

2019

MOBILISE Expo on “Technology Mediated Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development”

By MOBILISE Pakistan

By Mushtaq Ahmad Jan, Danish Mujahid and Muhammad Shahab
MOBILISE Project Team Peshawar-Pakistan
Centre For Disaster Preparedness and Management,
University of Peshawar

www.uop.edu.pk

www.mobilise-project.org.uk/



OUR COMMITMENT IS TO EQUIP HUMAN BEINGS WITH THE KNOWLEDGE AND SKILLS TO MINIMIZE THE DAMAGES AND MISERIES OF DISASTERS



MOBILISE EXPO
on
**TECHNOLOGY MEDIATED DISASTER RISK REDUCTION, CLIMATE
CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT**
on Thursday April 25, 2019 (09:00 AM to 04:00 PM)
Venue:
PUTA Hall, University of Peshawar
Organized by:

**MOBILISE PROJECT TEAM
CENTRE FOR DISASTER PREPAREDNESS AND MANAGEMENT (CDPM)
UNIVERSITY OF PESHAWAR-PAKISTAN**



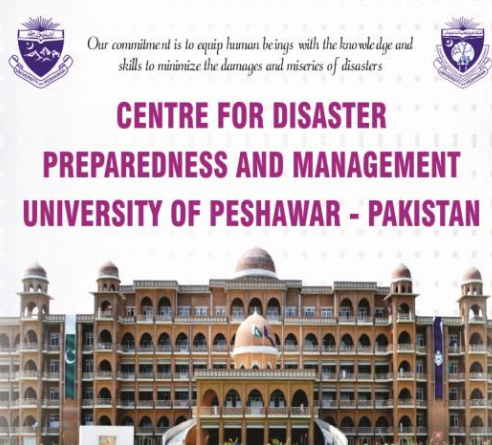
MOBILISE EXPO ON TECHNOLOGY MEDIATED DISASTER RISK REDUCTION, CLIMATE CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT

April 25, 2019

PUTA Hall, University of Peshawar

01: AN INTRODUCTION TO CENTRE FOR DISASTER PREPAREDNESS AND MANAGEMENT (CDPM), UNIVERSITY OF PESHAWAR-PAKISTAN

Keeping in view the plethora of natural hazards in Pakistan in general and the Province of Khyber Pakhtunkhwa in particular, the University of Peshawar established the Centre for Disaster Preparedness and Management (CDPM) in 2008 in collaboration with the German Technical Cooperation (GTZ) and ICIMOD. The CDPM was formally inaugurated by the worthy Chancellor of the University of Peshawar and the Governor of Khyber Pakhtunkhwa on April 04, 2009. This Centre has been established with the vision to contribute towards national integration and consolidation and help overcome the sense of forlornness and alienation in vulnerable communities under the Faculty of Life and Environmental Sciences, University of Peshawar. Since its establishment, the Centre for Disaster Preparedness and Management has been efficiently playing its due role in research, training and education in the field of disaster management. We feel pride to share with you that the CDPM in a very short span of time and scarce resources has successfully launched the country's first ever BS (4 Years), M.Sc, M.S., M.Phil and Ph.D. degree programmes in Disaster Management in Pakistan. So far six batches of Postgraduate Diploma, five batches of M.Sc. and four Batches of BS programme have successfully completed their degrees and diplomas at the CDPM and they are working in field. Curriculum of the CDPM degree programmes has already been reviewed by the Higher Education Commission-Pakistan national curriculum review committee as a model for launching Disaster Management degree programme in other universities of Pakistan. The CDPM is not only providing education to the students but it has also initiated a wide range of training and learning programmes for the teachers, disaster managers, armed forces, practitioners, volunteers and administrators to improve their knowledge and skills in the field of disaster management.



Our commitment is to equip human beings with the knowledge and skills to minimize the damages and miseries of disasters

**CENTRE FOR DISASTER
PREPAREDNESS AND MANAGEMENT
UNIVERSITY OF PESHAWAR - PAKISTAN**



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Khyber Pakhtunkhwa - Pakistan**

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02: MOBILISE PROJECT AT A GLANCE

The MOBILISE project aims to address the priority number two of the Sendai Framework for Disaster Risk Reduction (2015-2030) which is to strengthen disaster risk governance to manage disaster risk and also contributes to the remaining three priorities (understanding disaster risks, investing in disaster risk reduction for resilience and enhancing disaster preparedness for effective response). Furthermore, the MOBILISE project addresses three recommendations specified by the United Nations Economic and Social Commission for Asia and the Pacific (UN/ESCAP) which are (a) Urban resilience which needs urgent attention; (b) Capitalising on innovative space technology applications and emerging technologies, and (c) Political leadership for the success of disaster risk reduction and management. The MOBILISE project will directly contribute to three UN Sustainable Development Goals: Sustainable Cities and Communities (SDG 11), Partnerships for the Goals (SDG 17) and Industry Innovation and Infrastructure (SDG 9).



03. RESEARCH AIMS & OBJECTIVES in Pakistan

The purpose of this research project is to develop a Collaborative Multi-agency Platform that can be used for building resilient communities in disaster prone areas of Khyber Pakhtunkhwa. Khyber Pakhtunkhwa has been frequently affected by a multitude of natural hazards including floods, landslides, droughts, and earthquakes and, therefore, has been chosen as the focus for this research to capture a broader set of disaster conditions and requirements. This project will address the following objectives:

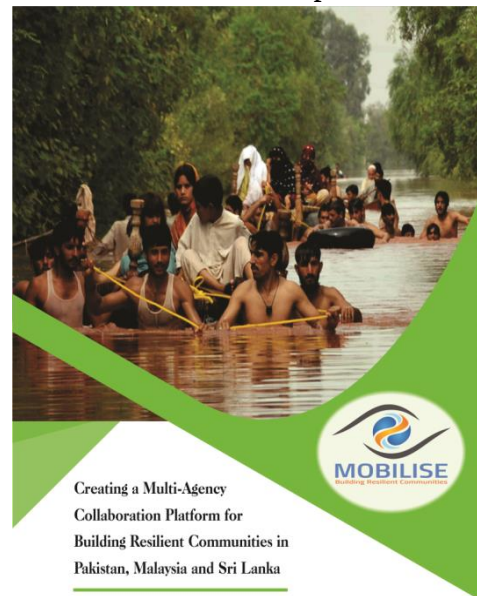
- Develop a Resilience Framework that defines the factors that constitute vulnerabilities, resilience capacities and the relationship between them;
- Investigate how teamwork among the disaster management agencies could be enhanced through digitally supported collaboration processes;
- Develop a web-based collaboration platform that can support collective vulnerability assessment and mitigation, involving multi-agencies;
- Develop a decision support system (DSS), used by multi-agencies to assess the vulnerabilities, risks and consequences of hazards on critical infrastructure;
- Extend the above web-based collaboration platform to be used during disaster response phases by integrating real-time data
- Implement a novel collaborative environment that allows remote teams to get an accurate picture of a disaster event through near real-time 3D satellite data and analytics.

04. TRACK RECORD OF THE INTERDISCIPLINARY ACADEMIC TEAM

The research team is comprised of leading academics in the area of Computer Science, Social Science and Disaster Management from UK, Sri Lanka, Malaysia and Pakistan. ThinkLab at the University of Salford, UK is leading this collaborative project and University of Peshawar-Pakistan, University of Moratuwa-Sri Lanka, University of Colombo-Sri Lanka and Uiversiti Tunn Hussein Onn Malaysia are partnering in it. At the University of Peshawar, Centre for Disaster Preparedness and Management is leading Mobilise Project with the advisory support of the Provincial Disaster Management Authority-Khyber Pakhtunkhwa.

05. Mobilise Expo on Technology mediated Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development

The Mobilise Project team at the Centre for Disaster Preparedness and Management, University of Peshawar, organized a one day Expo on Technology Mediated Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development on April 25, 2019 at PUTA Hall, University of Peshawar. The basic aim of the expo was to exhibit the technology platforms and research work of the Academic Departments/Centers, National and Provincial Disaster Management Authorities, Climate Change Ministry, SUPARCO, PMD, other relevant government departments, United



KEY THEMES

- ④ Multi-agency collaboration through advanced digital technologies.
- ④ Web-based collaboration platform for supporting collective vulnerability assessment, mitigation and resilience.
- ④ System dynamics for modelling cascading effects of disasters.
- ④ Web-based platform for gathering instantaneous intelligence of a disaster through remote sensing and social media.
- ④ Virtual construction of disaster events using real-time satellite data for planning disaster response.



Nations, INGOs, Local Civil Society Organizations and private companies working in the field of disaster risk reduction, climate change adaptation and sustainable development in Pakistan. The expo provided the opportunity to sensitize the general public regarding technology mediated disaster risk reduction, climate change adaptation and sustainable development and through networking the expo further

strengthen coordination among organizations and institutions working in the field. The MOBILISE Project team at the CDPM. A total of 30 organizations exhibited their work in the Expo and the event was attended by around 3500 to 4000 people from all walks of life from 09:00 am to 04:00 pm.

Opening ceremony of the Expo was held at 10 am at the PUTA Hall, University of Peshawar. The Expo was inaugurated by Prof. Dr. Muhammad Asif Khan, Vice Chancellor UOP, Dr. Bashir Ahmad, Dean faculty of Life and Environmental Sciences, Mr. Mian Abdul Qadir Shah, Director Provincial Disaster Management Authority-Khyber Pakhtunkhwa. In her welcome Address Prof. Dr. Noor Jehan,



Director CDPM showed her gratitude for MOBILISE project team and volunteers for managing the event. She was of the view that such type of events provides opportunities to exhibit the work that has been carried out and identify gaps and challenges. We need to develop and utilize technology to combat disaster and emergency. It has the role in disaster reduction. MOBILISE Expo is the first technology related event in UoP, which provide platform for different department to show their talent and work on ground. Provincial Disaster Management Authority (PDMA), Khyber Pakhtunkhwa Director (HR and Admin) Mian Abdul Qadir Shah in his address as guest of honor thanked Mobilise Project team for invitation and congratulated them for holding such a large scale event at the national level. He said technology is always a determined factor; it helps in early warning and dissemination of information. Digital technology these days is a major component of decision making at various offices responsible for decision making. In recent past disaster significantly affected the province and we need to adapt ourselves with the changing dynamics of disasters and with the latest technological innovations and discoveries. Talking about the expo he said that the presented projects, models, software's and technology provide different ideas to prepare for and mitigate disasters. These should be adopted at national level and local level. Technology in the form of Mobilise Project is knocking at our door; we just need to adopt these. He further said that PDMA is executing a project with irrigation department, which is technology oriented. This will help PDMA to measure real time water flow and will be having significant impact on timely response during disaster. Academia plays a key role in development of countries and nations by providing real time data through research and through developing technology. Mobilise project is one such example focusing on resilience building of four countries to disaster. The project further strengthens the technology capability of organizations responsible for disaster management. It is indeed a pleasure that PDMA is also part and parcel of this global consortium for resilience building. Dean, Faculty of Life and

Environmental Sciences, University of Peshawar Prof. Dr Bashir Ahmad said we are aware of the consequences of disasters and Pakistan is one of the most vulnerable country to disasters and severely affected by climate change in past. He stressed on technology oriented policies for building disaster resilience in communities and societies. Pakistan's unique geography, which stretches from snow covered mountains in the north to the Indus river plains in the center and its delta in the south, makes it stand out not only as an extremely diverse country but also one that is increasingly vulnerable to the impacts of disasters and climate change. For several years now, the country has been facing the consequences of a changing climate: erratic monsoon rains, rising temperatures leading to reduced agricultural output, glacial floods in the high mountains, seawater intrusion into the Indus Delta and extreme weather events like major floods and droughts, he added. Application of science and technology in Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development has become an essential requirement for decision making. Science has supported the establishment and implementation of major international initiatives in Disaster Risk Reduction, including the United Nations Sendai Framework for DRR and Paris Agreement. The Sendai Framework for DRR and Paris Agreement recognize the importance of science and technology in all of its priority action areas,



and subsequent global and regional forums and conferences have reconfirmed science and technology's importance. He appreciated the Mobilise Project team for holding the first ever Expo on technology addressing climate change and disaster resilience.

In his inaugural address the Vice Chancellor, University of Peshawar Prof. Dr. Muhammad

Asif Khan said, as we all are aware of the fact that adverse consequences of natural hazards, such as earthquakes, landslides, avalanches, wind storms, heavy rains, floods, heat and cold waves, prolonged droughts and subsequent water shortages have increased in recent years and have resulted in major disasters around the globe in general and in our part of the world in particular. The impact of these events has been exacerbated by the human activities, including uncontrolled urban and rural development, poorly-engineered infrastructures and buildings, as well as socio-economic and other human factors such as rapid population growth, increased population density in areas prone to hazards, and drastic changes in land use practices. Thus, many cities and populations are more exposed and vulnerable now than before. This is particularly the case for developing countries without having adequate resilience capacities to cope with disasters,

especially when subject to low probability-high impact events. Science, technology and research relating to disaster risk reduction and climate change have progressed significantly on all fronts and across all sectors. Scientists and researchers have brought a deeper understanding of hazards, vulnerabilities, disaster risks and their linkages to the developmental processes. However, there are ongoing challenges and gaps in translating this scientific information into policy so that disaster risk reduction policies are based on science and evidence. Given the different levels at which disasters can affect our society, it is essential that we consider how the physical and social

sciences can be fully deployed in an integrated way with technology to reduce both disaster risks and their impacts. Keeping in view the plethora of natural hazards and impacts of past disasters, we need to focus on the following recommendations for



sustainable disaster risk reduction and climate change adaptation: Firstly, We need to promote and strengthen the development of a common platform at the national level through which all stakeholders and scientists could maintain constant dialogues, and assist the efforts of the government and civil societies in disaster risk reduction, climate change mitigation and resilience by creating stronger inter-disciplinary and transdisciplinary ties. Similarly, the Government needs to establish disaster monitoring system that should be comprehensive, high-quality and sustainable, with support from space-based earth observation and, when appropriate, supported by crowd sourcing. Our disaster management authorities need to conduct integrated assessments of the socio-economic impacts of disaster risks and possible measures for disaster risk reduction and resilience. Further, our society needs to improve disaster literacy by providing systematically organized education as well as developing good practices and effective approaches for communication and education of all stakeholders. These trainings should include discussions about vulnerable groups including women, children, disable, old age people, minority and their

specific needs. We need to develop guidelines for strengthening national and local platforms for disaster risk reduction and their coordination mechanisms through enhanced contributions from science and technology with due consideration of traditional knowledge systems. In every situation, research institutions play a central role in human life and their environment to provide high quality research and to cope with new challenges. In this regard, the University of Peshawar offers immense opportunities of not only education but also research based environment for the entire nation. The University is coping with the needs and challenges of the local and the global dynamics in the best possible manner. We are striving our level best to address the social, academic, cultural and economic problems in a befitting manner. We believe that our teaching faculty; our staff; and our students have the talent and the potential to play a vital role. They can change our community; strengthen our society; develop our economy; and can keep us at par with the international community.

