

# NPU STUDENT AMBASSADOR

## TOOLKIT 5: WASTE AND RESOURCE USE



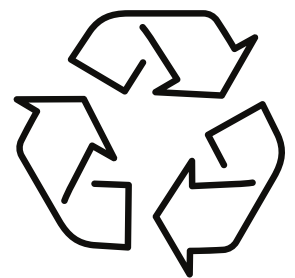
Credit: Bournemouth University, UK



Credit: Haripriya Shanmugam, The University of Manchester, UK



Credit: Abomey-Calavi University, Benin



**NATURE  
POSITIVE  
BY 2030**

# Circular economy & waste

UNEP report that pollution touches all parts of Earth, and is the largest environmental cause of disease and premature death in the world. As consumption and production intensify, ecosystems are damaged and human health is affected through the food we eat, the water we drink and the air we breathe. We produce 2.1 billion tonnes of waste each year, and it is estimated that over 3.2 billion people are affected by the degradation of land and soils, which is in part due to chemical usage.

IPBES identify the five main drivers of ecosystem degradation as:

- changes in land and sea use
- direct exploitation of organisms
- climate change
- invasion of alien species
- pollution

Poor waste management can harm biodiversity both directly (e.g. the consumption of plastic microbeads by marine wildlife) and indirectly (e.g. landfill sites, which provide ideal conditions for bacteria that produce methane – a potent greenhouse gas that contributes to climate change). Unmanaged waste in our environment can also affect human health – we rely directly on healthy, functioning environments for survival.

Want to find out more? Visit the IPBES website [here](#) and view [this article](#) on the UNEP website.

# Circular economy & waste



Pollution touches all parts of Earth and is one of the 5 direct drivers of ecosystem degradation



It is the largest environmental cause of disease and major risk factor for premature death in the world



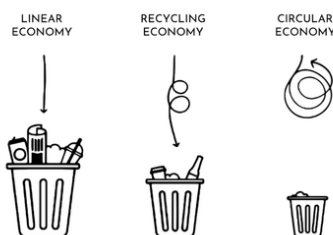
Humanity produces 2.1 billion tonnes of waste every year



Ecological footprinting informs us that we are exceeding the carrying capacity of planet



Shifting to cleaner industries and economies built on circular approaches is possible and can bring benefits to health, prosperity and ecosystem health

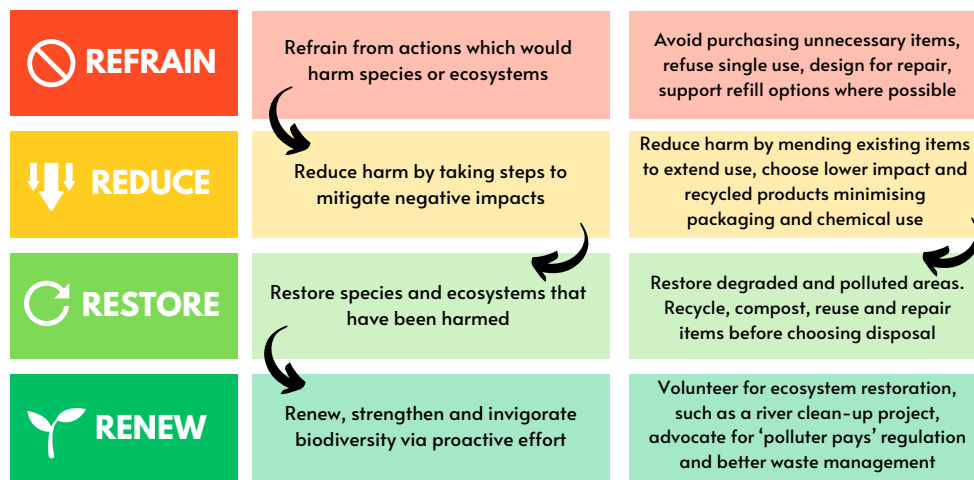


We need new ways of thinking and designing products we use and wiser ways to use our natural resources



# Circular economy & waste

To reduce waste, we advocate taking a **Conservation Hierarchy** approach, which we explored in pages 5 and 6 of Toolkit 3: Biodiversity Actions on campus. Here we focus on the first two steps: refrain and reduce.



