German Jordanian University

(GJU)

Sustainability Action Plan

2025-2027

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Contents

Foreword **3**

Introduction **4**

Water Management **5**

Solid Waste Management **6**

Biodiversity and Ecosystem **7**

Energy & Carbon Emission **8**

Sustainable Construction **9**

Sustainable Procurement **10**

Sustainable Transportation **11**

Teaching and Research **12**

FOREWORD

In its pursuit of distinction and as part of its endeavor as a world-class university, the German Jordanian University (GJU) has been working on sustainability to support its status and enhance its standing and national and global reputation. The sustainability and the UN SDG in particular were highlighted and embedded in GJU's 2025-2027 strategic plan and mission statement. Driven by our recognition of the importance of sustainability to society and the crucial role it plays, a sustainability committee was formed to lay down a sustainability Action Plan that is intended to guide and oversight all related activities and to reflect the university's commitment to the cause and our willingness to make ambitious positive impacts in this regard. This ambition represents a significant challenge as it will require substantial time and resources, as well as behavioral change to accomplish. This policy sets out our plan in all relevant areas of interest and will require the involvement of the whole GJU community to deliver desired outcomes.

INTRODUCTION

The 2030 Agenda for Sustainable Development, adopted by all United Nations members in 2015, created 17 world Sustainable Development Goals (SDGs). More attention has been directed toward higher education institutions and the sustainability of their operations, to lead by example.

With more than 5000 undergraduate and graduate students, and about 700 employees, GJU is considered as one of the leading universities in Jordan and the Middle East. The latest GJU strategy for the period 2025-2027 has emphasized sustainability as part of its mission. Given the fact that GJU acknowledges the importance of being responsible in meeting the needs of the present and leaving a better environment for future generation, this environmental sustainability action plan is meant to be as a road map for the university to advance and mainstream sustainability aspects at all levels of the campus.

GJU's environmental sustainability policy aims at reducing emissions and discharges while working to prevent all forms of pollution, to render the university campus more environmentally friendly. To achieve this, the policy establishes goals in eight areas of sustainable practices, namely, Water Management, Solid Waste Management, Energy and Carbon Emissions, Biodiversity, Teaching and Research, Sustainable Construction, Sustainable Procurement, and Sustainable Transportation. For the purpose of benchmarking, the policy adopted the output of the current 2022-2024 strategic plan as a baseline. Overarching goals were identified for each area and implementing mechanisms were recommended. This action plan goes a step further by putting the key performance indicators for each area and determining the potential challenges.

It is worth mentioning that this policy is a good step toward reflecting GJU's commitment as a leading university, however, it is needed to institutionalize the sustainability concepts in all university operations, via university top management commitment and engagement of employees and students. Therefore, it is required that all university schools and administrative units work in harmony with this policy, so as to achieve the goals of sustainability and to reach a greener campus.

WATER MANAGEMENT

Baseline

- Water consumption from water authority was 29419 m^3 for the base year.
- Water consumption from other sources was not measured for the base year due to lack of metering.
- Water use for irrigation was not measured for the base year due to lack of metering.
- Treated wastewater use for irrigation was not measured in the base year due to lack of metering.
- Water harvesting/ building.

Target

- Install metering and sub metering equipment to measure all water consumption.
- To reduce-water consumption by 10 % against baseline.
- To reduce water use for irrigation by 10 % against baseline.
- To increase treated wastewater use for irrigation by 10 % against baseline.
- To increase harvesting water by 10 % against baseline.

Policy Statement

To conserve water through efficient use and management.

Implementation Mechanisms

1. Monitor water consumption data to assist in identifying areas of potential savings.
2. Install water saving devices for taps (replacing of renovating fittings). Buildings under construction or undergoing major renovation should have the most efficient Water Efficiency Labeling and Standards.
3. Implement water efficiency awareness programs to encourage students and staff to save water.
4. Use best practices for efficient irrigation.
5. Buildings under construction should all have rainwater tanks installed to capture roof water, which will be used for toilet flushing and irrigation.
6. Increase on-site stormwater collection hardware used for irrigation.
7. Install sub meters where appropriate.

Key Performance Indicators

- Total water consumption (m^3 per capita).
- Percentage of water saving devices installed in buildings (%).
- Percentage water harvesting (%).
- Amount of wastewater use for irrigation (m^3 per dunum).
- Percentage of treated wastewater (%).

