Student Engagement with Sustainability
A landscape review of best practice, and an evaluation of possibilities for the University of Tokyo.

Amy Carmichael
UNIVERSITY OF CAMBRIDGE

PREPARED FOR:
THE UNIVERSITY OF TOKYO – TODAI SUSTAINABLE CAMPUS PROJECT OFFICE AND STUDENT COMMITTEE
Contents

Executive Summary ........................................................................................................................................ 3
Introduction .................................................................................................................................................. 3
Todai Sustainable Campus Project .............................................................................................................. 3
Student engagement at the University of Tokyo .......................................................................................... 4
Methodology .................................................................................................................................................. 5
Limitations .................................................................................................................................................... 6
Results ........................................................................................................................................................... 8
Landscape Review ......................................................................................................................................... 8
Student interviews ......................................................................................................................................... 22
Discussion and Recommendations ................................................................................................................ 24
The importance of student engagement ...................................................................................................... 24
Overcoming the challenges of student engagement .................................................................................... 26
Concluding Remarks and Further Work ...................................................................................................... 29
Acknowledgements ...................................................................................................................................... 30
Bibliography ................................................................................................................................................ 31
Appendix 1: Sample student interview questions ...................................................................................... 35
Executive Summary

This report provides a landscape review of sustainability initiatives engaging students from the world’s top universities, along with how they were organised and indicators of how successful they were, as well as a summary of semi-structured interviews held with University of Tokyo students about student engagement in general. There then follows a discussion of the importance and challenges of student engagement with regards to sustainability, as well as how the challenges could be overcome at the University of Tokyo, drawing on both the student interviews and examples of best practice. The report concludes with recommendations for both the Todai Sustainable Campus Project (TSCP) officers and the student committee for actions that will help facilitate increased and more effective student engagement.

Introduction

Todai Sustainable Campus Project

Energy-derived CO2 emissions on the five campuses of the University of Tokyo with buildings larger than a certain scale (Hongo, Komaba I, Komaba II, Shirokane, Kashiwa) are approx. 136,000 tons-CO2/year in total. This figure represents 0.01% of Japan’s total CO2 emissions and is equivalent to about 13,000 people in terms of population.1 The University of Tokyo has made it one of its missions to contribute to the realization of a sustainable society by creating a sustainable campus through the Todai Sustainable Campus Project (TSCP). This is intended to be achieved through a process of co-evolution, outlined in Figure 1., in collaboration with the groups shown in Figure 2.

---

During the first five-year phase of the project—between FY 2008 and FY 2012—TSCP reduced CO2 emissions from non-experiment activities by 15% from the FY 2006 level (13% in terms of total CO2 emissions at the university). By 2030, TSCP aims to have reduced the University of Tokyo’s emissions by 50% from the FY 2006 level. TSCP plans to achieve this with the following measures: conducting a survey on installations of experimental facilities and study reduction effects, implementing an energy-saving operation of basic experimental facilities (freezer, computational server, draft chamber, etc.), promoting efficiencies at non-experimental facilities (such as by renewing air-conditioning and heat sources, or by installing LEDs), promoting energy-creation and unused-energy sources (e.g. experiments on photovoltaics, thermal use of well water etc.), strengthening management measures by appointing an academic member from each building to be an energy manager, and enforcing high-efficiency specifications in newly constructed buildings.

Student engagement at the University of Tokyo

TSCP’s policy with regards to student engagement does not go beyond a commitment to ‘promote reducing environmental load and conserving natural resources and energy, and to make the most effective use of natural resources that are entrusted by people and society.’ Most students have are not aware that TSCP exists. Nevertheless, after the 2015 IARU Sustainability Fellow’s work and recommendations on student engagement, the TSCP Student Committee was established on July 1st 2015 with 7 members, with a view to it playing a proactive role in energy-saving activities. The TSCP student committee’s activities so far include presenting a design for an ‘App for Green UT’ at the Global University Climate Forum, introducing TSCP’s activities and achievements at the Eco-Products Exhibition 2015, and collecting data on the consumption of paper at the University of Tokyo. The student committee has plans to run campaigns on paper usage and lowering the sash of fume hoods, but is yet to conduct any activities engaging other students. Recruitment of committee members seems to have been conducted by word of mouth, or by approaching students known to TSCP staff members.

Another existing form of student engagement is Eco-Sanshiro: a student-run organization, founded in 1993 and based at Komaba campus, aimed at solving environmental problems. It is comprised mostly of 1st or 2nd year students or alumni of the University of Tokyo and currently has 13 members, though there is a trend of decreasing membership over time. Their main activities are Mizupro

---

2 Ibid.
3 Ibid.
5 Ibid.
(water project), giving classes about making and maintaining biotops in 3 elementary schools, and Kamipro (paper project), distributing boxes for waste paper which is collected and turned into uchiwa (fans) at the Komaba festival, as well as collected waste paper directly from clubs and returning it in the form of another paper product. Other activities include career workshops with alumni, a thesis presentation, environment cafes for discussion, and a conference to consider the Paris commitment and the Ise-Shima Summit.

Methodology

The landscape review was compiled using desk-based research, finding and reading online Campus Sustainability Guides which included examples of best practice, as well as the sustainability and student activities sections of IARU universities’ websites. IARU universities constituted the main subject of research because they already have a commitment to sharing best practice in the field of sustainability and so information was more readily available. Universities mentioned in Campus Sustainability Guides were also investigated, but were only included in the landscape review if they had undertaken types of student engagement which were different from or more successful than the IARU universities. In total, 21 universities were investigated, although not all of these were included in the final landscape review.

Any information about sustainability initiatives involving students, whether they were student- or staff-organised, was taken note of. Examples of the benefits and challenges of student engagement in sustainability were also noted.

Sustainability engagement activities were grouped into 5 main types of commonly recurring initiatives: data collection, behavioural change campaigns, policy change campaigns, events, and student leadership. There is an overlap between the categories of ‘campaigns’ and ‘events’, and so events are classed as campaigns where they are recurring on the same theme, thus acting as a sustained campaign.

There is a vast amount of sustainability engagement activity in IARU universities, with many initiatives being very similar to those in other universities, and so not all could be listed in a landscape review. The initiatives included are those which have clear indicators of their success reported, or which represent the most developed example of a common activity across the universities.
A summary of the landscape review was presented to TSCP officers and members of the TSCP student committee, who shared their thoughts on the applicability of the different types of student engagement to the University of Tokyo. The author was asked to investigate the possibility of introducing a green ambassador network to the University of Tokyo. This was done through more detailed online research on existing green ambassador networks and their structures, as well as through a series of semi-structured, informal interviews with students to obtain a better understanding of the experiences, motivations, interests, time constraints, habits, and social structure of University of Tokyo Students. The students interviewed were based at Hongo campus, but had lived at Komaba campus as 1st and 2nd year undergraduates. The interviews focused on their experiences as 1st and 2nd year undergraduates, as most interviewees identified this time as the period when students have the most time and the most enthusiasm to get involved in new activities. A sample set of interview questions can be found in the appendix. A meeting and discussion was also held with 5 members of Eco-Sanshiro club.

Both online research and student interviews were also used to gain an understanding of existing student engagement with sustainability at the University of Tokyo.

Limitations

The findings of this report are limited by the fact that the author was entirely new to the University of Tokyo at the outset of the research, and to Japanese culture and Japanese student life more generally. The author had to unpick many incorrect assumptions about the way student life and universities are organised, finding the University of Tokyo to be very different from her experience at an English university where there tends to be a strong culture of engaging students through student unions and of student social life being organised by colleges or student residences.

