

KEY NOTE ADDRESS

By

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**Symposium on
“Changing Environmental Pattern and
Its Impact WITH SPECIAL FOCUS on Pakistan”**

Key Note Address

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As a convener, I wish you all a cordial welcome to this symposium to be addressed by nine learned speakers. The issue is open ended, multidimensional and inscrutably axiomatic. It has many ramifications globally and touches the evolution pattern of all species including humans, all flora and fauna, be it terrestrial, avian, marine or other aquatic systems.

It is now realized that global warming is the major factor disturbing the ecosystem and is visibly on the upsurge. The contributing elements interalia include heavy deforestation, carbonaceous gases from fuel combustion and coal fires, rapid development of industry and greenhouse gas emissions etc. sapping the protective ozone layer.

One of the solutions to mitigate the abnormal temperature rise causing melting of glaciers, sea warming, floods and droughts, is to go in for green/renewable energy e.g. from hydel, winds, sea waves and solar system etc. to attenuate the deleterious emissions. The latest finding is that in Himalayas, now called the “Third Pole”, melting is happening faster than elsewhere on the planet. Its high conservation areas in India, Pakistan, Nepal, Bhutan and China are infact prodigious water tanks for Asia – origin of the mightiest river systems of the world e.g. Indus, Ganges, Brahmaputra and Mekong etc. benefiting, over three billion people i.e almost half of the world’s population. Fast melting of ice changes the climate. Rising temperature affects size of the glaciers melting quickly which increase the run off but reduces the frozen storage. Thus, melting of the glaciers is the most massive threat to the food security, than ever envisioned before. More so, ever widening gap between water availability and the spiraling demand due to phenomenal growth of human activities all over, further aggravate the problem. The environmental turbulence so caused is a matter of grave concern and is disturbing the precarious balance in Asian countries, particularly with agro-based economy where dwindling of already scarce water would be critical to life sustenance. Anticipating the oncoming crunch, Himalayan headwaters in Kashmir and Tibet are already stoking friction amongst Pakistan, India, China and Bangladesh and may exacerbate in future.

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Considering our temporal existence, environment of the earth has been in a state of flux ever since Big Bang but always maintaining a balance. Initially the hot state then ice age, periodic advances and recessions of glaciers portray natural changes in global environments. Natural variation of climate in overall perspective seems to be benign and easily negotiable but in certain cases it appears to be in-explicably traumatic and on throes of change.

Unpredictable climate changes may as well cause a big sway in thinking and temperament of individuals and the nation's at large. Obviously our present order is not episodic but chronic. Happily, the scary prospects can motivate innovation and progress. This is how evolution takes place. Only if we harness turbulence of today, we get out of morass and build a stable tomorrow.

Ladies & Gentlemen!

Now what a seeming paradox in nature! On one hand we are deeply concerned about ominous shadows of fast deteriorating environments in one part of the world, while in another, Icelanders have reasons to be jubilant. Increased melting of Iceland glaciers and the promise of vast natural gas and mineral reserves, are a bonanza for the Icelanders and are destined to bring unprecedented prosperity to that part of the world. At the moment Iceland is producing the world's cleanest and the cheapest Electricity. It generates 100% of its energy from renewable hydroelectric and geothermal source. Melting glaciers feed hydroelectric plants and the same forces as well fuel volcanoes, drive geothermal power. About 75% of the Iceland Electricity, today comes from hydro and the rest from geothermal. Most of the future growth would be in geothermal in the geologically vibrant land as Iceland straddles two huge tectonic plates that are pulling apart, loosening subsurface rock and bringing up the heat from the planet's core. They could soon be selling green electricity to Europe, North America and Canada.

Plainly speaking, in Pakistan atleast, nobody ever bothered to recognize the subject “Environment” till 1983, when taking a lead from Stockholm convention of 1972, Government of Pakistan enacted “Environmental Protection Ordinance” followed by National Conservancy Strategy (NCS) 1992 and then National Action Plan 2001 to mitigate the ever increasing degradation of environment. Ever since each June, World Environment Day is observed where technical issues on degradation of environments and possible remedial measures are discussed. Pakistan located in sub-tropics and in temperate region, has a warm climate and its economy being largely agrarian, is highly climate sensitive. Besides, some 50-80% of the average river flows in the Indus River System (IRS) are generated by snow melt in the Hindu Kush-Karakoram part of the Himalayas. The upper Indus Catchment, mostly the Karakoram part, has more than 5000 glaciers which cover a total glaciated area of about 15000sq.Km. Their importance can be seen from the fact that the stored volume of ice in these glaciers is equivalent to about 14-years of average IRS flows.

The Inter-Governmental Panel on Climate Change (IPCC) projects that the global mean temperature may increase between 1.4⁰ to 5.8⁰ C, before the present

century ends. This unprecedented increase can have severe impacts on the global hydrological system and consequently on ecosystems. In Pakistan, climate changes raise concerns with its tremendous social, environmental and economic impacts. We are frequently exposed to natural perils like floods, droughts and cyclones. Furthermore, the biophysical relationships could also be altered due to seasonal changes and the types of cultivated crops which will lead to changes in irrigation requirements, altering soil characteristics and increasing the risk of pests and diseases, thereby plummeting agriculture productivity. These hazards when combined with the vulnerabilities of poverty, exclusion and inappropriate political decisions, would drive the public desperate and crazy.