The faculty members and students of the University of Peshawar are equally contributing to national and global obligations through their research and development activities. One such example is the Mobilise Project of the Centre for Disaster Preparedness and Management. The project team has successfully conducted research studies on disaster resilience, digital technology application in disaster risk reduction, and urban flood assessment and governance



mechanism for disaster risk reduction. These studies can be used by other relevant agencies to develop dynamic resilience measures of physical infrastructure, health, economic, organizational and social capacities. This project further aims to investigate how

teamwork among the disaster management agencies in Pakistan could be enhanced through digitally supported collaboration processes. This work will investigate enhancement of current organizational structures and collaboration processes in order to exploit the benefits of the

interactive collaborative technologies that will be developed within the project. The Project team has developed software's for dependency modeling, cost estimation and evacuation management and soon the team will hand over these software's to relevant government department at the provincial level. I am pleased to share that the project team is working very closely with the Disaster Management Authorities and other responsible stakeholders and working together for disaster resilience in Pakistan. To conclude, I would like to extend my gratitude to the worthy speakers of the opening ceremony and exhibitors for their time and interest in promoting the noble cause of disaster risk reduction, climate change adaptation and sustainable development. I wish all the best to the young and energetic team of the Mobilise Project and appreciate their efforts in such a short span of time for bringing the academia, government officials, development sector practitioners and decision makers on one platform.

In his vote of thanks the Mobilise Project Pakistan Investigator said that the project team has conducted various independent studies and they are planning for some more studies in the near future. Besides, the project

team has developed software's for Crowd Movement Simulation, Dependency Modeling, Flood Economic Cost Estimation and web bases collaboration platform for urban resilience. The Project team has also developed two mobile apps



for dengue reporting and public awareness and disaster report. Soon these apps and software's will be handed over to DMAs in Pakistan. These software and apps are on display and our research assistant can further brief you on its usages, benefits and applications. The opening ceremony ended with vote of thanks and group photo of the participants.

Government officials, officials of United Nations, Civil Society Organizations, Local Governments, Students of various universities, both inside and outside the campus in Peshawar were the main attendees of the Expo. This grand event which would not have been possible

without the support of Mobilise Consortium was remarkably highlighted in both the print and electronic media. Visitors were briefed about how to cope with mishaps and calamities at the event. They were briefed about the technological interventions and innovation in the field. The Expo was really a success because of the active involvement and participation of many local, national and international organizations and line agencies in it. An estimated more than 3500-4000 visitors visited the Expo. A total of 31 organizations exhibited their works and services in Disaster Risk Reduction to the People.

07: LIST OF EXHIBITORS

1. CDPM
2. Mobilise Project-Pakistan
3. NIDM/National Disaster Management Authority-KP
4. UNICEF Pakistan
5. SoftHat IT Solutions, Peshawar
6. SDGs Support Unit P&D Department: KP
7. Pakistan Meteorological Department Regional Meteorological Center Khyber Pakhtunkhwa
8. Sustainable Housing Research Center (SHRC), University of Engineering and Technology Peshawar
9. Acted Pakistan
10. Cure Door Resource Center, Peshawar
11. PDMA Khyber Pakhtunkhwa
12. Department of Geography, University of Peshawar
13. Department of Civil Engineering University of Engineering and Technology Peshawar
14. Earthquake Engineering Center University of Engineering and Technology Peshawar
15. Pakistan Nuclear Regulatory Authority (PNRA)
16. Department of Electronics, University of Peshawar
17. Earth and Atmospheric Remote Sensing Lab (EARL), Department of Meteorology, COMSATS University Islamabad
18. National centre for Big Data and Cloud Computing, UET, Peshawar
19. School Safety Cell, Department of Elementary and Secondary Education Khyber Pakhtunkhwa
20. Department of Arts and Design, University of Peshawar
21. The NGO World Foundation
22. International Centre for Integrated Mountain Development (ICIMOD)
23. Department of Botany, University of Peshawar
24. National Book Foundation
25. Rescue 1122 Khyber Pakhtunkhwa
26. Centre of Biotechnology and Microbiology University of Peshawar

27. Department of Social Work, University of Peshawar
28. Department of Psychology, University of Peshawar
29. Social Impact Organization
30. Frontier Foundation
31. HelpAge-Pakistan

08: PRE EVENT PRESS RELEASE

DEALING WITH DISASTER AND CLIMATE CHANGE: MOBILISE EXPO FOCUSES ON RISK REDUCTION AND PUBLIC AWARENESS

In the wake of changing climatic patterns and high level of exposure of the country to natural hazards, the Centre for Disaster Preparedness and Management, University of Peshawar has organized a one day Expo on Technology Mediated Disaster Risk Reduction (DRR), Climate Change Adaptation and Sustainable Development at PUTA Hall, University of Peshawar on April 25, 2019. The Expo will house Disaster Management Authorities, Academic Institutions, Government Departments, United Nations, INGOs, NGOs, and Companies working in the field. These organizations will participate as exhibitors and display their products, equipments, books, periodicals, research output, pamphlets, models, case studies and software etc. Moreover, they will also share their development stories, progress reports, with the visitors and would help create awareness among the public at large about climate change adaptation and disaster risk reduction. The basic aim of this one day Expo is to provide a platform to exchange views on how to mainstream the practices of Climate Change Mitigation/Adaptation & Disaster Risk Reduction into development planning and explore new techniques and methodologies in the field of Climate Change adaptation & Disaster Resilience to enhance the existing knowledge and skills. The Expo will provide opportunities to sensitize the common masses and students of the University campus regarding disaster risk reduction and climate change adaptation. More than thirty Academic Institutions, Government and Non Government Organizations, Software Houses, Consultancy Firms and companies will setup stalls in the one day Expo. Last date for stall reservation is April 20, 2019.

Ali Imran
Media Protocol Officer
University of Peshawar

09: EVENT PRESS RELEASE (25/04/2019)

MOBILISE platform at CPDM sets for apps and software's development through mobilise project*

Peshawar: University of Peshawar is synergizing key departments like Geography, environmental sciences, Disaster and geology to combat disaster and climate change challenges. The statement was shared by vice Chancellor University of Peshawar Prof.Dr. Muhammad Asif Khan at the inaugural session of the one day MOBILISE expo entitled as Technology mediated disaster risk reduction, climate change adaptation and Sustainable Development. Around thirty governmental and nongovernmental organizations presented their products, equipments and software at expo on Disaster reduction risk reduction at the Expo. Speaking as a chief guest Prof.Dr.Asif Khan welcomed research projects on Disaster reduction in big number since 2005 but stressed those key government organizations will have to adapt latest technologies in combating climate change and disasters like situations. He showed his concern that large infrastructure projects without environmental feasibility and building codes will open door for catastrophe. Director Centre for disaster preparedness and Management Prof.Dr.Noor Jahan said disaster mitigation and preparedness need more attention of the disaster management authorizes. She further stresses on effective mechanism with latest technology for emergency response. She called upon line departments to conduct awareness programs and adapt latest technologies. Dean faculty of life and Environmental Sciences, Prof.Dr.Bashir Ahmad said that bringing in development sector, governmental institution and academia under one roof is a big shot in arm for the centre .He called upon participants of the expo to sustain the research and collaboration spree. He was of the view that technology and research relating to disaster risk reduction and climate change has progressed significantly on all fronts and across all sectors. Scientists and researchers have brought a deeper understanding of hazards, vulnerabilities, disaster risks and their linkages to the developmental processes. However, there are ongoing challenges and gaps in translating this scientific information into policy so that disaster risk reduction policies are based on science and evidence. Given the different levels at which disasters can affect our society, it is essential that we consider how the physical and social sciences can be fully deployed in an integrated way with technology to reduce both disaster risks and their impacts. PDMA Director Mian Abdul Qadir Shah told participants that 35 telemeters are being installed to have real time data for responding to floods in the province. He was of the view that he has practically seen the 2005 earthquake situation in field and it is high time to invest in DRR rather than investing in post disaster recovery. He said, PDMA is trying their level best to tap all resources and is working very hard for disaster resilience in the province. The MOBILISE investigator Mushtaq Jan said that MOBILISE platform of the CDPM aim to strengthen Collaboration between institutions and organizations working in area of Disaster risk Reduction. The Project team has developed Mobile Apps for Disaster reporting and sharing of information. The team is working on developing Software's for economic cost modeling, vulnerable group's dependency modeling, system dynamics, disaster cascade effect modeling and software for visualization of Disaster impacts. The MOBILISE Expo was in the second event of MOBILISE Platform in the past few months. The platform intends to hold one national and one international conference on Disaster Resilience in 2019.

Ali Imran

Media Protocol Officer

University of Peshawar

April 25, 2019

10: EXPO ADVERTISEMENT IN DAILY THE NEWS AND DAILY DAWN (April 08, 2019)



REGISTRATION OPEN

Mobilise Expo on Technology Mediated Disaster Risk Reduction, Climate Change Adaptation and Sustainable Development

April 25, 2019 at PUTA Hall, University of Peshawar

**Last Date for Stall Reservation is
April 20, 2019**

Registration form and event details are available at the Centre for Disaster Preparedness and Management (CDPM), Shaikh Taimur Academic Block-II, University of Peshawar and can also be downloaded from <http://www.uop.edu.pk/events/?q=419>

For further details please contact

Event Focal Person Mushtaq Ahmad Jan on

Email: mushtaq@uop.edu.pk

Cell and Whatsapp: 0346-9397774

**Mobilise Project Team,
Centre for Disaster Preparedness and Management,
University of Peshawar- Pakistan**

10: EXPO COVERAGE BY ELECTRONIC MEDIA:

<https://youtu.be/qmPvTibSeVo>

https://www.youtube.com/watch?v=MtPoobgEmzE&feature=share&fbclid=IwAR3X_d6UJTkGfww-nZIEHUhB2mjm1yEM2R4OChkfDUKnzZwULFR9AIQTgs



<https://youtu.be/MtPoobgEmzE>



https://www.youtube.com/watch?v=qmPvTibSeVo&feature=youtu.be&fbclid=IwAR1QyhTaFL_vMu-E7FCcQoaGPrUwmCkiOrzPHieETQcw-z-s0NAE7-nRppU

11: EXPO GALLERY









12: PRINT MEDIA COVERAGE



Express Tribune Tech

Apr 19 at 09:28 • 

The expo follows a series of disasters the province has suffered in the wake of changing climatic patterns and high level of exposure of the country to natural hazards
<https://tribune.com.pk/story/1954144/8>



Friday

April 19, 2019

Shaban 13, 1440 A.H.

INTERNATIONAL

THE NEWS

UoP expo on disaster risk reduction on 25th

Bureau report

PESHAWAR: The Centre for Disaster Preparedness and Management of the University of Peshawar (UoP) will hold a one-day Expo on Technology-Mediated Disaster Risk Reduction (DRR), Climate Change Adaptation and Sustainable Development at Puta Hall on April 25.

The organizers said the expo is expected to attract disaster management authorities, academic institutions, government departments, United Nations, INGOs, NGOs, and companies working in the field. These organisations will participate as exhibitors and display own products, equipment, books,

periodicals, research output, pamphlets, models, case studies, software, etc. They will also share own development stories and progress reports with the visitors and would help raise awareness among the public at large about climate change adaptation and disaster risk reduction. The basic aim of the one-day expo is to provide a platform to exchange views on how to mainstream the practices of climate change mitigation/adaptation & disaster risk reduction into development planning and explore new techniques and methodologies in the field of climate change adaptation & disaster resilience to enhance the existing knowledge and skills.

Friday
April 26, 2019

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MASHRIQ GROUP OF NEWSPAPERS

35 telemeters being installed in KP to timely respond to floods: PDMA

PESHAWAR: The Provincial Disaster Management Authority (PDMA) Thursday said that in order to cope with emergencies the authority was installing 35 telemeters to have real time data for timely responding to floods in the province.

PDMA Director Mian Abdul Qadir Shah told the participants of inaugural session of one day expo entitled "Technology mediated disaster and risk reduction climate".

The expo was organized by University of Peshawar and attended by representatives of PDMA, NDMA, Asian Development Bank, Pakistan Nuclear Regulatory Authority, Rescue 1122, Geography, Psychology and Disaster Department.

More than two thousand students thronged the expo.

Speaking as Chief Guest, Vice Chancellor University of Peshawar Prof Dr Muhammad Asif Khan welcomed research projects on Disaster Reduction in big number since 2005 but stressed that key government organizations will have to change fast by harnessing latest technologies in combating climate change and disaster-like situations.

He showed his concern that large infrastructure projects without environmental feasibility and building codes will open door for catastrophe.

Director Center for disaster preparedness and Management Prof Dr Noor Jahan said that emergency

response systems in the current disaster discourse will be irrelevant due to emerging trends of effective planning mechanisms.

He called upon disaster fighting line departments to raise awareness programs, disaster reduction components and latest technologies in their strategy and fight.

Dean faculty of life and Environmental Sciences, Prof Dr Bashir Ahmad said that bringing in development sector, governmental institution and academia under one

roof is a big shot in arm for the center. He called upon participants of the expo to sustain the research and collaboration spree.

The current principal investigator Dr Mushtaq Jan said that MOBILISE

platform of the CDPM aim to strengthen collaboration between institutions and organizations working in area of disaster risk reduction. The project team has developed Mobile Apps for disaster reporting and sharing of information.

The team is working on developing a software for economic cost modeling, vulnerable groups dependency modeling, system dynamics, disaster case effect modeling and software for visualization of disaster impacts.