The author was also limited in her understanding of the University of Tokyo by having limited access to undergraduate students (who are usually the primary targets of student sustainability engagement initiatives), since she was based at the Kashiwa Campus for graduate students. Only 6 students were interviewed, and while both genders and a variety of faculties were represented by the interviewees, a wider range of interviewees would have been beneficial to recommend engagement initiatives that would appeal to as wide a range of people as possible. A further limitation was that the author is not being able to speak Japanese, although there was not a significant language barrier with the students she did meet with, who kindly spoke to her in English.
Because of these limitations, it is recommended that this report is used only as a starting point for consideration of student engagement activities. Interviewees said there were likely to fill out a short online attitude survey related to environmental attitudes and behaviour, and so it is suggested that the TSCP student committee follow this report up with a survey to establish priorities for action.

Nevertheless, despite these limitations, many students commented that the author’s rather different experiences with student engagement at the University of Cambridge allowed her to bring a fresh perspective, and to consider activities that the students had never heard of before.
## Results

### Landscape Review

**Data collection**

<table>
<thead>
<tr>
<th>Description of engagement</th>
<th>University</th>
<th>Theme</th>
<th>Aims</th>
<th>Method of organisation</th>
<th>Success indicators</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Life in the Suburbs: Australia's first comprehensive ecological survey of an urban area – the ANU Acton campus and adjacent areas - to produce 'Urban Habitat Guidelines' and 'Community Species Database'.</td>
<td>Australian National University (ANU)</td>
<td>Biodiversity</td>
<td>To generate a greater understanding of the role urban environments play in supporting habitat for native species and how different landscape changes impact on biodiversity. To identify and establish protection zones where key biodiversity values must be upheld. To provide the general public with practical tips for how they can support native biodiversity.</td>
<td>Coordinated by ANUgreen in partnership with the ACT Government, the Australian National Botanical Gardens, CSIRO, National Museum of Australia, National Capital Authority, and the Sullivans Creek Catchment Group. More than 400 community volunteers, including ANU staff and students assisted with the survey over an 18-month period. Monthly monitoring thereafter. Funded by a National Heritage Trust grant of over $100,000.</td>
<td>5,000 copies of Urban Habitat Guidelines distributed. Won the 2012 Sustainable Cities Award for Environmental Protection for this inclusion of biodiversity values in the ANU Campus Master Plan.</td>
<td>Environmental Management Plan Implementation Mid-Term Report <a href="http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf">http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf</a></td>
</tr>
<tr>
<td>Residential College Building Surveys: performing energy audits and benchmarking building-energy usage in comparison to peer building types; analysing behaviour and energy use, focusing on unoccupied times, plug loads and personal energy usage; identifying saving opportunities.</td>
<td>Yale University</td>
<td>Energy</td>
<td>To give students the opportunity to work with staff to apply what they're learning from faculty in the classroom. To encourage energy-saving behaviour. To save energy.</td>
<td>Project developed by staff Energy Manager, managed and assisted by a graduate student and student designer, run by an 'Energy Squad' of five students. Students work closely with the College Coordinators, Yale Facilities and Residential College Masters and Deans. Work with trained energy engineers.</td>
<td>Recommendations have been implemented, including applying university heating and cooling standards on all local thermostats, lighting retrofits, and refining the scheduling of air-handling units during unoccupied hours, in one of the buildings in Yale's carbon charge pilot. The building is using 12% less energy than it did last year.</td>
<td>Sustainability Service Corps Projects <a href="http://sustainability.yale.edu/participate/activities/student-opportunities/sustainability-service-corps-projects">http://sustainability.yale.edu/participate/activities/student- opportunities/sustainability-service-corps-projects</a> Outside the Classroom, Inside Campus Buildings <a href="http://carbon.yale.edu">http://carbon.yale.edu</a></td>
</tr>
<tr>
<td><strong>Student reports:</strong> students analysed the environmental behaviours that would have the most impact on campus, looking at energy, water and waste related behaviours for students residences, labs and offices.</td>
<td><strong>University of British Columbia</strong></td>
<td>-</td>
<td>To understand environmental behaviours that would have the most impact on campus. To help students in residence conserve energy and water. To provide students with experience of working with and collecting data.</td>
<td>Part of the Sustainability in Residence outreach program developed by UBC staff in Totem Park and Place Vanier. Led by students for students, the outreach booth takes place in the first year commons blocks the last week of every month, where students share and plan actions. Stories shared using #RippleEffectUBC.</td>
<td>Found four high impact behaviours for student residences: plug load, lights and energy used to heat water for showers and laundry account for 57% of student residence energy use. Enabled a pilot of communications materials and outreach campaigns using data from the reports, which achieved: 32% reduction in the amount of hot water used for washing clothes, 8% reduction in overall water use in one building, 6.5% reduction in energy use in one building.</td>
<td>It Begins in Rez... <a href="https://sustain.ubc.ca/get-involved/students/events/sustainability-residence/sustainability-toolkits/it-beginns">https://sustain.ubc.ca/get-involved/students/events/sustainability-residence/sustainability-toolkits/it-beginns</a></td>
</tr>
</tbody>
</table>

| **Global Survey of Business Students:** exploring deeply the opinions and attitudes of today's business students on climate change and related environmental sustainability issues, and calling on businesses and business schools to focus more on sustainability as a result of the findings. | **Yale University** | Education | To better understand business students' views on sustainability. To act as an evidence-based call for change in businesses and business schools based on pro-environment priorities. | Conducted by Yale Center for Business and the Environment and the Yale Project on Climate Change Communication. Data was collected from a survey distributed to participants from 29 business schools located in 25 countries on five continents, representing approximately 27,600 students globally. Survey questions were generated from a number of sources, including 29 questions adapted from five prior surveys. Survey questions were pre-tested (using cognitive pre-testing methods) with business school students from different regions. The final survey was administered online using the third-party survey platform. | Showed that students want to address challenges related to environmental sustainability and climate change regardless of the job or industry they work in (even if it means a lower salary), and yet feel insufficiently prepared by their business school for this challenge – upending the conventional wisdom about business students. Also showed that there is a carbon tax on talent: companies with poor environmental performance will have to pay more to hire a smaller group of potential candidates. The report clearly demonstrating to RISING LEADERS ON ENVIRONMENTAL SUSTAINABILITY AND CLIMATE CHANGE – A Global Survey of Business Students [http://cbey.yale.edu/files/Rising%20Leaders%20on%20Environmental%20Sustainability%20and%20Climate%20Change%20Nov-2015.pdf](http://cbey.yale.edu/files/Rising%20Leaders%20on%20Environmental%20Sustainability%20and%20Climate%20Change%20Nov-2015.pdf) | 2016 WEF-GULF ISCN Report: |
party survey platform Qualtrics. The survey was distributed within each school through official administrative channels. The survey took approximately 15-20 minutes to complete. Businesses benefit from being sustainable, and acts as a call to action for business school to adapt the curriculum to better explore business solutions to the environmental challenges of the 21st Century, else face a smaller potential student pool in the future. Results of this survey were covered by press in the US, Canada, UK, China, Chile, South Africa, Germany, Turkey and more, spurring dialogue across the globe.