First, the best way to reduce all waste is to **refrain** – refrain from buying. Do you really need that new shirt, or can you wear something you already own? Do you need to buy a disposable shopping bag, or can you reuse an old one?

If you need to buy an item, the next step is **reduce**. Can you buy something with less packaging, made of recycled materials, and with a lower environmental impact?

Once you've done as much as possible for the first two steps, the third is to **reuse**. Make the product last as long as possible so you don't have to buy anything more. Finally, **recycle** and dispose of the item properly. Perhaps you could upcycle it into something new, or if not, recycle it.



# A specific example using the Conservation Hierarchy framework - fashion/ textiles choices:

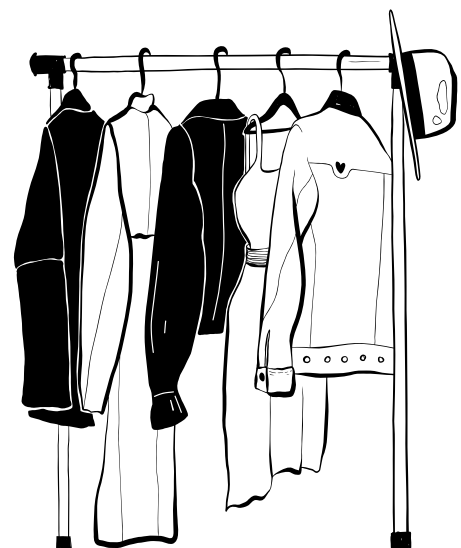
Target: Reduce the environmental and social impact of my fashion/textile purchases as much as possible



Refrain	Avoid purchasing unnecessary items. Avoid purchasing the most environmentally and socially damaging products, such as cow leather, high-pesticide/high-water use cotton, and products made in sweatshops.
Reduce	Minimise the impact of fashion items that are purchased, by only purchasing from companies with socially and environmentally responsible supply chains. Wash clothes only when necessary, at low temperatures, using environmentally-friendly detergent. Mend items rather than purchasing new ones.
Restore	Recycle clothes into new items (e.g. cut down trousers to shorts), set up a clothes exchange, or take unused items to a charity shop or a fabric recycler so they can be used again.
Renew	Donate time or money towards a river clean-up project, to restore or improve resilience of waterways to pollution from detergents and micro-plastics. Encourage others to adopt '4 steps' actions, and refrain from fast fashion. Advocate for better regulation of the fashion industry and waste management.

Four steps for the Earth:  
mainstreaming the post-2020 global  
biodiversity framework Milner-  
Gulland, E.J. et al. One Earth, Volume  
4, Issue 1, 75 - 87

Read the full paper [here](#).



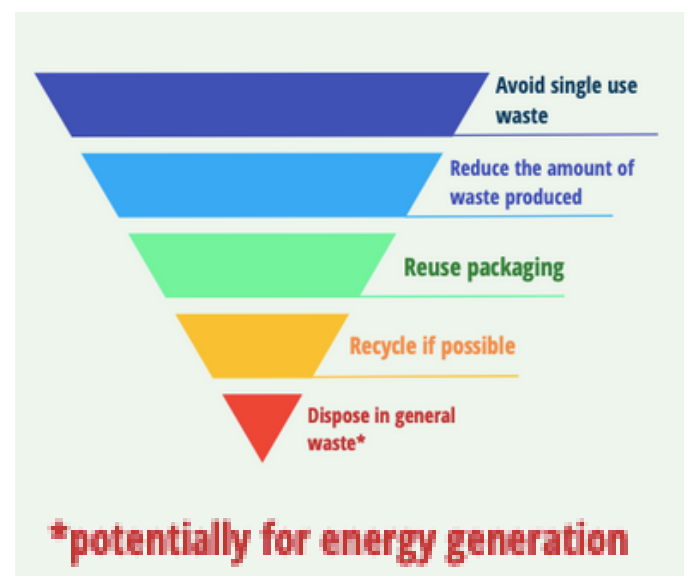
# Mitigation Hierarchy of Waste

As we mentioned previously, the **Conservation Hierarchy** draws from the well-established **Mitigation Hierarchy** approach to structure biodiversity targets, illustrating how they collectively contribute to an overarching vision for nature.

