

Presentation

On



“Sustainable Development Solutions: The Contribution of NUST”

by

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Outline of Presentation

Role of Universities In Sustainable Development



Brief Background of the MDGs



The MDGs



Pakistan's Progress Towards Achieving MDGs



The SDGs: New Development Agenda



Aligning SDGs with Vision 2025



Contribution of NUST towards Achieving SDGs and Vision 2025



Concluding Remarks

Role Of Universities In Economic Development

Universities play a valuable role in economic development, but that role is neither well defined nor easily understood

In developed and in many developing countries, states seeking to improve their economic fortunes are turning to universities to participate more fully in economic development

Universities have long been seen as partners in economic development process in developed and in many developing countries

In this regard, NUST is making efforts to contribute to the economic development, particularly sustainable development of Pakistan

NUST is aligning its Academic Programme, incorporating strong research and human resource development in assisting the government in achieving SDGs and Vision 2025.

Brief Background of the Millennium Development Goals

What is Sustainable Development?

It refers to meeting the needs of the present generation without compromising the needs of future generation

This definition encompasses a whole range of critical factors that include:

- Population Growth
- Education
- Health
- Sanitation
- Clean Water
- Poverty
- Inequality
- Gender Imbalances
- Environmental Sustainability

MDGs: A Brief Background

In the Year 2000, the global community, under the Umbrella of the United Nations, adopted the Millennium Declaration and committed themselves to working collectively towards improving the lives of billions of poor individuals around the world.

In 2001, a team of UN experts created a set of MDGs with indicators.

There are Eight MDGs

- Eradication of Extreme Poverty and Hunger (**Goal 1**)
- Achievement of Universal Primary Education (**Goal 2**)
- Promotion of Gender Equality and Women Empowerment (**Goal 3**)
- Reduction in Child Mortality (**Goal 4**)
- Improvement of Maternal Health (**Goal 5**)
- Combating HIV/AIDS, Malaria, Tuberculosis and Polio (**Goal 6**)
- Promotion of Environmental Sustainability (**Goal 7**)
- Developing a Global Partnership for Development (**Goal 8**)

These MDGs are to be Achieved by 2015

Notwithstanding many headwinds that interrupted and even retarded the progress in developing countries towards achieving the MDGs, the Asia-Pacific Region made remarkable progress.

Despite progress, one thing is absolutely clear: **Not** all the countries in the region will achieve all the targets of MDGs by 2015.

Furthermore, the progress towards achieving the Goals has been uneven. There are countries still lagging far behind; some of them are making slow progress and yet some of them are off-track and may not achieve the targets by 2015.

Pakistan Falls into the countries that are Lagging behind and making slow Progress.

Pakistan's Performance Towards MDGs

Goals		No of Targets	On Track/ Achieved
Goal 1:	Eradicate Poverty and Hunger	3	1
Goal 2:	Achieve Universal Primary Education	3	NIL
Goal 3:	Promote Gender Equality	5	1
Goal 4:	Reduce Child Mortality	6	1
Goal 5:	Improve Maternal Health	5	NIL
Goal 6:	Combat HIV/AIDS, Malaria, TB, Polio	5	2
Goal 7:	Ensuring Environmental Sustainability	7	4
Total		34	9

Sustainable Development Goals (SDGs): The New Global Development Agenda

While progress towards MDGs remained uneven, the world leaders asked themselves: should we abandon the MDG efforts? Targets so near to achieve and yet will remain a distant dream if efforts to pursue the MDGs are abandoned after 2015.

Wide-ranging Consultation is taking place since 2013 around the world. Proposed SDGs to be attained by 2030 include:

- Ending Poverty and Hunger
- Reducing Inequality
- Ensuring Quality Education and not Education *per se*
- Promoting Gender Equality
- Sustainable Use of Water and Sanitation
- Ensuring Sustainable Energy
- Inclusive and Sustainable Economic Growth
- Productive Employment and Decent Work for all
- Sustainability of Environment
- Strengthening Infrastructure and faster innovation
- Improving Governance

These proposed Goals, once finalized, will be adopted by the UN General Assembly Session in September 2015.