Demonstrating Sustainable Development in Higher Education

<table>
<thead>
<tr>
<th>Behavioural campaigns</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Description of engagement</th>
<th>University</th>
<th>Theme</th>
<th>Aims</th>
<th>Method of organisation</th>
<th>Success indicators</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Go Green, Get Lean Cycle-to-Campus Challenge: provides staff and post-graduate students with a 10-week fitness program involving a progressive substitution of motorised commuting with cycling. This includes weekly exercise sessions supervised by a professional trainer, friendly competition with prize incentives and quantified feedback of fitness improvements, and information about exercise, nutrition, bike maintenance and sustainable</td>
<td>Australian National University (ANU)</td>
<td>Transport</td>
<td>To increase cycling rates and reduce driving rates. To improve health and fitness.</td>
<td>Organised by staff every other year, with between 30 and 50 people each time.</td>
<td>By the end of each program the majority of participants were averaging the target of cycling to campus three times per week. Follow-up surveys indicated that this pattern of behaviour was still persisting for many participants a year later. Participants recorded an average improvement in aerobic fitness of 30% when they were re-evaluated at the end of the program. The reduction in driving equates to nearly 1 tonne per participant over the course of a year.</td>
<td>Environmental Management Plan Implementation Mid-Term Report <a href="http://sustainability.anu.edu.au/_documents/reports/anu_emp_mid-term_report.pdf">http://sustainability.anu.edu.au/_documents/reports/anu_emp_mid-term_report.pdf</a></td>
</tr>
</tbody>
</table>
| Lifestyles. | University of Copenhagen | Energy | To encourage energy saving behaviour. To save energy. | Stickers were distributed amongst employees and student teams by student volunteers/green ambassadors. The total campaign cost was around USD 100,000. | 26% of the fume hoods were left fully or partially open before the campaign while only 8% were left open after the campaign. Saved the university an estimated 2.7 million kWh per year, or approximately USD 800,000 per year. | IARU Green Guide
https://issuu.com/sustainia/docs/iaru_green_guide

Shut the Sash:
- competition between lab teams to save energy by lowering the sash.
- University of British Columbia

| Lower the Sash: campaigning to encourage students to pull down the sash when not using the fume hood, by placing stickers (showing kWh/year used with sash raised vs lowered) directly on the fume hoods right behind the sash. | University of Copenhagen | Energy | In 2015, over 200 researchers in three energy intensive lab buildings formed 41 teams to compete for the highest amount of energy savings and to win great prizes. Organised by UBC staff. Adapted from the University of Toronto Sustainability Office's campaign guide. | Overall, participating lab teams achieved a 64% decrease in sash height, resulting in 6,780 kWh of electricity savings, 210 GJ of natural gas savings, and reducing greenhouse gas emissions by 10.6 tonnes. This was following an 82% improvement in average sash height in 2014. |

| Green Action competition: advice on energy efficient habits given for laboratories, office and education areas and green IT; energy saving equipment (plug sockets, automatic switches, etc.) offered; consumption measured and visualised; prizes offered for biggest reductions in energy consumption. | University of Copenhagen | Energy | To encourage energy saving behaviour. To save energy and money. To engage students and staff in sustainability efforts. | 250 ambassadors volunteered as local coordinators and bearers of efforts, passing on information and equipment to departments’ employees and staff. Stickers and posters distributed, and promoted using a YouTube video: https://www.youtube.com/watch?v=GjOFxAYMAy2 |

| Aim to Sustain competition: a three-week energy conservation and participation contest between houses in two University of British Columbia | Energy | After the three-week campaign in 2009, consumption of heating dropped 11% and consumption of electricity dropped 1%, corresponding to an annual saving of almost 2,4 mill. DKK (37.6 mill JPY) or 700 tons CO₂. | Winning house in 2013 reduced energy consumption by 21%, reductions of 15% across competing | Green Campus – Climate actions at University of Copenhagen
http://www.projects.aegee.org/sustaining/fileadmin/user_upload/Copenhagen_Green_Campus_Sustainable_SCANdinavia.pdf

| Aim to Sustain – UBC Sustainability
https://sustain.ubc.ca/get-
<table>
<thead>
<tr>
<th>Student residences, where students are able to track their building’s energy use and engage in social media and outreach activities.</th>
<th>universities and colleges. Took place only at UBC from 2012. Now a collaborative effort between Campus and Community Planning, Residence Life, UBC Sustainability Initiative and Energy and Water Services. In 2014, the event was launched at a ‘100-mile dinner’ where all food came from less than 100 miles away.</th>
<th>houses. Over 3,100 first-year students competed.</th>
<th>involved/students/events/aim-sustain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Switch Off: engagement based initiative encouraging students to save energy in their accommodation with photo competitions, climate change quizzes and a host of other events designed and run by students within colleges.</td>
<td>Organised by an external company after a pilot at UEA, now runs at over 50 universities. Student ambassadors attend interactive training sessions where they learn about effective communication and how to motivate their peers to save energy. Prizes are awarded to the colleges which save the most energy.</td>
<td>2012/13: 2,054 students pledged to save energy (13% of students), 3,689 people liked the Facebook page, over 6,600 climate change quiz entrants, 133 energy-saving photos submitted by students over the year, 52 students attended training sessions. 2014/15: 90 students attended training sessions.</td>
<td>Aim to Sustain – totem times <a href="https://blogs.ubc.ca/mytotemtimes/2014/11/17/aim-to-sustain/">https://blogs.ubc.ca/mytotemtimes/2014/11/17/aim-to-sustain/</a></td>
</tr>
</tbody>
</table>
Occupancy trainings: for labs, offices, academic buildings and residential colleges – explaining to students and staff how to be sustainable in these places; includes topics such as energy, water, waste management, procurement (food & dining for the Residential Colleges), travel and transportation, and shared areas with embedded links to learn more about each area.

Launched by Yale Facilities staff. Disseminated to staff by their supervisors and to students during Freshmen Orientation.

Yale University

Facilities Launches Building Occupancy Training Program

http://sustainability.yale.edu/news/facilities-launches-building-occupancy-training-program

Policy campaigns

<table>
<thead>
<tr>
<th>Description of engagement</th>
<th>University</th>
<th>Theme</th>
<th>Aims</th>
<th>Method of organisation</th>
<th>Success indicators</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fossil Free Campaign: producing reports on the environmental impact of university investments and alternatives (Averting a Climate Crisis); organising petitions, marches and creative campaigns (such as tarring ‘degrees’ oil black for photos).</td>
<td>University of Oxford</td>
<td>Investments</td>
<td>To persuade the university to divest from fossil fuels.</td>
<td>Student society hosting regular open meetings and releasing statements on investment policy. Current students organised an event in which alumni handed back their degrees in protest, organised via Facebook. Alumni also occupied a university administration building in anger after the university deferred its decision on whether to divest.</td>
<td>The university has pledged never to invest directly in coal or tar sands companies. A 2014 petition was signed by 100 Oxford academics, nearly 300 alumni and over 2000 students.</td>
<td>Updates and News – Oxford University Fossil Free Campaign <a href="https://oxfordunifossilfree.wordpress.com/updates-and-news/">https://oxfordunifossilfree.wordpress.com/updates-and-news/</a> Averting a Climate Crisis <a href="https://oxfordunifossilfree.files.wordpress.c">https://oxfordunifossilfree.files.wordpress.c</a></td>
</tr>
</tbody>
</table>
### Plastic bag tax: funding student-initiated environmental projects, and rebate for individuals who use reusable crockery, cutlery and bottles

| National University of Singapore | Waste and resource management | To tackle a lack of awareness about the impact of waste measures to reduce it. To incentivise sustainable behaviour. | Students Against the Violation of the Earth (SAVE) was inspired by a student survey which indicated widespread support (71% of students) for the reduction of plastic bag usage, and thus collaborated with the university’s administrative offices to initiate a plastic bag tax of SGD 10 cents at five canteens, several bookstores, and some retail outlets spread over two campuses. | Usage of plastic bags in university canteens and bookstores dropped by 70% from 2009 to 2013. The tax has funded the building of community gardens and composting food waste. Student support for the initiative rose from 71% in 2009 to 87% in 2013. | [IARU Green Guide](https://issuu.com/sustainia/docs/iaru_green_guide) |


### Working group on GHGs of campus catering:

| ETH Zurich | Food | To reduce the environmental impact of campus catering. To give students the opportunity to undertake sustainability research. To disseminate lessons learned to other universities. | A student initiative launched a dialogue on GHGs, and at students’ request the sustainability staff initiated a Sustainable Food working group to design a test of consumers’ behaviour and acceptance. Bachelor and Masters students studied and suggested a range of measures that could increase the sustainability of campus catering. | The meals’ climate impact was unrelated to the taste or to the number of purchases. The climate-friendly choice label increased number of climate-friendly meal purchases. Climate-friendly meals reduced the climate ‘food-print’ but not customer satisfaction. Providing the option of ordering smaller portion sizes for a reduced price reduced leftovers after sale by 20%. | [Sustainable Catering on the Campus](https://www.ethz.ch/en/news-and-events/eth-news/news/2016/06/sustainable-catering-on-the-campus.html)*