The MOBILISE Expo was in the second event of MOBILISE Platform in the past six weeks. The platform intends to hold one national and one international conference on Disaster Resilience in 2019. - APP

According to details, the PDMA released Rs 42 million for Abbotabad and Rs20 million for Tank, Bannu, Malakand, Kohistan and another resource to of timely action in case of emergency situation. - APP

35 telemeters being installed in KP to timely respond to floods: PDMA

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NAB holds training session for anti-graft agency

اللہ ہی کیلئے ہیں مشرق و مغرب القرآن

DAILY MASHRIQ PESHAWAR

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سید تاج میر شاہ
عہد نو کے بانی
پشاور
مشرق
مسلل اشاعت کے 52 سال

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CERTIFIED

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145

جمعۃ المبارک 20 شعبان 1440ھ 26 اپریل 2019ء 13 بیساکھ قیمت 20 روپے

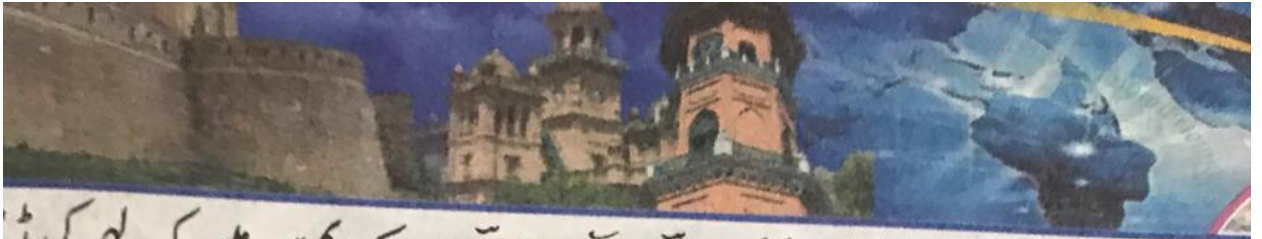
جلد 52



دی سی جامعہ پشاور پروفیسر آصف خان ایکسپو کا افتتاح کر رہے ہیں

جامعہ پشاور میں آفات و موسمیاتی تبدیلی سے بچاؤ کیلئے ایکسپو

30 اداروں کی شرکت، زلزلہ کے بعد آفات سے مقابلہ کا شعور پیدا ہوا، دی سی پشاور (کیپس رپورٹر) جامعہ پشاور کے سنٹر فار ڈیزاسٹر پریہنڈلس و مینجمنٹ نے جمعرات کو ایک روزہ قومی ایکسپو کا اہتمام کیا جس کا عنوان آفات و موسمیاتی تبدیلیوں سے جدید ٹیکنالوجی کے ذریعے شعور معاشرے میں پیدا ہوا۔ دی سی نے شعبہ خطرات سے بچاؤ کی بدولت پائیدار ترقی کا فروغ ہے، ایکسپو میں ملک بھر سے تیس سے زائد اداروں فارم بنانے کی پالیسی پر اطمینان کا اظہار کیا۔



کے ایم سی میں کو لہے کی ہڈی
کے بارے معلوماتی ورکشاپ

پشاور (یونیورسٹی رپورٹر) خیبر میڈیکل کالج میں
کی ہڈی کے بارے میں معلوماتی ورکشاپ منعقد
جس کا اہتمام خیبر ٹیچنگ (باقی صفحہ 9 بقیہ نمبر 4)

ن جعلی قرار جو ڈیشل انکوائری کا مطالبہ

ہشت گردی کا رنگ دینے والوں کو بے نقاب کیا جائے، رحیم شاہ آفریدی
نران نے حیات آباد واقعے میں لوگوں کو قتل کرنے اور واقعے کو دہشت گردی کا رنگ دینے
ہے اور اس کی تحقیقات والوں کو عوام کے سامنے بے نقاب کیا جائے بصورت دیگر وہ ملک
مطالبہ کیا ہے کہ اس بھر میں نہ ختم ہونی والا احتجاجی تحریک شروع (باقی صفحہ 9 بقیہ نمبر 4)



و اُس چانسلر پشاور یونیورسٹی ڈاکٹر محمد آصف خان قومی ڈیزاسٹر مینجمنٹ ایکسپو کا افتتاح کر رہے

آفات سے نمٹنے میں جدید ٹیکنالوجی کا اہم کردار ہے ڈاکٹر آصف

جامعہ پشاور میں 30 سے زائد ملکی اور غیر ملکی اداروں کی قومی ڈیزاسٹر مینجمنٹ ایکسپو میں شرکت

پشاور (یونیورسٹی رپورٹر) ماضی کی طرح ایک بار پھر
جامعہ پشاور کے سنٹر فار ڈیزاسٹر پریپریڈنس اینڈ
مینجمنٹ نے جمعرات کو ایک روزہ قومی ایکسپو کا اہتمام بدولت پائیدار ترقی کا (باقی صفحہ 9 بقیہ نمبر 8)

مدم ثبوت پر بری

نے میں ناکام فیصلہ جاری

سے خضر حیات خزانہ ایڈوکیٹ نے
کی استغاثہ کے مطابق ملزم بخت
ہ پر الزام (باقی صفحہ 9 بقیہ نمبر 7)

افصلہ

میں کمی آگئی ہے

چیک کیا جاسکے گا

ب، کیمیکل، زہریلے مواد، فوڈ کلر کے
نت کے ٹیسٹ کئے جائیں گے، انہوں
ایاکہ (باقی صفحہ 9 بقیہ نمبر 8)

ایکسپو کا اہتمام بدولت پائیدار ترقی کا (باقی صفحہ 9 بقیہ نمبر 8)

جامعہ پشاور میں موسمیاتی تبدیلیوں حوالے سے نمائش

طلبہ نے سٹانڈ لگا کر لوگوں کو اپنے تجربات سے باخبر، کمیونٹی سروسز پر بھی آگاہی

پشاور (نئی بات نیوز) جامعہ پشاور کی موسمیاتی تبدیلیوں آفات سے بچاؤ اور روک تھام کیلئے ایک روزہ ایکسپو میں ہزاروں طلباء طالبات اٹھ پڑے جبکہ ایکسپو میں این ڈی ایم اے اور ایشین ڈیولپمنٹ بینک کی اسٹالوں کی دھوم جبکہ ریکیون ون ٹوٹو موبائل ایمرجنسی بس میں شرکاء نے گہری دلچسپی کا اظہار کیا جامعہ پشاور میں ایک روزہ ڈیزاسٹر ایکسپو میں سکول اور کالجز کے مختلف شعبہ جات کے ہزاروں طلبہ و طالبات نے شرکت کر کے تقریب کو چار چاند لگا دیئے جبکہ شرکاء نے ایمرجنسی رسپانس بس میں سرجیکل سروسز اور نگہداشت کے انتظامات پر قومی ادارے ریکیون 1122 پر اعتماد اور خوشی کا اظہار کیا جبکہ شعبہ نفسیات کے اسٹال پر طلباء اور فیکلٹی نے آفات کے بعد نفسیاتی اور صدمہ کے سدباب سے متعلق نفسیاتی طریقہ کار پر نوجوان طلباء کو باخبر کیا جبکہ ایشیائی ترقیاتی بینک کی جانب سے آفات سے بچاؤ کیلئے اپنے ادارے کی خدمات پیش کیں جبکہ این ڈی ایم اے اور پی ڈی ایم اے کے اسٹال پر طلباء و طالبات کو معلوماتی مواد اور اپنے اپنے علاقوں میں کمیونٹی سروسز پر آگاہی دی۔

موسمیاتی تبدیلیوں کے حوالے سے نمائش 25 اپریل کو منعقد ہوگی

پشاور (یونیورسٹی رپورٹر) پاکستان میں موسمیاتی تبدیلیوں اور آفات کے خطرات کو مد نظر رکھتے ہوئے جامعہ پشاور کے سنٹر فار ڈیزاسٹر پریپرڈنس اینڈ منجمنٹ نے 25 اپریل کو پیوٹا ہال میں ایکسپو کا اہتمام کیا ہے۔ ایکسپو کا بنیادی مقصد آفات کے خطرات میں کمی، موسمیاتی تبدیلیوں میں موافقت اور پائیدار ترقی کے لیے استعمال ہونے والی ٹیکنالوجی کی نمائش ہے۔ ایکسپو میں تعلیمی ادارے، ڈیزاسٹر منجمنٹ اتھارٹیز، اقوام متحدہ، غیر سرکاری تنظیمیں اور پرائیویٹ کمپنیاں اپنی تحقیقی پیداوار، کیس اسٹڈیز، سافٹ ویئر، مصنوعات اور سروس کی نمائش کریں گی۔ تیس سے زیادہ قومی اور بین الاقوامی ادارے اور جامعات اور دوسو کے قریب تعلیمی اداروں کے اراکین شرکت کریں گے۔ سٹال بنگ کی آخری تاریخ 20 اپریل ہے۔

آئین اور قانون کی بالادستی کا علمبردار

Daily
Aeen
Peshawar

پشاور

Chief Editor

Rahatullah Khan

چیف ایڈیٹر
راحت اللہ خانABC
CERTIFIED

جلد 30 جمعہ المبارک 26 اپریل 2019ء 20 شعبان المعظم 1440ھ 13 بیساکھ 40 تہمت 72 شمارہ

جامعہ پشاور میں سنٹر فار ڈیزازسٹریک پیئر ٹیلنس و مینجمنٹ کے زیر اہتمام قومی ایکسپو

دی سی کا 2030ء کیلئے شعبہ ماحولیاتی جغرافیہ و ارضیات و ڈیزازسٹریکٹ پیئر ٹیلنس و مینجمنٹ کے زیر اہتمام قومی ایکسپو پشاور (آئین نواز) ایسی کی طرح ایک بار پھر جامعہ آفات و موسمیاتی تبدیلیوں سے جدید ٹیکنالوجی کے پروفیسر ڈاکٹر محمد آصف خان نے کہا کہ کشمیر کے زلزلہ پشاور کے سنٹر فار ڈیزازسٹریکٹ پیئر ٹیلنس و مینجمنٹ نے ذریعہ خطرات سے بچاؤ کی بدولت پائیدار ترقی کا بعد پاکستان میں آفات سے مقابلہ کا شعور گزشتہ روز قومی ایکسپو کا اختتام کیا جس کا عنوان فروغ ہے اس موقع پر مہمان خصوصی وائس چانسلر معاشرے میں پیدا ہوا حالانکہ (بقیہ 74 صفحہ 7)



جامعہ پشاور میں سنٹر فار ڈیزازسٹریکٹ پیئر ٹیلنس و مینجمنٹ کے زیر اہتمام قومی ایکسپو کے شرکاء کا مہمان خصوصی دی سی ڈاکٹر محمد آصف کے ہمراہ گروپ فوٹو

قومی ایکسپو 74
سابقہ کوئٹہ 1934ء تا 1974ء جن روزوں سے قومی شعور اور آگاہی میں بہت سیلے تبدیلی دیکھنے کو مل سکتی تھی وہی سی جامعہ پشاور نے موسمیاتی تبدیلیوں اور پائیدار ترقی کے اہداف 2030 کیلئے جامع پشاور کی جانب سے شعبہ ماحولیاتی جغرافیہ و ارضیات و ڈیزازسٹریکٹ پیئر ٹیلنس و مینجمنٹ کے زیر اہتمام قومی ایکسپو پشاور (آئین نواز) ایسی کی طرح ایک بار پھر جامعہ آفات و موسمیاتی تبدیلیوں سے جدید ٹیکنالوجی کے پروفیسر ڈاکٹر محمد آصف خان نے کہا کہ کشمیر کے زلزلہ پشاور کے سنٹر فار ڈیزازسٹریکٹ پیئر ٹیلنس و مینجمنٹ نے ذریعہ خطرات سے بچاؤ کی بدولت پائیدار ترقی کا بعد پاکستان میں آفات سے مقابلہ کا شعور گزشتہ روز قومی ایکسپو کا اختتام کیا جس کا عنوان فروغ ہے اس موقع پر مہمان خصوصی وائس چانسلر معاشرے میں پیدا ہوا حالانکہ (بقیہ 74 صفحہ 7)

Daily

AAJ
26/4/2019

پشاور یونیورسٹی ایکسپو میں 30 سے زائد اداروں کی شرکت

پشاور (یونیورسٹی رپورٹر) ڈیزائنر منجمنٹ سنٹر پشاور یونیورسٹی کے زیر اہتمام موبی تعمیرات اور قدرتی آفات میں جدید ٹیکنالوجی (باقی صفحہ 9 بقیہ نمبر 3)

متعلقہ مقام کو ہدایت جاساں۔

ایکسپو

بقیہ نمبر 3

کی بدولت پائیدار ترقی کے بارے میں منعقد ایکسپو میں 30 سے زائد قومی اور بین الاقوامی اداروں نے شرکت کی۔ گئے، پھر زکیوٹی سنٹر میں منعقدہ ایکسپو کے شرابی اداروں میں خیبر پختونخوا اور ملک کی درجن بھر جامعات کے علاوہ اقوام متحدہ کا ادارہ یونیسیف ریسکس 1122 محکمہ تعلیم، میٹیل ڈیزائنر منجمنٹ اتھارٹی صوبائی اتھارٹی، میٹس، پی اینڈ ڈی ڈی پارٹنر اور رینجیل میٹرولوجیکل ڈیپارٹمنٹ بھی شامل تھے۔



و اُس چانسلر پشاور یونیورسٹی ڈاکٹر محمد آصف خان قومی ڈیزائنر منجمنٹ ایکسپو کا افتتاح کر رہے ہیں

آفات سے نمٹنے میں جدید ٹیکنالوجی کا اہم کردار ہے ڈاکٹر آصف

جامعہ پشاور میں 30 سے زائد قومی اور غیر ملکی اداروں کی قومی ڈیزائنر منجمنٹ ایکسپو میں شرکت

پشاور (یونیورسٹی رپورٹر) ماضی کی طرح ایک بار پھر کیا جس کا عنوان آفات و موسمیاتی تبدیلیوں سے جامعہ پشاور کے سنٹر فار ڈیزائنر پریپریٹس اینڈ جدید ٹیکنالوجی کے ذریعے خطرات سے بچاؤ کی منجمنٹ نے جمعرات کو ایک روزہ قومی ایکسپو کا اہتمام بدولت پائیدار ترقی کا (باقی صفحہ 9 بقیہ نمبر 20)

ڈاکٹر آصف

بقیہ نمبر 20

فروع تھا اس موقع پر مہمان خصوصی و اُس چانسلر پروفیسر ڈاکٹر محمد آصف خان نے کہا کہ شمیر کے زلزلہ کے بعد پاکستان میں آفات سے مقابلہ کا شعور معاشرے میں پیدا ہوا حالانکہ سانحہ کوئٹہ 1934 اور 1974 چن زلزلہ سے قومی شعور اور آگاہی میں بہت پہلے تبدیلی دیکھنے کو مل سکتی تھی وہی سی جامعہ پشاور نے موسمیاتی تبدیلیوں اور پائیدار ترقی کے اہداف 2030 کیلئے جامعہ پشاور کی جانب سے شعبہ ماحولیات، جغرافیہ و ارضیات و ڈیزائنر کا مشترکہ پلیٹ فارم بنانے کی پالیسی دستاویز تیار ہونے پر اطمینان کا اظہار کیا اس موقع پر سنٹر فار ڈیزائنر کی ڈائریکٹر پروفیسر ڈاکٹر نور جہاں نے کہا کہ ایکسپو کا بنیادی مقصد فیصلہ ساز اداروں کو یہ باور کرانا ہے کہ ردعمل ریپاس سے زیادہ اہمیت کا حامل کسی قوم کا شعور اور فنی اور ٹیکنیکی معنوں میں آفات کیلئے موثر منصوبہ بندی ہے اس موقع پر ڈی جی پروڈائل ڈیزائنر منجمنٹ اتھارٹی کی نمائندگی کرتے ہوئے ڈائریکٹر میاں عبدالغفار شاہ نے کہا کہ ان کا ادارہ سیلاب سے بچاؤ کیلئے صوبہ بھر میں 35 ٹیلی میٹری تنصیب پر کام کر رہا ہے ایکسپو کے روح رواں اور سوبالکیز پراجیکٹ کے متعلق صاحبزادہ مشتاق جان نے ایکسپو کے شرکا کو بتایا کہ پراجیکٹ کے ذریعے وہ ڈیٹنگ سے مزاحم کار ایپ اور ڈیزائنر موزام کا راپ اپنی ٹیم کی بدولت بنائے

★★★★★

لاہور راولپنڈی / اسلام آباد کراچی پشاور کوئٹہ فیصل آباد اور گوجھ سے بیک وقت شائع ہونے والا قومی اخبار

Daily Nai Baat

روزنامہ نئی بات پشاور

چیف ایڈیٹر: چوہدری عبدالرحمن

جلد	جمعہ المبارک 20 شعبان المعظم 1440ھ 26 اپریل 2019ء 12 مئی 2076 ب	صفحہ 12	قیمت 20 روپے
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Friday 26 April 2019

