Sustainability Strategy

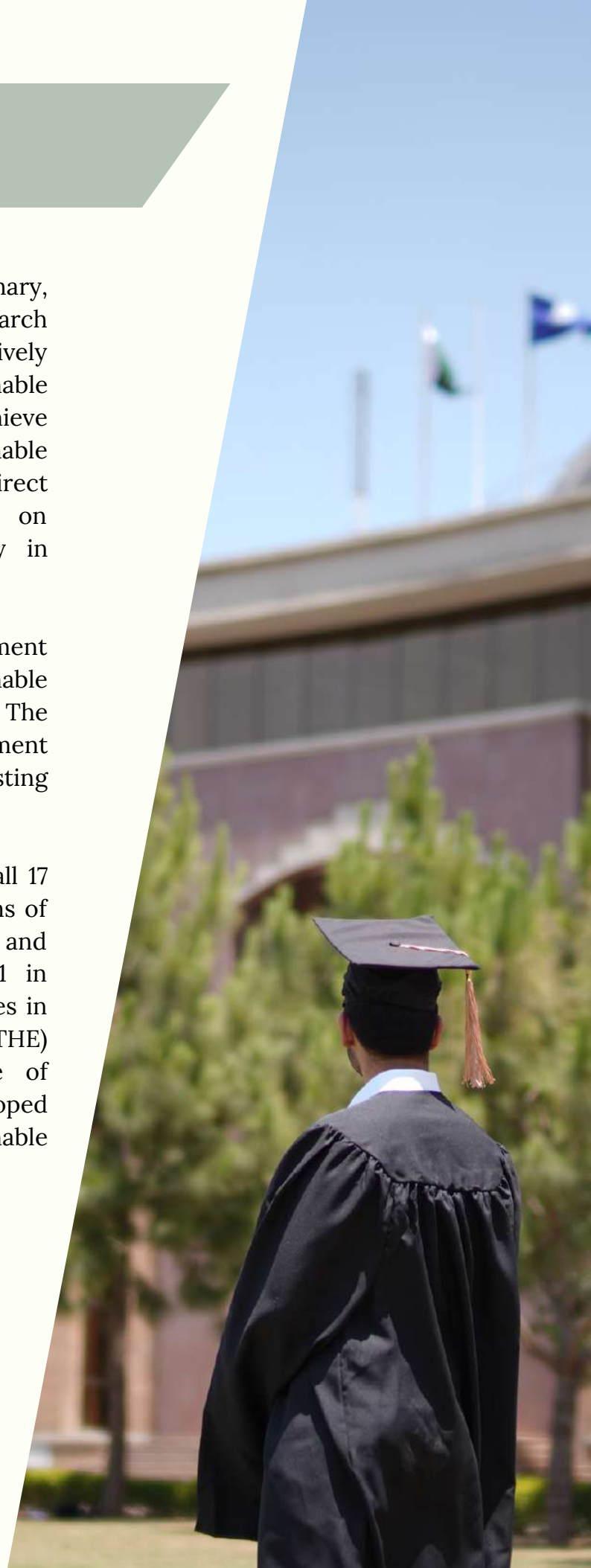## 2023 – 2030

NUST
Defining futures

Introduction

NUST is a research-intensive, multidisciplinary, fourth-generation university. NUST Research Directorate, Office of Sustainability, is intensively engaged in implementing the UN Sustainable Development Goals (SDGs). In order to achieve these goals, a comprehensive NUST Sustainable Strategy (NSS) has been formulated to direct focused movement toward sustainability on campus in particular, and the community in general.

The NSS (2023 - 2030) is an overarching document that provides a roadmap to sustainable development within and beyond the university. The NSS aligns with the UN Sustainable Development Agenda 2030 and is integrated with existing strategies and operations in the university.

NUST is also a UN Implementing Partner in all 17 SDGs, and this is reflected in its work in terms of research, innovation, partnerships and entrepreneurship. As of 2021, NUST is #1 in Pakistan, and is among the top 200 universities in the world as per Times Higher Education (THE) Impact Ranking. With a dedicated Office of Sustainability, coupled with the newly developed NSS, NUST will accelerate its work in sustainable development within this decade.

Overview

The NUST Sustainability Strategy has been grouped into 4 thematic areas:

- Decarbonization
- Environmental Sustainability
- Circularity
- Inclusivity & Community

By nature of the SDGs, these areas are cross-cutting and interrelated, therefore, their progress may overlap with each other. However, for visual convenience, each element of the Strategy corresponds to one or more of the 17 SDGs.