<table>
<thead>
<tr>
<th>Description of engagement</th>
<th>University</th>
<th>Theme</th>
<th>Aims</th>
<th>Method of organisation</th>
<th>Success indicators</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move Out Recycling: coordinates the collection, redistribution and recycling of clothes, furniture, bedding and other goods left by residential students at the end of each year.</td>
<td>Australian National University (ANU)</td>
<td>Waste and resource management</td>
<td>To reduce waste of resources, need for new resources and emissions from transporting to landfill. To generate social networks among participating students and provides volunteers with practical experience in event planning and management.</td>
<td>Run by student volunteers. Collection of goods commences at all Student Resident Accommodation in October. Items are stored for resale at the Sports and Recreation Hall in February. Advertised by Facebook event. Funded by sales from previous events.</td>
<td>2011-12: 300 boxes of goods were received and $11,000 generated – enough to self-fund a new annual recycling event and to provide a paid part-time position for a student living and studying at the ANU. Nominated for ACT Sustainable Cities Award.</td>
<td>Environmental Management Plan Implementation Mid-Term Report <a href="http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf">http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf</a></td>
</tr>
<tr>
<td>Preparing Dickson Road Wetlands: student and staff volunteers turned an inaccessible area into an artificial wetland.</td>
<td>Australian National University (ANU)</td>
<td>Biodiversity</td>
<td>To demonstrate sustainable land management at the urban/bushland interface, and water sensitive urban design. To raise awareness of and engage the community in biodiversity issues.</td>
<td>Staff and student volunteers were recruited and trained to prepare an inaccessible and weed-infested area to be turned into an artificial wetland, through intensive weeding and plantings.</td>
<td>The layout of the site is purifies water and reduces sediment runoff into Lake Burley Griffin. A range of native plants and structural features such as rocks and logs provide a mixture of micro-habitats. The site has become established as a prime frog habitat and also supports a wide diversity of native wildlife. The site is used as an outdoor classroom and important citizen science programs on species monitoring and habitat assessment.</td>
<td>Environmental Management Plan Implementation Mid-Term Report <a href="http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf">http://sustainability.anu.edu.au/__documents/reports/anu_emp_mid-term_report.pdf</a></td>
</tr>
<tr>
<td>Student Sustainability Networking Event: gives club leaders and staff members an opportunity to learn and communicate on projects and events on the topic of University of British Columbia</td>
<td>-</td>
<td>-</td>
<td>To increase awareness of sustainability initiatives on campus by various student groups. To provide a platform for conversation and potential engagement.</td>
<td>Organised by two Sustainability Ambassadors as a ‘Thrive week’ initiative. The hour-and-a-half event included a free hot lunch, and was open to students, faculty and community members. The event</td>
<td>In 2015, over 70 students attended. Useful recommendations from brainstorming together included making the navigation of UBC’s sustainability website easier, introducing courses that facilitate</td>
<td>Student Sustainability Networking Event <a href="http://amssustainability.ca/student-sustainability-networking-event/">http://amssustainability.ca/student-sustainability-networking-event/</a></td>
</tr>
<tr>
<td>Sustainability</td>
<td>Collaborations</td>
<td>Sustainability</td>
<td>Sustainability</td>
<td>Sustainability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td>---------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>started off with a bingo icebreaker, where attendees were asked to talk to, and find other attendees with the characteristics (related to sustainability) described in each of the bingo slots. The attendees were also asked to brainstorm the two topics, “How can we create more sustainability engagement on campus?” and “How does sustainability relate to your courses?”.</td>
<td>sustainability based discussions and problem solving, and increasing awareness of UBC’s sustainability facilities, such as the UBC farm, through engagement. It will become an annual event.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Fashion Swapaganza:</em> second-hand clothes and shoes are donated and then offered to new owners, alongside a screening of a documentary about clothes-related environmental problems.</td>
<td>Harvard University</td>
<td>Waste and resource management</td>
<td>To reduce waste from throwing away clothes. To reduce extraction of resources for new clothes. To raise awareness of fashion-related sustainability issues.</td>
<td>Organised by student Women’s Law Association. Clothes were collected on campus at lunchtimes over a week, and displayed for shopping at the end of the week. Leftover clothes were donated to a local shelter, as well as a raffle being held to support them, with prizes and free food provided by a donation from Dunkin’ Donuts.</td>
<td>Popularity meant it became an annual event, and is also held by the Harvard Business School.</td>
<td></td>
</tr>
<tr>
<td><em>Chasing Sustainability:</em> annual full-day business sustainability conference, with interactive workshops, networking sessions and discussions with business leaders.</td>
<td>University of British Columbia</td>
<td>Business</td>
<td>To educate future business leaders about sustainability. To inspire change in the corporate world. To connect students with industry professionals.</td>
<td>Organised by the Commerce Undergraduate Society, with two Co-Chairs and a team of 11 other students. Many corporate sponsors. Held at a hotel for the last few years. Designed a welcome pack to send to potential speakers, outlining the importance of the event as well as promotional opportunities.</td>
<td>Become an annual event, with the number of speakers, guests and students involved increasing year on year.</td>
<td></td>
</tr>
</tbody>
</table>

Sustainability Networking Event [https://sustain.ubc.ca/get-involved/students/events/sustainability-networking-event](https://sustain.ubc.ca/get-involved/students/events/sustainability-networking-event)

Women’s Law Association Swapaganza [https://groups.google.com/forum/#!topic/hls-wla/S0zh8rLEdFI](https://groups.google.com/forum/#!topic/hls-wla/S0zh8rLEdFI)

HBS Annual Clothing Swap and Donation [https://green.harvard.edu/events/hbs-annual-clothing-swap-and-donation](https://green.harvard.edu/events/hbs-annual-clothing-swap-and-donation)

Chasing Sustainability [http://chasingsustainability.cus.ca/](http://chasingsustainability.cus.ca/)
**Annual Sustainability Fair**
Through engaging activities and informative displays from sustainability staff and societies, students explore involvement opportunities and learn how to incorporate sustainability into their studies, work and lifestyle.

- **University of British Columbia**
- **Engagement**
- To connect students with involvement opportunities. To inspire students to incorporate sustainability into their daily lives. To strengthen the connections between different sustainability-related groups on campus.
- **Organised**
- Organised each year by student Sustainability Ambassadors with the support of the UBC Sustainability Initiative. Students attracted by prizes for participation, such as Hotbox Yoga classes or a new bike.
- **Over 1000 attendees in 2014.**
- **Booths from over 20 student clubs, groups and initiatives.**

**Student leadership**

<table>
<thead>
<tr>
<th>Description of engagement</th>
<th>University</th>
<th>Theme</th>
<th>Aims</th>
<th>Method of organisation</th>
<th>Success indicators</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>GreenSteps: five days of intensive vocational training (e.g. auditing, project management) followed by a 12-day internship for 10-14 future sustainability leaders (students).</td>
<td>Australian National University (ANU)</td>
<td>-</td>
<td>To empower university students with hands-on skills and knowledge to drive environmentally sustainable practices within organisations and the wider community. To complete practical environmental work.</td>
<td>Staff run a competitive application and selection process. Trained by the university’s own primary trainer. Host organisations pay a nominal amount for the project and students receive a small stipend on completion of the Internship placement. Ongoing networks fostered by Alumni events and an ANU GreenSteps Facebook page.</td>
<td>Students rated their ‘experience of teaching’ at 4.9 out of 5, compared with an ANU average of 4.5 out of 5 for other practice-based courses. Student ‘experience of learning’ was rated at 4.6 out of 5 compared with an ANU average of 4.1.</td>
<td>Environmental Management Plan Implementation Mid-Term Report</td>
</tr>
</tbody>
</table>
### Communications Associates: a team of students leads a range of campus-wide communications efforts aimed at achieving their long-term sustainability goals.

