



CITIZENS FOR  
A BETTER  
ENVIRONMENT

Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has.

—Margaret Mead

# SHEHRI

JULY-SEPTEMBER 1994

Vol. 1 No. 10

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## KARACHI MASS TRANSIT PROGRAM

*To be or not to be?*

The Karachi Mass Transit Program (KMTP) is currently a hot subject of debate between the NGO's and the government development authorities.

Already designed by foreign consultants and 'aid-funded' this elevated light rail system proposed for Karachi may create more problems than it is likely to resolve and comes with a massive dollar price tag. Informed members of the public and many NGO's are aware of KMTP's prospective negative environmental impact and have simpler, economical and more sensible solutions to Karachi's transportation problem.

But will the powers that be listen?

Whilst examining the KMTP, it is important to see the project within the context of the city, its institutions and physical infrastructure. The city's population has increased from 300,000 at the time of partition to its present 12 million (i.e. a forty

fold growth in nearly 50 years) and is expected to reach 16 million by the year 2000.

Thus we are confronted with a population explosion that has placed tremendous strain on the nation's meagre resources and infrastructure. It is essential, therefore, that limited resources be spent on rehabilitating and updating the existing institutions and infrastructure, rather than spreading ourselves out too thin by embarking on new grandiose ventures whilst allowing existing facilities to become rundown and fall into a state of disrepair thus losing billions in the process.

Karachi is a city with more than 18 different planning agencies with little or no co-ordination between them. The KDA and KMC are the two largest agencies followed by five cantonment boards along with a host of others. In principle the Mayor is supposed to be responsible to the 12 million inhabitants of the

*Continued on pg 3*

*Citizens Mass Transit Forum meeting in progress*



## WATER, WATER, WATER

*by Sajid Aziz*



**Experts say Karachi ground water not fit for human consumption.**

Water is considered as the elixir of life, yet many people die because of polluted water. According to World Health Organisation (WHO) more than 10 million people die each year of water borne diseases.

Seventy five percent of all diseases in developing countries is the result of improper sanitation and the use of contaminated ground and/or brackish water. So, in view of the impurities associated with drinking water, we cannot afford to take the purity of drinking water for granted.

Experts do not recommend the use of ground water for drinking purposes in Karachi for two reasons, i.e. the water reserves in Karachi are not fit for human consumption due to its salinity and the heavy amount of total dissolved solids which do not meet the standards set by the WHO.

A number of times, during the past years, the KDA and some organisations undertook research on the availability of potable ground water within the city limits. Each time it was realised that sweet water is not available in Karachi due to its geographical conditions no matter how deep the wells are dug.

Ignoring associated dangers, the Karachi Water and Sewerage Board has undertaken a multi-million rupee project of spudding

*Continued on page 2*



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## WATER

*Continued from page 1*  
as many as 100 tube wells in almost every part of the city to enhance its water supply and to overcome its deficiencies in its water distribution network. The tube wells are being sunk by the KWSB with the assistance of Public Health and Engineering Department.

The tube wells will be dug out in High Service Reservoir and Low Service Reservoirs. Out of these 100, approximately 19 will be in the eastern part of Karachi, 24 in the west, 16 in the northern part, 3 in the south, and 11 in the central part of Karachi. According to the plan all the tube-wells would be connected with the water trunk mains at their respective pumping stations and the heavy motors would suck the well-water and mix it directly with the water supplied by the KWSB through its two resources viz. Indus and Hub Dam.

The Chief Engineer (Distribution), KWSB, Mr M.Mehdi who has initiated the idea, has submitted to the government that the ground water from each tube well would be checked in the laboratory and the less saline water would be mixed with the KWSB water directly while brackish water would be filtered. But, he did not indicate how many filter plants he will be managing for such tube wells and at what cost, and who will bear the cost of filtration. Regardless of whether filtration is resorted to or not it is a known fact that Karachi has no reservoir of sweet water which could be declared fit for human consumption. Any such water being suctioned anywhere in Karachi

Ground Water: what's the source?



Illustrations courtesy WWF

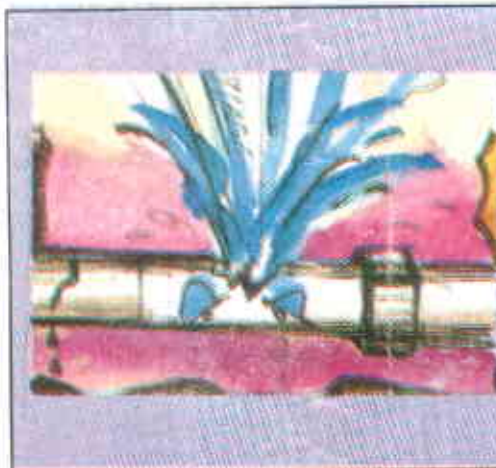
is either sewage or seepage water accumulating there due to the leakage of pipelines.

This plan of the KWSB is enough to horrify those who have even a slight awareness of the mixing of ground water into mains. The plan could simply create havoc with the lives of citizens as no one in the city could escape the extreme hazards that would ensue with the implementation of the plan. The ground water in Karachi has, besides salinity, untreated sewage and industrial effluents containing heavy metals. Industrial water is a major source of lead and other pollutants like cyanide, arsenic, chromium, selenium and other toxic chemicals which are extremely harmful to human health.

Ironically, chlorination which is the KWSB's only major source of filtration and which is widely used for disinfection, leaves an unpleasant smell in the

water; it also does not kill some bacteria and viruses. Researchers have recently discovered that adding chlorine to drinking water has some very negative effects as in the process of chlorination, microscopic bits of organic matter are chemically altered to produce trihalomethanes, a family of chemicals believed to cause cancer and birth defects.

Government of Pakistan has sanctioned Rs. 150 million under Karachi Package for this project of enhancement of water supply to Karachi - but it would be more appropriate if KWSB utilises this amount to repair its massive leakages all over the city which is causing more than 45% distribution losses. The amount is enough to arrest leakages of all the major locations which save upto 50 million gallons water daily, while tube wells would not be able to enhance more than 30 MGD water to the KWSB network. ■



*...it would be more appropriate if KWSB utilises this amount to repair its massive leakages all over the city which is causing more than 45% distribution losses. The amount is enough to arrest leakages of all the major locations which save upto 50 million gallons water daily, while tube wells would not be able to enhance more than 30 MGD water to the KWSB network.*



**KMTP**

*Continued from page 1*  
city for their civic amenities, but in reality since elected local government does not exist, an Administrator is at the helm of affairs. However, even the Administrator has no control over most of the agencies in Karachi.

The city like all others in Pakistan, exists and grows without a legally approved master plan and where planning and building bye-laws are more often than not breached with utter contempt for the law. The urban environment has been thoroughly devastated in the lust for money by officials, politicians and the various mafias based within ethnic groupings.

Land grabbing, illegal commercialisation, rezoning and sudden changes in land use not only create environmental problems but also create distributional problems in the infrastructure which cannot be remedied easily.

Given this backdrop, the import and installation of an imported rapid transit system will unleash its own forces that will further 'shape' the city. Not beneficially, for the convenience, health and comfort of its inhabitants, but for the already wealthy and powerful.

Under the present systems, all such projects will suffer the same fate as the previous ones. Kickbacks, faulty designs, ill conceived parameters and paradigms resulting in cost over runs are the hallmarks of many such previous ventures.