Following these four thematic areas, the Sustainability Strategy concludes with Partnerships and Impact, which tackle Goal 17: Partnerships for the Goals. This ensures sustainability in future partnerships of the university, as well as consistent policy recommendations from academia to the Government of Pakistan.

Key Areas

Group 1: **Decarbonization**

NUST Climate Action Plan
Renewable Energy

Group 2: **Environmental Sustainability**

Biodiversity Conservation
Water Management & Security
Food & Agricultural Innovation
Clean Air

Group 3: **Circularity**

Zero Waste Campus
Sustainable Events
Sustainable Commuting

Group 4: **Inclusivity & Community**

Youth Engagement
Gender and Disability Inclusion
Poverty Reduction
Health and Well-Being
Education for Communities

Partnerships and Impact

Sustainable Partnerships
Policy Output

Group 1: Decarbonization

1.1. NUST Climate Action Plan

1.2. Renewable Energy

1.1. NUST Climate Action Plan

Aim

To create a roadmap towards climate action for NUST.

Actions

1.1.1. Develop a NUST Climate Change Policy, which will incorporate a Climate Action Plan, to mitigate NUST's carbon footprint and assist in local adaptation

1.1.2. Calculate NUST's carbon footprint via mapping Scope 1, 2 and 3 emissions

1.1.3. Develop strategies to reduce NUST's carbon footprint

1.1.4. Set net-zero emission targets to be achieved within this decade

1.1.5. Engage national and international stakeholders in mitigation and adaptation activities and projects

1.1.6. Incorporate SDG 13: Climate Action into academic programmes

1.1.7. Launch NUST Centre of Excellence on Climate Change (N-CECC)

1.1.8. Inform and support local or regional government on issues associated with climate change

1.1.9. Collaborate with NGOs on climate change adaptation

1.2. Renewable Energy

Aim

To have 100% renewable energy in NUST before 2030

Actions

1.2.1. Map out energy consumption within the university

1.2.2. Devise a strategy to reduce energy consumption within the university

1.2.3. Develop partnerships and initiate projects to shift towards renewable energy before 2030

1.2.4. Assist local communities to shift to clean energy

1.2.5. Incentivize start-ups that support low-carbon economy or technology

1.2.6. Increase service provision for improving energy efficiency and clean energy for industries

1.2.7. Inform and support governments on policy development related SDG 7: Affordable and Clean Energy

1.2.8. Develop policy to divest or divert investment from carbon-intensive fuel

7 AFFORDABLE AND CLEAN ENERGY

13 CLIMATE ACTION

Group 2: Environmental Sustainability

2.1. Biodiversity Conservation

2.2. Water Management & Security

2.3. Food & Agricultural Innovation

2.4. Clean Air

Aim

To protect biodiversity within and around NUST

Actions

2.1.1. Create a database for flora and fauna within and around the university

2.1.2. Develop a Biodiversity Conservation Plan for NUST

2.1.3. Increase educational programmes, outreach, and events on ecosystem protection and sustainable management of land for agriculture and tourism

2.1.4. Create a NUST Advisory Board for Biodiversity Conservation to assist in terms of biodiversity projects and policymaking

15 LIFE ON LAND

2.2. Water Management and Security

Aim

To ensure the sustainable use of water within NUST

Actions

2.2.1. Assess water consumption and reuse within the university

2.2.2. Develop a strategy for water management within the university

2.2.3. Develop a strategy with stakeholders to ensure water security within and beyond the university

2.2.4. Collaborate with stakeholders for service provision in terms of sustainable water management technologies and policies related to water management and security

2.2.5. Formulate Water Advisory Board

2.2.6. Develop a watershed management strategy based on diversity of aquatic species within the university

2.2.7. Bring focus towards sustainable water extraction technologies within and beyond the university

6 CLEAN WATER AND SANITATION

11 SUSTAINABLE CITIES AND COMMUNITIES

14 LIFE BELOW WATER

2.3. Food and Agricultural Innovation

Aim

To eliminate food waste in NUST and encourage agricultural innovation

Actions

2.3.1. Develop a food and agricultural innovation strategy to revitalize food production systems	2.3.2. Ensure sustainable food sourcing within NUST	2.3.3. Map out sources of food waste and devise a strategy to eliminate food waste within the campus
2.3.4. Increase partnerships with farmers and relevant organizations to encourage innovation in agriculture	2.3.5. Formulate Agricultural Advancement Advisory Board	