**University of California, Berkeley**

- **Engagement**
  
  To encourage programme participation and behaviour change. To expand the culture of sustainability at the university. To personalise sustainability. To make sustainability newsworthy.

- **A team of undergraduates directed by the Office of Sustainability.**
  
  Careful to select students with the right skillset, and who can commit to working with the Office for at least two years (second year to mentor incoming Associates to ensure continuity). Students receive training and guidance, but are also given space to find their own creativity and voices to engage their peers. Paid, as relying on volunteers can hinder commitment and continuity. Costs around USD4,000-5,000/year. Started by a grant from The Green Initiative Fund.

- **Expanded from 3 to 8 students over the past few years. 2009-10 accomplishments included:**
  
  - number of articles in Bright Green News doubling, 250% increase in readership, visits to the sustainability website increasing by 20% after an extensive redesign, attendance at student forums increasing by over 400%, followers of new Facebook page reaching over 200 in a matter of months,

### Green Impact Project Assistants or Auditors: environmental accreditation scheme designed to promote, support and recognise the achievements of departments and colleges in adopting more environmentally-sound approaches to their work practices; training students to assist staff teams or to audit their work.

**University of Cambridge and University of Oxford**

- **To bridge the gap between staff and students working on sustainability. To give students practical work experience. To make progress on practical sustainability goals across a wide range of themes and criteria.**

- **Organised by an external company (National Union of Students) which suggests criteria for challenges in an online workbook and then awards teams either bronze, silver or gold. Supported with resources and examples of good practice from within the university or from the other universities and colleges taking part. The students who receive training and take on this voluntary role are part of the teams are often also the elected Environment and Ethics Officers of their college’s student union. Advertised as taking a few hours per month, but there is the opportunity for students to extend this by taking on their own projects, including ‘Excellence Projects’. Depending on the teams’**

- **2015: trained 31 students at Oxford – an improvement from 16 in 2013/14. Over 3,000 actions completed as part of Green Impact since 2013.**

- **NUS – Green Impact**
  

- **Oxford Environmental Sustainability Instagram**
  
  [https://www.instagram.com/p/BiHRLtzA2YO/](https://www.instagram.com/p/BiHRLtzA2YO/)

### IARU Green Guide

[https://issuu.com/sustainia/docs/iaru_green_guide](https://issuu.com/sustainia/docs/iaru_green_guide)

- **Talking Louder About Campus Sustainability**
  
  [http://tgif.berkeley.edu/index.php/funded-projects/project-internships/12-funded-projects/60-talkinglouder](http://tgif.berkeley.edu/index.php/funded-projects/project-internships/12-funded-projects/60-talkinglouder)
| Living Lab: providing students with the opportunity to use the university estate to test and research real-world environmental problems, the results of which can be used to improve the environmental performance of the university. | University of Cambridge | To improve the environmental performance of the university. To provide opportunities for students to use the estate to test and research real-world environmental problems. To improve the educational experience of students. To promote interdisciplinary teamwork. To assist in the sharing of data and expertise for environmental research. | Can be academic projects as part of a degree, a response to a challenge set by the university with a prize for the best solution, a volunteer project perhaps involving a student society, or a paid summer internship at the Environment and Energy Section. Funded by Santander. Staff member responsible for co-ordination. | 2013/14: worked with 27 students or teams. Results of research have been incorporated into the Environment and Energy Section’s work – e.g. demonstrating higher levels of engagement in response to e-mails vs. social media, reviewing the post-occupancy evaluation process after it was shown to be deficient, pilot freezer auditing, producing communication material. Nominated for a Green Gown Award in 2014. |
| Princeton Campus as Living Lab | Princeton University | Same as above, with the addition that through partnerships with non-profit and public entities conversations have also extended into the greater Princeton community. These conversations are encouraged by interactive displays designed collaboratively with students, faculty and staff showing results of research in a permanent exhibit space in the university centre. | Thousands of campus and community members visit the exhibition space weekly. There has been high faculty and student interest, resulting in the renewing of the seed fund. |
| Carbon Innovation Programme: an opportunity for staff and students to generate unique ideas for carbon reduction and bid for funding to implement the idea within the University estate. | University of Oxford | Teams/individuals are supported through the initial process of producing a viable business case for an innovative project, service or product that can be applied to a specific area of the functional estate | The winning project, converting the laboratory exhaust systems in the Chemistry Research Laboratory to Variable Air Volume (VAV), is estimated to have potential energy savings on the order of £40,000 per |
in order to generate carbon savings. Teams then present their proposals to the judging panel, where funding is then allocated to the best projects. The team or individual responsible for the most successful projects is awarded a Carbon Innovator Award in April at the Sustainability Showcase Awards Evening.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Year</th>
<th>Project could save</th>
<th>url</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>186 tonnes of carbon</td>
<td><img src="http://www.energy.ox.ac.uk/wordpress/carbon-innovation-programme/carbon-innovation-programme-wind-responsive-extract-at-chemistry-research-laboratory/" alt="url" /></td>
</tr>
</tbody>
</table>

Leaders have represented the student voice at municipal meetings, including the City of Cambridge bike planning workshops. Many have gone on to play key leadership roles in their Schools or as alumni in their professional lives.

**International Sustainable Campus Network Report 2015**

<table>
<thead>
<tr>
<th>Council for Student Sustainability Leaders: participants advise University officials on its sustainability commitment, including the development of its University-wide Sustainability Plan; these students act as liaisons to the larger student body and their individual schools.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harvard University</td>
</tr>
<tr>
<td>Engagement</td>
</tr>
<tr>
<td>To engage students in sustainability policy-making. To ensure sustainability policy is relevant to students and that the student voice is represented to student leadership. To raise awareness of institutional sustainability issues among the student body.</td>
</tr>
<tr>
<td>The students receive unparalleled access to international thought leaders through small-group meetings with world leaders. A summary report that CSSL produces at the end of every year is provided to senior leadership. Students are selected through a competitive application process.</td>
</tr>
<tr>
<td>Leaders have represented the student voice at municipal meetings, including the City of Cambridge bike planning workshops. Many have gone on to play key leadership roles in their Schools or as alumni in their professional lives.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building Sustainability @ Cal Program: trains and utilizes students to help reduce the environmental footprint of campus buildings by educating building inhabitants and identifying structural and operational changes that can be made to buildings and campus as a whole.</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Energy, Water, Waste and resource management</td>
</tr>
<tr>
<td>To design educational projects. To perform waste and energy audits. To design sustainability plans of action for campus buildings. To assist staff with assessing buildings for LEED EB certification. To bring together students, faculty and staff in a service-learning environment.</td>
</tr>
<tr>
<td>Interns co-ordinator (former intern) hire other students (with some green building experience) as paid interns in buildings working on case-by-case outreach and auditing projects, using a Green Building Checklist Review and building occupant surveys. Senior team members train new members by facilitating classes in energy efficiency and water efficiency and waste management. Baseline measurements are set with pre-project audits and compared</td>
</tr>
<tr>
<td>2008-9: 7 building interns worked in 20 buildings, generating 17 audits and implementing 13 education/outreach projects and 5 infrastructure projects. Through the infrastructure projects alone, students were able to save 3 million gallons of water and divert 350 lbs of waste, resulting in a reduction of over 9000 kg of CO2. One of the largest successes of BS@C was working with the Plumbing</td>
</tr>
<tr>
<td>Building Sustainability at Cal</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Building Sustainability at Cal</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of California, Berkeley</td>
</tr>
<tr>
<td>Energy, Water, Waste and resource management</td>
</tr>
<tr>
<td>To design educational projects. To perform waste and energy audits. To design sustainability plans of action for campus buildings. To assist staff with assessing buildings for LEED EB certification. To bring together students, faculty and staff in a service-learning environment.</td>
</tr>
<tr>
<td>Interns co-ordinator (former intern) hire other students (with some green building experience) as paid interns in buildings working on case-by-case outreach and auditing projects, using a Green Building Checklist Review and building occupant surveys. Senior team members train new members by facilitating classes in energy efficiency and water efficiency and waste management. Baseline measurements are set with pre-project audits and compared</td>
</tr>
<tr>
<td>2008-9: 7 building interns worked in 20 buildings, generating 17 audits and implementing 13 education/outreach projects and 5 infrastructure projects. Through the infrastructure projects alone, students were able to save 3 million gallons of water and divert 350 lbs of waste, resulting in a reduction of over 9000 kg of CO2. One of the largest successes of BS@C was working with the Plumbing</td>
</tr>
<tr>
<td>Building Sustainability at Cal</td>
</tr>
</tbody>
</table>
with post-project data. Intern co-ordinator is held accountable for the implementation and success of interns' projects. Co-ordinator finds the buildings for each year's project cycle. Positions are advertised on Facebook.

