Syrian Arab Republic

Damascus University

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Climate Action Plan (CAP)

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Executive Summary

Our planet is at a crucial point. Damascus University (DU) has put in the last two years ago of work in making our campus more sustainable and take a big action in achieving our goal of decreasing its carbon neutrality by 2030. But DU still have more to do.

Damascus University (DU) has committed itself to reduce its greenhouse gas (GHG) emissions. This challenges the DU community not only to measure and reduce its GHG emissions, but to develop and implement measures to achieve climate neutrality by eliminating or offsetting those emissions.

The DU has prepared a Climate Action Plan (CAP) outlining a suite of strategic actions to achieve climate neutrality by 2030. The CAP is a living document. As action is taken on campus and technology evolves, new mitigation strategies will be developed and methods will be refined. The CAP will be updated regularly to reflect these changes, ideally allowing UB to achieve climate neutrality with the purchase of offsets and renewable energy credits as a last resort.

Damascus University has a main goal to get net-zero carbon from the operation of the DU by 2030, and expand the climate program and curriculum.

To achieve its goal DU aim to leverage investments to incentivize climate action, engage and divest from companies with a net 0 plan.

Introduction

Damascus University, the state's largest university, has committed itself to reduce its greenhouse gas (GHG) emissions and serve as a leader in the campaign to mitigate global climate change, and to raise DU's standing as an academic and economic force for change.

Global climate change is a phenomenon to which we all contribute in some way and which will have impacts that touch everyone. The root causes of global climate change – human reliance on fossil-based fuels and the expansion of our cities, towns, farms, and livestock into undisturbed natural ecosystems – are the same forces that propel our economy and society. By its very nature, mitigating global climate change will require a global effort, across all sectors of our economy and involving multiple disciplines. As society's crucible for ideas, universities have a critical role to play in climate mitigation, by generating new knowledge, solutions, technologies, and by reducing their own, often large, carbon footprint. To achieve this dual mandate requires knowledge, strategy, and coordinated, decisive action from all parts of a university. At DU, this process is well underway.

I- Actions to Mitigate Greenhouse Gas Emissions

To achieve climate neutrality by 2030, DU will undertake dozens of actions to mitigate GHG emissions, including those related to buildings and land use, transportation, and materials used on campus.

Buildings and land-use emissions will be mitigated through retrofits to increase the efficiency of existing buildings, high performance design of new buildings, improved operations and management, and behavioral change. An immediate priority is to improve sub-metering and benchmarking so that inefficient buildings can be targeted for upgrades and both managers and users can better understand energy use campus-wide.

DU established six strategies to get our campus to carbon neutrality. The following is a detailed DU's Climate Action Plan to achieve these goals with commitments from leaders who have committed to each point from colleges, departments and administration:

The plan draws on research and resources from the DU's Sustainability Department

1- Operations

Go net 0 carbon in all of DU's operations, scope 1, 2 and 3, by 2030, and absolute carbon 0 by 2050.

- Set carbon targets (in the university and in every college and department, net 0 by 2030, total by 2050.
- Ensure that there is a representative with a lens on climate solutions on every university administrative committee with a climate-relevant remit and that there is staff and a climate committee or like representation in every college and facilitate the adoption of sustainability measures, implement a system for tracking and auditing progress. At the minimum post a running list of reforms and environmental policies
- Ensure that all major decisions of the university are informed by a carbon emissions reduction value assessment, just as they are now by a risk assessment. Put in place systems and staff in every college and department to help achieve these decarbonization goals and manage Green Impact reporting.

Leading scientific consensus shows that we are approaching irreversible tipping points, and that institutions need decarbonize with urgency. What could be achieved if all colleges were (at a bare minimum) to adopt the University's new target? Emissions in University could be reduced tonnes of CO2 a year and collectively colleges could save a lot of money on energy bills.

2- Energy & Water - Reduce Energy and water use across the Collegiate University

- Identify unnecessary energy and water use by mapping the usage across the college or department and refrain from usage through special /structural and behavioral reforms that encourage people to refrain from extra usage.
- Reduce usage by improving efficiency in buildings by updating according to the sustainability design guide; by ensuring that new development and refurbishments to follow the university's sustainability design guide. Accelerate refurbishment where possible. Include heating and gas infrastructure with the ability to switch, to lowest carbon options.

- Offset unavoided emissions from energy use with accredited offsetting schemes or invest in new renewable energy projects with proven additionality to the local grid.

The university, and the majority of colleges already pay for renewable energy to be added to the grid in the form of wind power credits, however local electricity is still carbon intensive. This requires continued behavioral efforts to refrain from energy usage, and efficiency measures to reduce energy usage through updated efficiency measures in existing buildings, and offset the rest of the unavoided usage. Many of university facilities still use natural gas for heating and cooking. This means that, until these systems are updated with green gas, heat pumps or replaced by renewable electricity, the university will need to offset these emissions.