Until we achieve open and enlightened policy making, a professional bureaucracy, accountable government, and a strong civic society participating in public affairs with all behaving under the laws, such large and odious debts must not be contracted in the names of oblivious and helpless citizens and babies not yet born. Already \$20 billion in loans have drawn the nation into a severe debt trap. The result is that at present the entire development budget is run on international loans, with some of these loans being used for debt servicing. In a short span of time loans will be required for debt servicing itself with nothing left for development. Therefore, foreign loans for projects such as the KMTP need to be rejected and self reliance promoted.

Until we have thought the problems through and have reached a wide consensus on

the adoption of a rapid transit system, we must endeavour to improve and rejuvenate the existing infrastructure. Public and private bus, mini-bus and van companies, black and yellow taxis, rickshaws and the circular railway must be looked at as parts of a whole and made to operate as such. And if at a future date we do opt for a rapid transit system we must uphold a principle: We must reject the imposition of foreign technology and instead standardise our design projects which should be executed or manufactured in Pakistan (with foreign collaboration only if necessary). Indigenous technology may even turn the nation into a regional exporter of light rails as production costs could be reduced with continuous research and development. Our Central Asian neighbours and others could be attracted by our accomplishments.

However, if we continue to rely on injections of foreign loans and technology, Pakistan will always be an exporter of basic commodities rather than an exporter of technology and value added products. And of course, the problems of transportation will always remain. ■

**Salient Features of the KMTP**

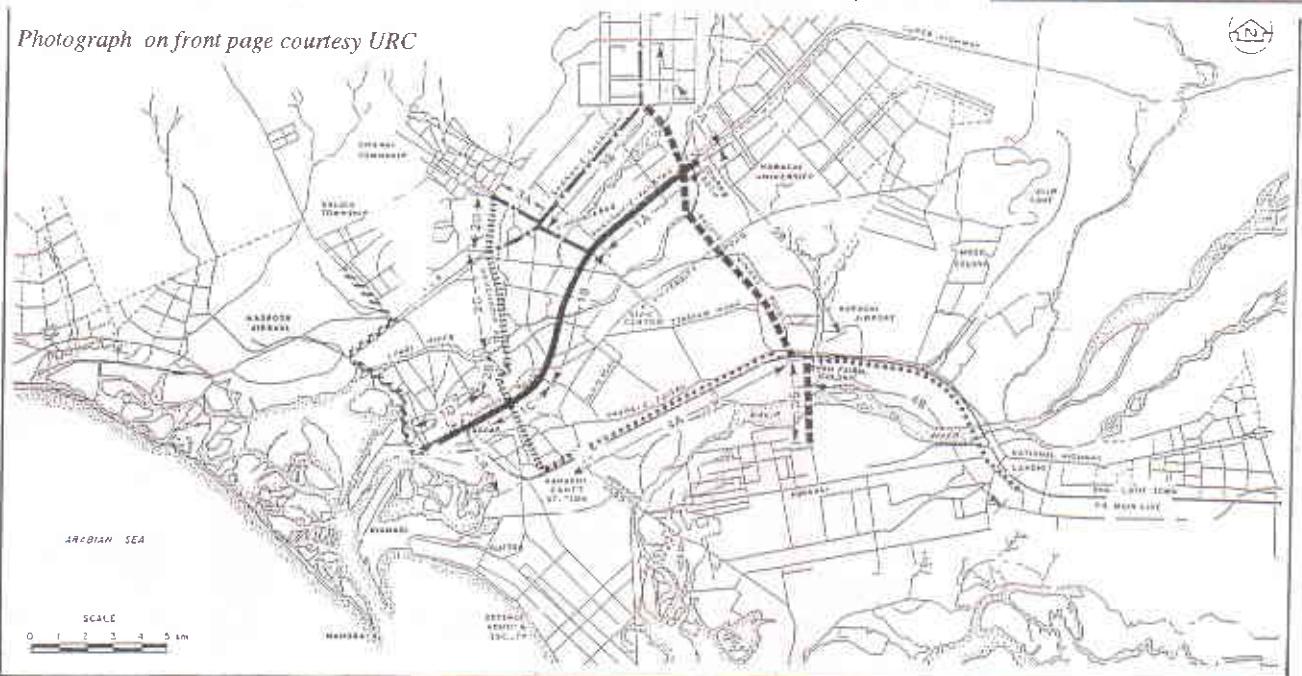
**The Government's proposal:**

The proposed Mass Transit scheme envisages elevated transitways, one of which will commence from Mereweather Tower, past the Quid's Mazar and at grade (ground-level) from thereon to Sohrah Goth.

**Disadvantages of KMTP:**

- \* The transit way passing through the heart of city will badly mar the city's heritage buildings and sites.
- \* Elevated structures and heavy vehicles will run past buildings blocking their light, breeze, intruding on privacy and causing noise and air pollution.
- \* Congested roads will suffer from concrete structures and attract encroachers.
- \* Businesses and residential blocks will have to be relocated which will be an expensive and long drawn out affair.
- \* Escalation of building costs, heavy loan repayments and slim chances of recovering costs will lead country into a debt trap and further add to the country's crippling international debt.

Photograph on front page courtesy URC



**LEGEND**

PRIORITY - 1	CORRIDOR	
PRIORITY - 2	CORRIDOR	
PRIORITY - 3	CORRIDOR	

PRIORITY - 4	CORRIDOR	
PRIORITY - 5	CORRIDOR	
PRIORITY - 6	CORRIDOR	

KARACHI DEVELOPMENT AUTHORITY  
**KARACHI MASS TRANSIT PROGRAMME**  
PRIORITY - 1 CORRIDOR  
INVOLUNTARY RESETTLEMENT PLAN

PROPOSED 37.4 km TRANSITWAY  
CORRIDOR PRIORITY

KARACHI MASS TRANSIT JOINT VENTURE

# FOOD FOR THOUGHT

by Rana Rizvi



**Adulteration of food items and drugs is a common practice in Pakistan, and continues with the connivance of vested interests, to the detriment of the health of consumers.**

It is surprising that most food items which are available in the market today have not been mentioned in the Sindh Pure Food Law (1965). Thus there is no law which controls the standardisation of food items for daily consumption. The agencies responsible for checking their quality cannot do so because of their omission from the list and no attempt has been made to revise this since 1965.

The food items include all edibles and ghee, mineral water, yoghurt, tea, ice candies, full cream milk powder, 'paan', supari, garlic powder, kheer mix powder, masalas, jelly crystals, bread, biscuits, baby milk, cereal, and various sweetmeats, etc.

It is pure lethargy on the part of the government that the matter of quality control has been overlooked.

Hence, adulteration of food items continues unchecked and it is people who suffer as a result. What is even more frightening is the adulteration of drugs that very often is the cause of the loss of life of a patient. Adulteration of food items could be considered a reason for the high mortality rate at a comparatively young age. Dr Panwar, ex-director general of the Health department of K.M.C. has stated that they cannot check adulteration in these food items because they are bound by the Sindh Pure Food Law Rule.

When palm oil was introduced in the market, it had no standard specification and after two years it was finally included in the Sindh Pure Food Law Rule. Dr. Panwar said that it is

imperative that the government takes steps to check and maintain purity of contents before any item is introduced in the market. The item should first be given legal cover by including it in the Sindh Pure Food Law Rule. Dr. Panwar said that in 1993, the K.M.C. checked 7,010 food samples, out of which 499 were found to be adulterated and 6,511 were pure — i.e. a total of 7%. Aerated water, juice, syrup, supari, and vinegar were found to be mostly adulterated.

