

# THE NIE SUSTAINABILITY PLAN



Shaping Our  
Sustainable Future

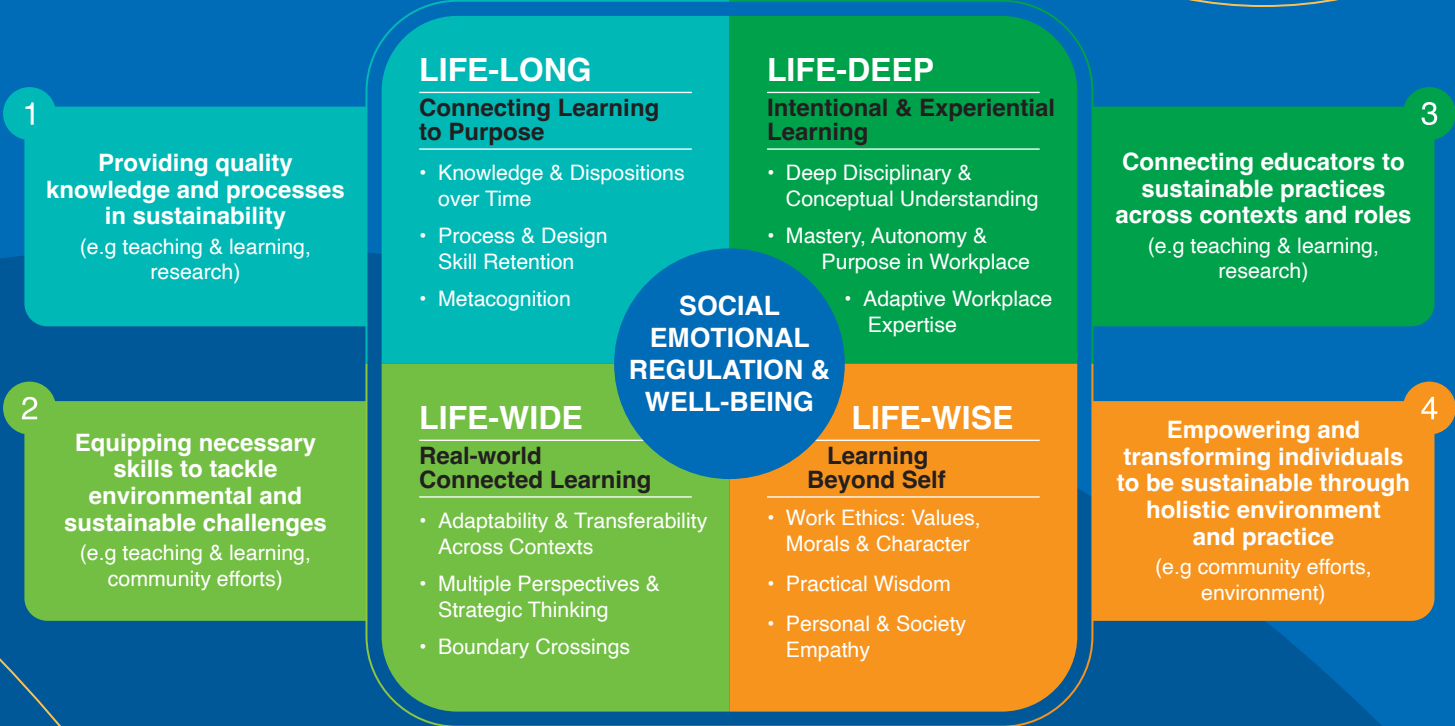
# The NIE Sustainability Plan

The NIE Sustainability Plan aligns with NTU's sustainability manifesto, leveraging our strategic position within the Singapore education system. We spearhead innovative approaches to teaching and learning about sustainability while nurturing next-generation learners as passionate advocates for environmental stewardship.

To develop and grow our efforts in sustainability, four focus areas have been identified:

- 1 **Quality Education - Teaching & Learning**
- 2 **Research & Innovation**
- 3 **Community Engagement**
- 4 **Sustainable Campus Environment**

These four focus areas have been streamlined into NIE's '4-Life' Learning Philosophy: **Life-long, Life-deep, Life-wide and Life-wise**, encapsulating sustainable learning for the future:



**AIM**  
To enhance our sustainability efforts through the NIE Sustainability Plan, so as to foster growth and positive change in our community.

NIE stands out for its robust teaching and research in sustainability, bolstered by vibrant community engagement and effective estate management. As we continue to improve in fostering coordinated efforts and strengthening networks and collaborations, we embrace exciting opportunities to pioneer innovative approaches to sustainability education.

By educating future learners about sustainability, we want to ensure a legacy of environmental stewardship and global citizenship among our students. We remain proactive in staying ahead of emerging trends in the rapidly evolving landscape of sustainability education and practice.

# QUALITY EDUCATION -TEACHING & LEARNING

## CURRENT ACHIEVEMENTS



### PROFESSIONAL DEVELOPMENT PROGRAMMES

Topics covering food consumption, food science, water management and geography.