جامعہ پشاور میں موسمیاتی تبدیلیوں حوالے سے نمائش

طلبہ نے سائزر لگا کر لوگوں کو اپنے تجربات سے باخبر، کمیونٹی سرومز پر بھی آگاہی

پشاور (نئی بات نیوز) جامعہ پشاور کی موسمیاتی تبدیلیوں عا قات سے بچاؤ اور روک تھام کیلئے ایک روزہ ایکسپو میں ہزاروں طلباء طالبات انڈر پڑے جبکہ ایکسپو میں، این ڈی ایم اے اور اسٹین ڈیو پمنٹ بینک کی اسٹالوں کی دھوم جبکہ ریکیون ون ٹوٹو موپائل ایمر جی بیس میں شرکاء نے گہری دلچسپی کا اظہار کیا جامعہ پشاور میں ایک روزہ ڈیزائنر ایکسپو میں سکول اور کالجز کے مختلف شعبہ جات کے ہزاروں طلبہ و طالبات نے شرکت کر کے تقریب کو چار چاند لگا دیئے جبکہ شرکاء نے ایمر جی بیس میں سر جیکل سرومز اور نگہداشت کے انتظامات پر قومی ادارے ریکیون 1122 پر اعتماد اور خوشی کا اظہار کیا جبکہ شعبہ نفسیات کے اسٹال پر طلباء اور فیکلٹی نے آفات کے بعد نفسیاتی اور صدمہ کے سد باب سے متعلق نفسیاتی طریقہ کار پر توجہ طلباء کو باخبر کیا جبکہ ایسٹائی تر قیاتی بینک کی جانب سے آفات سے بچاؤ کیلئے اپنے ادارے کی خدمات پیش کیں جبکہ این ڈی ایم اے اور پی ڈی ایم اے کے اسٹال پر طلباء و طالبات کو معلوماتی مواد اور اپنے اپنے علاقوں میں کمیونٹی سرومز پر آگاہی دی۔

Daily Surkhhab Peshawar

ABC
CERTIFIED



پشاور اور اسلام آباد سے بیک وقت شائع ہونے والا قومی اردو روزنامہ

شمارہ 303

20 شعبان 1440 ہجری جمعہ المبارک 26 اپریل 2019

جلد 31

جامعہ پشاور کے سنٹر فار ڈیزاسٹر

کے زیر اہتمام قومی ایکسیپو

پشاور (اے پی پی) ماضی کی طرح جامعہ پشاور کے سنٹر فار ڈیزاسٹر کے زیر اہتمام ایک روزہ قومی ایکسیپو کا اہتمام کیا گیا جس کا عنوان آفات و موسمیاتی تبدیلیوں سے جدید ٹیکنالوجی کے ذریعے خطرات سے بچاؤ تھا۔ اس موقع پر مہمان خصوصی وائس چانسلر پروفیسر ڈاکٹر محمد آصف خان نے کہا کہ کشمیر کے زلزلہ کے بعد پاکستان میں آفات سے مقابلہ کرنے کا شعور اجاگر ہوا

EITUNKHWA HIGHWAYS

13: EXPO PRINTING MATERIAL

OUR COMMITMENT IS TO EQUIP HUMAN BEINGS WITH THE KNOWLEDGE AND SKILLS TO MINIMIZE THE DAMAGES AND MISERIES OF DISASTERS



MOBILISE Expo
on
**TECHNOLOGY MEDIATED DISASTER RISK REDUCTION, CLIMATE
CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT**

on Thursday April 25, 2019 (09:00 AM to 04:00 PM)

Venue:
PUTA Hall, University of Peshawar

Organized by:

**MOBILISE PROJECT TEAM
CENTRE FOR DISASTER PREPAREDNESS AND MANAGEMENT (CDPM)
UNIVERSITY OF PESHAWAR-PAKISTAN**

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UNIVERSITY OF PESHAWAR

MOBILISE Project

A Collaborative Multi-Agency

Platform for Building Resilient Communities

"OUR COMMITMENT IS TO EQUIP HUMAN BEINGS WITH THE KNOWLEDGE AND SKILLS TO MINIMIZE THE DAMAGES AND MISERIES OF DISASTERS"

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ASSESSMENT OF URBAN FLOODS AND DROUGHTS IN DISTRICT PESHAWAR-PAKISTAN

INTRODUCTION

Peshawar is the capital of Khyber Pakhtunkhwa province and lies between 33°44'05" N, 71°22'07" E and 33°45'15" N, 71°42'07" E. It is situated in Peshawar valley, surrounded by River Bara in South and River Buthin on North, a subsidiary of the Kabul River, and on the west by the Khyber Agency (Government of Pakistan, (GOP), 1999). District Peshawar is divided into 4 town committees, which constitutes 93 Union Councils (UCs). The urban area consists of Town-I and Town-II. Town-I and Town-II are located in the center of the district. According to 2017 census, the population of the district Peshawar is 2,065,851. The district Peshawar has a semi-arid climate with hot summers & cool winters. In summer and winter, the temperature ranges from 25 to 40°C and 4 to 18°C, respectively. Mostly, the rainfalls occur in the monsoon season of July & August.

Peshawar is vulnerable to hydro-meteorological hazards because of its location in the Peshawar valley. The district Peshawar is surrounded by hills which lacks the observance to the principles of town planning. Peshawar lies in close proximity to river Kabul and river Bara which flow from the directions of North-East and South-East of the city, respectively. Three major threats from Khyber Agency bisect the city from South-East to North-West direction. The Flood - 2010 and Drought 2000-02 were the worst hydro-meteorological disasters in the history of Pakistan. In Khyber Pakhtunkhwa province, the district Peshawar is one of the districts which has experienced severe meteorological drought in 2000 - 02 and spell of urban floods from 2008 onward. The irregular spell of rainfall from Monsoon in summer and Western Depression in winter is the basic cause of hydro-meteorological hazards. The probing and/or heavy showers causes excess of water which generate the pluvial floods in urban areas of Peshawar. The dry periods cause the meteorological droughts in the region. The population growth, unplanned urbanization, poor sanitation, drainage pattern, irrigation network which is perpendicular to drainage system, unusual heights (old city), cementation and pavements of roads & streets, encroachments, and other developmental activities are the intensifying factors for these hydro-meteorological hazards. Based on data analysis, in recent years the developmental works on irrigation and drainage channels the intensity of fluvial urban flash floods is dramatically decreased. Similarly, the well season decrease the chances of meteorological droughts in the region. However, the intensifying factors exacerbates the urban floods conditions as well as the rapid water table depletion occurred in this region. Consequently, urban floods and hydrological droughts conditions are at rise in the district Peshawar.

The horizontal & vertical development increases pressure on the drainage system. The fragile elements at risk, encroachment to urban floods vice versa, lack of availability of water from these resources caused droughts. The causes of urban floods and drought in Peshawar can be summarized as, heavy/prolonged rainfalls, dry seasons, climate change, poor drainage system, unplanned urbanization, poor sanitation, poor drainage system, city's drainage system to reduce the frequency and magnitude of hydro-meteorological disasters. The physical and economic vulnerability can be reduced to a greater extent by precise hydro-meteorological hazards forecast and providing early warning to the local communities (Atta-ur-Rahman & Khan, 2011). The study pointing out those areas that are vulnerable to urban floods and droughts, the study also highlights the structural & non-structural mitigation measures have been taken by the local people and the government, the fluctuating economic conditions and increased frequency and magnitude of rainfalls, due to climate change, make it very difficult, if not impossible, to invest in structural measures regarding the improvement of drainage systems. Ultimately, it will reduce the probable primary and secondary damages of hydro-meteorological hazards.

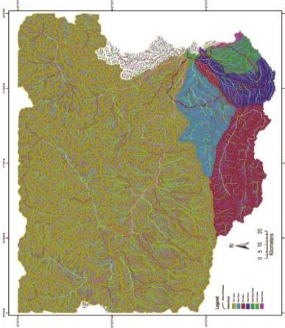
METHODOLOGY

Land use analysis is carried out to study the intensifying factors for drought and urban floods. The major intensifying factors are: population growth, unplanned urbanization, poor sanitation, poor drainage system, city's drainage system, city's drainage system to reduce the frequency and magnitude of hydro-meteorological disasters. The study also highlights the structural & non-structural mitigation measures have been taken by the local people and the government, the fluctuating economic conditions and increased frequency and magnitude of rainfalls, due to climate change, make it very difficult, if not impossible, to invest in structural measures regarding the improvement of drainage systems. Ultimately, it will reduce the probable primary and secondary damages of hydro-meteorological hazards.

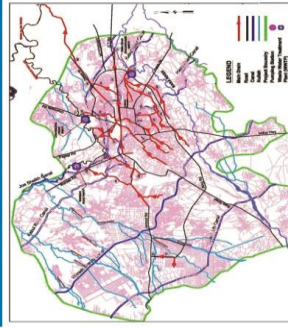
Results

- All watersheds are drained into River Kabul. However, for better understanding the tributary watersheds are studied individually. The major river and stream along with their watersheds are Khazam Khwar, Buthi Nulah, River Bara, River Kabul, Zinda Khwar, Shula Khana Khwar and River Chora.
- River Kabul has very large covered watershed area. Based on Strahler order analysis, size and slope analysis, it is obvious that the flow in the River Kabul is seasonal. First, the water flow is seasonal in perennial in nature. Obviously, the water flow is seasonal in nature. Second, the steep slope and least number of stream order in Strahler stream order analysis portrayed that the nature of flood is flash flood.
- Peshawar which has the largest watershed area of 412.07 Sq. Km in district Peshawar which make it almost 1/3 of the total area. This covered area consists of high profile, residential area which encourage encroachment and flood in the city.
- Fluvial flash floods are very common in this area.
- The urban growth seriously affected the hydrological system including water usage, water permeability, water table etc. which ignited the hydrological drought in this region.
- Buthi Nulah is the extension of River Chora at the mouth. Local seasonal stream work as tributary streams mostly catching water from the hills. The water table in this area is very low. Urban developmental activities make this area highly prone to flash flood.
- Almost half of the area of the district Peshawar is drained by local nullahs. The important local streams are Khazam Khwar, Zinda Khwar and Shula Khana Khwar. These streams have very limited watershed areas. The water only flows in rainy seasons in these streams. The high-altitude differences and least supported watershed areas make it highly prone to flash floods.
- Flash floods are least common but highly damagable because the residents are least prepared for flash floods.
- The urban areas in this region has urban flood due to poor sanitation and drainage system.

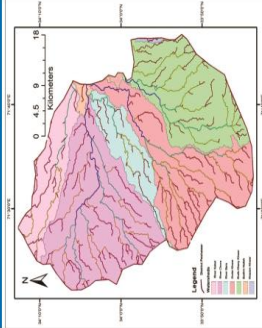
Supported Watersheds of all Rivers and Streams in Peshawar



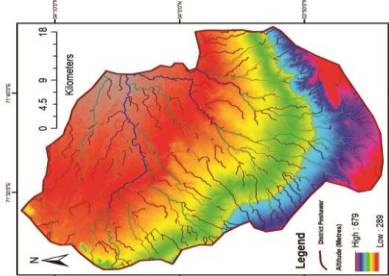
Irrigation, Drainage and Sewerage System in Urban Area of Peshawar



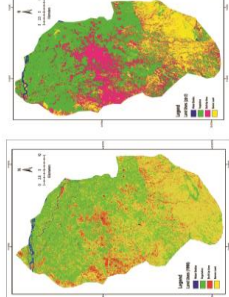
Watersheds and Stream Order Analysis in Peshawar



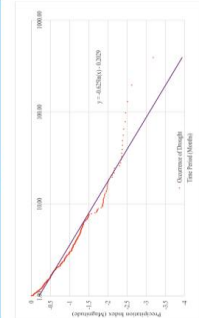
Slope and Stream Order Analysis in Peshawar



Land Use in District Peshawar

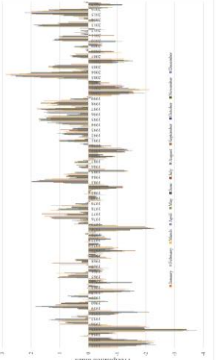


Occurrence of Drought (SPI Value for 02 Years)



MOBILISE PROJECT TEAM, UNIVERSITY OF PESHAWAR-PAKISTAN

Standard Precipitation Index (Period of 12 Months) of Peshawar (1852 - 2017)



Conclusion

The type of climate of district Peshawar is hot and continental. The average climatic conditions are the sum up of extreme climatic variabilitys. These climatic variabilitys along with geographical features exposes district Peshawar to number of hydro-meteorological hazards. In recent past, this district has experienced severe meteorological drought in 2000 - 02 and spell of urban floods from 2008 onward. The irregular spell of rainfall from Monsoon in summer and Western Depression in winter is the basic cause of hydro-meteorological hazards. The probing and/or heavy showers causes excess of water which generate the pluvial floods in urban areas of Peshawar. The dry periods cause the meteorological droughts in the region. The population growth, unplanned urbanization, poor sanitation, drainage pattern, irrigation network which is perpendicular to drainage system, unusual heights (old city), cementation and pavements of roads & streets, encroachments, and other developmental activities are the intensifying factors for these hydro-meteorological hazards. Based on data analysis, in recent years the developmental works on irrigation and drainage channels the intensity of fluvial urban flash floods is dramatically decreased. Similarly, the well season decrease the chances of meteorological droughts in the region. However, the intensifying factors exacerbates the urban floods conditions as well as the rapid water table depletion occurred in this region. Consequently, urban floods and hydrological droughts conditions are at rise in the district Peshawar.

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Mobilise Project Team, University of Peshawar, Pakistan

The study entitled "Institutional Mapping and Collaboration Platforms for Disaster Management" was carried out in Pakistan. The basic aim of this study was to conduct a detail analysis of disaster management system in Pakistan and to visualize the collaboration platform for disaster preparedness, mitigation, response and recovery. A qualitative approach was adopted for the completion of this study. A total of twenty four government officials from relevant line departments were interviewed through purposive sampling method along with two focus group discussion at the national level. The study describes the disaster profile of Pakistan including the causes of Pakistan's vulnerability to disasters, detail review of the legal and policy framework for disaster risk reduction and detail assessment of the institutions and organizations directly and indirectly working in Disaster Management in Pakistan. Role and responsibility of each relevant department has been narrated in detail.

Man and environment coexist since the origin of the former and both affect each other in positive and negative ways. Man relies on environment to satisfy its various needs and may lead to various environmental problems. However, on the other hand environment can also impact man through various environmental processes i.e. hazards. Man always tried to adjust himself and to reduce the impacts of such negative influences of the environment through various endeavors. Humanity's history is full of building resilience, responding to natural hazards and adjusting to changes. During last few decades, exemplary work has been done on such endeavors i.e. disaster risk reduction, climate change adaptation, environmental management and sustainability etc. (Khan and Gulliar, 2008). Pakistan, in the global context, is one of the hard hit nations of both the natural calamities and man made disasters (Khan and Jan, 2015). The increasing risks of disasters, resultant destructions and casualties have greatly affected developmental projects, investment environment and the overall economy of Pakistan (CPDM, 2011). Disaster resulting from variety of natural hazards both in the mountains and plains are rendering tremendous loss of lives and other properties. Ecological changes caused by the climate change, fluctuation of sea levels, rapid deforestation, erosion and unprecedented population explosion

The diagram illustrates the NDMA/PDMA Coordination mechanism. At the center is a large blue circle labeled "NDMA / PDMA Coordination". Surrounding this central hub are eight smaller blue circles, each representing a stakeholder group. These groups are: "NEW PUBLIC SECTOR", "NGOs", "US System", "NISC", "Federal Government Departments", "Provincial Government Departments", "Local Government Departments", and "Academia". Arrows indicate a clockwise flow of coordination between these groups, with a final arrow pointing from "Academia" back to "NEW PUBLIC SECTOR".