The responsibility of checking adulteration lies with the K.M.C. which sends inspectors to collect samples of different parts of the city. A food inspector goes to the shopkeeper as a customer and buys an edible item. Then he divides the sample in two parts, seals both bottles and signs them. One is given to the shopkeeper, and the other bottle is retained by the inspector who gives it to the laboratory. If adulteration in

*Continued on page 5*



## Global biodiversity

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*Each four foot stack of newspapers recycled saves the equivalent of a 40 foot pine tree!*



*Stalemate on Jheel Park case—see page 17 for details of legal proceedings.*





the food samples is found then the case is sent to the court. But the K.M.C. has limited access. Some areas come under the control of the District Council. Many food items are manufactured outside city limits where the K.M.C. has no control. Dr. Panwar says that the law makers are also involved in adulteration. Adulteration depends on demand and supply. If demand for a food item is great then chances for adulteration are high. Examples of adulteration include water mixed with milk, roots in tea, brick powder in chillies, spices, etc. The purpose of adulteration is primarily to gain more profit. A litre of milk containing the same amount of water would mean double the price. Many wealthy parties are involved in the business of adulteration. Where risk to human life is taken into account, Dr. Panwar claims that milk sellers do not mix borate powder or boric acid in milk to thicken it. However, Dr. R.B. Qadri of the PCSIR, contradicts the view, saying that certain samples of milk and other commodities when analysed, were found to contain sodium borate. Food colourings are largely made up of semi-purified textile colours which should be purified to the extent that they lose their toxicity. The colours imported by big companies like 'Hamdard' and 'Naurus' are prepared strictly according to standard but the colour used in gola ganda' is simply poison. High levels of toxicity have been found in betel nuts, small pebbles and dirt in wheat flour, and stale broken rice and brown maize are ground into besan. A physician in a local hospital said that throat sores, ulcer, cancer, stones in the gall bladder and kidney and gastrointestinal diseases can be caused by adulterated food.

Pollution is a factor which makes many food items injurious to human health. Industries emitting toxic waste into water are the main culprits. That water is drunk by cattle which are later consumed. Dr. Qadri says that

# A GLOSSARY OF ENVIRONMENTAL TERMS

Published by Shehri, IUCN & Muqtadra Urdu Quami Zaban

**T**he work on developing environmental terminology in Urdu began about two years ago.

The commencement of this work coincided with the adoption of the National Conservation Strategy (NCS). The need for a glossary of environmental terms in Urdu had begun to be felt when work on the NCS first began. Since the majority of the population has some degree of familiarity with Urdu and the regional languages could readily adopt or absorb terms from the Urdu lexicon as opposed to English, the idea gained acceptance immediately.

Since SHEHRI had mooted the idea, we had to take it forward. The IUCN Pakistan was excited by the idea too since the NCS could rely on vocabulary support for wider dissemination in the national languages.

The NCS had already been circulated among various related government departments and organisations. For the further publicity of the NCS the Journalists Resource Center of the IUCN had published sectoral papers. However it soon became obvious that since the medium of the Strategy was English its impact and support would be limited.

small fish found in shallow water are usually unfit for consumption. Only the big catches from the deep sea can be relied upon to be relatively toxin-free.

The pitiful state of affairs can best be explained by the following example:

In 1992, an anti-adulteration drive was started in January but it failed because wholesalers went on strike and business was paralysed!

The only people who can wipe out the menace of adulteration are the masses themselves who must be properly educated to do so, and to stand up for their rights as consumers. ■

It was then decided that the NCS would be translated and published in Urdu. But many scientific terms had been used in this document which were not commonly used, so again the translation would have been read and understood by only few from the environmental/literary world.

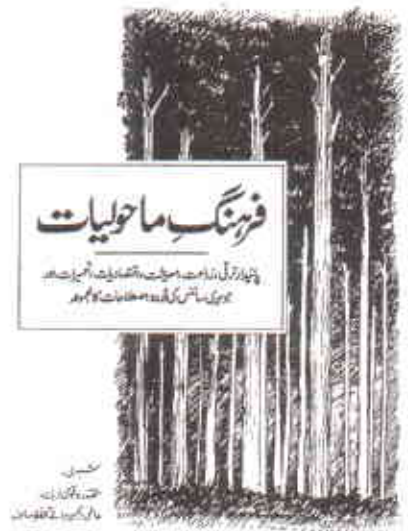
The informal translation of any document would have meant that the same term would be translated in many different ways. This problem was overcome by developing the synonyms of these terms, so that these could be debated and discussed before final acceptance as standard terminologies.

Since Shehri had originally suggested the idea it was decided that the work of translating the terminologies from the NCS report should be coordinated by Shehri. For this purpose a committee was put together by the then Coordinator of Shehri, Ms Fahmida Riaz (a well known literary figure in her own right). The committee consisted of Ms. Fahmida Riaz, Dr. Aslam Farrukhi, Mr. Asad Mohd Khan, and Mr. Ahsan Sabzwari, who after months of hard work translated these terms into Urdu. Later when the Urdu dept of IUCN-JRC was founded, the draft was sent back to IUCN. This glossary was to be published jointly by Shehri and IUCN, but could not be recognised or used officially until the Muqtadra Quami Zaban gave its approval.

It was therefore decided to include Muqtadra in this project. (Muqtadra has published 500 glossaries but none on the environment).

A meeting was thus convened at the IUCN offices, where an editorial board was consti-

tuted, which comprised of Dr. Jameel Jalibi, Chairman, Muqtadra Urdu Quami Zaban, Dr. Shan-ul-Haq-Haqi, and Dr. Mehmood-ur-Rehman. The technical support was provided by Ms. Sanyeea Husain, Mr. Nasir Dogar, Mr. Obaidullah Baig, Ms. Tahira Husain and Mr. Wahajuddin Kirmani who is an expert in Agriculture, Forestry and Zoology. Based on the interpretations that the committee



members formed for the translation of these terminologies, the editorial board approved or disapproved the translations.

After the final approval of the Muqtadra Quami Zaban, the glossary was considered developed enough for the publication of its first edition.

The formal launching of the glossary was held on June 30, at Hotel Pearl Continental. The chief guest for the occasion was the Governor of Sindh, Mr Mahmood A. Haroon. The introduction was given by Mr Obaidullah Baig of JRC-IUCN, who spoke about the concept of the glossary, why and how the need for a book on environmental terminologies was felt. He highlighted the work done by various people associated with

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# PARTICIPATORY RESEARCH FOR COMMUNITY BASED SOLID WASTE MANAGEMENT

**S**afe drinking water, adequate sanitation and clean air are essential ingredients for a healthy and productive society. The discharge of municipal wastes in large quantities has created serious pollution problems. A comparison of the characteristics of data on solid waste for several cities of the world show that the density of solid waste in Karachi is almost double to that found in other industrialised countries. Centuries old practices are prevalent among the urban areas which are inadequate, inefficient and insanitary as well as economically unsound.

To safeguard against this, collection and disposal methods suited to Karachi's conditions need to be developed. Collection systems need to be organised, keeping in view community development patterns. In this connection IUCN organised a Participatory Research Appraisal training program to find out the attitudes of the groups responsible for waste management in different areas i.e. government, industry, municipal authorities, communities and households and to facilitate their working together to manage urban waste.