SDGs and Vision 2025: Some Complementarity

Pillars of Vision 2025

- **Pillar 1:** Putting People First – Developing Human and Social Capital
- **Pillar 2:** Achieving Sustained, Indigenous and Inclusive Growth
- **Pillar 3:** Governance, Institutional Reform and Modernization of the Public Sector
- **Pillar 4:** Energy, Water and Food Security
- **Pillar 5:** Private Sector and Entrepreneurship led Growth
- **Pillar 6:** Developing a Competitive Knowledge Economy through Value Addition
- **Pillar 7:** Modernizing Transportation Infrastructure and Greater Regional Connectivity

Almost all the Pillars of the Vision 2025 are, by and large, consistent with the proposed SDGs

Contribution of NUST Towards Achieving SDGs and Vision 2025

NUST has prepared its strategic Vision 2025 to align itself in achieving SDGs and Vision 2025.

- The Critical Elements of the Vision Include:
 - Excellence in teaching and learning
 - Focused Research
 - Enterprise Development
 - Internationalization
 - Discernable Impact on Society

To achieve these strategic thrust/vision we have identified five connecting efforts. These include:

- Bridging knowledge gap through multidisciplinary approach
- Application of technology as forced multiplier
- Think globally, act locally
- Self-reliance and financial autonomy
- Develop instruments to influence policy and opinion makers

Contribution Made Thus Far

On Energy Sector

NUST is actively working towards the development of markets for Clean Energy Technologies. In this connection we have taken the following initiatives:

- Establishment of Higher Precision Solar-Wind Station to provide real-time ground solar and wind data. This will help potential investors to establish solar/wind energy plant in Pakistan
- Established Bio-diesel plant
- Established coal-diesel lab scale plant
- Working on 2nd and 3rd Generation Solar Cell

Our mission is to implement the E-3 (Energy, Environment and Economy) Criterion for sustainable societal development

On Water Sector

We are making efforts through education, technology and training to enhance flood management and disaster reporting capacity in the country.

Set up a Waste Water Treatment plant in our campus in H-12.

Established Regional Centre for Water Technology and Trans-Boundary Issue at NUST.

On Education Technology

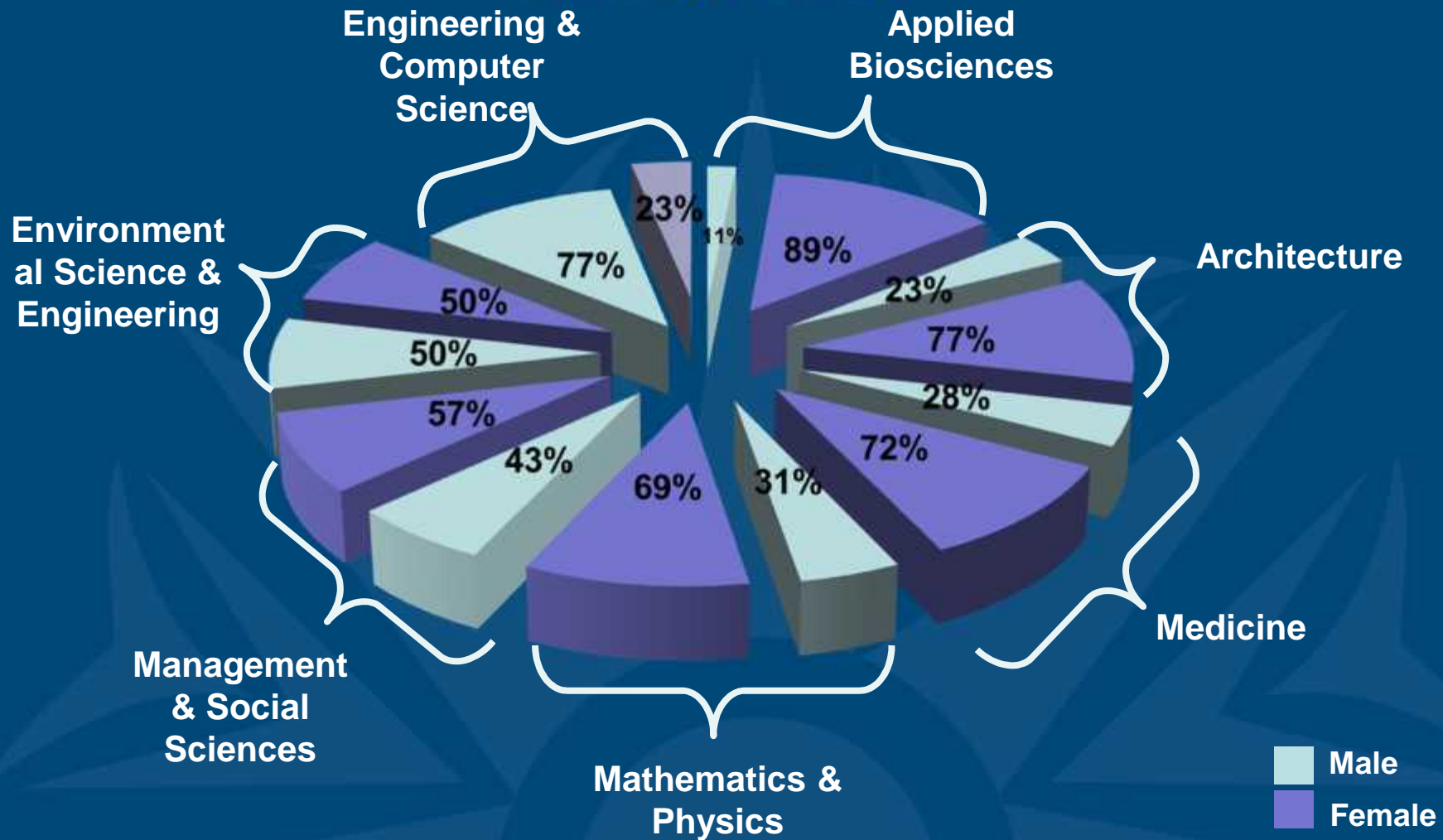
- We have established Centre of Excellence in educational technologies to enhance educational standards in the country.
- Producing School Leadership
- Reducing School drop out through the use of technology

