FOREWORD

Engr. Ch. Ghulam Hussain[1]

WORLD ENVIRONMENT DAY PROCEEDINGS
JUNE 05, 2010

All praise to Allah, the Almighty, The Benevolent and The Merciful Who created everything in the universe i.e. the skies, the sun, the moon, the stars, the earth, the mountains, the rivers, the oceans and all the botanical life comprising trees, gardens, orchards, flowers, the fruits and the staple food, various species of animals, reptiles, avian, aquatic & marine life. The Sustainer of every aforesaid thing broadly called the 'Nature' created man as his vicegerent to live on earth and act for the accomplishment of His commandments. 1431 years ago, Almighty Allah through the Holy Quran addressed every human creature without any distinction of cast, creed or faith ordaining him to behold His aforesaid blessings created on pre-set equilibrium or balance i.e. the Nature / Environment and bow his head to His utter Superiority and pass his earthly life observing balance in all walks of life.

With a view to meeting with their ever growing needs on account of progressive population growth, which multiplied astronomically, the human beings, however, started developing shelter, food, clothing, transport and luxurious life style by transgressing on the nature/Environment by way of:

- Constructing irrigation channels which in their wake, over the years, brought waterlogging menace, rendering erstwhile fertile lands into wastelands, breeding mosquitoes or other pests in stagnating water in pools creating health hazards and disturbing fauna and flora.
- Constructing roads, boulevards, highways where vehicles emit carbon mono-oxide and other toxic gases and affect pulmonary systems of the human beings and animals alike, besides contributing substantially to the intensity of the carbon-dioxide presence in the atmosphere, a horrific source of global warming.
- Construction of Industries at various places enmasse which drain their effluents in the nearby drains or streams polluting the adjacent aquifers and in turn drinking water pumped out by the inhabitants.
- Construction of multi-storey buildings in large cities posing serious problems of unimaginably exorbitant carbonic emissions from greater traffic volume, frequent sewerage pipes/drains blockages, built with low capacity and similarly poor clean drinking water availability.

---

[1] Vice-President / Secretary, Pakistan Engineering Congress

- And so many other environmental hazards.
- All these transgressions woefully imbalanced the natural environment. The international community took cognizance of it and was seized with the dilemma that if such a recourse continued unabated and viable counter-balance measures were not evolved on top priority basis, to help bring the Environment on even keel, the life on earth was fraught with the danger of speedy extinction.

It was, therefore, with the inspiration from Stockholm convention in 1972 that Environment Protection Ordinance was enacted in 1983 followed by National Conservation Strategy (NCS) in 1992. In Pakistan it was classified as the Environment Protection Act specifying the National Environmental Quality Control Standards as a benchmark. In the year 2001 "National Action Plan) was formulated to arrest the ever increasing degradation of environment.

With a view to countering the Environmental pollution, a specific topic is proposed every year for discussion at the World Environment Day moot by every country in the month of June. On this occasion technical papers relevant to the theme of the year are presented by eminent professionals/specialists which are duly discussed and the authors of the papers elaborately reply to the questions raised by the audience.

Till this year five of such events have been observed starting in June 2005 and the technical papers presented on various topics have been published and circulated amongst the authors, the members of the Engineering Congress and the national libraries.

This year, the sixth in a row, the theme of the World Environment Day was **"Bio-Diversity Connecting with Nature – Many Species, One Planet, one Future"**.

Eleven technical papers on the subject proper or in relevance thereto were presented by distinguished specialists and duly discussed.

Of particular mention is the paper of Mr. Usman-e-Ghani on **"Deforestation-A Trample on the Moonscapes".** In this paper the Joint Commissioner for Indus Waters has elaborately discussed the contribution of forests towards climate. He argues that the forests control soil erosion, provide clean water and create corridor for wild life and plants to move to favourable cordons. But when a tree is cut, he goes on to say, it ceases to be a carbon sink and when an area is deforested, it becomes a source of greenhouse gases and eventually causes ecology disturbance.

In another paper titled **'Biodiversity – A Stable System'** by Dr. Zaheer-ud-Din Khan, Department of Botany G.C. University, Lahore, the author emphasizes that whereas a vide array of ecosystems exist in Pakistan yet these natural zones have been drastically modified by human activity to the extent that very few truly natural habitants remain. The author has pointed out that conservation of biodiversity is fundamental to achieve sustainable development.

He further adds that conservation of biodiversity is essential because almost 70% of the population in Pakistan lives in rural areas and a large majority of this population directly or indirectly depends on natural resources. As a result, he adds, deforestation, overgrazing , soil erosion, salinity and waterlogging have become overall major threats to biodiversity. The forests bordering the Arabian sea and the forests of spectacular mountain tops of Western Himalayas, Hindukush and Karakoram ranges must, therefore, he recommends, be reforested and sustained to upkeep the ecosystem of the areas.

The third paper is about **"Diversity and Economic Growth"** by Ms. Shahida Saleem. She has compared a striking relationship of intensive growth of population with deforestation and the resultant low per capita income with the help of World Development Report 2008 & 2009 indicators. The other way round it is manifest that countries with lesser population have lesser deforestation and better per capita income. Thus if deforestation is stemmed it would contribute towards economic growth.

And the fourth interesting paper is titled **"Climate Change Threats to Biodiversity"**. It was presented jointly by Mr. M. Mohsin Iqbal and Arshad Ahmad Khan of Global Change Impact Studies Centre, National Centre for Physics Complex, Quaid-e-Azam University Campus, Islamabad. The authors have discussed great diversity of landscape, people, climate, seasons ecosystems of Pakistan from snow capped peaks at elevation of 8,000m in Himalayan Range to Arabian Sea coast-line and agriculture ranging from lush green canal irrigated areas in the plains to hot arid deserts and temperatures ranging from well below freezing point in the hills to scorching 52^{o}C in the plains. Such diversity has given rise to a variety of living organism, both botanical and biological, which provide ecological, recreational, cultural and aesthetic values, besides rendering economic benefits and services to human society. They go on to discuss that due to climate change, large portion of biodiversity is under threat. The paper describes threats posed to plant diversity and sensitive ecosystem by climate change and suggests some initiatives to promote and conserve biodiversity in Pakistan.

All the proceedings of the World Environment Day 2010 from address of Welcome by the President Pakistan Engineering Congress, Engr. Husnain Ahmad, memorable snapshots of the audience, the Chief Guest, the President, some of the Vice-Presidents and the Secretary-cum-Vice-President of the Pakistan Engineering Congress, the texts of 11 papers presented on the Environment Day, form part of this volume.

Pakistan Zindabad