



LEAD
Pakistan

"The more devices we invent for dominating nature, the more we must serve them if we are to survive" (The Revolt of Nature)

Making the Difference

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Investing in Tomorrow's Leaders

Can We Eliminate Shopping Bags from Our Waste?



Hanging from the branches, flying in the air, stuck in corners racing along with the vehicles on the road are – as we all can see POLYTHENE BAGS. This wonder material of the 20th century has invaded every aspect of our lives; it is all over the place messing up the streets and parks, clogging up the drains and gutters. Unobserved about 10 million plastic bags are thrown away everyday as waste. These bags cause blockage in the drainage and the sewerage system of the city causing water logging, germination of bacterial and water borne diseases, and spread of mosquitoes, etc. In the fields these polythene bags when deposited in high quantities cause soil infertility. Plastic wastes when dumped in or thrown into rivers, ponds or sea have disastrous effects on the species living underwater, and a lot of marine life is lost due to this.

All polythene bags sooner or later break down into small pieces, leaving behind plastic-chunks or plastic-dust as residue. These chunks and dust are not biodegradable as their molecular structure is too large for microorganism to swallow. This characteristic of Polyethylene (PE) bags causes serious environmental and health problems.

Mr. Nadeem Hussain Bukhari (LEAD Fellow Cohort 7) took a closer look at this growing problem through his LEAD Associate project (LAP). Through this LAP, he conducted a study to eliminate shopping bags from the municipal waste by developing an alternative, which neither affects the livelihoods of the people involved in the production of these bags nor is so expensive that it becomes difficult to adopt. The specific objective of the project was to make polyethylene bags degradable without disturbing existing practices of their use. The Germans have developed techniques for making these polythene bags biodegradable by mixing 30% starch in its raw material.

Mr. Bukhari, conducted a lab-based research on 5 sample bags each with a mix of 25%, 30%, 35% and 40% starch and calculated its time for decomposition to find out the results. The facts thus revealed showed that mixing of starch does make PE bags degradable but carbon in PE does not disintegrate and may effect soil fertility. In conclusion, degradable shopping bags are not only expensive but are not easily available. Therefore it is important that the government should focus on developing alternatives through its network of PCSIR laboratories or other similar institutes, which have facilities to conduct research on these topics.

We all as a nation should curtail or ban the use of polythene bags to save us from different diseases as well as to oblige the application of the environmental R's -Reduce, Recycle and Reuse.

Blue whales are the largest animals to ever live on the planet. Antarctic whaling killed around 95% of the total population in the space of 60 years. Blue whales have been protected since 1966 and it is estimated that there may be fewer than 5,000 left now.

Source: www.bbc.co.uk/nature/animals/conservation/cetaceans/intro.shtml

Environmental Impact Assessment – Our responsibility to preserve the Environment

A training workshop hosted by National Environmental Action Plan- Support Program (NEAP-SP), a joint venture by Ministry of Environment and UNDP, was held on 21-22 December at Best Western Hotel, Islamabad.

The workshop focused on Environmental Impact Assessment- a tool to achieve Sustainability. The main objective of this workshop was to highlight the problems that are faced while developing the EIAs and how the EIAs could be improved to enhance their effectiveness. To reach to a collective consensus, individuals from various institutes and organizations including LEAD Pakistan were invited to express their views and concerns. Real life case studies were elaborately discussed. Hammad Naqi Khan (LEAD Fellow Cohort 7) presented a case study of inadequately conducted EIA study for a cement plant in Kahoon Valley.

His emphasis was on the need for an independent environmental assessment agency and a strong political support for effective EIAs to be conducted. He was of the view that EIAs should be used as a decision making tool instead of project justification tool. He said that the present EIA rules should be revised to address the loopholes and the flaws, as there is no provision to assess the impacts of industrial clusters. He also suggested in the present rules to develop a list of approved consultants, EIA practitioners etc. and to build the capacity of the Environmental Protection Agency to appropriately review and implement EIAs.

The workshop was a successful event as participants suggested a number of useful recommendations, focusing on the need for developing a transparent and effective post approval project monitoring system. The recommendations also included that major policies and plans should undergo Strategic Environmental Assessments of EIAs in various sectors. There is a strong need to conduct such policy dialogues between the stakeholders to create awareness and highlight the significance of EIAs for a more sustainable environment and our Fellows network is actively taking part in shaping up the policy formulations on such issues.