1 NO POVERTY

2 ZERO HUNGER

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

2.4. Clean Air

Aim

To ensure systematic academic input in policymaking

Actions

2.4.1. Initiate the development of a national strategy on air pollution to improve urban air quality

2.4.2. Bring stakeholders together to gain comprehensive input and direction towards cleaner air

2.4.3. Formulate Air Pollution Advisory Board

3 GOOD HEALTH AND WELL-BEING

11 SUSTAINABLE CITIES AND COMMUNITIES
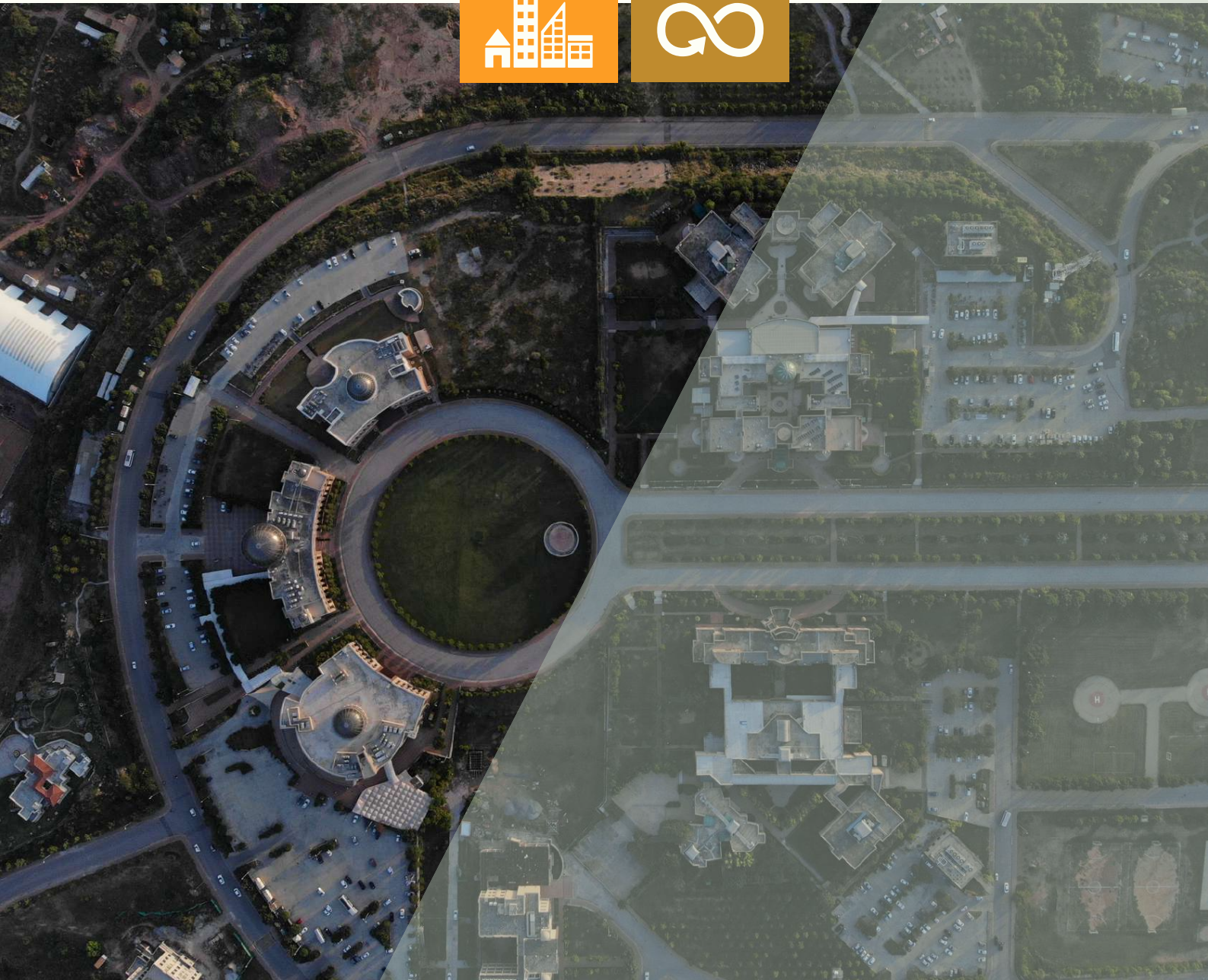
Group 3: Circularity

3.1. Zero Waste NUST

3.2. Sustainable Events

3.3. Sustainable Commuting

3.1. Zero Waste NUST

Aim

To establish circularity at NUST

Actions

3.1.1. Map out sources of waste at NUST	3.1.2. Develop a Zero Waste Plan for NUST	3.1.3. Develop a policy and plan to eliminate plastic on campus
3.1.4. Turn NUST into a Living Lab to test circular economy models	3.1.5. Reduce waste production at NUST	3.1.6. Formulate Waste Advisory Board

