



NESS International
Science Network
National Eco-Security System

Third One Health Conference (#OHC2025)

Theme: One Target – Long-Term Survival of Humanity through the Eco-Security System

Venue: Abdul Wali Khan University (AWKUM), Mardan Pakistan on 6-7 November, 2025

Overview and Recommendations of the Conference

Conference Overview

The Honourable Prof Sarzamin Khan, Member Board of Trustees, Pakistan Science Foundation Islamabad inaugurated the Conference as Chief Guest, alongside Prof. Saleem Ullah Khan, representing the Vice Chancellor of AWKUM, and Prof. Dr. Sher Bahadar Khan, Principal of the College of Animal Husbandry and Veterinary Sciences (CAHVS). Mr. Khan commended the efforts of the organizers, sharing recent research support programs for promotion of Scientific Research and related activities in the areas of Agricultural Sciences, Biological Sciences, Bio-technology and Genetic Engineering, Chemical Sciences, Computer/Information Technology, Mathematical Sciences, Environmental Sciences, Engineering, Earth sciences, Medical sciences and Physics.

The Foundation provides grants to universities and other R&D organizations for projects undertaken by individuals or groups of scientists. The Foundation has developed requisite infrastructure for carrying out its research support activity. The Foundation has so far funded 1031 research Projects in various fields of Science and Technology that have resulted in publication of 612 research papers in national and international journals and 5 patents have been filed from PSF sponsored projects. 169 research scholars have acquired their M.Phil degrees and 115 have done their Ph.D.s out of work done in PSF supported research projects.

The conference was co-organized by Prof. M. Subhan Qureshi, President NESS-Pak/DSP; Dr. Muhammad Israr from PSF, with institutional support from various departments of AWKUM, Dr. Iqbal Iqbal, Dr Tahir Usman, and Dr. Imad Khan and other colleagues.

Prof M Subhan Qureshi presented the National Eco-Security System Global Report 2024 Pakistan Volume and informed the delegates about achievements of NESS-Pak during the period. The Report was prepared by the Editorial Committee headed by Prof. Muhammad Subhan Qureshi, Secretary General and Deputy Editor-in-Chief, Editorial Committee for Pakistan Volume of NESS Global Report/Member, International Editorial Committee for NESS Global Report/President Dairy Science Park. Prof Sher Bahadar Khan, Principal Veterinary College AWKUM and Dr Shahid Iqbal assisted as Deputy Secretary General and Vice Secretary General of the Report.

There are 496 higher education, research, Government and other institutions (HERIs) affiliated with NESS Pakistan, out of which 104 (21.0%), 54 (10.9%) and 338 (68.1%) have made institutional, individual and no promises yet, respectively. As of May 2025, the number of members of the Editorial Committee has been: 115 Editorial Committee (EC) members for Pakistan Volume of NESS Global Report, as well as 15 Youth Editorial Committee (YEC)

members were identified, with 3 executive members totaling 133 from various HERIs. A total of 605 persons have got registered as NESS Supporters through NESS-Pak.

A letter from Mr Tian Dexin, Chief Scientist NESS, ISN shared a letter with the participants highlighting the need for a collective response to the challenges to the Eco-Security around the Globe. He appreciated the progress made and assured his support to the NESS-Pak.

Prof. Dr Muhammad Azam Kakar, Pakistan, FAO Quetta presented his paper titled, “Long-Term Human Survival through National Eco-Security Systems: Building Resilient Food Systems through FAO Pakistan. Prof. Dr Alireza Sazmand (Iran) shared his paper on “To drink or not to drink, that is the question: contamination of spring waters with the protozoan parasites”. Dr Irshad Khattak presented his paper on “Exosomes as Emerging Trend in Regenerative Medicine”. National Eco security system was assigned to the Speaker Prof. Dr Yan Xie (China). The Integrated Role of Industry, Academia and Regulators to Ensure SDG-3cc (Good Health and Wellbeing was presented by Mr. Mian Abdul Rasheed, Pakistan Agricultural Scientists Forum. Dr Faisal Siyal Scientist FDA OHIO STATE University (USA) was assigned a talk via video link as well as Dr Noor Bahadur (China). Dr Aqib Iqbal presented his paper on Machine Learning Model Based on FTIR Spectroscopy and Chemometrics for the Identification and Classification of Thyroid Malignancies.

Technical Sessions were held on Poultry Science and Biosecurity. Abstracts were submitted online, evaluated by the technical committee, and selected for oral or poster presentations. Poster presentations were assessed for prizes and certificates. The Editorial Committee of NESS convened a hybrid meeting with in-person and remote participants. During the concluding session, chaired by the Vice Chancellor, the conference recommendations were presented as follows:

Conference Recommendations

1. Environment Protection: Conduct interdisciplinary research through affiliated institutions on the nine planetary boundaries (Biosphere integrity, Climate change, Novel entities, Freshwater change, Land system change, Biochemical flows to the oceans, Stratospheric ozone depletion, Atmospheric aerosol loading, and Ocean acidification), emphasizing the former six that have already been transgressed globally. Develop targeted policy recommendations as a response strategy, ensuring a collaborative approach involving academia, government, and civil society for effective implementation.

2. Biodiversity Conservation: Ensure the responsible introduction of genetically improved animal and plant species, with measures to prevent their invasiveness and protect native biodiversity; Safeguard Pakistan's rich biodiversity, focusing on the preservation of flora and fauna within protected areas; Promote community-led biodiversity conservation through education, awareness campaigns, and local empowerment initiatives.

3. Food Security: Foster sustainable agricultural and livestock practices to enhance food production and resilience against climate change; Facilitate the development of value chains to generate exportable surpluses and ensure equitable distribution of food resources.

4. Renewable Energy: Promote the development and integration of renewable energy solutions to reduce reliance on fossil fuels, mitigate environmental impact, and support sustainable livelihoods in protected areas and rural communities.

5. Public Health: Strengthen the One Health approach to address the interconnection between human, animal, and environmental health; Implement bio-risk management programs to prevent zoonotic diseases and enhance disease surveillance in protected areas.

6. Livelihood Security: Create sustainable employment opportunities for local communities through eco-tourism, conservation efforts, and value-added agricultural products; Support the establishment of small and medium enterprises (SMEs) aligned with eco-security and sustainable development principles.



Prof Sher Bahadar Khan
Secretary
Recommendations Committee OHC2025

Prof M Subhan Qureshi
Chairman
Recommendations Committee OHC2025

7 Nov 2025