The project team members consisted of representatives of IUCN, APE, SCOPE, AKCHS, NKCHS and Mr Khatib Ahmed, Wajeeha Yasmeen and Amirah Qaiser from SHEHRI-CBE (Citizens for a better environment). Ms Rashida Dohad was the facilitator.

This was a small demonstration project on urban solid waste management initiated by IUCN to work on the responses and cooperation of the people of the locality, their practices and perceptions about solid waste management. A 3-day training session was held at the Metropole Hotel from June 3rd to June 5th, 1994 during which participants were introduced to the philosophy, evolution and PRA techniques.

**The discharge of municipal wastes in large quantities has created serious pollution problems. Centuries old practices are prevalent among the urban areas which are inadequate, inefficient and insanitary as well as economically unsound. A Participatory Research Appraisal training program was organised to study and analyse the attitudes of the groups responsible for waste management in different areas.**

PRA (Participatory Rural Appraisal) is based on a family of approaches and methods to enable people to present, share, analyse their knowledge of life and conditions, to plan and to act. The approaches and methods used in participatory research appraisal are participatory, lightly structured, flexible, adaptable, exploratory, interactive, inventive and empowering.

After 3 days of indoor training, field work started. The project team members had been divided into 3 groups.

They had to find answers to the following questions.

1. Who is involved in the collecting system?
2. What are the constraints in the movements of waste?
3. What is the existing system?



What are the gaps in it?

4. Are there waste problems in the area?
5. What kind of domestic waste is generated and how much is the quantity?
6. What happens to the waste once it is collected?

The area chosen for field work was NKCHS New Karachi Cooperative Housing Society and Maniya Society which is situated off Tariq Road. A local community group helped the team members in their research.

During field work these groups met key target groups i.e. householders, maasis (female servant), sweepers, kabariwalas, ragpickers and municipal workers. Different techniques were used for gathering information.

Every day after the field trip, the groups gathered for an hour in the evening at the Shehri office for evaluation. On the 4th day of the field trip evaluation was done at IUCN office. Each team shared their findings and experiences.

It was found that housewives, maasis, sweepers, scavengers, KMC sanitary workers, kabadiwalas (street going), kabadiwalas (shopkeeper), kabadiwalas (specialised dealer), factories, breeders, middlemen (one who buys from scavengers and sweepers or from kabadiwalas), Afghan mafia, are directly or indirectly involved in waste collection.

In KMC the following staff is involved in waste collection.

Lowest rank is of the sanitary workers, then there is a supervisor (or driver), then mukadam, above the mukadam is a munshi. Motor coolies are monitored by a motor vehicle inspector who in turn is supervised by a sub-inspector. There is a chief sanitary inspector, then Director Health ZMC, then additional Health Officer, Administrator, Municipal Commissioner, Magistrate.

The constraints which were found in the movement of waste are as follows:

1. Trucks (KMC) do not come often enough (probably once a month).
2. Unauthorised dumps.
3. Katchra Kundi or Containers are not conveniently designed. It has merits and demerits.
4. Rag pickers/cattle scatter waste while sorting/eating it.
5. There is little responsibility for problems which are perceived to be "public issue" and not private issues.
6. Mismanagement (poor planning by KMC Sub-Inspector).
7. Non-cooperation of residents.
8. No proper use of existing imperfect system.

Most of the domestic waste generated is kitchen waste.



In the second phase of the field trip groups searched for impact (which solid waste had on the life of target groups and community) and solution in the perceptions of the people involved in it. As a result following suggestions and solutions came from the community.

Based on the findings of the participatory research and round table discussions, a plan was devised to resolve the problem. Different tasks have been assigned to the related organisation or personnel.

Shehri-CBE, along with local community groups, will try to organise community action for waste collection and will introduce new recycling methods to cut down on the production of waste at the household level. ■

*Glossary*  
Continued from page 5

Shehri, Muqtadra and other eminent scholars. Mr Jamil Jalibi, Chairman, Muqtadra Urdu Quami Zaban delivered the welcome address. Later, Ms Aban Marker Kabraji, Country Representative of IUCN, presented a copy of the glossary to the Governor, Mr Mahmood A. Haroon.

The Governor in his address said that the glossary would help in spreading the message of environmental protection to the common man more easily. He also said that most of the programs and talks regarding the environment were conducted in the English language. But to reach and make a larger audience understand, one needs to address the issue in the language which is understood by the majority of the people and this book on environmental terminologies would go a long way towards dissemination of ideas on conservation and protection of the environment.

The program was attended by journalists, academicians, and representatives of other NGOs. ■

# PAKISTAN: THE POLITICS OF THE ENVIRONMENT

by: Navaid Husain (courtesy: Liberal Times)

**S**hrinking forest cover, large scale silting of rivers, untreated waste disposal erode Pakistan's environment. The root cause is however the lack of political will to fight illiteracy, bonded labour and unrestrained population growth.

Pakistan, in its quest to catch up with development has always given a low priority to social sectors. The end sufferer of this neglect has been the environment. There is now an opportunity to overcome past mistakes through sustainable development. Therefore it is important that forthcoming support through the Global Environment Facility should not be squandered as in the past.

## STATE OF THE ENVIRONMENT IN PAKISTAN

In general, Pakistan being a part of South Asia, suffers from some of the common regional problems such as high population growth, rapid urbanisation and poverty as factors leading to environmental degradation. This, in addition to weak environmental laws and controls resulting from institutional breakdown has added to the syndrome.

Pakistan suffers from its

own particular set of problems as its forested land cover is the lowest in South Asia amounting to a mere 5.2% of its land area, causing lower rainfalls in southern Pakistan. With limited arable land, the country must maximise agricultural production. Although Punjab and Sindh provinces have one of the most elaborate irrigation systems in the world, 40,000 miles of unlined water canals and bad land management has caused salinity and extensive water logging resulting in the loss of vast tracts of cultivable land.

Uncontrolled logging in the water catchments of the northern areas has played havoc with the environment. Hills have been denuded causing mud slides and silting of the rivers. Wildlife has suffered as migrations from high to lowland has been disrupted due to population pressures. Large hydroelectric dams such as Mangla and Tarbela in the north have provided the country with power and a controlled water supply for around-the-year irrigation. On the other hand, large scale silting due to soil erosion as a result of deforestation in