On Reducing Gender Imbalances

- Admission to NUST is purely on merit. No discrimination in admission
- Overall, 70 percent are male student and 30 percent are female
- However there are various schools where girls are in overwhelming majority. For example:

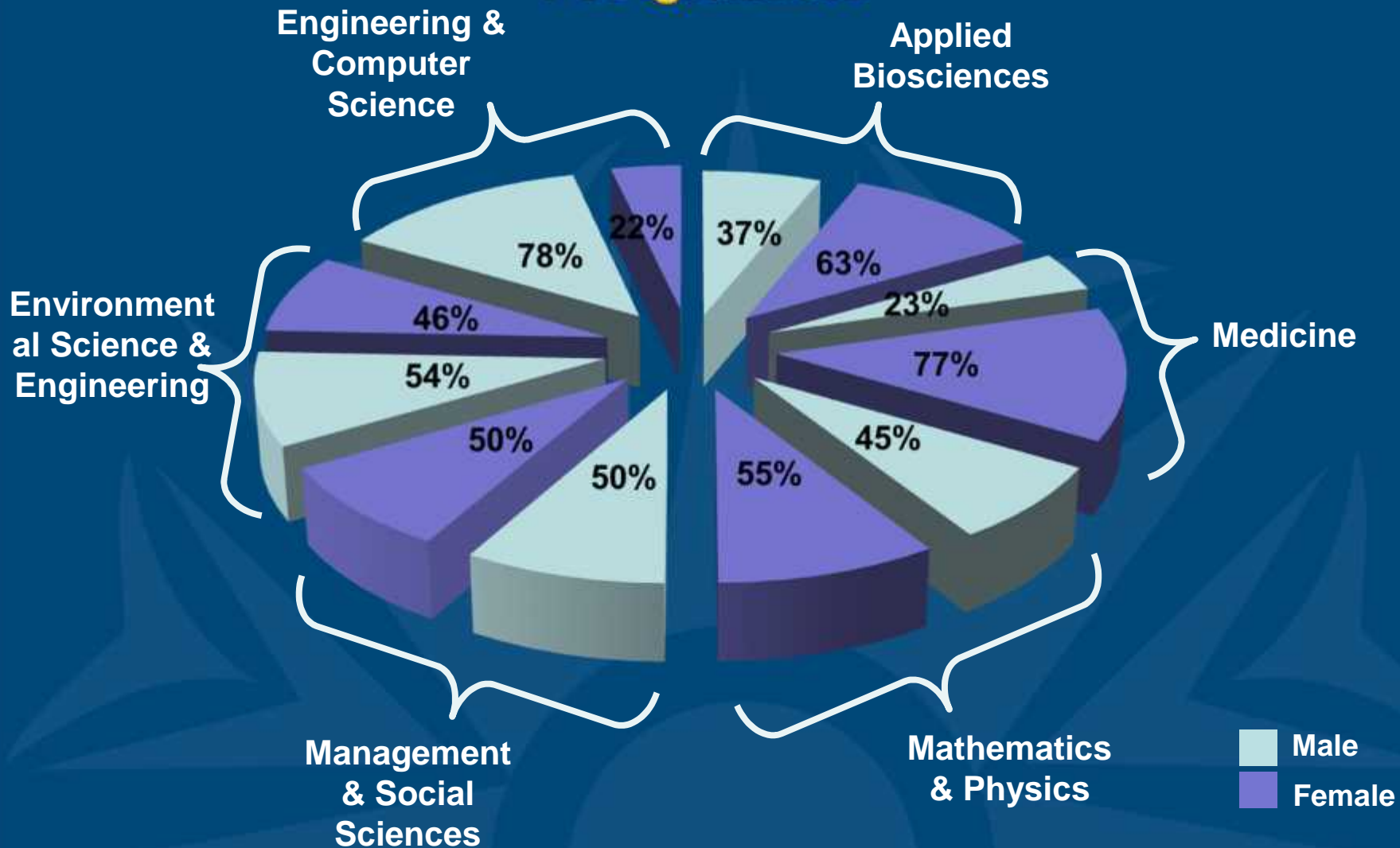
Gender-wise Distribution

Undergraduate



Gender-wise Distribution

Postgraduate



On Inclusive Growth

Admission Purely on Merit

70 percent students belong to low and lower middle income groups and getting quality education at affordable cost

NUST has provided over Rs. 900 million financial support to needy and deserving students in the last five years.

Over 5000 students have benefited from financial support of the NUST

Community Services and Civic Engagement have become a compulsory course for undergraduate students

NUST Promoting Social Entrepreneurship

On Knowledge Economy

Producing Quality Graduate

Establishing S & T park in NUST

Taking Lead in Sustainable Development Solution Network (SDSN)

What is SDSN?

SDSN is commissioned by the UNSG. It support its members to play a leading role in sustainable development in four ways

- as research center
- as key partners in problem solving alongside government, business, and civil society
- as educators
- as social entrepreneurs in solution initiatives

Prof. Jeffrey Sachs – an Advisor to the UN Secretary General on Sustainable Development chairs the SDSN Assembly

SDSN is assisting intergovernmental process in developing Post- 2015 Development Agenda

It is assisting the UN in finalizing the SDGs

Will assist member Countries in achieving SDGs going forward

NUST on its part is already engaged in various activities pertaining to the Goals of the SDSN.

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Community Service Initiatives at NUST

Implementation of NCSS



Implementation levels

1. **Technological Advancement Impacting Community: By respective Schools and ORIC**
2. **Socio-Cultural Advancements**
 - a) **NUST Community Service Club platform** - student led community service activities (irrespective of student school/specialty/level) – started with 35 students in Dec 2008 – now 3000 students
 - b) **Community Service Course** – started Feb 2013 - now compulsory for all undergraduate programs of NUST – by now 2000 graduates
 - c) **PCTN** – started Jul 2013 - now 49 Pakistani universities
 - d) **Research & Analysis** – started June 2014 – by now three conference publications, two ISI indexed journal publications submitted