From this we can consider the **Mitigation Hierarchy of Waste**, which uses the framework to help prioritise waste management strategies and is usually presented diagrammatically in the form of a tiered pyramid. There are many examples of these diagrams, please see several below:



From DEFRA - Waste hierarchy guidance document



# Refrain: Screen a documentary about consumerism



To help encourage others to reduce their consumption, you could screen a documentary about why buying less is so important.

## How?

- Plan a location with appropriate capacity.
- Ensure the room is dark!
- Bring snacks.
- Suggest a discussion after the screening, and always use this as a springboard to tell your audience how they can make a difference.

## What to watch?

There are lots of relevant documentaries out there, but three great ones are:

- *Minimalism: A Documentary About the Important Things* (2015)
- *Inside the Shein Machine: Untold* (2022)
- *The True Cost* (2015)

Check out WaterBear online for lots of documentaries about waste and plastic packaging.





# Refrain: Celebrate Zero Waste Day



30th March 2023 marked the first ever International Zero Waste Day. This is a great opportunity to raise awareness about the concept of Zero Waste and organise supporting actions.

Some example posts and text to share the concept of Zero Waste:



## What does zero-waste mean?

- In nature's closed-loop system, there is no waste
- A circular economy aims to create a system that mimics nature's resource-recycling cycle
- A zero-waste approach aims to keep waste out of landfills and the oceans

## How to achieve zero waste?

- The goal of zero-waste is not about recycling
- Governments can incentivise waste reduction through legislation
- Businesses can incorporate circular designs to stop generating waste
- Consumers can avoid single-use items and opt for reusables

## Share and spread the word!

We cannot drown our planet with waste.

# Refrain: Celebrate Zero Waste Day



Students based at University of Abomey-Calavi, Benin established a new group and organised their first actions to coordinate with the International Day of Zero Waste. You can check them out on Twitter/X: <https://x.com/npuclubs>



Credit: Abomey-Calavi University, Benin



Credit: Abomey-Calavi University, Benin



NPU Nature and Climate Club University of Abomey-Calavi  
en collaboration avec ACEF organisent



## Day of Zero Waste



 Date : Friday 31st March 2023

 Heure : 07h 00'

 Lieu : En face du jardin botanique de l'UAC

 Infoline : +229 96 99 14 45

Conception by ANONIMOS



# Refrain: Campaign for water refill stations



Do students on your campus regularly buy plastic water bottles? Did you know that plastic can't be recycled forever, so will one day end up in landfill even if you recycle it? Campaigning to add water refill stations on your campus might be the action for you!

Students at the University of Tokyo have campaigned to install water dispensers as an alternative to selling water in disposable plastic bottles on their campus. This took around two years of work, liaising with different areas of the university staff, academics and management.



Credit: University of Tokyo, Japan

Mahi who has been closely involved with the successful campaign shared her tips:

- Persistence - the campaign took over two years to achieve results.
- Research-based proposal - the student team did their research into suitable locations with both water and electricity supply, and presented a detailed case to staff.
- Context specific - the solutions had to take into account the existing systems of provision of beverages on campus, such as vending machines.
- Importance of design - branding the dispensers and water bottles with attractive designs was considered a key to the scheme's success and support.
- Collaboration - connect with relevant university committees.

Want to find out more? Mahi presented about this campaign during a [Student Ambassador workshop](#) focused on plastics delivered in 2023.