Shop, replacing 312 sink aerators with the most efficient 0.5gpm aerators in 13 buildings on campus. These water savings have the potential to save 8794 kg of CO2 emissions on campus.
Student interviews

Below follows a summary of the thoughts of interviewees – these are subjective and may not be an entirely accurate representation of the situation at the University of Tokyo. Nevertheless, an understanding of the student perception of the situation is just as valuable.

Awareness of sustainability initiatives:

- No students were aware of TSCP, including friends of members of the student committee.
  - This is with the exception of members of Eco-Sanshiro who had been contacted in this capacity by the TSCP student committee.
- Half of interviewees were aware of Eco-Sanshiro.

Use of e-mail and social media:

- Most interviewees used a combination of e-mail, Facebook, Twitter, Instagram and LINE, with Instagram being the least popular.
  - Although most students may not be very active on Facebook, those who are active on Facebook are also likely to be more active in real-life – potentially with regards to student sustainability engagement initiatives.
- Interviewees interested in sustainability would be keen to be members of Facebook groups, follow Twitter accounts, or join mailing lists related to sustainability.
  - This was on the condition that communications were short and only concerned information about things students could get involved with, not information about the sustainability of UTokyo itself.
- Students follow other parts of the university on Twitter, such as the library and the konbini, because they provide useful information.
- Only one interviewee regularly checks university websites for information.

Appeal of representing views to staff:

- There are already student groups thinking about how to improve the University of Tokyo.
- Staff listening to students views is appealing, but...
- Most students would be too shy or not sure enough of what they think students want to advocate on their behalf in front of university staff.
- There are too many bureaucratic processes to go through in such a big university for students to be heard by staff.
  - E.g. students wished to work on maintenance of a university pond but, after submitting a proposal, were told they were not allowed.
- The student population is diverse and it is difficult to represent them.
- Students may see activities involving working with staff as less fun than those only involving working with other students.

Social structure of UTokyo:
• Only a few students are passionate about sustainability – we must encourage them to organise events for their peers which make it fun.
• Students spend most of their time with friends they have made through clubs or circles.
• Most students don’t live in student residences and so don’t have social groups organised in this way.
• Students don’t become part of a faculty until their 3rd year, and so don’t have social groups organised in this way.

Willingness to fill in surveys to help the TSCP student committee:

• Interviewees have filled in other questionnaires to help university departments, e.g. the careers service.
• Students are more likely to fill out a survey if it is online.
• Students are reluctant to fill out long surveys and are likely to give up if this is the case.

Thoughts on sustainability clubs:

• Most Eco-Sanshiro members heard about the club either through word-of-mouth or by actively Googling for a sustainability club.
• Students are less likely to have a direct interest in purely sustainability. Instead, they will join clubs because of related interests, (e.g. animals, teaching, food, technology) and then develop an interest in sustainability.
• Students join clubs to meet new people, to develop career capital,
• Some interviewees are interested in considering sustainability from the point of view of academic disciplines other than their own.
  o Other interviewees are only interested in considering sustainability from the point of view of their academic discipline.
• Clubs not related to sustainability are unlikely to make efforts to become sustainable or to create a committee role related to sustainability by themselves.
  o Clubs are likely to consult a guide designed to help club activities be sustainable (if there is one member of the club who is interested in sustainability).
• Most students will already be members of a club that takes up a lot of their time, so are unlikely to be able to dedicate more than 2-3 hours a week to sustainability work.
  o This could be combated by engaging students when they join the University of Tokyo, before they have made other commitments.
• Societies such as PEAK (welcoming international students) show that there is a culture of volunteering.

Thoughts on sustainability events:

• Some interviewees are more likely to attend an event if it is likely to become a series of events, as this feels like it is more significant to be a part of.
• Students are unlikely to have the time to attend more than one or two events a term.
• The proximity of the location of an event is a strong factor in the decision of whether or not to attend.
• Food is a strong incentive to attend events.
• Film nights (e.g. of documentaries) are a popular form of event – could be improved by having a discussion afterwards.
• Could introduce a one-off sustainability theme at pre-existing event series, such as the monthly Kashiwa Library film nights.
• All interviewees thought competitions are very likely to engage students.
  o It is difficult to work out who competitions would be between, since students don’t live in student residences, aren’t members of faculties, and don’t engage in much energy-intensive behaviour in their class groups.
  o Students are likely to be disincentivised by the promise of disappointing prizes, so it is perhaps better not to offer prizes at all, but rather to offer awards and recognition.
  o An expo of projects at the end of a competition would be interesting and attract competitors for future years.
• The Komaba festival incorporates a lot of food which is usually sourced as cheaply as possible – this could provide an opportunity for dialogue about sustainable food sourcing.
  o May need financial support to be able to afford enough food if it’s sourced sustainably.

Other comments:

• Students at Komaba campus have more time, and more of a culture of participation in student activities.
• The provision of training for non-academic skills such as communication, marketing and project management is attractive to students, but it must be clear what the training will entail.
• A list of ideas and examples of sustainability-related activities for students would be helpful.
• Working in a team is more appealing than working alone.
• TSCP-run sustainability seminars for first year students may be popular if they weren’t too general.
• UTokyo-branded non-disposable products to reduce waste could be popular.
• Students are often busy with part-time jobs, so an alternative source of income is a strong incentive for participation as it frees up the time to participate.
  o This is probably not necessary for students already interested in sustainability.

Discussion and Recommendations
The importance of student engagement

The landscape review shows how including and assisting students in sustainability activities is vitally important, both for the success of university sustainability initiatives and for the success of students living sustainably in the future, and the student interviews provide some insight into how the University of Tokyo can do this.
The examples in the landscape review show that students can be motivated and creative, perhaps due to the idealism often attributed to young people. Without the funding available to sustainability staff, students can offer new ideas and perspectives on how sustainable solutions can be implemented, as well as what areas should be targeted. This can be seen in Eco-Sanshiro’s wider focus of projects than TSCP, as well as the greater variability in student-initiated sustainability activity compared to staff-initiated sustainability activity. However, Eco-Sanshiro lack the resources and the permission from staff to implement some of their ideas, such as an environmental work at Komaba pond, or the collection of surplus leaflets for new students in April. Therefore, it is recommended that one representative of Eco-Sanshiro sits on the TSCP student committee to establish better links between TSCP and existing student societies.