Alignment of NCSC/CSL401 Focus Areas

1. Leadership & Patriotism (50%MDG3, V1)
2. Basic Human values, human rights & religious moderation (V1)
3. First aid (50%MDG 6, V1)
4. Fire safety & fire fighting (50% MDG 7, V1)
5. Disaster preparedness, response and recovery (50%MDG 1, V1,4)
6. Free tutoring and education (100%MDG 2, V1,6)
7. Working for orphanages, special children and old homes (100%MDG 1,6)
8. Blood donations, eye donation wills (100% MDG6, 50%MDG1)
9. Renovation of schools/hospitals/community centers (50% MDG2,6,7)
10. Neighborhood development and enhancement (100% MDG 7, V4)
11. Environment protection and improvement (100% MDG 7)
12. Awareness on social, health & hygiene (100% MDG 2,3,4,5,6,7, V1,2,4,5)
13. Skill Development for Unemployed (100% MDG 1, V1,2,5,6)



VISION 2025

1. HRD
2. Sustained Growth
3. Good Governance
4. Energy, Water, Food
5. Entrepreneurship
6. Knowledge Economy
7. Tpt Infrastructure

Achievements: 2010-Present



All 12 areas

- 66 awareness seminars and training workshops arranged (main areas of leadership & patriotism, basic human values, first aid, fire fighting, disaster preparedness, environment protection and other social, health & hygiene issues)

Disaster response

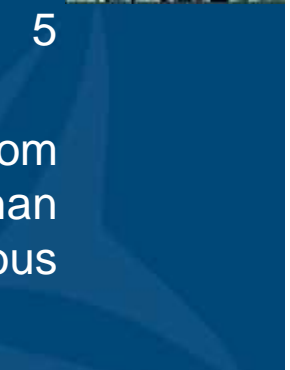
- **4500 needy families** served with 1 month food supplies, 11 families with home construction supplies during floods of 2010, 2011, 2012 & earthquake of 2013.
- Operation Zarb e Azab IDPs Relief Fund 2014 generated **Rs. 6.0 M** collected in total. **IDPs families in Bannu and Swat** provided with Eid gifts, tents, rations, pedestal fans and water
- **Flood Relief Fund 2014** generated **Rs. 1.5M**



Achievements: 2010-2014

EDUCATION

- **Free tutoring for 110 orphans** from SOS village, which increased their pass percentage from 65% to 90%
- **Free tutoring camp** for under privileged children and establishing informal school for non school going children in H-9 & H-11 which serves **100+ children**
- **50 volunteers** have been **teaching at Saya School** 2 days a week, including imparting health awareness and extra-curricular activities to more than 100 underprivileged students. NUST volunteers have contributed over 2800 service hours to the school up till now
- Free tutoring for **500 NUST students** requiring additional help in their studies
- **Student Support Fund:** Charity events, including movie nights, NUST footy mania etc. were held to generate funds to support NUST students who have difficulty to pay their fees. Revenue of more than **5 lakh** is generated
- **Mobile Labs project-** Phase I completed, Need analysis survey of 5 underprivileged schools conducted
- **5 Career Counseling sessions** held in Spring 2014. over **100 students** from underprivileged schools benefited from these schools along with more than 100 students and faculty members of NUST also participated in various counseling sessions
- **Darya Khan School** by NUST serves **80 children**
- **Book club project** (started in Oct 2014): **2000 text books** collected



Achievements: 2010-2014



Blood Donation

- **1515 thalassemia and cancer patients provided free blood** pints donated by volunteers. A total of 5 blood donation camps held in collaboration with various institutions.
- **Free Eye Clinics: 1100** patients served with **free eye diagnostics, medicines and power glasses.**
- **Eye donation will cards** signed by volunteers for **300 blind**

Hospital/Old Home Renovations

- One floor of **free eye hospital (REDO)** renovated and decorated for new free kidney dialysis set up, which now serves 50-80 patients every day, 6 days a week.
- **Dar-ul-Afiyat old home renovated**, Cleaning of roof top, White wash of entire building, Electric work of entire building, Plumbing work, repair work of all water tanks and geysers, Replacement of water filter and repair work of water cooler. 22 senior citizens are dwelling in the center.