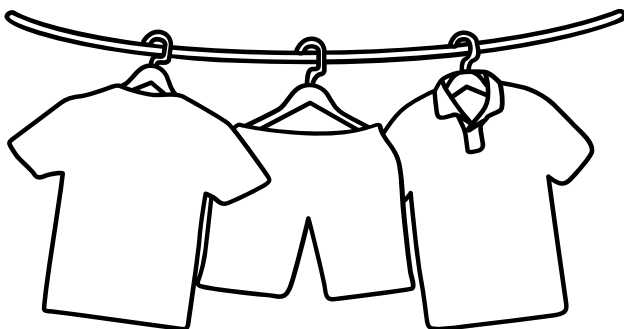


# Refrain: Make a clothes swap Facebook page



To help people refrain from buying new clothes, start a social media page where people can swap or borrow clothes from others. This might include everyday outfits people no longer want, formal dresses and suits that you might rent out for others to borrow; or requests by people who want a certain item but want to borrow before they have to buy.

Students at the University of Oxford have done this, allowing students to swap washed/clean clothing, accessories, bags and shoes. Could your university do this too?



# Reduce: Campaign for reduction in waste across campus



For your university to reduce their waste, you need to evidence student support and use your influence to promote change. As well as the campaign on introducing water dispensers on campus so students refrain from purchasing single-use plastics, there are lots of ways you can campaign using similar techniques for reduction in plastic too.

Some ideas include:

- Campaign for reduced packaging in your canteen – do sandwiches need to come wrapped in plastic, or could students bring their own containers? Is plastic cutlery necessary? Could you reduce the volume of plastic on the wrapping of items?
- Campaign for the reduction of leaflets, flyers, and other hand-outs that you might be given at a Careers or Fresher's Fair – do we really need this single use waste, or would a QR code or a link to a website suffice instead?
- Campaign for a reduction in printing – do your professors really need your work to be printed off, or could they read a copy online? Think about whether this could be applicable to your university, and where you might need to apply the pressure to make change.



# Reduce: Promote a green laboratory scheme



Laboratories are responsible for producing a significant percentage of a university's carbon emissions, by consuming up to ten times more energy and four times more water per square metre than other academic spaces. They also consume excessive amounts of plastic, and it is estimated that they are responsible for generating around 2% of plastic waste worldwide.

Short for Laboratory Efficiency Assessment Framework, LEAF is a user-friendly online tool developed by the Sustainability Team at University College London (UCL), which aims to support more sustainable and cost-effective laboratory management, teaching and research. You could suggest this scheme (or another one) to your university or laboratory manager.





# Reduce: Awareness raising campaigns and green fashion



## Anti-Litter and Green Initiatives Awareness Campaigns and Green Fashion Walk at Indraprastha College for Women, India

The annual fest at Indraprastha College for Women featured three impactful actions: an anti-litter campaign, a green initiatives awareness campaign, and a green fashion walk. Over 40 students volunteered in the anti-litter campaign, cleaning up dry waste, especially near food stalls, to enhance the event's enjoyment. The awareness campaign aimed to educate students about various environmental programs, including Nature Positive Universities and Mission LiFE through a short questionnaire to gauge their knowledge. The Green Fashion Walk showcased students' creativity using old and borrowed clothing, promoting sustainability in fashion and sparking discussions on the topic. The fest was a remarkable blend of engagement and education, reminding everyone that enjoying life can and should be aligned with caring for our planet.