Challenges

- Financial resources.
- Submetering.

SOLID WASTE MANAGEMENT

Baseline

- Solid waste generated quantity was not measured during the base year.
- Solid waste stream types (metals, plastics , papers, …) for the base year.

Target

- Measure and quantify solid waste produced on campus.
- To recylce 50% of total solid waste produced on campus.
- To reduce the amount of solid waste by 20% by against baseline.

Policy Statement

To establish a waste management strategy that positively impacts humans and the environment by minimizing waste generation and maximizing waste reuse and recycling.

Implementation Mechanisms

1. Collect data related to the amount and type of waste generated on campus.
2. Form teams of volunteers, staff, faculty members and students to assist in the waste management plan.
3. Build and develop the capabilities of employees of both the housekeeping and transportation departments in the field of integrated waste management.
4. Provide appropriate recycling infrastructure.
5. Implement waste awareness programs to encourage students to reuse and recycle.
6. Rewards and incentives for recycling amongst faculty and students.
7. Enforce by appropriate action.

Key Performance Indicators

- Percentage of recycled waste of total waste generated.
- Level of cleanness of campus spaces and areas.
- Percentage of each waste stream of total waste generated.

Challenges

- Financial resources.
- Lack of available data on solid waste composition.
- Existing behavior and culture.

BIODIVERSITY AND ECOSYSTEM

Baseline

- Recorded number and types of flora and fauna.
- Existing green area on campus was 25% of campus area for the base year.
- Recorded number and types of trees.

Target

- Increase planted area by 10% by against baseline.
- Increase the number and types of flora and fauna on campus by 5%.

Policy Statement

Enhance biodiversity on campus wherever possible and create opportunities for green environment by a variety of measures.

Implementation Mechanisms

1. Map and measure the area of identified vegetation sites.
2. Estimate flora and fauna's numbers and types.
3. Communicate biodiversity principles to staff and students and encourage staff, students and local community participation in biodiversity activities through volunteering and educational events.
4. Reduce disturbance to habitats or species from new development.
5. Select new adequate plants, animals or other species to attract small animal and bird life.
6. Minimize the negative impact of ground management (reduction of pesticides).
7. Maximize the positive impact (replace plantation with plants that benefit wildlife and compost creation).

Key Performance Indicators

- Number of flora and fauna.
- Number of plant species.
- Green area on campus.
- Level of awareness of biodiversity on campus.
- Percentage of new buildings and construction activities with no net impact on biodiversity.

Challenges

- Lack of data.
- Financial resources.
- Low level of awareness.

ENERGY & CARBON EMISSION

Baseline

- Electrical Energy consumption was 3,369,940 kWh in the base year.
- Non- Renewable Electricity Consumption was 1,484,204 kWh in the base year.
- Total diesel consumption was 21853 liter in the base year.
- Total LPG consumption was 133959 liter in the base year.
- CO2 emission was 6345 Tonnes in the base year.
- CO2/FTE was 2.588Tonne/FTE in the base year.

Target

- To reduce carbon emissions from campus-wide energy usage by 25%.
- To put the university on a path consistent with a reduction in carbon emissions through energy management in building usage, with 50% reduction in emissions from lighting and 25% reduction from air conditioning

Policy Statement

We aspire to a long-term ambition to be carbon neutral from energy use by 2035.

Implementation Mechanisms

1. Develop and implement a Carbon Management Plan (CMP), which includes a roadmap to carbon reductions with appropriate targets and key performance indicators (KPIs).
2. Implement energy efficiency and green measures in all new projects and buildings.
3. Apply in a gradual manner energy efficient standards to existing buildings.
4. Use an electricity incentive scheme to provide a financial incentive for schools and units to reduce their electricity use.
5. Work with academics to use their expertise in solving problems and implementing effective solutions.
6. Monitor and analyze energy and carbon data and provide relevant information to colleges and units.
7. Raise student and employee awareness and invest in their training.
8. Review the operation of heating and cooling to ensure needs are met efficiently.
9. Install sub meters where appropriate for energy audit purposes.

Key Performance Indicators

- Carbon emissions from energy use (Tonnes).
- Carbon emissions from energy use per staff and student (Tonnes/FTE).
- Carbon emissions from energy use per total budget (Tonnes/JD).
- Percentage of energy generated from onsite renewable or low carbon sources (%).
- Percentage saving of Electricity and Fuel (%).