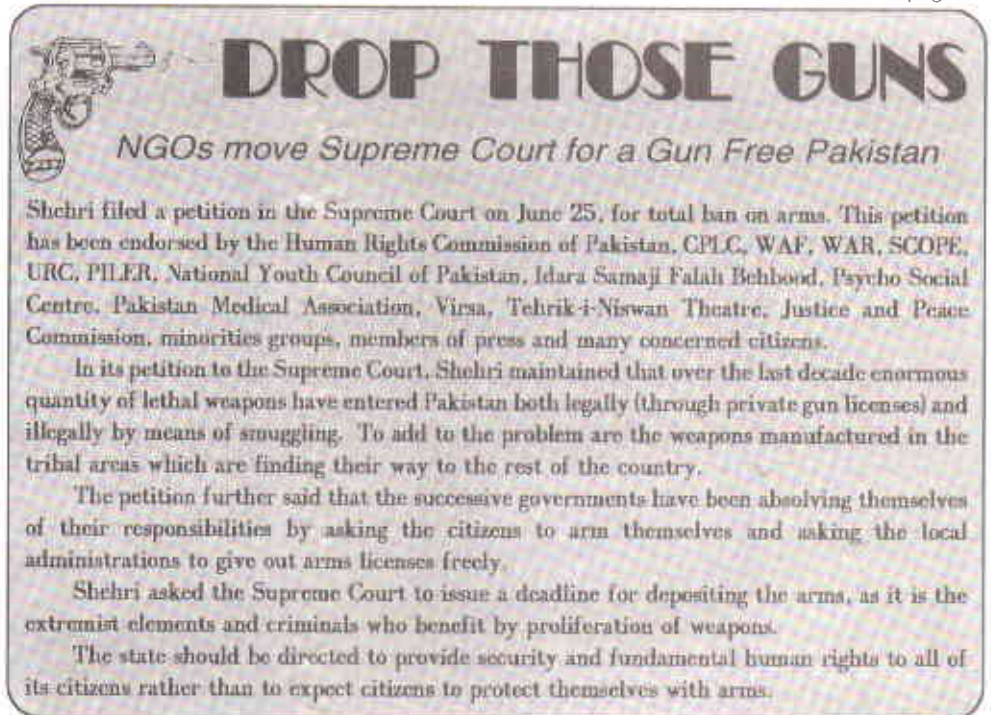
the water catchment areas has sharply reduced the holding capacities of these dams.

Towards the coastal areas of Sindh, reduced water in the rivers as a result of the Tarbela and Mangla dams has drawn in sea water destroying large tracts of agricultural land. Therefore, construction of the proposed Kalabagh and Barotha dams will surely add to environmental problems in the long run.

Untreated industrial waste, indiscriminate usage of herbicides and pesticides are finding their way into the food chains through agricultural produce, fruits and vegetables. Towards the coastal region of Karachi, industrial and untreated sewerage of about 1800 tons daily is being dumped into the sea causing damages to the ecosystem besides polluting the beaches.

The urban areas are facing enormous social and environmental pressures as a result of natural population growth officially accepted at 3.1% but unofficially estimated at 3.5%. This growth erodes incomes and causes migration from the rural areas. The

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**DROP THOSE GUNS**

*NGOs move Supreme Court for a Gun Free Pakistan*

Shehri filed a petition in the Supreme Court on June 25, for total ban on arms. This petition has been endorsed by the Human Rights Commission of Pakistan, CPLC, WAF, WAR, SCOPE, URC, PILER, National Youth Council of Pakistan, Idara Samaji Falah Behbood, Psycho Social Centre, Pakistan Medical Association, Virsa, Tehrik-i-Niswan Theatre, Justice and Peace Commission, minorities groups, members of press and many concerned citizens.

In its petition to the Supreme Court, Shehri maintained that over the last decade enormous quantity of lethal weapons have entered Pakistan both legally (through private gun licenses) and illegally by means of smuggling. To add to the problem are the weapons manufactured in the tribal areas which are finding their way to the rest of the country.

The petition further said that the successive governments have been absolving themselves of their responsibilities by asking the citizens to arm themselves and asking the local administrations to give out arms licenses freely.

Shehri asked the Supreme Court to issue a deadline for depositing the arms, as it is the extremist elements and criminals who benefit by proliferation of weapons.

The state should be directed to provide security and fundamental human rights to all of its citizens rather than to expect citizens to protect themselves with arms.

BOOKS BOOKS BOOKS

emergence of ghettos, traffic problems, pollution, shortage of services and recreational spaces have rendered life in cities unbearable especially for the poor. For the dispossessed it is a struggle for survival in which there is little room for environmental issues unless it threatens their very existence. This assault by mankind on the environment will take decades and unimaginable resources to rectify.

**Political Roots of the Problem**

A large section of the society still lives in semi feudal and tribal conditions along with an estimated 1.2 million male members working in bonded labour. Human rights groups therefore estimate that 10 million people are caught up in bonded labour as not only the male members but entire families are involved in this captivity. A stagnant literacy rate of a mere 31% has left people a prey of religious, sectarian and ethnic prejudices. Drug and guns cartels, whose earnings are estimated at \$25 billion have eroded institutions.

Pakistani society is in a transitory stage where traditional centers of power have been replaced with new ones and where monetary gain regardless of how it is made, is seen to be the only motivating factor.

Political corruption, bureaucratic tyranny and oppression have weakened institutions. The citizens have been alienated from the state and this has provided room for forces that are oblivious of accountability, rationality and issue-based politics. Thus, Pakistan like many Third World countries is hostage to a system of corruption and patronage in which honesty and merit is not considered to be an asset.

**Over Population**

In the accounts Herodotus, the father of history, described the region in the north west around Peshawar as being so densely forested that the sunlight barely penetrated the foliage. But already in 500 BC Herodotus recorded the region as being well populated. Over the last two and a half millennia those forests have been further cut down. And whilst

**THE LAW OF THE MOTHER:** *Protecting indigenous peoples in protected areas.* Editor: Elizabeth Kempf. (Publishers: Sierra Club Books, San Francisco)

The Law of the Mother is a valuable contribution to the 1993 International Year for the World's Indigenous people. It provides an alternative vision of the future, offering sustainable development models based on traditional knowledge and respect for nature. It is an illustrative anthology offering potent details and it serves as a guide to the consecration of our fragile ecosystems as well as their inhabitants.

**THE RISE OF LIFE:** *The First 3.5 Billion Years* by John Reader (Publishers: Crescent Books, New York)

John Reader presents a detailed account of the history of life from the first cell to the emergence of man. Information has been contributed by people who have dedicated their lives to the search of knowledge, both out in the field hunting for fossil evidence, and back in the studies and laboratories developing theories. The conflicts between religious belief and scientific theory elevate this piece of work and the brilliant illustrations bring it vividly to life.

the population explosion in South Asia is a matter of record, Pakistan in spite of its modest land area and resources is the third fastest growing country in the world. Economic gains made through increased production have been eroded by Pakistan's burgeoning population.

The addition of 11,500 babies a day is turning Pakistan into a virtual human time bomb. The annual population increase of 4.25 million is becoming a crucial factor in the nation's ability to prosper. The entire family planning programme has long been a victim of lack of political will and vision and of bigoted mullahs and social backwardness. Pakistan has for too long lived on borrowed time and money and will now have to face the necessity of a one child family.

**Towards Sustainable Development in Pakistan**

The solution to developmental problems has to be seen as being both local and international. Due to limited resources, it is Pakistan's vast human resource base that will have to be its major asset. With its sizeable pool of trained manpower, it is a question of organising the skills and talents of the people regardless of sex, sub-nationality or religion. The right institutional support for motivators, be they in the form of organisations, small entrepreneurs of NGOs will equip the nation to meet the challenges of development. Communities must be equipped with the mini-

mum prerequisites such as education, basic health care and vocational skills in order to turn them into working partners in the nation building process. Pakistan's most successful NGO, the Sattar Edhi Trust is an example whereby dedication has turned the organisation into a nationwide health support system for the poor. In the international context, especially with the changed political situation, aid will hopefully have less political strings attached making it more acceptable and meaningful. Although the recent shut down of a US aided family planning programme as a result of the Pressler Amendment negates this logic.