Achievements: 2010-2014



Neighborhood development and Enhancement

- A survey was conducted to identify the level of Civic Sense among general population of Sector: G-11, Islamabad. **1000 families of G-11** Islamabad given awareness on coping strategies on clean drinking water, clean environment, anti-smoking
- **Need analysis surveys** conducted in **21 NGOS, 5 underprivileged schools, 6 orphanages and 6 surrounding villages** was conducted. Many problem areas identified where NCSC will work in the next calendar

Environment

- **Tree plantation drives:** Over **300 trees** planted
- **Clean up drives:** Awareness campaigns and clean up drives held at NUST to impart awareness about cleaning the surroundings and the environment amongst

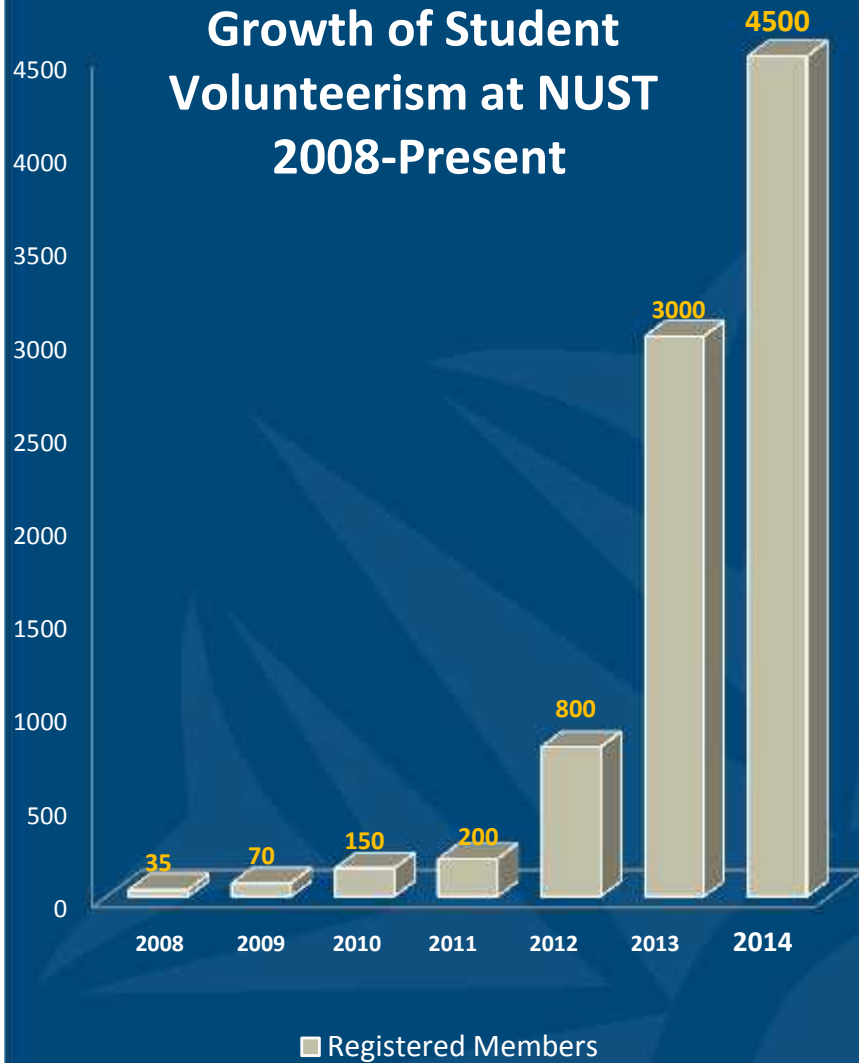
Skill Development

- Vocational Training of Women at Darya Khan School of NUST (trained **51** women)
- Free need based **skill development** workshops for **150 unemployed** and unskilled youth

