should be moderated by AI or an individual, but with tech AI would be preferred.
- Should be rewarding points and giving ranks to select winners at various levels
- Should be able to identify if the issue is real or fake with location access

Alignment to the Job to be Done Framework

1. Create an app for students.
2. promote the app as part of the course subject.
3. Maximise the downloads.
4. Connect with stakeholder to give Rewards and Recognition.

Identifying Key Task Flows in Detail

From the provided flow diagram that we created in FIGJAM, we identify key user task flows:

1. Login Flow:

- Users are directed to the sign-in screen. Options like “Forgot Password” and “Sign Up” are available for easier access.

2. Profile Management:

Post-login, users can update personal details, change passwords, and manage account settings on the profile page.

Leaders and their ranking should be visible in the profile

3. Homepage and Navigation:

The homepage acts as a hub for users to navigate to various sections such as issue reporting, issue resolution, current points and profile management.

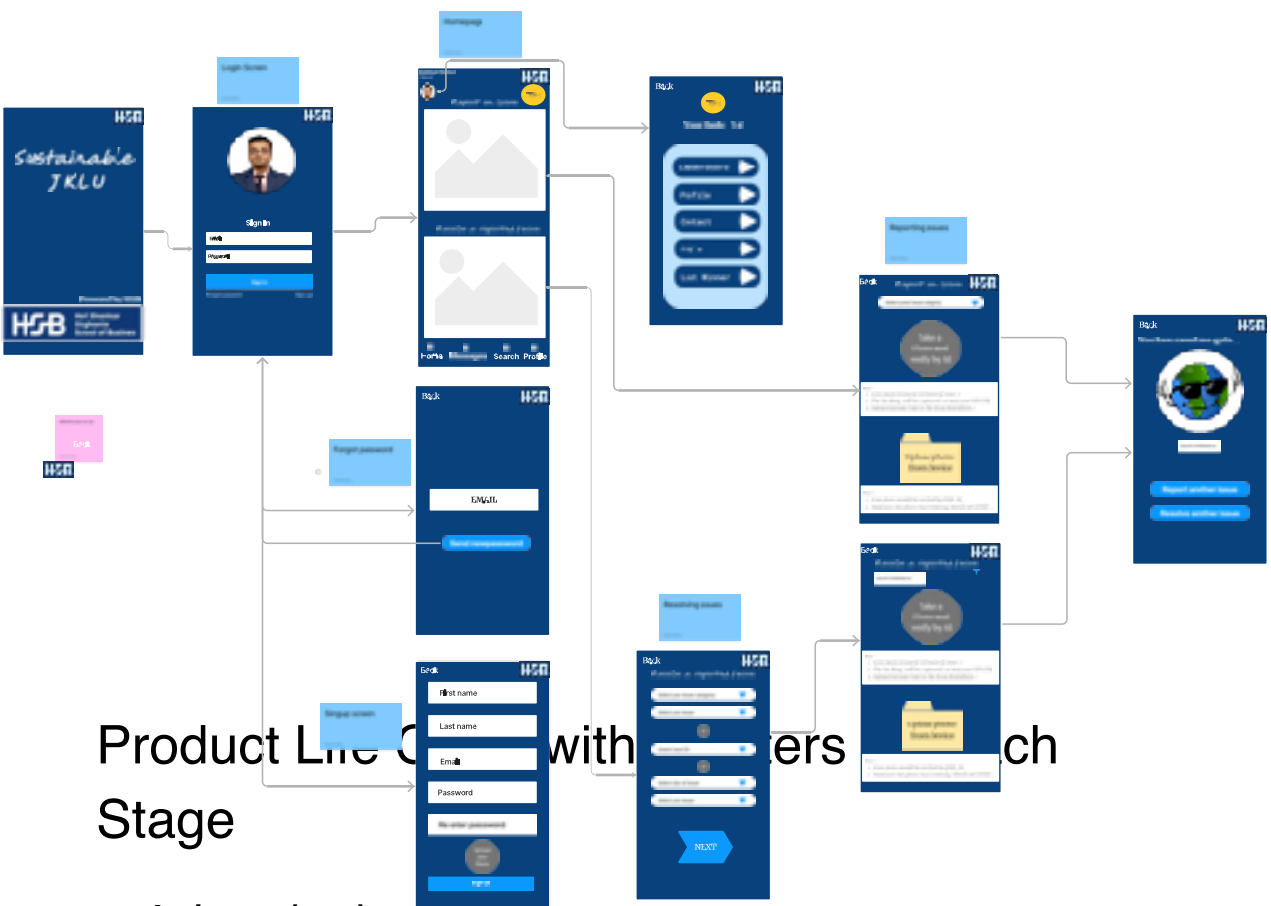
4. Issue Reporting and Resolution:

Users can log new issues or track existing ones, with clear status updates ensuring transparency in the resolution process and the AI should be able to verify the images uploaded

5. Points and Ranking

- Points should be provided for reporting and resolving cases

[Link to PDF for FLOW](#)



1. Introduction:

- Launch with basic features like login, issue reporting, and profile management to attract early adopters.
- Introduce this app during orientation for students.
- Increase the awareness for the for student and faculty

2. Growth:

- Expand features based on feedback, such as enhanced issue tracking and customizable point and ranking options.
- Raise the awareness during college fest
- Felicitate winner by the VC and other faculties
- Give more awards to the winners

3. Maturity:

- Stabilize the user base and focus on refining features like analytics and reporting for enhanced performance.
- All the students and faculty downloaded the app.
- Introduced as a course curriculum

4. Decline:

- There wont be any decline as new students will enroll in every year.

Ideation Mockups of the Solutions

<https://www.figma.com/proto/w47Ravv87vahcC3oge6b0P/Untitled?node-id=1-392&node-type=canvas&t=Da7PYdMfdisaKf71-1&scaling=scale-down&content-scaling=fixed&page-id=0%3A1&starting-point-node-id=1%3A383&show-protocol-sidebar=1>

Mockups based on the flow diagram include:

1. Login Screen:

- A clean interface with clear options for “Forgot Password” and “Sign Up.”

2. Homepage:

- Simple, intuitive design focusing on essential navigation for reporting and resolving issues.

3. Profile Page:

- A well-organized page for users to manage personal information, see current points and leader board and account details.

4. Issue Reporting:

- A form-based interface where users can log issues or track their status or resolve issue