A Step Ahead – For Sustainability Approval of National Environment Policy



Dr. Murtaza Malik, Sub Program Manager, Policy Coordination and Environmental Governance, NEAP-SP and (LEAD Fellow, Cohort 7) is an active Fellow participating in various environmental activities. Dr. Malik received his PhD in Wastewater Treatment and his Masters degree in Environmental Engineering from the University of Newcastle. He has organized and participated in workshops regarding

pollution control, sewage treatment, and other related issues. He is a member of several national and international organizations and has published twelve papers in international journals and conference proceedings. His paper won first prize in the British Chartered Institution of Water and Environment Management's (CIWEM) "Young Authors Competition-1996".

In the recently approved National Environment Policy (NEP), he coordinated its process of formulation. The aim of the policy is to improve the quality of life of people of Pakistan through conservation, protection and improvement of country's environment and effective cooperation among government agencies, private sector, civil society and international organizations. It will also promote efficient utilization and management of the country's natural resources and encourage long term self-sufficiency in food and energy requirements as well as facilitate the restoration and enhancement of ecosystem and ecological processes essential for the functioning of biosphere and prudent use of renewable resources. Dr. Malik has also been appointed as the conference coordinator for 2nd SACOSAN-2005.

Acid Rain Curbs Global Warming

Natural wetlands are the single largest source of methane, a potent greenhouse gas estimated to account for about one-quarter of Earth's current excess warming. Now, in an odd twist that highlights the complex nature of interactions between Earth's systems, researchers have found that acid rain is significantly suppressing the global emission of methane from wetlands. In wetland environments, the additional sulfate input gives sulfate-reducing microbes a competitive advantage over their methane-producing kin. The process results in a reduction in methane production and therefore a reduction in emission. Researchers conducted field experiments; it was found that high rates of sulfate deposition suppressed methane emissions in wetlands by 30 to 40 percent. It was also observed that 8 percent less methane is currently being emitted from natural wetlands than would be emitted without acid rain.

The impact of sulfate hadn't been fully examined until now. The study also suggests that global warming in wetlands is not responsible for the rise in atmospheric methane since the late 19th century, because acid rain is offsetting the effects. Overwhelmingly, the increase is likely due to anthropogenic output of methane through emissions from rice agriculture, cattle, exploitation of natural gas reserves and landfills. However, people should not embrace the notion that sulfate emissions and acid rain are good things. Even though the findings suggest that small amounts of pollution may also have a positive effect in suppressing this important greenhouse gas.

Source: Sara Pratt, *Geotimes*. January 2005

Forging Networks for Sustainable Development

LEAD network in Pakistan is the most dynamic multi-sectoral, multi disciplinary network of professionals who have a shared vision about the future with more than 100 Fellows in 27 cities. Leadership for Environment and Development (LEAD) is a global network of individuals, government and non-governmental organizations, committed to sustainable development. LEAD is an independent, not-for-profit organization, established in 1991 by The Rockefeller Foundation. The LEAD network is coordinated through an international secretariat based in the campus of Imperial College London.

LEAD Pakistan since its inception in 1995, have been striving for the promotion and strengthening of the network of professionals in Pakistan. The step towards this initiative has been endorsing professionals in the flagship training activity of Leadership Development Program. The Fellows and Associates who attended this training have been striving hard and promoting the channels for the future dimensions for LEAD within their individual as well as organizational capacities.

The network of LEAD has its roots in almost all the five sectors namely Government, NGOs, Academia, Corporate Sector and Media. The network has been involved in various capacity building programs of LEAD at national, regional and international forums. They are also active in arranging extra social and interactive meetings throughout the country. The female Fellows and Associates have been representing LEAD Pakistan in the international platforms along with the other members around the world. Most of the Fellows have presented their LEAD Associate Projects in national and international conferences hence taking the LEAD Pakistan along.

In order to sustain and enrich this network, we at LEAD are inducting professionals in our new 2004 – 2006 class of Associates. The short listed candidates have completed their first round of interviews at provincial level and will be subjected to the final round of interviews for the final selection. We hope that this class will also facilitate the existing network and will play their active role in promoting the sustainable development in the country and around the globe.

"Nothing splendid has ever been achieved except by those who dared believe that something inside them was superior to circumstance"

Bruce Barton

Activity Calendar January 2005

| Date | Trainings | Venue |
|-------|--|---|
| 6-14 | Provincial interview (Cohort 11) | Karachi, Quetta, Peshawar, Lahore & Islamabad |
| 10-14 | Social Mobilization for Democratized Education Management & Ownership (DEMO) | LEAD House |
| 26-27 | Final Interviews (Cohort 11) | LEAD House |

Fellows and Associates can send us details of their achievements, job alterations, or any other news they wish to share with the LEAD Family. All contributions will be an asset to the bulletin. Write to us at: ldp@lead.org.pk