Challenges

- Lack of data.
- Financial Resources
- Existing behavior and culture.

SUSTAINABLE CONSTRUCTION

Baseline

- To what extent, the university's current construction designs support sustainability issues in: Energy and water savings, Solid waste reduction, Maintenance and operation efficiency (cost), Building's indoor atmosphere quality (Lighting, Ventilation and Heating) and Minimizing environmental impacts.

Targets

- To achieve the minimum acceptable level of the Jordan Green Buildings Guide (JGBG) for new construction projects.
- To construct new buildings in a sustainable manner supporting sustainability issues.

Implementation mechanisms

- Implement building's site design as per the JGBG criteria.
- Thermally insulate building envelope as per the JGBG criteria.
- Recycle and reuse construction materials into building operations.
- Achieve minimum levels of internal air quality.
- Focus on water and energy saving techniques.
- Light buildings' green area and surroundings.

Key Performance Indicators

- Ratio of Energy saving.
- Ratio of Water saving.
- Maintenance cost for new buildings.

SUSTAINABLE PROCUREMENT

Baseline

- Number of procurement activity cases that involve a clear statement for sustainability issues for the base year. A current baseline of no activity.

Targets

- Preparing a new sustainable guideline for all procurement activities in a flexible manner via the central supply unit and tenders department.
- To increase the number of sustainable procurements by 50% for all purchasing and central tenders against a baseline.

Implementation Mechanisms

1. Allocate and add a specific section into the current technical specification documents for each purchasing order or central tender for sustainability issues.
2. Apply best practices to all procurement activities as indicated in the “Sustainable Guide for Purchasing.

Key Performance Indicators

- A new controlled document for sustainable procurement.
- Ratio of increasing sustainable procurement activities.

Challenges

- The limitations of the official supplies system.
- Financial resources.

SUSTAINABLE TRANSPORTATION

Baseline

- University fleet fuel consumption was 21729 litter for the base year.
- Distance traveled by university fleet was 170321 km for the base year.
- The average number of single occupancy car journeys was not recorded for base year.

Targets

- To reduce fuel consumption by 10% against baseline.
- To reduce distance traveled by 10% against baseline.
- To reduce the number of single occupancy car journeys by 15 % against baseline.

Implementation mechanisms

1. Monitor and collect all data to maintain staff travel plans.
2. Plan lectures' schedule to minimize student travel needs.
3. Develop a framework to implement the best practice for sustainable travel and transportation on and off campus such as walking, cycling and carpooling.
4. Replace old vehicles with hybrid and/or full electrical cars.
5. Implement a green transportation awareness program for staff to encourage them to undertake the best practices of traveling.
6. Work with the Public Transportation Authority in order to expand and improve the travelling network to campus.

Key Performance Indicators

- Ratio of fuel savings.
- Ratio of distance travel reduction.
- Ratio of single occupancy journey.
- Ratio of carpooling sharing.

Challenges

- Culture (norms and behaviors).
- Financial resources.

TEACHING AND RESEARCH

Baseline

- Current number of courses dierctly related to sustainability.
- Current number of published artciles dierctly related to sustainability.

Target

- To increase the number of offered courses directly related to sustainability by 10% against baseline.
- To increase number of published articles which are directly related to sustainability by 10% against baseline

Policy Statement

To create a national and regional positive impact in the domain of sustainability through relevant teaching and research activities.

Implementation Mechanisms

1. Have sustainability-related teaching and research embedded in the University's strategic research and teaching initiatives.
2. Establish campus-wide initiatives in teaching and research related to sustainability.
3. Promote inter- and multi-disciplinary teaching and research on sustainability.
4. Create sustainability forums, clubs,…. etc., and encourage volunteering in such bodies.
5. Prepare basic infrastructure needed to promote sustainability awareness and culture such as labs, ….etc.
6. Provide opportunities for faculty and students to address real-world sustainably problems to enhance their awareness level of sustainability and deepen GJU's community's understanding of sustainability issues and challenges.

Key Performance Indicators

- Increase in number of sustainability–related courses (relative to baseline).
- Increase in number of sustainability–related articles published (relative to baseline).
- Level of awareness among GJU's community in sustainability skills, knowledge and understanding (relative to baseline).
- Number of sustainability strategic initiatives implemented.
- Number of students enrolled in sustainability-related courses and activities.

Challenges

- Resources available.
- Response and enthusiasm of GJU's community.