Photos credit: Jiya Bhandari,  
Indraprastha College for Women, India

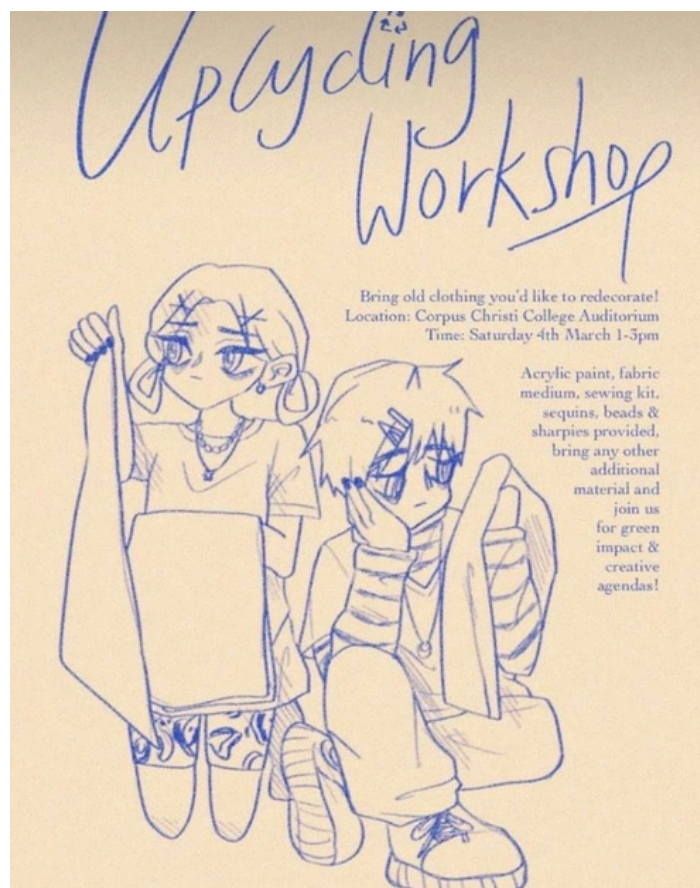
# Reuse: Organise a clothes repair workshop



Just because our clothes and accessories might be getting old and worn, doesn't mean we should throw them. We can give them a new life and reuse them even more by repairing or up-cycling them!

To host a repair workshop, you'll need to hire a room and provide some basics like thread, needles, and perhaps some other materials like fabrics for patching, or glue. People can bring their bags, clothes, or other textiles to breathe a new life into them through repair and upcycling – and you might even be able to give one another inspiration for how to repair your items!

Check out this poster from an event at the University of Oxford for inspiration:



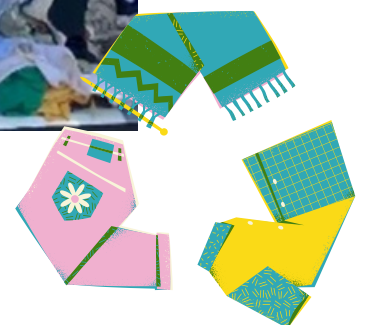


# Reuse: Run a campus thrift store stall



## Thrift Store Stall By Ashoka's Environment Ministry at Ashoka University, India

Encourages sustainable fashion and conscious consumption on campus. We collected unused or old clothes and jewellery from students and faculty members. Sellers set their prices, receiving 90% of the sale proceeds, while the remaining 10% is donated to charity. The initiative received an overwhelming response, with over 400 items collected and many more individuals expressing interest in upcycling their belongings. Due to the volume of contributions, the team had to carefully segregate the items based on size, season, and type to ensure an organized and accessible shopping experience.





# Recycle: Campaign to get your university to improve recycling infrastructure



Some waste cannot be avoided, so we need to ensure that this is dealt with in the best possible way to minimise harm to nature. It is thus important to know what your university does with its waste – do all recyclable materials get recycled? Does food waste get sent off to be composted, or is it composted on site if possible?

Speak to your university's Buildings and Facilities teams to ask them these questions. Once you have your answers, think about how this could be improved. Remember to follow Mahi's campaigning tips!

## Campaigning tips

- Persistence – campaigns can take a long time to achieve results.
- Research-based proposal – do your research before you formulate demands, and present a detailed case to staff.
- Context specific – remember the solutions should take into account the existing systems at your university.
- Collaboration – connect with relevant university committees.

# Recycle: Campaign to get your university to improve recycling infrastructure



## E-waste Collection and Plastic Bottles Collection Drive By Ashoka's Environment Ministry at Ashoka University, India

Focuses on promoting proper waste segregation with a specific emphasis on **electronic waste**. As part of the project, dedicated bins for e-waste have been introduced and are now placed permanently across campus. The collected e-waste is gathered and donated to a partnering NGO for responsible disposal and recycling. This is an ongoing initiative aimed at fostering environmental responsibility within the community.