In the coming years countries such as Pakistan will have a great opportunity to break out of the poverty trap. The twenty-first century will see trillions of dollars being invested in restructuring industries and agriculture by making them more compatible with nature. Vast amounts of resources (\$130 billion annually as of the year 2000 have been pledged by industrial countries) will be transferred to the Third World as a result of the Global Environmental Facility (GEF) which is to be dispensed by the UN and the World Bank.

The transfer of financial support to Pakistan along with

the rest of the Third World should also give non partisan countries and agencies such as the UN an opportunity to bypass powerful vested interests that have a stake in maintaining the status quo.

The need for principles of good government could be brought to bear upon the state by donor countries thereby giving people a greater say in the development of the country.

There is tremendous opportunity for industry and agriculture alike in Pakistan to play a leading role in being receptive to technology transfers and techniques to be made available to them by industrial countries. Therefore between now and the year 2000 there is some time in which to lay the ground for institutional reforms in order to be receptive to forthcoming inputs and support.

Pakistan, in its quest for prosperity is at a stage in time where it can avoid the wrong models of growth by learning from the experience of the NICs (Newly Industrialised Countries) where, both, society and nature have paid a heavy price for prosperity. All sections of Pakistani society must learn the benefits of and the need of maintaining a balance with nature. Like all forms of life, the earth cannot be taken for granted. ■

Recycling one glass jar saves enough energy to light a 100-watt bulb for four hours!





# INTERNATIONAL ENVIRONMENTAL AGREEMENTS AND THEIR APPLICABILITY TO PAKISTAN

By : Zahid Hamid, Member IUCN, Legal Panel

**Pakistan is a signatory of an international environment agreement that seeks to make it mandatory for member nations to observe international rules on the protection of the environment. In Pakistan, appropriate legislation is far from satisfactory, but the fundamental problem regarding environmental legislation is its non implementation.**

**S**ustainable Development programme in 1987. The Stockholm Action Plan culminated in the establishment of U.N.E.P. in 1972.

The global problems were climate change, depletion of the ozone layer, acid rain, contamination of the ocean and the seas, degradation of land resources by drought, deforestation and desertification.

The basic rule, which predates international law and applies to all agreements made within the framework of the international legal system is "*pacta sunt servanda*" i.e. agreements are to be observed.

UNEP issued a list in May, 1991 of International Treaties and Other Agreements issued in the field of Environment of 152 legal instruments. Pakistan is a party to 19 out of these 152 instruments. There are 4 other agreements with special significance to environment to which Pakistan is a party. To these 23 agreements are also added the 3 very important conventions which have been signed and are in process of being ratified, namely convention on Biological Diversity signed at the U.N. Conference on Environment and Development (UNCED), "the Earth Summit" at Rio de Janeiro

in 1992, the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Waste and Their Disposal, and Copenhagen Amendment to the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. Hence the International Environment Agreement to which Pakistan is, or is about to be, a party, comprises 26 agreements:

#### The 26 Legal Instruments

- A. Nature conservation and terrestrial living resources. (9 Agreements).
- B. Atmosphere and Outer Space (7 Agreements)
- C. Marine Environment (3

- Agreements)
- D. Weapons (3 Agreements)
- E. Nuclear Safety (3 Agreements).
- F. Hazardous Substances (1 Agreement).

Some of the important agreements to which Pakistan is not yet a party include:

1. Antarctica.
2. Marine Pollution.
3. Desertification.

The overall legal framework for environmental legislation in the country :-

#### a. Constitution, 1973

Article 142 read with clause 24 of the Concurrent Legislative list confers concurrent legislative power on the Majlis-e-Shoora (Parliament) and the Provincial Assemblies to make laws with respect to "environmental pollution and ecology".

#### b. Provincial Local Government Laws.

Under Provincial Local Government Laws the Zila Council and urban local councils are also empowered to prepare and implement schemes for prevention of air, water and soil pollution.

#### c. Pakistan Environmental Protection Ordinance, 1983.

Basic Federal environment legislation is Pakistan Environmental Protection Ordinance, 1983. *Continued on page 10*



In Memorium.....

## Zulekha Ali

very active student throughout her years in school and college. She was an allrounder in her school, took part in various games, debate competitions, etc. In college as well, she took part in many extracurricular activities, was president of the college union, captain of the throw ball, volley ball, and hockey teams of her college, represented her college in inter-varsity competitions, was a member of the athletics team and acted in many annual plays of her college.

She joined *The News* in 1990, initially working at the foreign desk. Later she shifted to the "WE" magazine. In May 1992 she joined reporting and did a

series of investigative environmental stories for *The News*. In July last year, Zulekha and Owais Tohid covered the story extensively, of the dumping of Polish ship drums at Clifton. In June last year she did a story on the toxic drums kept at a customs warehouse in SITE area. She was a very keen environmentalist, and campaigned relentlessly for changing laws on the hunting of the houbara bustard.

Zulekha's keen interest towards the protection of the environment was one of the reasons which aroused her interest in Shehri activities. She became a Shehri member in mid-1992. She was mainly interested in the issues of marine pollution, heritage and archaeology. She was an active member of Shehri, did a lot of work on the cases of illegal land

conversion and the encroachments at Jheel Park.

Earlier this year Zulekha was posthumously awarded the Tamgha-e-Shujaat, for her bravery and courage. This award was received by her parents on March 23, 1994.

She was also nominated for the prestigious award, The Global 500, which is sponsored by UNEP, and is granted to individuals or organizations for outstanding achievements in the protection and improvement of the environment. The award is a tribute to successes on the front lines of global environmental action. This award was also received by Zulekha's parents.

Zulekha will always be missed by all who came into contact with this brave and talented young woman.

The most important provision of the ordinance was section 8 which requires projects to file a detailed environment impact statement (EIS).

#### d. Proposed Pakistan Environmental Protection Act, 1994.

The draft new Act now covers air, water, soil, marine and noise pollution, waste management and handling of hazardous substances and hazardous waste.

The National Conservation Strategy (NCS) the "grundnorm" of all future environmental legislation, has been given legal sanction and clarified that comprehensive national environmental policies are to be established by the Pakistan Environmental Protection Council within the framework of the NCS approved by the Federal Government.

The two important tenets of the new Act provide that one, all designated projects be required to obtain an "approval" from Pakistan Environmental Protection Agency, after assessment of Environmental Impact Statements (EISs) and, two, pollution control licensing system, based on the "polluter pays" principle, should be adopted. A proposal was put forward to formulate Environmental Tribunals, empowered to recover monetary benefits from the offender and to award compensation for losses/damages.

NWFP Environmental Protection Act to meet particular requirements of the province. Forests Act.

NCS objectives are :

- 1) Conservation of natural resources;
- 2) Sustainable development;
- 3) 14 Programme Areas with 68 specific programmes have been recommended for priority implementation, envisaging total investment of Rs.150.7 billion during the period 1992 to 2001. 6 of these Programme Areas relate to urban/industrial pollution, namely:-

- (i) increasing energy efficiency - obtaining more and better services from existing facilities by insulation, tuning etc.
- (ii) developing and deploying

renewables, such as solar and wind energy.

(iii) preventing/abating pollution through utilisation of environmentally friendly and more efficient processes.

(iv) managing urban wastes, involving provision of safe, low cost water supply, improved housing and service facilities, and municipal effluent and solid waste disposal in an economically useful and environmentally safe manner.

(v) integrating population and environment programmes by emphasising grass roots motivation for small families.