SMAU 2008

SMAU 2008 - 1° SEMESTRE

SMAU 2008 - 1° SEMESTRE - 1° SEMESTRE

SMAU 2008 - 1° SEMESTRE - 2° SEMESTRE

SMAU 2008 - 2° SEMESTRE

SMAU 2008 - 2° SEMESTRE - 1° SEMESTRE

SMAU 2008 - 2° SEMESTRE - 2° SEMESTRE

[illegible]

NMDA/NEOC

- Armed Forces**
 - Clinical Research Data
 - Research & Clinical Studies
- PCW**
 - Transcriptional Noise - Flow Data
- LIN/INDs**
 - Global Cancer Data
- Genetics**
 - Genetic Heterogeneity
 - Genetic Analysis
- PFC**
 - Brain Flow Data
 - Cerebral Flow Data
 - Brain Data
- PMD/PTD**
 - Biomarker Forecasting
 - Biomarker Discovery
 - Biomarker
- Animal/Cell lines**
 - Animal/Cell Line Data
- COMAs**
 - Human/Brain Data
 - Human/Brain Data
 - Brain Events

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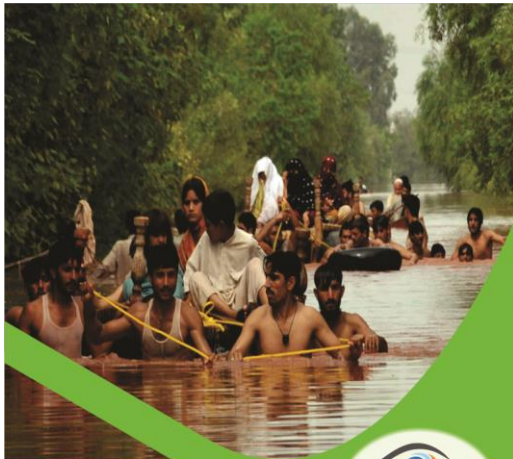
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In light of the above factual information it is concluded that Pakistan is in dire need of an organized disaster management programme to face the emergency situations and their implications in future. The country needs to shift from a reactive to proactive approach towards disasters by ensuring investment in prevention, mitigation and preparedness. More emphasis shall be placed on pre-disaster measures rather than investing too much during response and providing cash compensation. The 2010 National Disaster Management Act directs all relevant departments to work on a coordinated mechanism but multi-agency collaboration is very weak. Only for emergency response a strong mechanism is in place at the national and provincial level but at the grass root level it is still weak. District Disaster Management Authorities have been established but its lack of dedicated staff and machinery. The national disaster management act is silent about the composition and structure of the district level disaster management authority and this is the basic reason for weak institutional arrangements at the district level. Act, Policies and Plans exist but implementation is a major challenge for Pakistan to ensure the resilience of nations towards disasters.

- To identify major stakeholders in Disaster Risk Management in Pakistan;
- To investigate their roles and responsibilities in Disaster Management;
- To explore the nature of collaboration between organizations dealing with emergencies.



MOBILISE
Building Resilient Communities

**Creating a Multi-Agency
Collaboration Platform for
Building Resilient Communities in
Pakistan, Malaysia and Sri Lanka**

KEY THEMES

- Multi-agency collaboration through advanced digital technologies.
- Web-based collaboration platform for supporting collective vulnerability assessment, mitigation and resilience.
- System dynamics for modelling cascading effects of disasters.
- Web-based platform for gathering instantaneous intelligence of a disaster through remote sensing and social media.
- Virtual construction of disaster events using real-time satellite data for planning disaster response.

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Our commitment is to equip human beings with the knowledge and skills to minimize the damages and miseries of disasters

**CENTRE FOR DISASTER
PREPAREDNESS AND MANAGEMENT
UNIVERSITY OF PESHAWAR - PAKISTAN**





**Centre for Disaster Preparedness and Management (CDPM),
Sheikh Taimur Academic Block-II, University of Peshawar
Khyber Pakhtunkhwa - Pakistan**

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MOBILISE EXPO ON TECHNOLOGY MEDIATED

DISASTER RISK REDUCTION, CLIMATE CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT

VENUE

PUTA Hall,
University of Peshawar

ORGANIZED BY

MOBILISE Project Team
Centre for Disaster Preparedness
and Management, University of Peshawar.

DATE

April 25th, 2019
(09:00 am to 04:00 pm)

Contact Us:
Centre for Disaster Preparedness and
Management, University of Peshawar.
E-mail: mushtaq@uop.edu.pk

Web: www.uop.edu.pk, www.mobilise-project.org.uk



**CENTRE FOR DISASTER PREPAREDNESS AND MANAGEMENT (CDPM)
UNIVERSITY OF PESHAWAR**



request the pleasure of your company at the
Inaugural Ceremony of the **MOBILISE** Expo on

**TECHNOLOGY MEDIATED DISASTER RISK REDUCTION,
CLIMATE CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT**

Thursday April 25, 2019

Venue:

PUTA Hall, University of Peshawar



R.S.V.P

Prof. Dr. Noor Jehan

Director CDPM, University of Peshawar



Programme Details

TIME	EVENT	Venue
10:00 am	Arrival of Chief Guest and Guests of Honor	PUTA Hall, University of Peshawar
10:05 am	Expo Inauguration by the Chief Guest and Guests of Honor	
10:10 am	Guests to be seated	
10:20 am	Recitation from the Holy Quran	
10:25 am	Welcome Address by Prof. Dr. Noor Jehan, Director Centre for Disaster Preparedness and Management, University of Peshawar.	
10:35 am	Address by Guest of Honor Mr. Parwaiz Khan, Director General, Provincial Disaster Management Authority, Khyber Pakhtunkhwa.	
10:45 am	Address by Guest of Honor Dr. Bashir Ahmad, Meritorious Professor and Dean Faculty of Life and Environmental Sciences, University of Peshawar.	
10:55 am	Address by the Chief Guest Prof. Dr. Muhammad Asif Khan, Vice Chancellor, University of Peshawar.	
11:20 am	Vote of Thanks	
11:25 am	Refreshment	

Contact Us:

MOBILISE Project Team

Centre for Disaster Preparedness and Management, University of Peshawar

Cell: +92-346-9397774, Phone: +92-91-5853536, Fax: +92-91-9222199

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BUILDING DENGUE RESILIENT COMMUNITY THROUGH DIGITAL TECHNOLOGY

MOBILE APPLICATION

Dengue Android Mobile Smartphone Application has developed by Mobilise Pakistan team for public awareness and dissemination of advisories about dengue fever. The App is user friendly and provide information on the life cycle of the vector mosquito, signs and symptoms of dengue fever, prevention and mitigation measures and information about emergency health services in English and Urdu languages. The App is in use of both the dengue vulnerable communities and the health practitioners. The App also have its own social media pages and information uploaded on the App can also be shared directly to social media pages. Mobilise Dengue Resilience App is also linked with the websites and social media pages of the Health authorities in Pakistan.

A Collaborative Multi-Agency Platform for Building Resilient Communities

MOBILISE Project
Expo on

**TECHNOLOGY MEDIATED DISASTER RISK
REDUCTION, CLIMATE CHANGE ADAPTATION
AND SUSTAINABLE DEVELOPMENT**

April 25, 2019

MOBILISE Project Team
Centre for Disaster Preparedness and
Management (CDPM), University of Peshawar,
Khyber Pakhtunkhwa-Pakistan

OUR COMMITMENT IS TO EQUIP HUMAN BEINGS WITH THE KNOWLEDGE AND SKILLS TO MINIMIZE THE DAMAGES AND MISERIES OF DISASTERS



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MOBILISE Project one Day Expo on

**TECHNOLOGY MEDIATED DISASTER RISK REDUCTION, CLIMATE
CHANGE ADAPTATION AND SUSTAINABLE DEVELOPMENT**

April 25, 2019

at PUTA Hall, University of Peshawar

This Certificate is awarded to

Mr./Ms. _____

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one Day MOBILISE Expo on

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SUSTAINABLE DEVELOPMENT**

Organized by:

Mobilise Project Team

Centre for Disaster Preparedness and Management (CDPM),
University of Peshawar, Khyber Pakhtunkhwa-Pakistan

Mushtaq Ahmad Jan
Assistant Professor CDPM /
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14: PROFILE OF PARTICIPATING ORGANIZATIONS

14.1: National Institute of Disaster Management- NDMA-Pakistan

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NIDM is a premier institute of training and capacity development programs for managing natural disasters occurring in Pakistan. It started functioning in 2008 but wasn't formally inaugurated till Feb' 15 2010. Taking a ride through times when NIDM came into existence, Human Resource development and capacity building can be pointed as a building factor. Human resource not only involves the workforce of the institute but all the related organizations playing a part in preparedness, prevention, recovery and relief i.e. welfare agencies, NGO's, community development as well as general public.



Human resource development is an integral part of Disaster Risk Management (DRM). Structural and / or engineering interventions yield far less dividends if research, training and awareness components are undermined. In South Asia, DRM is relatively a new subject but owing to the region's exposure to a number of natural and human-induced threats, different countries have started taking a holistic approach by establishing dedicated institutes for public awareness and capacity building purposes. It reflects the significance of research and training for reducing disaster risks and lessening hazard impacts. It is widely argued by disaster experts that knowledge, information and training make a community more resilient against the consequences of hazards.

The Government of Pakistan is also striving to promote DRM as one of the priority development concerns. Its need was more crucial because of the consequent disasters which stressed upon the need of adopting a proactive approach by taking disaster risk reduction options to safe guard lives and properties. The creation of NDMA is an example of landmark achievement. However, there was a growing realization that in the absence of a full-fledged academic institute dedicated

for providing research and training services, it would have been difficult to achieve the objectives of DRM. On the other hand, the utility of existing training facilities had been marred over the years due to lack of resources, commitment, the quality of contents and delivery.

In this backdrop, National Institute of Disaster Management (NIDM) was established for effectively catering to research and training needs of the public and private sectors on DRM.

14. 2: PDMA/PARRSA Khyber Pakhtunkhwa

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As a sequel to the devastating earthquake of 8 October 2005, the National Disaster Management Ordinance was promulgated with a view to establish and regulate an enhanced and progressive Disaster Management Framework at the National, Provincial and Local level for disaster mitigation, preparedness and response. The NDMO provided the establishment of a Provincial Disaster Management Commission (PDMC) as well as Authority (PDMA) to cope with the challenges of Disaster Management in a professional and efficient manner. Both the Organizations have been mandated to effectively set up a system to look after disasters and calamities whether natural or human induced. The Government of Khyber Pakhtunkhwa has established a Provincial Disaster Management Commission (PDMC) as well as a Provincial Disaster Management Authority (PDMA) on 27 October 2008, to promote enhanced disaster preparedness and management within the province. The establishment of PMDC and PDMA is based on the National Disaster Management Ordinance (NDMO) of 23rd December 2006 which forms the legal basis for the implementation of the National Disaster Management Framework (NDMF) provided by the National Disaster Management Authority (NDMA). Previously the Provincial Relief Commissionerate had been responsible for the relief, compensation and rehabilitation of people affected by natural disasters. With the establishment of PDMA, the functions of the Relief Commissionerate have been incorporated into the new Organization.

14.3: Earth and Atmospheric Remote Sensing Lab (EARL), Department of Meteorology, COMSATS University Islamabad.

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The research group strives to Monitor & Map the Natural Resources, Natural Hazards & Water Resources along with their management, study the geochemical aspects of Environmental Degradation & Impacts of aerosol pollution on air quality, weather, snow and ice, monitor Precipitation on the bases of Satellites, comparing Paleo-Environment and predicting Climate

Change & its consequences, analyzing Land Use Land Cover, Mapping and Analysis of Snow and Glaciers, Modeling and Production Assessment of Crop growth. Apart from these, our experts are working on Seismic Hazard Analysis, Urban Planning, Road Network, Hydrology & Air Surface Temperature studies.

The research group is headed by Dr. Muhammad Imran Shahzad.

Group Members

- Dr. Muhammad Imran Shahzad

Research Interests: Impacts of aerosol pollution on air quality, weather, snow and ice, Hydrology, Climate change

- Dr. Kalim Ullah

Research Interests: Mesoscale Convective System, Extreme Weather Hazards, Asian Monsoon Dynamic, Cloud Physics, Numerical Modeling and Climate Change

- Dr. Aqeel Ahmed Kidwai

Research Interests: Earth Sciences, Urban Planning, Road Network, Climate, Earthquakes, Hydrology, Air Surface Temperature

- Mr. Muhammad Farooq Iqbal

Research Interests: Water Resource Management in Changing Climate, Land Use Land Cover Analysis, Modelling and Projections, Snow and Glaciers Mapping and Analysis, Crop Growth Modelling and Production Assessment Satellite Based Precipitation Monitoring

- Mr. Ahmad Waqas

Research Interests: Satellite Remote Sensing, Geospatial Sciences, Monitoring and Mapping of Natural Resources

- Mr. Irfan Mahmood

Research Interests: Radar Remote Sensing, Geological Remote Sensing, Seismic hazard analysis, Use of remote sensing to map and monitor natural resources and natural hazards, Satellite Geodesy

14.4: SoftHat IT Solutions

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Softhat IT solutions is the leading IT services provider company headquartered in Peshawar, Pakistan. Our core competencies are digital marketing and web technologies with SEO services. We are a group of passionate young individuals who understand the world of mobile technology and their home since 2017.

We are experts in all forms of digital marketing and strategy, including SEO, SMO, SEM (PPC), Email marketing and social media marketing, along with bespoke software development, custom web based solutions, startup solutions, and iPhone & Android app development.

- Effective Website Development, Web Designing

- Website Speed Optimization
- Developing Digital Marketing Strategies
- Organic Search Engine Optimization (SEO)
- Social Media Marketing (SMM)
- Social Media Optimization (SMO)
- Content Management
- Content Writing
- Blogs Writing
- In Demand Trainings
- Company Profile Writing
- Email Marketing
- B2B Marketing
- Classified Marketing
- Local Listing
- Graphics Designing
- App Store Optimization
- Mobile App Development
- Unity Games Development

14.5: Rescue 1122 Khyber Pakhtunkhwa

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Our Vision

Safe communities where all Citizens are provided the right to Timely Emergency response and care without discrimination

Our Mission

Establishment of an Effective system for emergency preparedness, response, protection & prevention; while contributing toward building socially responsible, healthy, resilient and safer communities

Key Objectives

- Provision of the right to timely emergency care by providing quality emergency services as per international standards



- Undertake research to recommend evidence based measures to related organizations for prevention of emergencies
- Contribute towards establishment of socially responsible community emergency response teams through awareness, enrollment, training & organizing volunteers for emergency preparedness, response & prevention

14. 6: Department of Electronics, University of Peshawar

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Introduction

Our life's demands in the ever growing and fast changing electronic and technological world necessitated preparation of the graduates of the highest caliber equipping them for leadership roles in the specialized discipline of electronics. The age of I.T has put the Electronic on the to be pin technological skills. The need was rightly felt by the top leadership of the University. This all pervasive thought bore fruit resulting in the establishment of the post-graduate department of Electronics in 1988. The department takes pride with profound satisfaction in producing 750 graduates so far. Housed in a spacious building located in the series of mid-20th century's tall buildings of the science faculty, the department is equipped with modern electronics laboratories, well stocked library and enlightened faculty.