Photos credit: Sanaa Mittal, Ashoka University, India

Aims to promote recycling and upcycling through active community participation. As part of the initiative, **plastic bottles** are collected and sent to the NGO Blue Nudge for upcycling. The drive is especially focused on major campus events such as No Equipment Sports Day and the Dorm Olympics, encouraging sustainable practices during high-footfall occasions.

# Recycle: Promote creative approaches for recycling and reuse on campus



## The Wealth Out of Waste Society (WooW) at The University of Manchester, UK



President- Haripriya Shanmugam

“As President of Wealth Out of Waste (WooW), I lead student-driven initiatives focused on recycling and upcycling at The University of Manchester. WooW aims to inspire the student community to creatively reuse waste and promote sustainable living.



Photos credit: Haripriya Shanmugam,  
The University of Manchester, UK

One of our flagship events was the ‘WOW’ Upcycling Competition and Workshop, where students transformed household waste into innovative products. We also celebrated ‘Global Recycling Week’ by educating students on correct waste segregation using color-coded bins, encouraging over 77 students to actively participate. Through these initiatives, we promote sustainability on campus while fostering creativity, environmental responsibility, and community engagement.”





# Recycle: Host a plastic waste to art session



Plastic waste to art events can be used as a demonstration to create awareness about plastic pollution to land and marine life and how it affects us. This can be done among the team or in schools for the younger age to learn.

You can find very creative demonstrations on IG: [@castawaycolor](#)

## Tips:

- Gather clean plastic waste and tools like scissors, glue, etc.
- Bring some photos to inspire people – you could also engage with a local artist to guide you.
- During the session, tell a story about plastic pollution, the intrinsic link between plastic pollution and our health, how plastic disrupts marine life and how to recycle properly.





# Recycle: Organise a community litter pick



A community litter pick can be a great way to help tidy the community and prevent waste harming wildlife. One great example of this is seen in Nigeria!

Students from several Nigerian Universities joined together with their local communities to commemorate #WorldCleanUpDay2022 and #LeaveNoTrace campaign by organising several clean up events in September 2022.

Litter pick events took place at Kontagora market, Lagos, and Uselu market, Benin City, Nigeria. Friends of Nature student group, University of Benin co-organised the events, which raised awareness and demonstrated opportunities to restore degraded areas of land and build pride in the local environment.



Photos credit: Favour Eragbie, Friends of Nature Network, University of Benin, Nigeria

# Recycle: Organise a community litter pick



## Top tips from IATP Jhansi students:

### 1. Choose a location

Choose a location suffering from litter that you'd like to help clean up.

### 2. Contact existing community groups

Check whether there are any community groups in the area you'd like to conduct your litter pick, and if so get in touch with the group leader to see if they would like to collaborate.

### 3. Contact private landowners

You will need to gain permission to litter pick as a group on private land. If this is part of your university landscape this may be easier to ask the relevant staff.

### 4. Organise and promote

Choose a date, time, and meeting place for your litter pick and advertise it widely. To incentivise people, you might want to run a competition with a prize for the person who collects the most litter.

### 5. Gather equipment

Contact your local council, biology department, or other authority to hire litter pickers, gloves, and bags. You also need to arrange for waste collection – leaving the litter bags somewhere without authorisation may be unlawful, so either plan to drop off at a tip/recycling centre or arrange for someone to collect the waste. You might also want to bring a first aid kit.

**Please note: This information does not constitute legal advice and is provided for general information purposes only. Please contact the appropriate authorities for legal advice before organising a litter pick to ensure you and others are safe and legally protected.**

# Recycle: Collect, sort and recycle exam papers, class notes in circular system



## Project Pulp and Paper Trail at Ashoka University, India

Ashoka's SDG Club does this in collaboration with Ministry of Academic Affairs and Environment Ministry.

Rooted in the principles of the circular economy model, the project seeks to recycle paper and cloth collected within the Ashokan community. Its objectives include integrating circular economy practices into daily routines, promoting sustainability through education, and collaborating with local recycling agencies.