Student engagement is also important because students have skills and resources that staff do not. They are likely to be well-connected to other students, aiding the spread of sustainability messages and initiatives by word-of-mouth. They are also likely to have a better knowledge of how to use social media, and so can better reach other students and appear more approachable and engaging in online communications. This is demonstrated by the University of California’s successful use of student Communications Associates. Interviewees were all familiar with multiple social media platforms, as well as the ways in which they are used by other groups in the university. It is recommended that a new role is created within the TSCP student committee to be responsible for communication and outreach. This could include running a TSCP or sustainability mailing list or Twitter account (which interviewees said they were more likely to follow than a Facebook page), or ensuring that information about sustainability opportunities, events, initiatives and achievements is communicated through existing channels, such as faculty or general university e-mails, Tweets or Facebook posts. Keep in mind that short, informative communications are preferred.

Students also know the most about student priorities and experience of university life. This makes them important people to consult in developing sustainability strategies, as Harvard University consults the Council for Student Sustainability Leaders. It also means that students can make the best auditors, such as for the UK National Union of Students’ Green Impact programme, since they understand how students use buildings and facilities. It is great to see that the University of Tokyo is already including the President of the TSCP student committee in its sustainability meetings. More students could be engaged in this activity if the President of the student committee reached out to students to hear their views. TSCP is also using students to conduct audits and present visualisations of their results. It is recommended that student involvement in auditing and research is expanded where possible, perhaps in the style of the University of Cambridge’s or Princeton University’s ‘Living Labs’, or the University of Oxford’s Carbon Innovation Initiative (since interviewees were very positive about the added incentive of a competition).

Students can be an important resource for university sustainability staff merely in terms of manpower. There are many more students than staff in a university, and they are often willing to volunteer their time if it is something that they are passionate about or if it will give them skills they

---

can cite on CVs or in job interviews. This can be seen in student volunteers preparing the Dickson Road Wetlands at Australian National University.

The large amount of students also means that their actions are likely to account for a significant amount of a university’s carbon emissions. Wasteful behaviour is important to tackle, as it can be decreased without affecting research quality in any way. The University of Copenhagen’s analysis of its energy use shows that 20% of its intended energy savings can be made through energy-conscious behaviour and conduct, i.e. the actions of students and staff. University is a time when worldviews and habits are developed for life. Engaging students in sustainability initiatives encourages the development of sustainable mind-sets as the default, as well as gaining knowledge of environmental issues, which students will take with them into future careers in all sectors. This is particularly important at top universities like the IARU universities, as many students are likely to go on to be leaders in their field. There are already examples of students who were involved in sustainability as undergraduates going on to be sustainability leaders: Austin Blackmon, former co-chair of Harvard’s Council for Student Sustainability Leaders, is the Chief of Energy and Environment for the City of Boston and his CSSL experience was mentioned in the press release announcing his appointment. It is recommended that TSCP sets a target for emissions savings from changes student and staff behaviour, which can be achieved through student engagement, to complement the great work it is doing on the sustainability of infrastructure, equipment and the built environment.

Overcoming the challenges of student engagement

Students’ time is limited and, between studying, socialising, part-time jobs and other student activities, there is much competition for it. Most interviewees said that it was difficult to be an active member of more than one club at the University of Tokyo, and that after the 2nd year of an undergraduate degree, few students have time for much besides studying. Therefore, TSCP needs to make a persuasive bid for students’ time if it wants to engage them.

At other universities, enthusiasm has been generated by showing students that getting involved in campus sustainability initiatives has powerful impacts and long-term benefits, both personally and for the university. It is important to communicate goals and prior achievements, so that students know that they are giving their time to something that is likely to be successful, as well as the skills that they are likely to develop (project management, advocacy, research communication) so students know what they stand to gain. TSCP could let students know about the opportunity to


attend national or international sustainability conferences, as well as the opportunity of access to data about the sustainability of the university for ‘Living Lab’ research that can form a part of students’ degrees.

Another point to note is that clearly enumerating the hours per week expected from participants when advertising means that students won’t be scared of committing an unknown amount of time, or won’t underestimate the role and have to drop out later on.

It is also beneficial to publicly reward student work with recognition and prizes, such as the University of Oxford’s Sustainability Showcase Awards Evening, so that students can see that their work and time will be valued. Currently, there is not enough student activity at the University of Tokyo to hold an awards evening, but TSCP could hold a thank you lunch or dinner for those students who are working in this area. This has the double benefit of providing those students to network and collaborate with each other and with staff, as well as acting as an incentive for others to get involved. Interviewees often cited the provision of free food as a particular incentive!

Limited time can be tackled further by getting as many students involved as possible so that the work can be shared, decreasing the time demands and making engaging less challenging for students. There are likely to be multiplier effects from increasing involvement, as many interviewees cited friends’ involvement in clubs as the reason for them joining a club.

Advertising opportunities as widely as possible, using notice boards, emails, social media and student fairs will increase the likelihood of student engagement as students can’t get involved if they don’t know they can. This is particularly pertinent to TSCP, as none of the students interviewed were aware of its existence, and about half of interviewees also didn’t know about Eco-Sanshiro. Interviewees also recommended advertising at the beginning of the year when students are keenest or are yet to make other commitments. From the author’s experience at the University of Cambridge, it can be particularly effective to give a presentation outlining the sustainability vision of the university, ways to live sustainably as a student, and ways to get involved in sustainability initiatives, as part of the orientation or introduction to new students. This is a time when students are actively looking for things to get involved in. Also, they are yet to form an idea of what is ‘normal’ student behaviour, and so presenting a sustainable vision means that they are more likely to see themselves and their time at university within that vision. Furthermore, raising the visibility of TSCP officers may help overcome another challenge to student engagement – that staff are not seen as approachable.

Interviewees raised the further challenge of university sustainability aims often being intangible to students – unclear as to how they relate to students’ lives. This could be prevented by developing specific goals for student behaviour, related to TSCP’s goals more generally, which would give students something to work towards. These could be introduced in the aforementioned presentation to incoming students.

At other universities, goals have been communicated through encouraging students to make pledges, but this was not shown to have had an effect on student behaviour. A more effective way of embedding sustainability aims in students’ lives in the form of behaviour change is through competitions, such as the University of Copenhagen’s Green Action contest. Interviewees reacted very positively to this idea initially, especially with regards to inter-departmental competition.
However, greater discussion of the social structure of the University of Tokyo raised issues with how a competition could be organised. 1st and 2nd year undergraduates, the prime targets for sustainability engagement initiatives, rarely live in residences together and don’t yet belong to a specific faculty. This means there aren’t buildings where certain groups of students spend most of their time and so competitions can’t be organised by measuring energy or water use in certain buildings.

Students spend most of their social time with friends they have made in clubs and circles. Where clubs have their own building, it could be possible to organise competitions in this way, but the different energy and resource demands of different activities of clubs could make this very unfair and consequently unengaging. Further research would need to be done into the viability of this. An alternative way of tackling sustainability through clubs or circles would be to write a guide for organising sustainable club activities (locally sourced food, reusable cups and cutlery, limited use of air conditioning etc.), and to encourage clubs to introduce a sustainability role to their committees, using this guide. Interviewees were unsure that there would be interest in this role in all clubs, but there would certainly be individuals in some clubs who would be interested, and this could initiate a culture change with regards to sustainable club behaviour.

Another key challenge to student engagement in sustainability initiatives apparent from the landscape review is the fast turnover of student population, with most students only at university for 3 – 6 years. This can create problems with continuity. The author often found the same or similar initiatives at the same university being started and then forgotten every few years, meaning that each time the start-up costs and time apply all over again, and students are not learning from past students’ mistakes or triumphs. This is less common where universities have a dedicated, paid member of staff to support and ensure continuity of student initiatives. Whilst this is costly, the cumulative saving of repeated start-up costs, as well as the impact of staff-facilitated scaling up of successful student initiatives, is likely to make this worthwhile.

