

WORKSHOP ON ENVIRONMENT AND ENERGY: AN OVERVIEW

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An environment and energy workshop was held at Management Excellence Center (MEC) Institute of Business Management, Karachi on February 12, 2011. It highlighted the significance of environment and the energy sector management issues in Pakistan. The workshop discussed some of the essential tools needed by junior level executives, middle level managers and supervisors, to assist them in capacity building and updating their knowledge on conservation of energy as well as preservation of the environment in which they operate. More businesses are moving towards eco-friendly products and image development. This is imperative as the future investments in Pakistan will mainly be in the fields of energy, environment conservation and renewable energy sectors. The competitiveness of organizations and manufacturing units, that are leaders in conserving energy and operating in an environmentally friendly system, will improve in the global dynamics of the 21st century market place. The workshop was intended for graduates with a clear affinity for management and/or technology, as well as for decision-makers in companies, government and non-governmental organizations who wish to engage in environment and energy management. A number of presentations were made by environmental scientists and energy experts.

Mr. Talib Karim, Rector IoBM, highlighted the role of IoBM in contributing its share to environmental management. The Institute has succeeded in the disposing off of industrial waste water from the nearby industrial area that passes near the IoBM campus and drains into the Korangi nala. Plantation of trees have been initiated in this area to make the IoBM microenvironment more pleasing.

Dr. Akhlaq Ahmad presented a brief history of the Stockholm Conference 1972, establishment of UNEP, Tbilisi Conference 1977 and UNESCO 1980. The efforts of these organizations in the field of environment were highlighted and their role was discussed. Environmental codes, standards, legislation, training and monitoring in the field of environment were described. The role of Ministry of Housing and Works (Environment and Urban Affairs) and EPA (Federal and Provincial) were also presented.

Dr. Shahid Amjad presented a paper on environment sector related job opportunities Pakistan spans a remarkable number of the world's broad ecological regions, including more than five biomes in its land area of over 880,000 km², these biomes are; the desert biome, temperate grassland biome, tropical forest biome, mountain biome, Coastal and Marine, Wetlands etc.

Pakistan fauna (as per IUCN Red Book) includes 668 birds species (25 threatened), 198 freshwater fish species (29 endemic, 1 threatened), over a 1000 species of marine fish. 177 reptiles (13 endemic, 6 threatened), and 174 mammals (6 endemic, 20 threatened). About 5,700 species of flowering plants have also been identified.

Environmental Issues faced by Pakistan include

- Degradation of soil and issues related to solid waste disposal.
- Pollution of freshwater, lakes and aquifers
- Degraded coastal and marine life.
- Air pollution and noise.
- Overall negative Impact on the biosphere

Both big industrial estates and small cottage industries generate hazardous and toxic chemicals. The fertilizer plants, textile industry, glass industry, steel plants etc are major sources of pollution. They emit SO₂, NO₂, smoke, volatile organic compounds, chlorine gas, ammonia, CO, CO₂, phenol, cyanide and particulate matter, into the atmosphere. Human health is adversely affected by different-sized airborne particulate matter. Larger particles PM₁₀

are trapped in the nose and throat, whereas smaller particles (PM_{2.5}) penetrate the lungs and are associated with a range of respiratory symptoms. In order to create an economy based on sustainable development, interactions of humans and ecosystems must be regulated.

Job opportunities identified were:

- After successful completion of environment and energy management program IoBM graduates will be able to develop, implement, monitor and evaluate environmental and energy management programs, policies and projects.
- Successful graduates will be employed by, multinationals in the private sector. They may become consultants for large, small and medium sized enterprises, or work for governmental or non governmental organizations.
- In the public sector, national public authorities, , larger municipalities' sewage and water boards may employ them.

Mr. Moin Uddin Ali Khan spoke on Environmental Impact Assessment (EIA). EIA is most effective and constructive for new projects when potential environmental impacts are assessed at the pre-feasibility and feasibility stages. The object of EIA is to provide for environmental matters to be taken into account in the making of decisions, by all interested parties.

The EIA process involves screening scoping, baseline analysis , impact prediction, impact mitigation measures, documentation , public hearing, review and decision-making , and post project monitoring (PPM).

In Pakistan EIA is an upcoming field and there is dearth of environment impact assessors. Also there is a great demand in this field in the Middle East.

Syed Nadeem Arif: Director, Environment Management Consultants spoke on the Karachi Transportation Improvement Project. He highlighted current issues related to traffic congestion in Karachi. Mr. Arif is working on a JICA assisted program in association with Karachi Mass Transit Cell, CDGK, to identify, alleviate and facilitate movement of public through mass transport schemes. Novel ideas were presented to reduce the traffic congestion on the streets thereby creating space on roads by attracting greater number of commuters on to mass transit modes of transport. The Karachi Transportation improvement Project (KTIP) is an engineering solution envisaged to implement the Karachi Urban Transport Master Plan (KUTMP). In a preliminary social environment study significant issues were addressed that pertain to the demographic social, cultural and economic aspects of urban development. Currently more than 60% of air pollution is caused by the transport sector.

Mr. Akthar Ali energy expert spoke on energy resources and the Pakistan Energy Development Plan. He highlighted issues related to Thar coal development, promotion of LNG, renewable, solar and winds energy, and use of nuclear fuels.

Dr. Samiuz Zaman spoke on the management of solid waste disposal systems in Karachi. He highlighted the issues related to setting up of an incinerator in Karachi that he had designed in the 1990s. This incinerator continues to be used by the industrialists and others. He has his own lab facility that is able to test and measure key environmental parameters NEQS as stipulated by Environmental Agencies of Pakistan. The lab facilities are open for students of IoBM Environment and Energy Program for conducting experiments related to their courses.

Dr. A. A. Baig former Director PCSIR concluded the workshop proceedings by highlighting the term social pollution. A non caring attitude of the people and the concerned environmental monitoring agencies has contributed to the growing menace of pollution in the city. Karachi has now become the most polluted metropolis in Asia according to a recent World Bank study.