The project contributes to the broader goal of responsible consumption and waste-to-wealth sustainability practices. As part of its efforts, through Project Paper Trail, class notes and exam papers were catalogued and stored for redistribution to the student body, while other paper waste was sent to Project Pulp for conversion into notebooks.



Photos credit: Sanaa Mittal, Ashoka University, India



# Recovery: Waste into biofuel briquettes, biogas and biochar for soil amendment



Student Ambassador, Valex DJEUKUI, from Institut National Polytechnique Félix Houphouët-Boigny (INP-HB), Côte d'Ivoire presented during Workshop 5 about how organic waste can be converted into: Biofuel briquettes, Biogas and Biochar and how these products contribute to sustainable energy and agriculture.

“We are an association made up mainly of students from the INP-HB, known as the Ambassadors of Nature at the School Network (RANE). We work with the FAB-LAB Chemistry of the INP-HB and the CEA-VALOPRO. We collected the organic waste on the INP-HB campus. We have used the facilities of FAB-LAB Chimie and CEA-VALOPRO to train our members and other student on the recovery of organic waste into biochar, biofuel briquettes and biogas”.



Photos credit: Valex DJEUKUI, Institut National Polytechnique Félix Houphouët-Boigny (INP-HB), Côte d'Ivoire



# Ambassador actions:

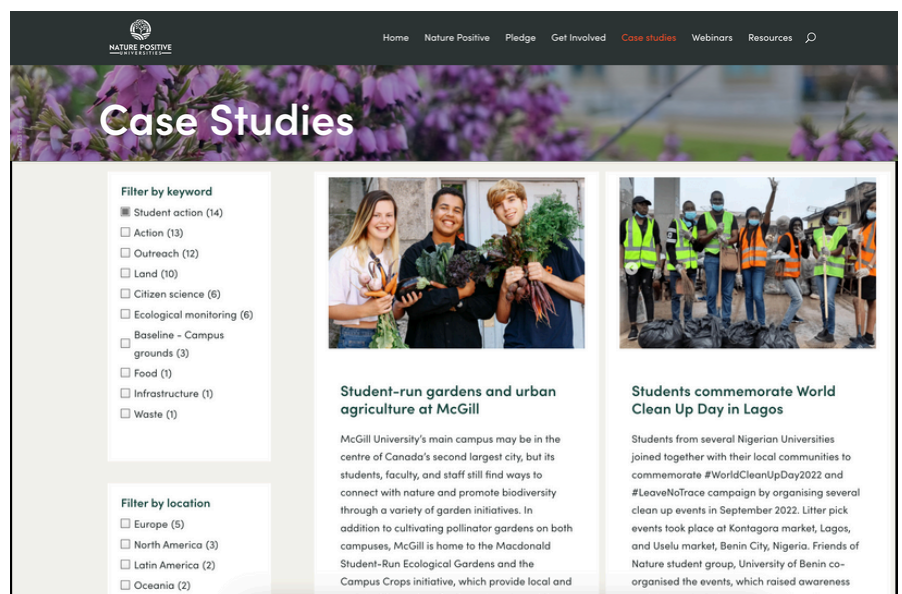
## Workshop 5 Actions:

This month's task is flexible: we'd like you to explore and share with us any initiatives related to waste, resource use and circular economy that are already happening at your institution or think about or plan a project you could work on related to this topic. You are also welcome to instead continue with existing projects related to NPU.

We'd love to feature your Case Studies on the NPU website. We need a **title**, **100 words**, a **photo**, and a **URL** (if available) with a link to a website / post with more information. We will also be happy to feature these in this month's Toolkit.

[www.naturepositiveuniversities.net/case-studies](http://www.naturepositiveuniversities.net/case-studies)

**SUBMIT**



# Further guidance and information:



- Explore Case Studies on the NPU website, several of which involve projects relating to waste, resource use and circular economy



- Watch back a Student Ambassador workshop focused on plastics delivered in 2023.



- Watch back a presentation given by Laura Astudillo Mesías and Başak Şendoğan from the Sustainable Lifestyles and Education Team at the United Nations Environment Programme (UNEP) at a Student Ambassador workshop in 2024



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