6 CLEAN WATER AND SANITATION

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

13 CLIMATE ACTION

15 LIFE ON LAND

3.2. Sustainable Events

Aim

To ensure that all on-campus events are held sustainably

Actions

3.2.1. Institute standard operating procedures (SOPs) on holding events sustainably within the campus

3.2.2. Institute policies that facilitate sustainable events within the campus

3.2.3. Deliver trainings to student, faculty, and staff event organizers to ensure sustainability in events

3.2.4. Formulate Sustainable Events Advisory Board

11 SUSTAINABLE CITIES AND COMMUNITIES

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

3.3. Sustainable Commuting

Aim

To ensure sustainable commuting within and beyond the university

Actions

3.3.1. Increase e-vehicles within NUST for easy access around the university

3.3.2. Facilitate transition of NUST transport to low-carbon fuel

3.3.3. Incentivize low-carbon commute for students, faculty and staff

11 SUSTAINABLE CITIES AND COMMUNITIES

13 CLIMATE ACTION

Group 4: Inclusivity & Community

4.1. Youth Engagement Plan

4.2. Gender & Disability Inclusion Plan

4.3. Poverty Reduction

4.4. Health & Well-Being

4.5. Education for Communities

4.1. Youth Engagement

Aim

To engage youth constructively in sustainable development

Actions

4.1.1. Launch a Youth Engagement Plan to involve students and community members in constructive activities related to sustainability

4.1.2. Create avenues and incentives for youth engagement through activities related to sustainable development

4.1.3. Develop sustainability-related modules and awareness sessions designed to be delivered to audiences of different ages

4.1.4. Formulate Youth Advisory Board

4.1.5. Increase opportunities for cultural exchange, nationally and internationally

17 PARTNERSHIPS FOR THE GOALS

4.2. Gender & Disability Inclusion

Aim

To ensure inclusion of minority and marginalized groups of society

Actions

4.2.1. Launch a Gender and Disability Inclusion Plan to facilitate inclusion of women and marginalized/minority groups in academia, sport, and other activities

4.2.2. Incentivize induction and involvement of women from marginalized backgrounds

4.2.3. Ensure inclusivity in university structure and operations

4.2.4. Formulate Gender & Disability Advisory Board

5 GENDER EQUALITY

10 REDUCED INEQUALITIES

4.3. Poverty Reduction

Aim

To ensure inclusion of minority and marginalized groups of society

Actions

4.3.1. Expand the NUST NEED Initiative to include more students from the bottom 20% of the country's household income

4.3.2. Provide education or resources to assist the start-up of sustainable businesses in the local community

4.3.3. Provide training or programmes to improve access to basic services for all

1 NO POVERTY

4.4. Health & Well-Being

Aim

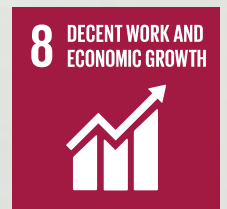To ensure inclusion of minority and marginalized groups of society

Actions

4.4.1. Increase collaborations with local, national or global health institutions to improve health and well-being outcomes

4.4.2. Increase outreach programmes in the local community to improve or promote health and well-being

4.4.3. Establish a smoke-free campus

4.4.4. Increase workplace flexibility in terms of well-being facilities

3 GOOD HEALTH AND WELL-BEING

8 DECENT WORK AND ECONOMIC GROWTH

4.5. Education for Communities

Aim

To ensure inclusion of minority and marginalized groups of society

Actions

4.5.1. Increase public accessibility to educational or academic events

4.5.2. Partner with local, national or global organizations to improve national education outcomes

4.5.3. Engage student body in providing free education to communities on a voluntary basis

4.5.4. Create an Education for Sustainable Development Advisory Board

4 QUALITY EDUCATION

Partnerships & Impact

Sustainable Partnerships

Policy Output

Sustainable Partnerships

Aim

To ensure that partnerships with the university are aligned with the SDGs

Actions

Institute standard operating procedures (SOPs) for strategic partnerships with the university

Create a policy to ensure partnerships are made in accordance to the SOPs

17 PARTNERSHIPS FOR THE GOALS

Policy Output

Aim

To ensure systematic academic input in policymaking

Actions

| Bring stakeholders together on various platforms for holistic policymaking | Build capacity to incorporate academic research in policymaking | Establish mechanisms to provide directed policy input to government |

17 PARTNERSHIPS FOR THE GOALS

NUST
Defining futures