The passed out graduates are successfully serving various electronic-based I.T. business and research organizations in and outside the country. With a professional tinge, the degree proves as a lucrative income source for the electronics graduates and providing job security.

Vision

To be a regional Centre of excellence in Electronics "Area of high Tech Industry"

Mission

To make the centre vision a reality, the Department is committed to the training of graduates of international standards at B.Sc, M.Sc and M.S/M.Phil. levels in the area of Electronics including Nano-Technology, Micro, Consumer, Medical, Communication, Defense and Industrial Electronics. Conduction quality basic and applied teaching and research, offering consultancy to local industries and institutions and to participate in community Development projects



14.7: Pakistan Nuclear Regulatory Authority (PNRA)

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To become a world class regulatory body with highly trained, competent and dedicated personnel working in unison with a zeal to foster a positive safety culture in their licensees and to regulate nuclear safety to protect the public, the workers and the environment from the harmful effects of radiation in a manner that wins the confidence of all the stakeholders viz. the public, the government and the licensees.

Mission of PNRA

To ensure the safe operation of nuclear facilities and protect the radiation workers, general public and the environment from the harmful effects of radiation by formulating and implementing effective regulations and building a relationship of trust with the licensees and maintaining transparency in actions and decisions taken by the regulatory body

History of PNRA

The nuclear regulatory infrastructure has been in place since 1965, when the first research reactor PARR-I was commissioned. The nuclear regulatory regime further improved when the first nuclear power plant was commissioned in 1971 at Karachi . A nuclear safety and licensing division was established in PAEC HQ which functioned as the de facto regulatory body till it was upgraded to " Directorate of Nuclear Safety and Radiation Protection" (DNSRP) after the promulgation of Pakistan Nuclear Safety and Radiation Protection Ordinance 1984.

Pakistan signed the International Convention on Nuclear Safety in 1994, as a result of which, it became obligatory on the part of the Government of Pakistan to establish an independent nuclear regulatory body entrusted with the implementation of the legislative and regulatory framework governing nuclear power and radiation use in the country, and further to separate the regulatory functions from the promotional aspects of the nuclear programme. As a transitory measure Pakistan Nuclear Regulatory Board (PNRB), within PAEC was established to oversee the regulatory affairs. Complete separation of promotion and regulatory functions and responsibilities was achieved in 2001, when the President of Pakistan promulgated the Pakistan Nuclear Regulatory Authority Ordinance No.III of 2001.

Consequently, Pakistan Nuclear Regulatory Authority (PNRA) was



created, dissolving the Pakistan Nuclear Regulatory Board and Directorate of Nuclear Safety & Radiation Protection. It established PNRA as a competent and independent body for the regulation of nuclear safety, radiation protection, transport and waste safety in Pakistan, and also empowered it to determine the extent of civil liability for damage resulting from any nuclear incident.

The Authority devises, adopts, makes and enforces such rules, regulations, orders or codes of practice for nuclear safety and radiation protection as may, in its opinion, be necessary. It plans, develops and executes comprehensive policies and programmes for the protection of life, health and property against the risk of ionizing radiation, and regulates the radiation safety aspects of: Exploitation of any radioactive ore; Production, import, export, transport, possession, processing, reprocessing, use, sale, transfer, storage or disposal of nuclear substance, radioactive material or any other substance as the Authority may, by notification in the official Gazette, specify; and Equipment used for production, use or application of nuclear energy for generation of electricity; or any other uses.

14.8 Earthquake Engineering Center University of Engineering and Technology Peshawar

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Shake Table Tests on Indigenous Seismic Isolation for Urban Seismic Risk Reduction

Population across the country is moving to urban centers because of business and for search of quality life, due which the urban infrastructure are expending without prior planning. This is resulting in haphazard development and generation of community's vulnerabilities, primarily including the vulnerable building stocks. The high seismic activities and the possibility of larger earthquake nearby the urban centers have necessitated the use of innovative, yet affordable, techniques to reduce the existing seismic risk of structure in urban centers.

This project has focused on the development of indigenous seismic isolation systems, comprising visco-elastic rubber bearing embedding thin steel shim plates, to control seismic control demands on the super structure by cutting down the seismic inertia through increased flexibility and damping.

A pilot project was studied, involved the seismic design of bearing for the highest seismic zone and its fabrication in the local industry. The isolation system was tested and validated through dynamic shake table tests, conducted at the Earthquake Engineering Centre at UET Peshawar. The bearing was capable to resist ground motion up to 1.0g, without jeopardizing the stability of super structure. The isolation system was able to reduce the seismic forces on super structure by one-eighth, which is due to the added flexibility and energy dissipation (damping).

14.9: Department of Civil Engineering University of Engineering and Technology Peshawar

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Improving Seismic Resistance of Low-Strength Stone Masonry Using Surface Reinforcement

Worldwide disaster has shown that poor people living in the remote areas are the most vulnerable part of the community. Due to poor economic status of these people, and their struggles for their day to day needs, the reduction of the disaster risk of their housing is not their priority list. Furthermore, due to high cost involved in transporting building materials and high skilled required in construction, advanced multi-hazard resistant construction techniques are not adoptable in these remote areas clay and stones.

The author in collaboration with Asian Development Bank has developed innovation low-cost affordable construction techniques for multi-hazard resistant design schemes for rural houses.

The construction employ locally available clay and stones material for construction of load bearing walls, which is packed in wire grid containment mesh holding stones not to dislodge/fall during building vibration under extreme earthquake excitation. Experimental campaign was carried out to obtain the mechanical properties of constituent material and assemblages (prisms, wallettes, wall /piers).



Further, shake table tests were conducted on modular designs, using large scale and small scale shake tables at earthquake engineering centre of UET Peshawar, to assess the viability of design schemes. Seismic parameters were acquired that can facilitate the future design and assessment of similar like structures.

This innovative strengthening scheme is developed under the Asian Development Bank Project in support of schools, reconstruction in remote areas of Nepal, devastated by 2015 Gorkha Earthquake, with the financial support from the Government of people republic of China.

14.10: Department of Geography

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Introduction

The Department of Geography, University of Peshawar, was founded in 1956 to cater for the educational requirements of the inhabitants of the province, the adjoining FATA and other nearby areas. It is committed to the mission of quality teaching and research, in the field of the Physical, Human and Applied Geography, under the major themes of man-environment interaction, natural resource management and conservation, application of Technical Geography i.e. Geomatics and



Spatial Analysis of various natural and anthropogenic phenomena. The Department has contributed a lot in the initiation of new and emerging disciplines, required to fulfill the need of highly skilled personnel in the region. Some of the important programs initiated by this department included Environmental Planning and Management (EPM), Urban and Regional Planning (Established in 1993 with the collaboration of the Institute of Planning Studies, now the School of Built Environment, University of Nottingham, U.K) and Disaster Preparedness & Management. These programs currently exist as full-fledged departments of Environmental Science, Department of Urban Regional Planning and Center for Disaster Preparedness & Management in the University of Peshawar. Keeping in view the importance of consistent changes in the field of Geography in national and international scenario, the Department regularly updates its curriculum and has recently incorporated the emerging tools of Geographical Information System (GIS) and Remote Sensing (RS) at both MSC and BS 4-year levels. The Department provides a variety of programs, services and resources to enhance students' professional training and career success. In order to fulfill the market demand, Post-Graduate Diploma in Geomatics has also been started in the Department in 2007. Later on, BS 4-year program in GIS and RS (Geomatics) was also introduced from 2011-12 session. Currently,

there are two BS 4-year programs i.e. Geography and Geomatics, one MSC degree program in addition to MPhil and PhD programs. This department is equipped with latest facilities and equipment. Apart from an excellent collection of books and research journals in its Seminar Library, the Department has well-furnished laboratories of Cartography, Geomorphology, Remote Sensing, Computer and GIS. There is a very good collection of new and historical maps of various scale and aerial photographs covering the entire country and adjoining areas.

Vision

To improve the quality of education and status of teaching and research in the field of Geography and Geo-spatial Sciences (Geographical Information System, Remote Sensing, Spatial Analysis, Global Positioning System).

Mission

Our mission is to provide stimulating and practical programmes of education and training in the field of Geography/GIS and Remote Sensing relevant to the need of the society at large in today's rapidly changing world.

The education and training imparted to the students in this department are aimed at bringing positive change in the student's approaches and making them more useful citizens so that they could contribute in the uplift of the environment and wellbeing of the humanity of the world in general and that of Pakistan in particular.

Objectives

To provide quality education by teaching and conducting research, in all fields of Geography including Physical and Human Geography as well as Geographical tools, such as, Geographical Information System (GIS) Remote Sensing, Surveying and Mapping.

14.11: International Centre for Integrated Mountain Development (ICIMOD)

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The International Centre for Integrated Mountain Development is regional knowledge development and learning centre serving eight regional member countries of the Hindu Kush Himalaya – Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan. Globalization and climate change have an increasing influence on the stability of fragile mountain ecosystems and the livelihoods of mountain people. ICIMOD aims to assist mountain people to understand these changes, adapt to them, and make the most of new opportunities, while addressing upstream-downstream issues. The center supports new regional transboundary programmes through partnerships with regional partner institution, facilities, the exchange of experiences, and serves as regional knowledge hub. ICIMOD also strengthens networking among regional and global centres of excellence. Overall, as an inter-governmental organization,

ICIMOD works to develop an economically and environmentally sound mountain ecosystem services for the billions of people living downstream – now, and for the future.

In the upper Indus basin (UIB), climate change has been challenging the resilience of mountain communities by affecting the irrigation water supply and triggering water induced hazards. Changes in precipitation and water availability will affect agricultural production, leading to food insecurity. Moreover, water induced hazards like glacier lake outburst floods (GLOFs) and flash floods have been a constant threat to communities (particularly downstream) and their livelihood bases since 2010. In addition, dwindling fuel wood supply from the deteriorating ecosystem are also causing energy shortages during harsh winters.

With the intention of developing resilience and adaptive capacity against the changing climate and associated disasters, ICIMOD through its **Indus Basin Initiative** is undertaking a special project – “Agriculture Water, Energy, and Hazard Management in the Upper Indus Basin (Gilgit - Baltistan) for Enhancing Livelihood and Building Climate Resilience” (September 2015 to April 2020) – to promote collaborative and meaningful R&D. Through a strong partnership – based consortium approach, the project’s implementation partners are successfully piloting solar – powered and hydro ram pump – assisted river water lifting and drip irrigation technology for growing high-value crops. Another component of the project is focused on safeguarding the existing livelihood base by restoring the disaster affected glacier water irrigation supply system and preventing accelerated erosion along river banks due to flash floods. The project is also piloting alternative energy options such as solar powered river water lifting at the farm level and bio briquettes and social forestry for fuel wood and livelihood options at household level. Community resilience and preparedness against flood hazards is being enhanced by piloting the community based flood early warning system (CBFEWS).

Of the aforementioned interventions are being undertaken under a strong partnership consortium of R&D agencies such as the Mountain Agriculture Research Centre (MARC), Pakistan Council of Research in Water Resources (PCRWR), Gilgit Baltistan Disaster Management Authority (GB – DMA), Worldwide Life for Nature (WWF), and Aga Khan Agency for Habitat (AKAH).

The demonstrated impacts of these interventions have motivated partner organizations to contribute their own resources to the outscaling and upscaling of the piloted interventions. WWF with the financial support from the United Nations Development Programme (UNDP) has outscaled the water management interventions in six districts of Gilgit Baltistan. Similarly, the Pakistan Federal government has awarded a project to the provincial water management department of Gilgit Baltistan. CBFEWS Implementation will be undertaken by the GB – DMA under its revised Provincial Disaster Risk Management Plan.

14.12:The NGO World

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The millstone of The NGO World Foundation (TNW Foundation) was laid down on 20th August 2010 by getting it registered as a non-political, non-profitable, non-sectarian and nongovernmental organization.

“TNW Foundation was established to launch humanitarian, the community felt and demand-driven initiatives for the poorest of the poor and marginalized population of its target areas”.

With the slogan “Live for Others”, TNW is working in various sectors of social well-being including Education, Leadership & Entrepreneurship, Poverty Alleviation, Disaster Management, Economic Empowerment, Peace & Harmony, Disaster Response, Orphan & Widows Support and Capacity Development Programs. There are different innovative sustainable programs which can be replicated as a role model in changing the lives of poor and disadvantaged segments of the society.

TNW joins hands with government functionaries, local & international NGOs, UN and other key aid agencies besides drawing its strength from communities’ active involvement in the need driven development process through a participatory development approach & community-based interventions etc.

- TNW responds to human sufferings in emergency and disastrous situations as a first response unit with its available resources all over Pakistan regardless of race, gender, ethnicity, class, location, religion, color, cultural diversity and social background.
- TNW has the mandate to operate/manage and adopt any revenue generation activity, business, investment or projects to sponsor TNW Foundation core mission.
- TNW design and align all programs with Government policies & procedures and Global Development Goals by UN.

14.13:Sustainable Housing Research Center (SHRC), University of Engineering and Technology Peshawar

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Soil is available in all parts of the world and it's a low cost and energy efficient building material. For low cost construction, our construction should rely on locally available raw material. The property of soil can be improved if stabilizer or additive is included in the composition of mud brick, but in cost of strength. New chemicals have been discovered lately that can provide stability with strength mud bricks.

Pakistan is a developing country and faces problems to protect its environment, and to provide adequate shelter in sufficient number. Still, in Pakistan, mud construction is really much in practice particularly in our rural areas. So, we are working on this new innovative technology that will help the low income peoples in Pakistan to construct their houses with the same mud but have good strength and also to reduce the risk of natural disaster.

14.14: Pakistan Meteorological Department Regional Meteorological Center Khyber Pakhtunkhwa

Name of Contact Person	Mr. Alamzeb
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Pakistan meteorological department is both a scientific and service department and works under the cabinet of (Aviation Division) PMD is responsible for providing meteorological services throughout Pakistan to wide variety and for numerous public activities and projects which require climatic information. Apart from meteorology the department is also extending in the field of hydrology, earthquake, seismology and geography.

Objectives and Responsibilities

Main objectives are to provide information on weather, climate and geophysical phenomenon with the aim of traffic safety in air, on land and sea and the mitigation of disaster, agriculture development on climatic potential of the country.

Main Areas of Operations

- Aviation and Meteorological services
- Hydro Meteorological services and flood forecasting
- Agro Meteorological services
- Climatological services
- Geophysical and seismology services



- Weather forecasting to public through electronic and print media
- Astronomical information system
- Early warnings of natural hazards such as tropical cyclone, heat wave, Floods and Earthquakes etc
- Glaciers monitoring and research
- Glacial Lake outburst (GLOF) Early warning

14.15: SDGs Support Unit P&D Department: KP

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At the Sustainable Development Summit on 25 September, 2015, UN Member States adopted the 2030 Agenda for Sustainable Development, which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030.

The SDGs, otherwise known as the Global Goals, build on the Millennium Development Goals (MDGs), eight anti-poverty targets that the world committed to achieving by 2015. The MDGs, adopted in 2000, aimed at an array of issues that included slashing poverty, hunger, disease, gender inequality, and access to water and sanitation. Enormous progress has been made on the MDGs, showing the value of a unifying agenda underpinned by goals and targets. Despite this success, the indignity of poverty has not been ended for all.