The importance of the subject sparked the need for a symposium which is being addressed in the discussions that follow my presentation. The response to call for the papers has been encouraging and nine very informative papers are being presented as below;

- The paper by Mr. Jawed Ali Khan discusses the general effects of climate change especially in Pakistan. It is concluded that the climate change could affect Pakistan’s already marginal GDP by about 5-20% which will be unbearable by our ailing economy. It also brings out Pakistan’s policy response to climate change.
- The paper by Dr. A. B. Sufi and others focuses on the management of the existing resources of water, future needs and expected climate change hazards especially in hydrological, flood routing and agricultural use scenarios.
- Mr. M. Munir Sheikh and others, have ably analyzed the genesis, cause and effects of the global warming phenomenon with special reference to Pakistan. Effects on socio-environment living, water resources, agriculture etc. have been identified and some remedial strategies proposed.
- Mr. Ali Hasnain Sayed has focused on climate change effects on water, power and agricultural sector and concluded that “Climate Change in the Context of Pakistan” poses serious challenges in the water, power and agricultural sectors.
- Mr. Raqib Khan has dwelt on mainly the hydrological aspects of changed patterns of flood and droughts and availability of water for agriculture and recommended water management, construction of several storages, need for increased funding for floods, water and power sectors, high efficacy water use strategy and removal of encroachments in the active flood plains of the rivers.
- Mr. Zia Mustafa brings out the overall effects of climate change, and the fact that major producers of GHGs are the industrial and developed countries. He states that the US alone adds about 7-billion tons equivalent of CO₂ with a sink of capacity of only 0.8-billion tons

i.e. a net emission of 6.2 billion tons equivalent of CO₂ i.e 20.9% share in the total GHGs of the world. China follows at 5 billion tons or 17% while Pakistan contributes a paltry 0.4% with neighboring India contributing 4.6%. He also focuses on the effects on health and floods and has given some logical recommendations.

- The paper by Mr. Attia Dastgir and others is basically a case study of high head hydropower projects in Besham area, bringing out mainly the environmental effects and their proposed mitigation efforts.
- Ms. Uzma Hanif and others have actually presented a case study of Punjab Agricultural scenario, and recommended some measures to mitigate the effects of climate change.
- Mr. Akhtar Nawaz Khan and others have presented an overall picture of the climate change effects in various sectors in Pakistan like energy, industrial processes, agriculture, forestry, land use management and waste management and recommended some mitigation measures briefly.

Honorable Listeners!

Majority of the above papers in general supports and recommends the need for construction of new storages to mitigate the effects of heavy precipitation and resulting floods in summers and drought-like conditions in winter. These papers would be presented by the relevant professionals and then go through a rigorous analysis by panel of experts and the final recommendations would be submitted to the government for consideration.

Ladies & Gentlemen!

Please lend me your thoughtful mind for a while!

Think of the harrowing experience of March 11 when horrendous quakes and an appalling Tsunami hit Japan. The stunning impact was so powerful that it shifted the earth on its axis. The misery was further compounded by the radioactive genie unleashed from the damaged nuclear reactors and despite allout efforts, its lethal plumes are advancing all around with the wind. No amount of planning, no skills can stop a force that moves the Planet. What appeared to be the end could just be the beginning.

All said and done, deep down, we may as well realize that nature's every step into decay, dissolution and distraction is being used to organize a new pattern of order. Nature causes birth, blossom and renaissance from decay and destruction, radiating waves of irresistible ecstasy permeating the environments. No doubt, out of chaos and uncertainty comes world order that is strong and vital.

It may as well be reiterated that Pakistan has a vast potential of around 45000 M.W of hydropower on Indus System waiting to be harnessed. Kalabagh is one of the mega projects where detailed investigations and design were completed more than 25 years ago. Despite its overwhelming merit, the project was mercilessly

killed at the altar of political intransigence. In a hindsight review, we have incurred a staggering loss of 30 billion US \$ for not constructing Kalabagh Dam in last 15 years against its original construction cost of 6 billion dollars. Presently we are losing Rs.200 billion per year for non-construction of Kalabagh Dam. However, now, with the fast changing scenario, may be, a National Consensus could be achieved through Council of Common Interests. Given a will, the chances could be rather bright as the present leadership with all their shortcomings, has demonstrated its expertise in conjuring a political consensus out of thin air. Other multipurpose Dams like Bhasha, Dasu, Khorl, Kurram, Tangi, Munda should be taken up on fast track to produce renewable/green energy as substitute for majority of our prime movers presently gorging out hefty volumes of deleterious toxins and noxious gases polluting the environments. It would not only boost our failing economy but also upswing our socio-environmental living. At the global level too, it would provide a significant relief.

In the end I would like to thank you all for bearing with me for such a long time. We pray that the people at the helm of affairs open their eyes to the grim realities. It is already too late but we still await for a miracle to happen to pull us out of this quagmire.

Thanks again.

Pakistan

Paindabad!