(vi) preserving the cultural heritage, including protection of historical sites, buildings and streets, and preservation of various cultural facets of traditional communities.

2. Sectoral Laws relating to urban/industrial pollution are as follows :-

- a. Air pollution.
- b. Water pollution.
- c. Noise pollution
- d. Toxic or hazardous substances.
- e. Solid waste and effluents.
- f. Cultural heritage.
- g. Judicial activism.

The high courts under Article 199 and the Supreme Court of Pakistan under Article 184(3) have interfered on application of "Public interest" groups or even *suo moto*.

The Supreme Court in particular has given some landmark decisions regarding environmental matters, including vehicular air pollution in Karachi, dumping of waste in coastal waters, and installation of a grid station in the green belt of a residential locality.

The court in exercise of its jurisdiction under Article 184(3) of the constitution may grant relief to the extent of stopping the functioning of factories which create pollution and environmental degradation.

**Conclusion:**

The fundamental problem in Pakistan regarding the environmental legislation is its non-implementation. ■

Note: This statement was first published in a section of the press on 1-6-94

## SIX WEEKS LATER ...

Now that the dust has settled, we would like to give to the public the following additional information:

Ciba is committed to three vital responsibilities: long-term economic success rather than short-term profits, responsibility towards society and for the environment.

As a part of our social commitment, we, at Ciba, have always given high priority to personal safety. From personal protective gear for workers and monitoring them for chemical exposure to training programmes and workshops on safety and fire fighting, we have been continuously engaged in improving safety in our operations.

Respect for the environment is part of everything we do. We constantly improve our processes and are coming up with new ways to minimize impact on the environment. In the past two years we have invested in Pakistan Rs. 65 million for safety and environmental protection.

We have set up a modern waste treatment facility at our Agricultural Division Factory in SITE, Karachi comprising a liquid effluent treatment plant and a high temperature incinerator. Our Multan warehouse is equipped with an in-rack sprinkler system which works automatically in case of fire. Our Factory's new warehouses are equipped with a modern high expansion foam fire fighting system which is capable of filling the warehouse with foam and smothering a fire rapidly. All warehouses have specially constructed areas for containment of contaminated fire water.

It is ironic that a fire broke out on April 12, 1994 in one section of our old warehouse, a day before the products were to be moved to the new warehouse equipped with the above mentioned fire fighting system. These products were not moved earlier from the old warehouse as a section of this new warehouse was used the previous day for a presentation to Government officials, members of the press and NGO's.

When the fire broke out, our emergency response plan went into action. The extent and nature of the incident was immediately communicated to all within and outside the organisation, including police, civil administration, fire brigade and neighbouring industries.

As planned, the drains outside the factory were blocked to prevent escape of contaminated fire water to the sewerage system and all of it was collected in especially designed containment pits, tanks and drums.

Protective equipment was provided to the Fire Brigade and all staff involved in fire fighting. The presence of the Company doctor and knowledge of the pesticides involved meant that antidotes were readily available for the affected people who were treated on-site and in hospitals; in all, seven firemen and one Ciba employee were hospitalised. They received the best possible medical attention and were given clean bill of health on discharge from the hospital.

All 84 tons of products destroyed in the fire - Nuvacron® 40 SCW (62 tons) Ridomil® MZ 72 WP (18 tons), Polytrin® C 440 EC (3.8 tons) and Logran® Extra 64 WG (340 Kg) have no negative long-term health effects.

The day following the fire, all the neighbouring factories were visited by Ciba officials to check for possible complaints. The few cases of headaches and eye irritation reported were examined by the Company medical officer and no serious effects were found. All Ciba workers were also medically checked and nothing abnormal was detected.

We invited government agencies and other organisations the following day to see for themselves the measures taken by us.

On the day of the fire, a public announcement was made asking persons affected by the smoke to get free medical treatment at Faiz-e-Aam Hospital, Murshid Hospital and Naveed Clinic.

As part of the clean-up process, the drain outside the Factory was completely cleaned after the fire. In this process six employees were affected and received medical care. The contaminated water was collected in drums and stored in a containment pit for treatment and purification. The treated water will only be released after Government approval.

Samples of water from the sewerage system downstream of our containment bunds were collected and analysed. These were found to be free of contamination from our chemicals or their degradation products.

Throughout this incident Ciba management was open to the Press and the public, continuously providing facts and information.

We are indebted to the fire fighting teams of both the municipality and the Pakistan Air Force for their excellent efforts and whole-hearted cooperation. We also wish to thank the civil administration, voluntary organisations and our neighbours who showed great concern, but refused to panic in the heat of the moment.

There is no question that we have learnt from the fire and that a number of improvements are being made.

We pledge to stand by our Vision of social responsibility now and in the future.

ciba

ASIATIC-APR

Recycling one ton of paper  
saves one acre of trees!





# MEALS ON TOO MANY WHEELS

By *Patralekha Chatterjee (courtesy Panoscope)*

**The amount of environmental damage caused in the production and distribution of a carton of strawberry yogurt, makes you wonder if it is really worth it.**

Every time a jar of strawberry yogurt is delivered to a supermarket in southern Germany, a 34-tonne lorry moves roughly 9.2 meters.

Diesel fuel is burned, polluting the air and damaging the ozone layer. And to facilitate the delivery, more roads are built, replacing natural landscape and destroying ecosystems.

Is it worth it?

Germany's Wuppertal Institute for Climate, Energy and the Environment set out to answer that question by working out the environment cost of transporting a typical food product to consumers.

Researcher Stefanie Boge calculated that to produce one truckload of 150-gram strawberry yogurt and get it to a distribution outlet in southern Germany, a lorry has to travel about 3,500 kilometres.

To supply the area with this one flavour of yogurt in 1992, she estimated, more than 10,000 litres of diesel were

burned, spewing nitrous oxide, sulphur dioxide and other toxic contaminants into the air.

Moreover, for the strawberry yogurt to be produced in the first place, other lorries had transported strawberries from Poland, yogurt culture from northern Germany, corn and wheat flour from the Netherlands, jam from west Germany and sugar beet from the east.

Packaging material had also come from afar. The manufacturer of the aluminium cover for the strawberry jar, for example, was located 300 km away from the yogurt producer. Only the milk and the glass jar were produced locally.

The environment and the people's health is being put at risk, Boge says, because Europeans have become accustomed to having "strawberries in winter and winter vegetables in summer". Manufacturing output in the region is not higher than it was in the 1950s, she says, but goods are transported much farther.

In counting the yogurt's environmental costs, the lorry emerges as the main culprit, contributing to noise, danger and a vicious circle of pollution. In rural areas, it causes air pollution which affects the milk they produce, which goes into the yogurt the lorry transports.

The lorry also thunders through the cities on roads that were built through green spaces. Not only are children thus deprived of playgrounds, but their health is damaged by vehicle emissions.

"These are carcinogenic, cause respiratory disease and circulatory disorder," Boge writes. "Such emissions also react with each other and form secondary air pollutants such as ozone and smog."

Considered from this point of view, before it ever gets to the consumer, that jar of yogurt—which enjoys the reputation of being a healthy food—has helped to make children sick. ■

## SHEHRI'S LETTERS UNANSWERED

We have written letters, sent faxes and made innumerable phone calls to Capt. Fahim-uz-Zaman, Administrator KMC, requesting a meeting with him to discuss the unauthorised and illegal land conversions and constructions in Karachi. But to date we have received NO RESPONSE.