3- Waste - Reduce the climate, natural and social impact of our consumption

- Reduce Food Waste by 50% by 2030 in line with UN Sustainable Development Goals including plate waste, prep waste and spoilage by committing to new systems for maximizing food efficiency in dining halls and cafes
- Source from Sustainable Suppliers: Source sustainable, local or Fairtrade materials, cotton for clothes. Green Impact for DU. Research being carried out in DU on this issue. 12 ways your office can help tackle the plastic problem. Roughly a third of food is thrown out as waste. As the population increases, this becomes more and more unacceptable. Approximately 25% of our waste still gets sent to landfill, which is ultimately unsustainable. Food and clothes are two of the biggest contributors to household waste.
- Reduce Material Waste: Eradicate single-use plastics where recyclable or reusable alternatives are applicable, and where it doesn't create more food waste. Implement clear sorting and waste management systems according to the Green Impact plan to manage and reduce the negative environmental and social impacts of material consumption.

4- Land Use & Development: Improve estates' biodiversity, natural ecosystems and social footprint

- Biodiversity Net Gain – All developments on estates inside or outside of DU must be managed by applying the mitigation hierarchy, and aiming to net-increase the amount of biodiversity. Any sale of land for development must also commit the development to achieving biodiversity net gain. Estates' biodiversity should be carefully managed, preserved and enhanced wherever applicable. Colleges should participate in the DU Plan Bee Project to track and preserve the animal and insect life on their grounds.
- Sustainable Development Principles – Plans should include developing high-density and high-efficiency homes and buildings for staff and members of the University community to reduce commuter emissions, minimize regular parking, priorities minimizing environmental impact, net-increases of biodiversity and prioritise sustainable land use: for example projects such as renewable energy development, habitat restoration and biodiversity offsetting, and local farming for land unsuitable for homes.
- Social Footprint – Offer unused building space to local charities and organizations that enhance the social good and greater community.

Natural resources on estates are not valued as highly as they should be and land owners need take an active effort to preserve and enhance them, especially where priority species and habitats are. The biodiversity and climate crises are inextricably linked. Biodiversity must be managed in the such as to increase its overall baseline level, to provide ecosystem services and nature-based solutions to the emergencies. Further, future development, whilst required for a more populous future, must be done in a way that maximizes efficiency whilst minimizes impact to meet UN Sustainable Development Goals 9 and 11.

5- Transportation & Local Influence, in and outside of university

- Regional transport emissions - University and college leadership to publicly support sustainable transport infrastructure, such as local housing development, and public transport options, and publicly oppose the expansion of conventional vehicle travel infrastructure including parking and new roads.
- Academic travel emissions - Reduce and offset travel emissions related to the university. Require an offsetting budget to be included in all research grants that involve carbon heavy travel. Commit to digital / remote options at conferences and events. Require open reporting for all academic and university related travel.
- University members' commuter emissions - Build 0 car zones in the road. New development to exclude parking with the exception of disability and operations vehicles. Allow undergraduates who would like to stay, to keep rooms during vacations and incentivize green travel alternatives for those going home.

Transportation emissions are one of the toughest aspects of climate action plans because it is often unclear where responsibility falls, between people and institutions where they work or which require them to travel. But transportation accounts for 14% of greenhouse gas emissions globally, and requires attention. Transportation is not included in the University of University's estimate of emissions targets which measure scope one and two emissions, and therefore must be dealt with separately by departments and colleges. Departments and colleges can incentivize green transport through, campaigns, incentives covered in the green travel fund and other schemes outlined in green impact. Sometimes transportation costs are unavoidable, in which case an offsetting scheme may be required.

6- Food - Sustainable Dining in Halls and Cafes

- Reduce red and processed meat by 80% and ban beef as in all dining halls and cafes by 2030. Either reducing the amount of meat in each dish or reduce the number of meat options available will help achieve this target
- Increase vegan and vegetarian options: 1/3 of every meal served at a cafe or hall should be vegan by 2023, at least one meal option non-processed, freshly prepared.
- Local**,** seasonal or organic foods should be used where applicable and for internationally-sourced ingredients Fairtrade-certified products should be used.

- The global population is forecast to reach 9.7bn by 2050, and yet we cannot afford, in the present day, for more wilderness to be taken over by farming. Livestock farming is well reported as one of the least efficient uses of agricultural land – land of which every hectare will become precious in a more populous future. Deforestation, wider habitat destruction and greenhouse gas output associated with livestock farming is contributing significantly to the climate and biodiversity crises globally. Achieving a more efficient food-use system, with lower land inputs and less wastage will allow a 9.7bn world to eat sustainably in the future.

- One of the procedures which held by DU is Food Waste Action (FWA). FWA have run successful events for college bursars and students to share ideas on how to reduce food waste within colleges. Sustainability has also held clothes sales/swaps to promote reusing old clothes instead of throwing them a ways.

- The aim of this procedure is to reduce its food waste within colleges, provides advice on approaching college authorities, and provides information sheets and posters. Sustainably provides ideas of how to reduce waste from college balls. Green Trashing produces a Green Trashing Guide which provides information on how different trashing materials affect the environment and suggests more environmentally-friendly alternatives".