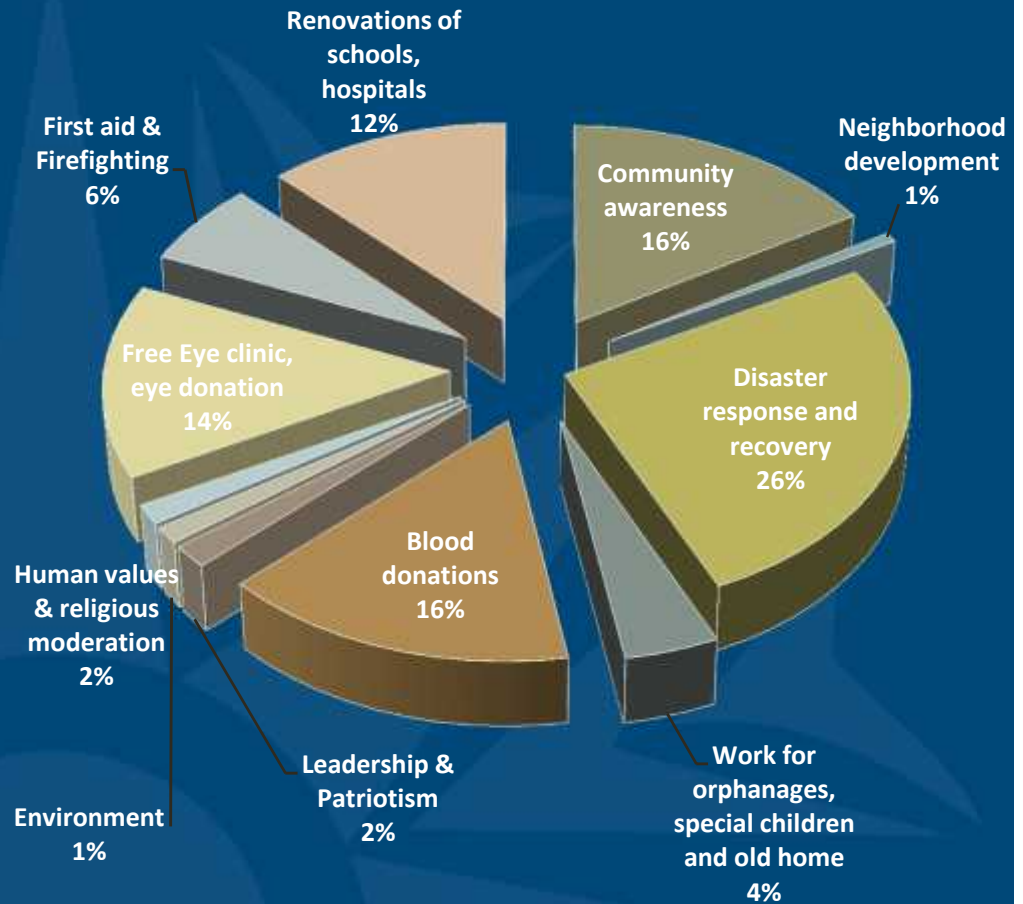
NUST COMMUNITY SERVICE CLUB STATISTICAL SUMMARY