Alternatively, students can be tasked with identifying, recruiting and training future leaders for smooth transitions and succession planning, perhaps incentivised by paid internships, as the Building Sustainability @ Cal Program has done. The TSCP student committee already includes students from a range of years, meaning that younger students have the chance to learn from more experienced students. If undergraduate students stay on as members of the committee and take on the more senior roles after the older students leave, this could help to ensure continuity. Willingness to take the time to train new members of the committee is likely to be increased by allowing the committee to choose their successors after an open application process, as they will then be more invested in the incoming students.

A final challenge to student engagement is that only a few students are passionate about sustainability. A member of Eco-San-shiro explained that she had actually joined the club because she was interested in teaching elementary students, and it was through teaching them about sustainability that she came to be interested herself. Therefore, it is recommended to appoint sustainability leaders who are passionate to organise fun activities and events with a sustainability theme to engage those who are less interested. Within the TSCP structure, the role of Events Officer could be created for the student committee. Alternatively, TSCP could collaborate with existing student initiatives to introduce a one-off or annual sustainability theme to their events,
such as film screenings, policy reports from student think tanks, careers talks, design projects and journal clubs.

Concluding Remarks and Further Work

In conclusion, the landscape review and success indicators of student engagement initiatives outline a wide range of ways in which student engagement can be effective in improving the sustainability of universities and the wider world. The student interviews provide insight into which of these ways are likely to work at the University of Tokyo, as well as where to start. It is hoped that the discussion in this report will help both staff and students understand potential challenges to engaging students at the University of Tokyo, as well as ways to overcome these challenges. It is also hoped that this collection of best practice examples can provide inspiration for ways in which University of Tokyo students, as members of Eco-Sanshiro or perhaps new sustainability clubs, members of the TSCP student committee, or as motivated individuals, can contribute to sustainability at their university.

The author does not recommend specific activities, events, or projects, as it is especially important when volunteering (as the student committee are) to be doing work of you own choice, from your own passions. However, there are some actions that have helped facilitate and encourage student-led sustainability initiatives across many universities. Therefore, this report highlights that it would be helpful if TSCP staff were to consider the following actions in particular:

- Using general university communication avenues (newsletters, posters, UTokyo Twitter account, etc.) to raise awareness of TSCP's aims and achievements.
- Setting a target for emissions savings from changes in student and staff behaviour, so as to encourage engaging students and to be able to measure the effect of student engagement.
- Designating a member of staff responsible for overseeing and facilitating the development and continuity of student engagement.
- Inviting students to give online contributions and comments on university sustainability activity.
- Securing a slot for the student committee to give a presentation to incoming students about the vision, aims and activities of TSCP, and how they can get involved.
- Involving more students in contributing to 'living lab' style research on sustainability of the University of Tokyo campus.
  - Including research on a wider range of topics (transport, water, food, waste, etc.) which may make it appealing to a wider range of students, as well as increasing the scope of knowledge about the sustainability of the campus.
- Celebrating students and staff working on sustainability with an event, and publicise it afterwards as an incentive to get involved.

It would also be helpful if the TSCP student committee were to consider the following actions in particular:

- Actively soliciting students' views on sustainability, through a survey or social media, so as to become a body that is more representative of students, and so as to design more effective activities.
• **Collaborating** with student societies relevant to sustainability, to share knowledge, resources and contact with TSCP staff.

• Introducing the roles of **Communications Officer** and **Events Officer** to the committee, to engage and act as a point of contact for more students.

• **Publicising** the opportunity to **apply to be a member** of the student committee.
  
  o If there are sufficient numbers of members, establishing **sub-committees** to run projects of students’ own design and interest, or to engage students not directly interested in sustainability but in intersecting fields (business, food, farming, technology, fashion, events, etc.).

• **Setting, tracking and communicating targets** for student awareness or behaviour (such as % of students aware of TSCP, % of students engaging in a sustainability-related activity in a year, % of students consciously decreasing their consumption of disposable items etc.).

• Annually publishing and publicising a **report on progress and achievements** of the student committee.

• Giving a tailored **presentation** to incoming students about the student-related vision, aims and activities of TSCP, and how they can get involved.

• Creating a **guide to sustainable living** at the University of Tokyo for incoming students.

In conducting the landscape review and interviewing students, the author noted that, while there are many guides for university staff as to how to improve sustainability, there is very little information aimed at students which comprehensively outlines the ways they can get involved in sustainability at university. In the future, the author hopes to develop such a guide for students, using the information collected here.

### Acknowledgements

The author would like to thank the TSCP staff and student committee for warmly welcoming her to their meetings, conducting meetings in English for her benefit, and taking the time to introduce her to the activities of TSCP. She would like to acknowledge the time both individual students at Hongo Campus and members of Eco-Sanshiro club gave her to inform her of their activities and life at the University of Tokyo, as well as their valuable views on student engagement. She is also extremely grateful for the kindness shown to her by Professor Ihara and the members of his lab, who hosted her and provided such a friendly work environment as she conducted her research. In particular, Yuki Hashimoto and Kentaro Maeda consistently went out of their way to advise her on her research topic, as well as life in Japan, and to include her in interesting events. Lastly, thanks must go to Emily Dunning for preparing and advising the author while at the University of Cambridge, and to the International Liaison Office at the University of Tokyo for providing her with vital information beforehand and for including her in UTSIP activities during her stay. Without any of these people, this research project would have been neither possible, nor as enjoyable as it has been. The author hopes that, in return, this report will be of some use.
Bibliography


Appendix 1: Sample student interview questions

Would you say you are interested in sustainability?
- Why?

What sustainability aims or initiatives are you aware of at UTokyo?
- How did you hear about them?
- TSCP / TSCP Student Committee?

How do you communicate online? (e-mail / Facebook / Twitter / Instagram / LINE)
- Would you follow/subscribe to messages about sustainability and related opportunities at UTokyo?

Are students’ views represented to university staff in any way?
- Do you think students want university staff to listen to their views about how the university should be run (incl. re: sustainability)?

Do you think students would fill in an online baseline survey about attitudes and habits related to sustainability (to help prioritise actions)?
- What might encourage students to fill in a survey?

What do you think students can do to become more sustainable?
- What do you think students can do to make UTokyo more sustainable?
  - Would you read an online guide to sustainable living at UTokyo?
  - Do you think behaviour change campaigns/competitions are likely to change UTokyo students’ behaviour?
- What barriers are there to students doing this?
- How can we overcome these barriers?

How did you make friends with? (your subject, where you live, societies, other people in your year group)
- Do you think students would be interested in becoming a ‘green ambassador’ for their subject/building/year group/society? (sharing information and ideas to students + staff, running events, running competitions, running a project)
- Would they be more or less interested if...
  - they were working alongside staff?
  - they were working in a team with other students?
  - it was part of a competition?
  - they could choose what they did, or if they were assigned an event/project?
  - there was training offered?
it was rewarded with: certification, participation in national sustainability conferences, awards, money?
  o anything else?
  • What kind of students are most likely to be interested? (year / campus / subject)
  • What time in the year is best to appoint new ambassadors?
  • How many hours a week do you think students would have free for 'green' activities?

Have you attended any student-run events at UTokyo?

  • How did you find out about them?
  • Why did you attend? (fun / informative / meet new people / advance future career)
  • Do you think students would be interested in attending sustainability-themed events?
    (networking events, fairs, competitions, conferences, clothes swaps, film screenings, meals)
  • Do you think students would be interested in running sustainability-themed events?
  • How could students be encouraged to attend/run sustainability-themed events?

Have you been involved in any student societies at UTokyo?

  • Do you know how they were founded?
  • How were they organised?
  • How many hours per week did you spend on society activities?
  • Why did you join? (fun activity / meet new people / learn new things / advance future career)
  • Do you think students would be interested in joining sustainability-themed societies?
    (journal club, think tank, auditing/advising/consultants, food, farm, design project, blog)
  • Do you think students would be interested in running sustainability-themed societies?
  • How could students be encouraged to attend/run sustainability themed societies?