The new Global Goals, and the broader sustainability agenda, go much further than the MDGs, addressing the root causes of poverty and the universal need for development that works for all people.

The government has internalized Sustainable Development Goals (SDGs) as National Goals and this is a major policy shift.

Pakistan has prioritized the Sustainable Development Goals (SDGs) which will enable us to join the league of upper middle-class countries by 2030. Pakistan was the first country to adopt SDGs 2030 agenda through a unanimous resolution of the Parliament of Pakistan.

Transforming our world: the 2030 Agenda for Sustainable Development

The 2030 Agenda is a plan of action for people, planet and prosperity. It also seeks to strengthen universal peace in larger freedom. Which recognizes that eradicating poverty in all its forms and dimensions, including extreme poverty, is the greatest global challenge and an indispensable requirement for sustainable development. All countries and all stakeholders, acting in collaborative partnership, will implement this plan.

We are resolved to free the human race from the tyranny of poverty and want and to heal and secure our planet. We are determined to take the bold and transformative steps which are urgently needed to shift the world onto a sustainable and resilient path. As we embark on this collective journey, we pledge that no one will be left behind.

The 17 Sustainable Development Goals and 169 targets which we are announcing today demonstrate the scale and ambition of this new universal Agenda. They seek to build on the Millennium Development Goals and complete what these did not achieve. They seek to realize the human rights of all and to achieve gender equality and the empowerment of all women and girls. They are integrated and indivisible and balance the three dimensions of sustainable development: the economic, social and environmental.

The Goals and targets will stimulate action over the next fifteen years in areas of critical importance for humanity and the planet:

People

We are determined to end poverty and hunger, in all their forms and dimensions, and to ensure that all human beings can fulfill their potential in dignity and equality and in a healthy environment.

Planet

We are determined to protect the planet from degradation, including through sustainable consumption and production, sustainably managing its natural resources and taking urgent action on climate change, so that it can support the needs of the present and future generations.

Prosperity

We are determined to ensure that all human beings can enjoy prosperous and fulfilling lives and that economic, social and technological progress occurs in harmony with nature.

Peace

We are determined to foster peaceful, just and inclusive societies which are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development.

Partnership

We are determined to mobilize the means required to implement this Agenda through a revitalised Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focussed in particular on the needs of the poorest and most vulnerable and with the participation of all countries, all stakeholders and all people.

The interlinkages and integrated nature of the Sustainable Development Goals are of crucial importance in ensuring that the purpose of the new Agenda is realised. If we realize our ambitions across the full extent of the Agenda, the lives of all will be profoundly improved and our world will be transformed for the better.

The government of Pakistan conducted discussions on the post-Millennium Development Goals (MDGs) with all stakeholders for coordinating and strengthening efforts at federal and provincial levels to achieve Pakistan's sustainable development and poverty reduction targets. The consultation process emphasized the need for national categorisation of SDGs, improved data collection and enforcement of monitoring mechanisms.

The seven pillars of Vision-2025 are fully aligned with the SDGs, providing a comprehensive long-term strategy for achieving inclusive growth and sustainable development SDGs Section, Ministry of Planning Development & Reform (MoPDR)

A dedicated SDGs Section has been formed at the federal level in the Ministry of Planning, Development & Reform (MoPDR) to monitor and to coordinate as a national coordinating entity. With the aim of implementing SDGs with Mainstream, Accelerate and Policy Support approach, MoPDR and the Provincial Planning & Development Departments partnered with UNDP under this 5-years project to establish SDG Support Units at federal and provincial levels for early institutionalization of Agenda 2030.

14.16: UNICEF KP Office Pakistan

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Pakistan was the sixth country in the world to sign and ratify the Convention on the Rights of the Child, less than one year after it was adopted by the United Nations General Assembly in 1989. However, children and adolescents living in Pakistan still face acute challenges.

UNICEF supports the Government of Pakistan to accelerate progress for children, work to achieve the Sustainable Development Goals (SDGs) and help children realize their rights under the Convention on the Rights of Children. This will be made through, among others things, strong partnerships with provincial authorities, teachers and health professionals, frontline workers and social mobilisers,



communities and families, and of course the children and adolescents themselves.

In particular, UNICEF will work so that:

Every child survives and thrives -- being in good health, immunised, protected from polio and accessing nutritious food.

Every child learns.

Every child is protected from violence and exploitation, and registered at birth.

Every child lives in a safe and clean environment, with access to safe drinking water and adequate sanitation.

14.17: Centre of Biotechnology and Microbiology University of Peshawar

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Introduction

The broad discipline of Biotechnology uses scientific and engineering principles to living organisms to provide goods and services of value to society. Biotechnology integrates many areas of study such as genetics, molecular biology, microbiology, physics, chemistry, engineering and biostatistics. The interdisciplinary nature of biotechnology makes it possible to design and use processes ranging from cheese production, brewing, and wastewater management, through to drug design and gene therapy. It enables us to study microorganisms, plants and animals in the context of the discovery, understanding, improvement and development



of useful products or processes. Considering the dire need of biotechnology education, the Centre of Biotechnology was established in April, 2001 by University of Peshawar with the approval of Higher Education Commission (HEC), Islamabad Pakistan.

The first batch of 80 students in Bachelor of

Biotechnology and 9 scholars in MPhil in Biotechnology were admitted in November, 2001. Presently, the Centre of Biotechnology is a strategic unit in the Faculty of Life and Environmental Sciences, University of Peshawar. Located in the emerging- sciences building, the institute incorporates both teaching and research facilities, primarily dedicated towards the awareness and development of Biotechnology amongst the masses. It is unique in having Biochemists, Microbiologists, Geneticists, Pharmaceutical Chemists, Molecular Biologists and Biotechnologists within a single departmental unit, thus encouraging inter-disciplinary approaches to teaching and research. Members of the Staff are involved in teaching at both undergraduate and post-graduate levels in degree programs and have collaborative links with national research laboratories. In September 2007, the competent authority of the university

decided and approved to merge the Department of Microbiology, Jinnah College for Women (JCW) with Centre of Biotechnology and renamed the Centre as Centre of Biotechnology and Microbiology and simultaneously shifted the students of 1st batch of BS Microbiology from JCW to this centre.

Vision

To explore new horizon in Biotechnology and Microbiology through education and research, and realizing the potential of Biotechnology and Microbiology for the creation of goods and services of value to society

Mission

The Centre has been serving as a teaching, training and research pivot in Biotechnology and Microbiology for the province. The institute is aware of the importance and applicability of Biotechnology and Microbiology and therefore will continue to play its catalytic role by motivating its students in their scholarly pursuits. We will prepare trained biotechnologists and microbiologists able to approach problems with creativity and flexibility. A key element in this preparation is active participation in the process of scientific discovery. The institute will make scholarly scientific and technological advances that will address the changing needs of society.

Objective:

- To prepare students to function as scientists and educators in a broad array of biological disciplines
- To create a permanent platform for generating trained manpower by imparting education and conducting research on the local problems
- To collaborate with biotechnology firms, secondary schools, universities and public agencies and associations, and lay the groundwork to prepare the workforce for new biotech jobs
- To serve as a launching pad for devising, using, and managing biotechnology tools for generation of products, processes and technologies
- To augment the productivity, efficiency and cost effectiveness of food and agriculture, health and medicine, environment friendly technologies, bio-conservation and bio-industrial development

14.18: Department of Social Work, University of Peshawar

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Introduction

The Department of Social Work, University of Peshawar was established in 1976. Initially, it offered two years master programme in Social Work. In 1982-83, two more disciplines namely Anthropology and Sociology were introduced and the department was renamed as the Department of Social Work, Sociology and Anthropology. In 1994, it was bifurcated into the Department of Social Work and Department of Sociology and Anthropology. In 2009, three disciplines (Social Work, Sociology and Gender Studies) were merged as an institute namely the Institute of Social Development Studies which was later on renamed as the Institute of Social Work, Sociology and Gender Studies. In June 2014, the de-merger of the Institute took place and the status of independent departments was reinstated.

The Department of Social Work is the centre of thriving teaching and research activities. The department runs academic programmes of BS-4 year; two years M.A., M.Phil and PhD. Currently, there are eight teaching faculty members of who three are holding PhD degree. The remaining faculty members are enrolled in M.Phil and PhD programme. The department is equipped with human resources and expertise in the field of research, criminology, criminal justice, drugs, public health, social policy, gender and development, demography, public health etc. There are over 300 students enrolled in the department in different academic programmes. Beside teaching and research, the department regularly organizes seminars and workshops on different social problems confronting our society.

The Department of Social Work has also worked with numerous national and international organizations such as the UNICEF, UNESCO, WHO, WWF, JICA, Health Net International UK, SPARC, Provincial Ombudsman Department, etc on different research projects.

Goal

To promote/restore mutually beneficial interaction between individual and society in order to improve the quality of life for everyone

Objectives

- Empower people/enhance the people's problem solving capacities to resolve problems, copy and function effectively
- Linking client with the needed resources
- Improve social services delivery network
- Promote social justice through development of social policy

Mission

The Department of Social Work is firmly committed to impart knowledge and skill of social welfare and social development to the student through teaching, research and field work experiences and to society in general and through policy formulation, seminars, capacity building, curriculum development and linkage with other national and international organizations.

Academic Exchange Programmes

Since its creation, the department has established numerous academic exchange programmes with various universities in other countries. Some of them are listed below:

- School of Social Work, University of Pennsylvania, USA, in 1989

- School of Social Work and Community Development, Gherad Mercator University, Duisberg, Germany, from 1997-99
- Department of Gender Studies, University of Hull, UK in collaboration with Women Studies Centre, University of Peshawar, from 2000-03
- Department of Social Work, Strathclyde University, Scotland in 2003

The main focus of these linkage programmes was on faculty and students exchange, capacity building, and curriculum development.

Memorandum of Understanding (MoUs) Signed

The Department of Social Work has signed MoUs with the following organizations;

- British Council Islamabad on “Active Citizen Programme” to train youth on how to develop and execute small scale projects (SAP) (from 2009 – 2012).
- SPARC Peshawar on extension lectures on child rights, child labour, juvenile justice system and child related issues (2012)
- PAIMAN (NGO) on training youth with respect to their role in promoting peace, problem management and conflict resolution
- IDEA (a local NGO) to train youth on leadership, communication skills and interview skills (March – June 2013)
- Search for Common Ground Islamabad on “Pakistan Peace Initiative – Provincial Visions of Peace” on peace initiatives undertaken by the provincial governments at grass root level after the promulgation of 18th amendment (2014)
- Community World Service (CWS) Asia on capacity building of students on peace building, democracy and governance, minority rights, youth empowerment, NGOs management, leadership and communication (2015)
- Police School of Investigation, Police Department Khyber Pakhtunkhwa to train students on crime scene preservation, evidence collection, evidence preservation as per the modern day best practices, cellular forensic, geo tagging and geo fencing for planning crime control, preparation of case file and interview/interrogation techniques (2015).
- Provincial Disaster Management Authority (PDMA) Khyber Pakhtunkhwa on capacity development regarding Gender and Child Protection in Emergencies (2016).

14. 19: ACTED

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ACTED has been present and registered in Pakistan since 1995, with active presence in Khyber Pukhtunkhwa Province, in the Federally Administered Tribal Areas, Sindh and Punjab provinces. ACTED Pakistan has been responding to emergencies caused by conflicts and natural disasters, notably focusing on food security and livelihood opportunities, while supporting their recovery and investing the development sectors.



Context of the mission

Pakistan is one of the most disaster prone countries in the world and frequently experiences multiple disasters at any given time – flood, drought, and earthquake. Over the last few years, the Province of Sindh has been repeatedly affected by both floods and drought, further affecting the food security and livelihood opportunities.

The displacement of populations due to insecurity and natural disasters has been a major humanitarian concern for the past few years in Pakistan. The northwest of Pakistan and the regions bordering Afghanistan (Khyber Pukhtunkhwa Province and the Federally Administered Tribal Areas) have been and are affected by large scale displacements due to the complex emergency. In 2014, over one million people were displaced from North Waziristan Agency and Khyber Agency and many remain in displacement or have recently returned.

14. 20: Department of Psychology University of Peshawar

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Introduction

The Department of Psychology came into existence in 1964. Professor Dr. Shahabuddin Muhammad Mughni laid down its foundation as its first Professor and Chairman. The Department moved into the present building in 1973, started PhD programme, and expanded in



terms of faculty members, Seminar Library, Laboratory Equipment, and Psychological Tests etc. Under Dr. Jahanzeb's leadership in 2009 a nearby block was occupied by the Department to shift its clinical programme to it. In 2010 Professor Muhammad Jahanzeb Khan won a development project for the department

from the HEC and a new academic block was constructed to accommodate Assessment and Counselling Clinic and BS students. The block was inaugurated in April 2016. Dr. Erum remained PD of the project.

Motto

Altering Minds, Changing attitudes

Vision

To achieve the highest standards of excellence in teaching, learning, research, and professional expertise for our students and faculty and to provide expert professional services to both the on-campus students' community and the common people in the larger community.

Mission

To provide academically sound courses that promote knowledge of psychological concepts, issues, methods, theories, applications, services, and critical thinking. To commit to excellent teaching, nationally and internationally recognized research, and providing outstanding professional services to ensure the mental health, positive growth and safety, and security of our people.

Labs/ Clinics

Besides the Experimental Laboratory (established in 1973) a Computer Section was established by Professor Dr. Muhammad Jahanzeb Khan in 1998. Presently, the Department has a fully equipped Library, Laboratory for experimentation, and two Computer Laboratories. In 2010 Assessment and Counseling Clinic was also established by Professor Dr. Muhammad Jahanzeb Khan. A Psychology Clinic was established in his tenure too (2010). The Psychology Clinic provides psychotherapeutic services to students, faculty and the general population. In 2012 a Speech Therapy Unit was established by Professor Dr. Erum Irshad.

Another mile-stone was Establishment of the “Competence and Trauma Center for Journalists (CTCJ)”. This project was a joint venture of the Department of Journalism and Mass Communication and the Department of Psychology, and was sponsored by the Deutsche Welle (DW) Academy, Germany. It provided assistance and psychological help to journalists and media personnel in 2015.

14.21: Department of Computer Science and Information Technology, University of Engineering & Technology Peshawar

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The Department of CS & IT enjoys full support of the engineering departments. Students work in laboratories equipped with state-of-art computer systems running a wide range of applications and specialized software supporting the courses. The department strongly supports the idea of using modern audio visual aids to enhance the learning capabilities of students and provides them a stimulating and challenging environment essential for high quality education. The graduates of this department will be able to meet the highest standards of training for leadership in computer science and information technology and to capitalize on the huge IT market of the 21st century. The Department of Computer Science & Information Technology is concerned with the theory, design, development and application of computer science and information processing techniques.