**Growth of Student
Volunteerism at NUST
2008-Present**



Total Service Hours Generated: 97,538

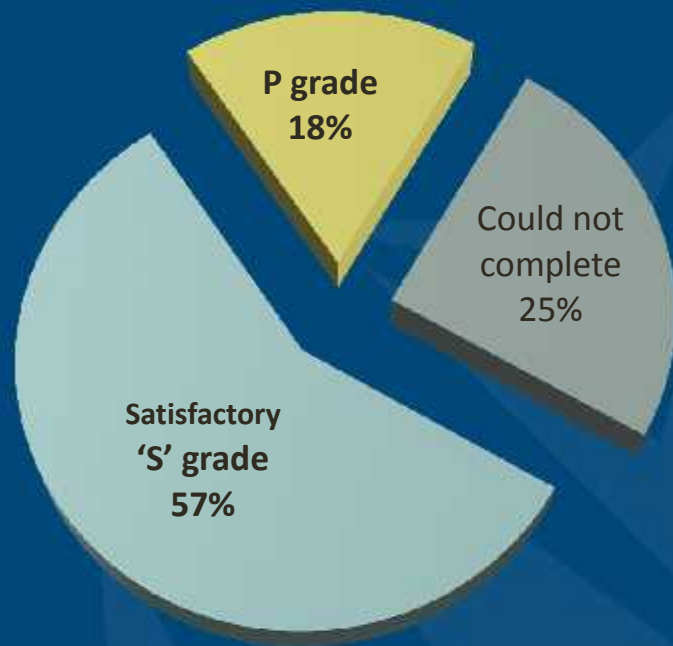


Community Service Learning Course CSL-401

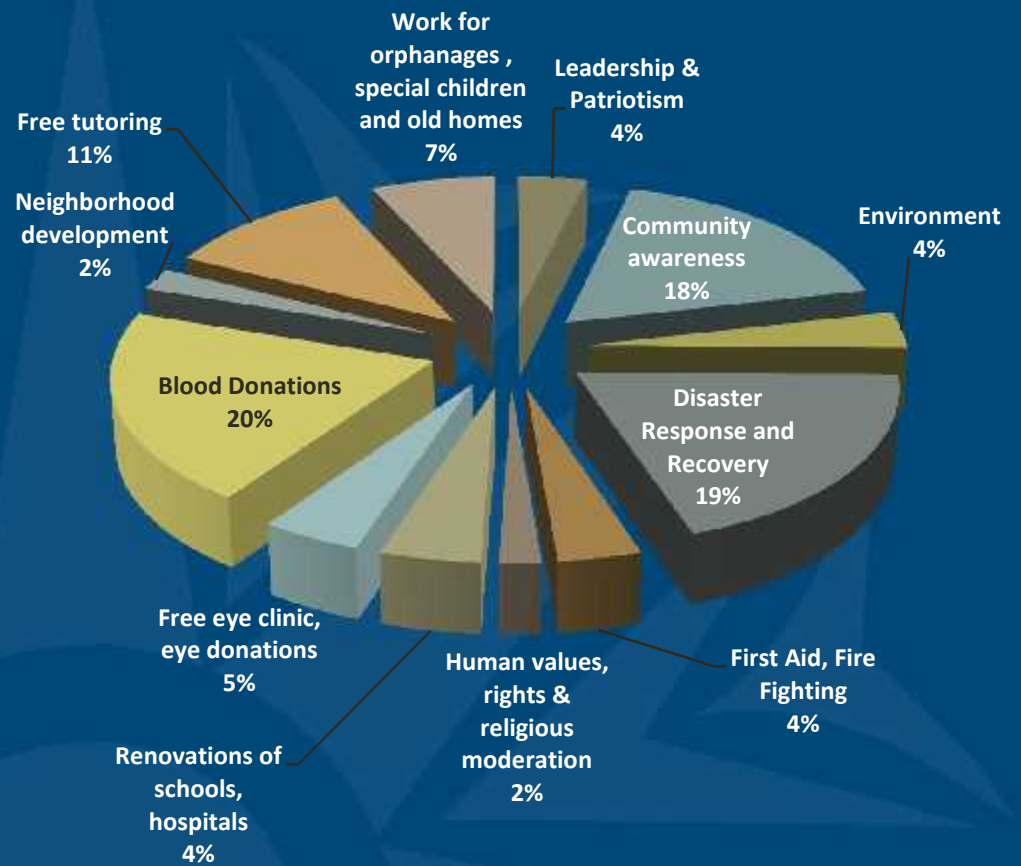
Spr13, Fall13, Spr14 Sessions (H-12)



Total Students : 1156



Total Service hours generated = 52260



PCTN – Achievements since Jul 2013



- In collaboration with Talloires network, Innovations in Civic Partnership USA and 5 universities of USA, launched PCTN in July 2013
- Aim was to network universities in the Pakistan for advancement of civic engagement activities
- By now 49 universities have joined PCTN
- Two newsletters published: Spring 2014 and Fall 2014
- Events on own webpage as well as TN website
- Two steering committee meetings held
- Training / Sharing of NUST programme with 6 universities – included faculty, staff and students
- Conference in March 2015 being arranged with a theme of action plans for achievable social development objectives

Taking Lead in Sustainable Development Solution Network (SDSN) Initiative

NUST believes that a single university can make little change. It wants to bring over 45 universities together to work towards Sustainable Development Solutions

NUST wants to be a development partner of UN Initiative

We have formed committee in NUST for SDSN Initiative

We are inviting other Pakistani Universities to join hands together

We will hold a national conference soon to sensitize Pakistani Universities, and all stakeholders to play their respective roles in achieving SDGs and Vision 2025 through the platform of SDSN

Concluding Remarks

NIST is conscious of SDGs and Vision 2025 and aligning its efforts to help the government in achieving these goals and vision.

We will invite other universities in the country to join hands together in achieving our common goals and vision.

NUST is connecting itself with Professor Jeffery Sachs to work towards SDSN initiative.

We look forward working with the government, international development financial institutions and UN bodies for sustainable development solutions.



Thank You