### TEACHER EDUCATION PROGRAMMES

Topics covering sustainability, environmental management, urban development, food systems, culture and STEM education.



### POST GRADUATE PROGRAMMES

A diversity of themes covering environmental management, energy, green chemistry and resource conservation.



### TALKS & SPEECHES

“Teachers as Thinkers” talks, focusing on ‘Sustainability & Conversation’.

## GOAL

To further cultivate excellence in teaching and learning

### INNOVATIONS IN PEDAGOGY

To further develop signature pedagogies already employed in our programs.

### DEVELOP NEW COURSES

To expand course offerings in the continuing education sector, leading to graduate degrees.

### CONTINUOUS IMPROVEMENT

To regularly review existing curricula in NIE courses to maintain relevance.

# RESEARCH & INNOVATION

## CURRENT ACHIEVEMENTS



### RESEARCH & PUBLICATIONS

on environmental & sustainable themes through the Sustainability Learning Lab (SLL).



### MEDIA ENGAGEMENT

through news articles and interviews, establishing itself as a recognized center for educational sustainability.



### COLLABORATIONS

for research, educational programmes, outreach, and internships, establishing NIE in sustainability education.



### TRANSLATION INTO PRACTICE

through the development of games and applications for learning and outreach activities.

## GOAL

To further strengthen research and collaboration

### RESEARCH & PUBLICATIONS

To further publish in the areas of environmental and sustainable themes through the Sustainability Learning Lab (SLL).

### TRANSLATION INTO PRACTICE

By translating research findings, we aim to continue impacting teaching and learning, as well as curriculum policy.

### COLLABORATIONS

Conduct regular reviews to strengthen partnerships and explore new collaborations.

### MEDIA ENGAGEMENTS

Enhance media engagement through diverse media outlets.

# COMMUNITY ENGAGEMENT

## CURRENT ACHIEVEMENTS

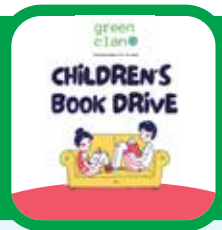
Our community activities engage staff and students, underscoring our shared commitment to sustainability. Here are some highlights from our Student and NIE clubs:



**NIE Student Teachers Club (NCST)**  
NCST hosted a sustainability initiative featuring various activities, including a thrift market, food sustainability and upcycling booths, as well as gardening and compost workshops.

### NIE Green Clan

The NIE Green Clan initiated a book drive to donate preloved children's books for children and youth with special needs, in collaboration with the Rainbow Centre's Out-Of-School-Hours (OOSH) Student Care Centre.



### Sustainability Learning Lab (SLL)

SLL conducted a workshop on creating eco-detergents from recycled Chinese New Year (CNY) mandarin orange peels, aimed at educating participants on making sustainable consumer choices.

## GOAL

To further enhance community engagements

Offer access to resources designed to help faculty, staff, students, and alumni deepen their understanding of sustainability.

Organise activities involving faculty, staff, students, and alumni to raise awareness about sustainability.

# SUSTAINABLE CAMPUS ENVIRONMENT

## CURRENT ACHIEVEMENTS



### ENERGY CONSUMPTION

We have implemented innovative solutions such as motion sensor-controlled air conditioning and adapt designs to include energy-saving features and machinery in our monitoring systems.



### WATER CONSUMPTION

Efforts to reduce water consumption include rainwater use, efficient taps, and recent cooling tower upgrades in 2020 for water conservation.



### WASTE MANAGEMENT

We prioritize waste reduction, placing recycling bins around campus. Plans for a food waste bin are in progress, awaiting the completion of the NEA plant.

## GOAL

To better manage our lived environment

## CONTINUOUS IMPROVEMENTS

*We achieved a 60.6% reduction in Energy Use Intensity (EUI) from 2001 to 2020.*

*Our water consumption has steadily decreased over the years.*

*We have the lowest EUI among all Institutes of Higher Learning (IHL) in Singapore*

We strive to meet NTU manifesto targets for energy use, water use, and waste management.



# NIE Sustainability Goals

## To further cultivate excellence in teaching and learning

- Enhance excellence in Teaching and Learning.
- Expand signature pedagogies utilised in our programs.
- Increase course offerings for continuing education, leading to graduate degrees.
- Regularly review existing curricula in NIE courses to maintain relevance.

## To further strengthen research and collaboration

- Increase publications in environmental and sustainable themes.
- Translate research findings to influence teaching, learning, and policy.
- Strengthen partnerships and seek new collaborations.
- Enhance media engagement across various outlets.

## To further enhance community engagements

- Facilitate access to resources for faculty, staff, students, and alumni to learn about sustainability.
- Organise awareness-raising activities involving faculty, staff, students, and alumni.

## To better manage our lived environment

- Meeting waste generation, water, and energy use targets aligned with NTU goals.



# Our Contributors

to the Development of  
The NIE Sustainability Plan

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