14.22: National Center for Big DATA and Cloud Computing

Name of Contact Person	Nasruminallah
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Due to increased use of mobile devices such as laptops, tablets and cellphones, more than 90% of the network traffic generated is comprised of multimedia data – such as the data generated through multimedia applications, remote sensing, sensor networks and digital services applications. Although high compression efficient algorithms have been developed for representation of such multimedia data, but owing to the amount of information the size of the generated multimedia data is immense. Furthermore, the utility of the stored data is directly related to its size, due to the extent of analytical information that can be extracted from the big size of the data. Therefore, a rich multimedia data and its allied applications requires huge

storage and computational requirement. Keeping in view the rapid advancements in the computing hardware, increased trend in the use of mobile devices, their limited memory, low computational capability and less battery life the use of cloud computing is a valuable resource.

Our focus is to effectively utilize cloud computing for Big Data applications for solution to problems of national importance. With support of cloud computing resource limited resource devices can perform heavy data services to store, edit, generate, process and communicate media



files such as audio, video, images, graphics and so on, even without large storage and computation power. Therefore, keeping in view the advantages of cloud computing in provisioning and processing of big data and its suitability for the emerging trend in mobile devices and Pakistani R&D environment having limited hardware resources, the utility of the cloud computing is plausible. In the proposed Lab, our focus is on the following key sub-domains, which are R&D problems of National importance.

- Multimedia streaming and analytics
- Remote sensing big data analytics
- Traffic characterization and analytics
- Cloud integration and analytics for mass data platform

Scope of Work

The remote sensing mandate concerns:

- The use of advanced technology to achieve needed research and studies
- The application of Remote Sensing and GIS to produce reports and studies on land resources
- The emphasis on environmental and development concerns
- The structure of databases from satellite imagery on timely basis in different areas and disciplines and making the information available to the public and private sector
- The development of decision support tools such as warning systems and long term observations

Research Activities and Projects

During the short period of time, the National Center for Big data and Cloud Computing got engaged and is collaborating with various organizations on projects of crop estimation, water

PDMA management and land cover mapping. It is also in talks with other departments, private sector companies and international organizations for various projects of Environmental Monitoring, Climate change and Flood Managements and Land data acquisition.

The NCBC provides expertise in projects covering the various fields of Remote sensing big data analytics and Cloud Integration and analytics for mass data platform. Remote sensing big data analytics mostly concerned with: Water resources, snow cover, climate change, forests, soil resources, biodiversity, protected areas, land cover and agriculture, land degradation/desertification, urban sprawl, mass movement and natural disasters.

14.23: Helpage International Pakistan

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HelpAge International is the secretariat to a global network of organisations promoting the right of all older people to lead dignified, healthy and secure lives.

Our values

Our values are shown in the graphic below. Please roll over each of the four statements to see more detail.

Our vision

Our vision is a world in which all older people can lead dignified, healthy and secure lives.

Mission

Our mission is to promote the wellbeing and inclusion of older women and men, and reduce poverty and discrimination in later life. We work with older women and men in low and middle-income countries for better services and policies, and for changes in the behaviors and attitudes of individuals and societies towards old age.

The world we want is one where every older woman and man, everywhere, can say:

- "I have the income I need"
- "I enjoy the best possible health and quality of life"
- "I am safe and secure, free from discrimination and abuse"
- "My voice is heard"

14.24: Department of Botany, University of Peshawar

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Introduction

The Department of Botany was established in 1958 with the late Professor Dr. N.A. Qazilbash as the founder Chairman and the sole teacher to shoulder all the teaching responsibilities. The premier class of M.Sc. Botany consisted of six students who graduated in 1960. The M.Sc. syllabi were revised during 1972, 1976, 1982 and 1999 to bring it at par with the recent developments in the subject to meet the call of the time. Research at M.Sc. level was introduced during 1972, Programme of Ph.D. was initiated during 1975. The present yearly in-take of M.Sc students is 50 each in morning and evening program. M.Phil/Ph.D. scholars are also admitted every year. The graduates are absorbed in education, forest, agriculture, plant protection, PCSIR, ministry of environment and various NGO's.

Vision

To improve the quality of education and status of learning, teaching and research in the field of botany nationally and internationally

Mission

The Department is committed to train students and scientists for the uplift of the community through teaching, research and participation.

14.25: School Safety Cell, Department of Elementary and Secondary Education Khyber Pukhtunkhwa

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14.26: National Book Foundation

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National book Foundation was established in 1972 as a service rendering educational welfare organization. It is a statutory Corporation created through an Act of the Parliament in order to make books available at moderate prices. It has its Head Office in Islamabad and Regional Offices at each provincial Headquarters.



In addition it has Branch Offices and bookshops, Its management and over all control vests in a Board of Governors.

14.27: Department of Arts and Design University of Peshawar

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Introduction

The Department of Fine Arts, University of Peshawar, the first professional institute of Fine Arts in Khyber Pakhtunkhwa, was established as a two years certificate course in 1964 with a view to imparting and promoting art education in the province and with the future planning to raise its standard to the degree level. In 1980 & 1982, the department was upgraded to the level of BFA(Bachelor of Fine Arts) & MFA (Master of Fine Arts) respectively. The courses are designed with the aim to enable the students not only in technical skills of media, materials, methods, techniques and processes, but also to develop concepts, value of research, and to mature their creative imagination and skills to be able to communicate and apply the knowledge of art in practical situations. The courses also lay emphasis on the search for focus individual and aesthetic solutions to given problems in the form of projects, work-shops and lectures. Computer Graphics are an integral part of the course. The works of the students are put on display at the end of every academic year for evaluation. All assignments/projects are research oriented and emphasis is given to creativity.

Mission

To provide modern facilities of education to the students on the premises and to boost up their educational level by holding workshops and seminars time to time. BFA Syllabus is designed in accordance with the HEC Academic Policies and for current job market available in various fields related to Art such as Textile Industry, advertising industry etc., for becoming Professional Artists and Designers.

Objective

To make this department the best Art institute of the Province and to enhance the quality of education and teachings is our main objective.

14.28: Cure Door Resource Center

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14.29: Social Impact Organization

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14.30: CENTRE FOR DISASTER PREPAREDNESS AND MANAGEMENT (CDPM), UNIVERSITY OF PESHAWAR - PAKISTAN

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Introduction

Disasters resulting from natural hazards such as Earthquakes, Floods, Droughts and Landslides etc., are rendering tremendous loss to lives and other properties in Pakistan. Recent example of such disasters is the Earthquake-2005, in which 73,338 people lost their lives, 12,304 got severely injured and more than 3.5 million were rendered homeless. Similarly, recurrent floods in Pakistan have also resulted in numerous deaths, damaging standing crops, killing hundreds of livestock and flattening housing and infrastructure. The flash floods of August 2008 in Peshawar washed away more than 130 villages, claiming dozens of innocent lives in addition to drowning of thousands of animals and other livestock. Moreover, the damage to moveable and immoveable properties ran in billions of Rupees. Beside this, terrorism in Pakistan in general and Khyber Pakhtunkhwa in particular has become a major and highly destructive phenomenon in the recent years. Similarly, the direct and indirect cost of terrorism in Pakistan during the years 2001 to 2015 was estimated at 106.98 billion US dollars. War against terror and the resultant turbulent situation of the country has greatly affected developmental projects and investment environment. Due to terrorism and problem of insurgency, millions of people have been displaced. As a consequence, declining trend has been seen in stock exchange leading to increased unemployment and high inflation. Furthermore, due to porous border between Pakistan and Afghanistan, terrorism and associated problems have also promoted smuggling and a variety of socio-economic problems in Pakistan. The damages of the earthquake-2005 were not yet rehabilitated; the roofs of damaged houses by Flood-2008 were not yet dried up; and cries of the IDPs of the insurgency affected people were not yet silent that another catastrophic flood hit the whole country from Chitral to Gawadar in July and August 2010. This catastrophe surpassed all the previous records of floods not only in Pakistan but also at international level. It has been observed that the people affected by Floods-2010 were more than the combined damages and

affected population of Indian-Ocean Tsunami 2004, Pakistan earthquake 2005 and Haiti's earthquake 2010. Official estimates put the number of people directly affected by the floods at around 20 million. It may be underscored that the root cause of escalating damages in developing countries like Pakistan, had been mainly the lack of disaster preparedness and management. To cope with such natural and man-made disasters, it is always obligatory to devise an institutional and technical mechanism to adopt comprehensive disaster management including prevention, preparedness, mitigation, response, rehabilitation and recovery.

Accepting this challenge, the internationally reputed University of Peshawar, which is the oldest university of the province, took the lead to establish the Centre for Disaster Preparedness and Management (CDPM) in collaboration with the German Agency for Technical Cooperation (GTZ) and International Centre for Integrated Mountain Development (ICIMOD). The CDPM was formally inaugurated by the then worthy Chancellor of the University of Peshawar and the Governor of the Khyber Pakhtunkhwa (the then NWFP) on April 04, 2009. The CDPM, with the grace of the Almighty Allah, is the first ever centre of its kind in the public sector not only in Pakistan but in the whole of South Asian region. The Centre has been established under the Faculty of Life and Environmental Sciences of the University of Peshawar. The Centre within a record short span of time has to its credit the initiation of multifarious programmes including trainings and workshops for students, managers, practitioners, and administrators to equip them with the knowledge and skills in the field of disaster preparedness and management. The CDPM in a very short span of time and scarce resources has successfully launched the country's first ever One Year Postgraduate Diploma, BS (4 Years), M.Sc, M.S., M.Phil and Ph.D. degree programmes in Disaster Management in Pakistan. So far six batches of Postgraduate Diploma, four batches of M.Sc. and two Batches of BS programme have successfully completed their degrees and diplomas at the CDPM and they are working in field. Curriculum of the CDPM degree programmes have already been reviewed by the Higher Education Commission-Pakistan national curriculum review committee as a model for launching Disaster Management degree programme in other universities of Pakistan. The CDPM is not only providing education to the students but it has also initiated a wide range of training and learning programmes for the teachers, disaster managers, armed forces, practitioners, volunteers and administrators to improve their knowledge and skills in the field of disaster management. It is pertinent to mention here that the Centre is first of its kind not only in Pakistan but also in the whole of South Asian Region. The CDPM has to its credit the organization of two International Disaster Management Conferences i.e. IDMC-2009 and IDMC-2010. The proceeding of both these conference have been documented and published. Besides, CDPM has successfully organized six Annual Disaster Management Exhibitions at the University of Peshawar for public awareness about DRR. The Centre has also organized more than 45 tailor-made courses on Disaster Risk Reduction, Disaster Risk Assessment, Community Based Disaster Risk Reduction, Emergency Response Management, Gender Mainstreaming in Disaster Management, Contingency Planning, Disability and Disasters, Old Age and Disasters, Triage and Ethics in Disasters, Participatory Action Research, Disaster Risk Reduction Through Education, Child Friendly Disaster Management, First Aid and Fire Fighting Trainings, School Safety, Mainstreaming DRR into School

Curriculum etc. for professionals and volunteers of various national & international organizations.

Objectives of the CDPM

- To impart training and enhance knowledge of the faculty, students, staff of the relevant departments and selected citizens in disaster risk reduction, preparedness, mitigation and management;
- To develop qualified human resource base in the field of disaster preparedness and management;
- To produce knowledge base in disaster preparedness and management in Pakistan;
- To help in reducing the impacts of disasters on people and their properties;
- To provide policy guidelines for the line agencies in the field of disaster preparedness and management;
- To develop client server web based application for planners and researchers.

Vision

“Our vision is to contribute towards national integration and consolidation and help overcome the sense of forlornness and alienation in vulnerable communities.”

Academic and Training Programme of the CDPM

The initiation of variety of academic and training programmes in the field of disaster preparedness and management made the CDPM one of the unique institutions of the country. At the very onset, the Centre started the country's first ever one year postgraduate diploma programme in disaster preparedness and management in January 2009. In the sequel of postgraduate diploma programme, the CDPM also holds the privilege of offering BS (4 Years), M.Sc, M.S., M.Phil and Ph.D. degree programmes in Disaster Management. Besides all these academic programmes, the CDPM has initiated a wide range of tailor made courses on Disaster Preparedness and Management. These training courses are aimed at the need of particular target groups including personnel from Academic Institutions, Disaster Management Authorities, Scientific Organizations, Development Sector, Armed Forces, Police Department, Policy Makers, UN and NGOs etc.

14.31: MOBILISE PROJECT, UNIVERSITY OF PESHAWAR

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MOBILISE PROJECT AT A GLANCE

The MOBILISE project, funded by the Global Challenges Research Fund (GCRF) in the UK, is developing a digital infrastructure that can offer intelligence to a range of agencies to

work together to reduce the impact of natural disasters on communities. The project is focusing on the challenges faced by three low-/middle-income countries (LMICs), namely, Sri Lanka, Pakistan and Malaysia. These countries are frequently affected by a multitude of natural hazards including floods, landslides, cyclones, droughts and earthquakes and, therefore, have been chosen as the focus for this research project to capture a broader set of disaster risk conditions and governance requirements common to LMICs.

The MOBILISE project aims to address the priority number two of the Sendai Framework for Disaster Risk Reduction (2015-2030) which is to strengthen disaster risk governance to manage disaster risk and also contributes to the remaining three priorities (understanding disaster risks, investing in disaster risk reduction for resilience and enhancing disaster preparedness for effective response). Furthermore, the MOBILISE project addresses three recommendations specified by the United Nations Economics and Social Commission for Asia and the Pacific (UN/ESCAP) which are (a) Urban resilience which needs urgent attention; (b) Capitalising on innovative space technology applications and emerging technologies, and (c) Political leadership for the success of disaster risk reduction and management. The MOBILISE project will directly contribute to three UN Sustainable Development Goals: Sustainable Cities and Communities (SDG 11), Partnerships for the Goals (SDG 17) and Industry Innovation and Infrastructure (SDG 9).

RESEARCH AIMS & OBJECTIVES in Pakistan

The purpose of this research project is to develop a Collaborative Multi-agency Platform that can be used for building resilient communities in disaster prone areas of Khyber Pakhtunkhwa. Khyber Pakhtunkhwa has been frequently affected by a multitude of natural hazards including floods, landslides, droughts, and earthquakes and, therefore, has been chosen as the focus for this research to capture a broader set of disaster conditions and requirements. This project will address the following objectives:

- Develop a Resilience Framework that defines the factors that constitute vulnerabilities, resilience capacities and the relationship between them;
- Investigate how teamwork among the disaster management agencies could be enhanced through digitally supported collaboration processes;
- Develop a web-based collaboration platform that can support collective vulnerability assessment and mitigation, involving multi-agencies;
- Develop a decision support system (DSS), used by multi-agencies to assess the vulnerabilities, risks and consequences of hazards on critical infrastructure;
- Extend the above web-based collaboration platform to be used during disaster response phases by integrating real-time data
- Implement a novel collaborative environment that allows remote teams to get an accurate picture of a disaster event through near real-time 3D satellite data and analytics.

TRACK RECORD OF THE INTERDISCIPLINARY ACADEMIC TEAM

The research team is comprised of leading academics in the area of Computer Science, Social Science and Disaster Management from UK, Sri Lanka, Malaysia and Pakistan. ThinkLab at the University of Salford, UK is leading this collaborative project and University of Peshawar-

Pakistan, University of Moratuwa-Sri Lanka, University of Colombo-Sri Lanka and Uiversiti Tunn Hussein Onn Malaysia are partnering in it. At the University of Peshawar, Centre for Disaster Preparedness and Management is leading Mobilise Project with the advisory support of the Provincial Disaster Management Authority-Khyber Pakhtunkhwa.