II- Achieving Climate Neutrality: The Role of Research, Teaching, and the Community

1. **Expand Climate Thinking - Leverage university's intellectual resources to prepare students, faculty and staff to find solutions to Climate Change.**

DU exists to create knowledge, share it with students, and place it in service of community and society. To create the cultural change needed to achieve climate neutrality, DU will expand sustainability education and research at DU, integrate sustainability into DU's educational program, engage and partner with the community, and better communicate the climate action mission to DU students, staff, faculty, and the community.

DU offers many courses of with an environmental, sustainability, and/or global climate change component, although these offerings are not united in a formally established school or other academic unit devoted to the environment. In addition to individual courses, there are eight degrees' programs that include significant environmental content: two programs in the Faculty of Agriculture, the first one is Renewable Natural Resources and Environment and the other is renewable natural resources and environment, in the Civil Engineering Faculty there is the Health and Environmental Engineering Department. And Department of Planning and Environment Faculty of Architecture Engineering, regional development of natural resources, Planning and tourism development management.

The Educational Opportunity Center also offers a brownfields remediation program. Either through electives or optional program offerings, students from across DU can access environmentally themed courses in a number of academic sub-disciplines.

The extent to which the programs offer degrees that address global climate change varies both within and between programs. Only environmental studies and environmental engineering are explicitly interdisciplinary. Given this, there are opportunities to expand the curricular offerings to help achieve the overall objective of climate neutrality and sustainability awareness. The first proposed action, forming the Sustainability in Higher Education Taskforce, addresses the need for general academic restructuring and program development. The other proposed actions focus on smaller-scale initiatives to raise climate change awareness and spur action.

Immediate actions will form a Sustainability in Higher Education Taskforce, create an inventory of DU's climate change and sustainability research efforts, and produce a consolidated web-based sustainability resource. Ultimately, DU will serve as a center of sustainability innovation for the region, where new ideas and strategies to mitigate climate change are developed, tested, implemented, and rolled out to the community.

a. **Faculty of science, department of Environmental Sciences** - Offer a university-wide climate course available to every student.
b. **Research -** Create climate discussion groups and lecture series in every department with a relevant remit. Start a fundraising campaign to improve the funding pool for research on climate and environmental solutions.
c. **Curriculum** - Ensure climate literature is included in course reading and recruit professors and tutors with climate literacy and research backgrounds in all departments that reasonably intersect with climate change.

One strength of this university is the incredible degree of specialization and expertise dedicated in each field. The challenge therein, is that it is difficult to ask our intellectuals to shift focus from the, and we shouldn't have to, except that we can't afford to leave the best minds out of the climate crisis mitigation effort. We must provide them with the right incentives and support to tackle this challenge within their field.

III- Financing Climate Neutrality

3. Finances & Partnerships - Leverage university's investments to reform the energy sector and hold the fossil fuel industry accountable to change

a. Finances: Leverage the power of the colleges' and university's investments, by engaging with carbon intensive and fossil fuel companies to require that they evidence a plan for profitable net 0 operations with near term targets. Begin a time-bound process of divestment from carbon intensive and fossil fuel companies which fail to produce a profitable, measurable, net 0 plan. Report engagement outcomes, divestment and highlight new positive investments.
b. Political and Business Partnerships: Engage with university's partners in the local government and in business, on net -0 plans and timelines using the university Principles.
c. Alumni Network: Develop an alumni network for which membership includes commitments to facilitate post carbon transitions in alumus' respective sphere of influence. This network will connect alums to the university's best research, resources and events for achieving net 0 and building a post carbon society.

Financial Risks: An assessment of unburnable fossil reserves when warming is kept below a generous 2 C found that a third of oil reserves and over half of gas reserves cannot be exploited. This reality will turn many fossil resources into 2 "stranded assets". Climate & Environmental Risks: A transition away from the widespread use of fossil fuels must be immediate.

IV- Plan Implementation: Allocating Responsibility and Tracking Progress

All members of the DU community must play their part in achieving climate neutrality. Climate change and sustainability awareness need to be woven into the fabric of the university, permeating all aspects of daily life.

Seven entities have been identified to fill these roles:

- Senior leadership;
- The Environmental Stewardship Committee (ESC);
- University Facilities;
- Sustainability coordinators;
- Faculty;
- Staff; and
- Students.

There is considerable overlap among these groups and roles. For example, the ESC features members of each group listed. As a result, many individuals will serve multiple roles with varying responsibilities. Roles must become more defined and specific relationships must develop between key actors; this is a short-term implementation priority. The following discussion focuses on critical responsibilities requiring immediate fulfillment; however, additional roles and responsibilities will develop as implementation progresses.

An immediate priority is hiring (or designating) a senior sustainability officer. This individual will have both an operational and an academic role, connecting two major elements of the university structure. Staff will be identified to support the senior sustainability officer. Additionally, the development of a sustainability coordinators program will place implementers of the climate neutrality program in each business unit, department, and residence hall on campus.