Shehri-CBE had written to Mr Asad Jahangir Khan, Deputy Inspector General of Police, requesting him to send a monthly list of challans and also break up of the kind of challans, e.g. against smoking vehicles, plying without silencers, pressure horns, traffic violations and fines imposed. Reminders were sent, but there was NO RESPONSE.

Shehri-CBE, wrote a letter to Brig Salauddin, Member Technical, Port Qasim asking for an environmental impact assessment report on the oil terminal which is being constructed in the Port Qasim area. A reminder was also sent but ... NO RESPONSE.

With reference to the Chief Minister's permission for free fishing in lakes and the Indus river, Shehri wrote a letter requesting him to take the concerned departments into confidence before making any decisions. We were told in a reply which we received from Mr Ashfaq A. Soomro, a section officer, that our request has been forwarded to the Secretary Forest and Fisheries who will report to us within few days, but months have passed. NO RESPONSE.



# WORKSHOP ON LOW-SULPHUR DIESEL, LEAD-FREE PETROL, POPULARISATION OF COMPRESSED NATURAL GAS

A workshop was arranged on April 30, by Shehri-CBE to discuss matters relating to adoption of a strategy for reducing the impact of heavy air pollution faced by the residents of downtown areas of cities all over Pakistan as a result of (i) usage of high sulphur diesel, (ii) usage of leaded petroleum, (iii) widespread adulteration of the various forms of fuel and (iv) lack of promotional activities towards adoption of Compressed Natural Gas (CNG). A last point was added on relating to the possible use of Industrial Alcohol as a fuel. The participants included the decisions makers in the refineries, petroleum marketing companies and petroleum blenders, besides officials from the Hydrocarbon Development Institute of Pakistan and the Oil Companies Advisory Committee. Mr. Nazim Haji of CPLC and representatives from PILER also attended the workshop.

The welcome address was delivered by Navaid Husain, Chairperson, Shehri. It was explained at the outset by Dr. Mirza Arshad Ali Beg (the Resource Person for the workshop), that serious environmental problems have been created in the form of air pollution by the transportation sector in the urban areas. The various modes of transport which include cars, motorcycles, buses, minibuses, trucks and trailers are the single largest source of urban smog and greenhouse gases that are creating global climatic change. Automobiles and the transportation network are the single largest demand on the world's natural resources and a major source of pollution and hazardous waste. Each automobile that is driven on the road emits toxic exhaust gases, synthetic rubber tire dust, oil drippings, and the ozone depleting refrigerants that escape

from the air conditioners.

Automobiles contribute from 14% to 60% of the greenhouse gases, 14% of the total CO<sub>2</sub> emission, 50 to 60% of the CO, Hydrocarbon and lead emis-

no price implication.

The refineries were to inform on the steps taken. Need for a follow-up was stressed.

2. Low Lead & Lead Free Petrol: It was pointed out that the addi-

tion of lead in kerosene, this still exists adulteration especially in the rural areas. The general complaint was that the adulteration laws were too weak to serve as a deterrent.

It was decided that Shehri, CPLC and PILER will approach the Supreme Court and Law Ministry to redraft the laws. All the concerned organisations/industries were requested to re-examine the existing laws and submit suggestions. It was decided that CPLC's Honorary Magistrate will carry out checks at pumps.

b) The representatives of PSO pointed out that their pumps were equipped with equipment to check quality and quantity, and any consumer could request the usage of the same.

All other representatives of the oil companies present were requested to similarly equip their pumps along with a public awareness campaign.

4. The Constraints of using CNG (compress natural gas) were put forward:

a) Only one pump markets this in Karachi with limited timings. There seemed to be no impediments in using this clean form of fuel.

It was felt that marketing companies need to create greater awareness and aggressively market CNG. Oil companies were requested to propose plans to popularise the use of compress natural gas (CNG).

5. Constraints of Using Industrial Alcohol:

250,000 vehicles run on gasoline in Brazil. Currently Pakistan exports molasses which is the last stage before industrial alcohol is obtained. This product could serve as import substitution, and could be a value added product.

*Continued on page 13*

## A strategy is needed to reduce the impact of heavy air pollution in downtown areas of Pakistan's major cities. The strategy should introduce specific ways for popularisation of low sulphur diesel, lead free petrol and compressed natural gas in Pakistan.

sions, 30% of the Nitrogen Oxides emission, 10 to 20% of the suspended particulates and 25% of the CFCs.

Vehicular traffic in Karachi has increased from only 20,000 in the early 1950s to 646,582 in 1989 and is well over 850,000 at present.

Now that we have imported yellow cabs by the thousands and have the manufacturing/assembly capability for the Suzuki, Honda, and Toyota, the fuel consumption has increased tremendously.

The following was the outcome of the workshop:

1. Low Sulphur Diesel:

a) It was pointed out that sulphur content in local diesel was approximately 1% and in imported diesel was 0.6 to 0.7%. Refineries do not have the capabilities to reduce sulphur content.

An Action Plan to overcome this problem was discussed and debated. It was agreed that refineries will be requested to inform the committee of price implication of installing equipment to reduce sulphur content. Concerned organisations were asked to reconfirm that there would be

no price implication. The refineries were to inform on the steps taken. Need for a follow-up was stressed.

2. Low Lead & Lead Free Petrol:

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## WORKSHOP

Continued from previous page

Oil companies were requested to suggest a follow up as to what would be the potential tonnage and pricing. It was suggested that the Sugar Manufacturing Association could be contacted by the oil companies.

### 6. Vehicular Fitness:

It has been pointed out that emission takes place due to badly maintained vehicles. Shehri and CPLC have been advocating that vehicular fitness should be privatised as the Traffic Police handles this. This suggestion has been supported by the DIG Traffic Police; a copy of the letter sent by the DIG Mr. Asad ahangir Khan was presented.

It was requested of the Oil Companies that either they or the DIG Traffic Police suggest the nature of the annual test i.e. brakes, engine tuning/emission tests, lights etc, and also suggest beyond what age should vehicles need fitness tests.

A suggestion was given that private garages should be licensed and equipped to handle these tests.

DIG Traffic/CPLC/Shehri were to follow-up on the above mentioned suggestions and the oil companies were to suggest a list of garages and service stations that could be accredited to issue fitness certificates.

Some of the participants of the seminar were nominated as members to a Sub-Committee on Vehicular Emissions.

A meeting of the Sub-Committee on vehicular emissions was held at the Hydrocarbon Institute of Pakistan on 9-6-94 to discuss the quality of HSD, Motor Gasoline, Furnace Oil and other petroleum products, adulteration of transport fuels constraints of using CNG.

During the meeting, the Sub-Committee finalised recommendations on Low Sulphur,

HSD, Low Lead Motor Gasoline and Industrial Furnace Oil.

Some of the important decisions taken at the meeting were:

### LOW SULPHUR HSD

— All imported diesel should be of 0.5 wt percent sulphur from 1st October, 1994.

— Level of sulphur in HSD should be reduced to 0.6 wt in three years effective from 1st July, 1994.

— Efforts be made to import low sulphur crude for processing in local refineries.

— Sulphur level in HSD from local refineries be reduced to 0.8% by 31st December, 1994.

— Future planning for local refineries should be based on 0.5 wt% HSD.

### LOW LEAD AND UNLEADED GASOLINE

— Monograde Gasoline be introduced effective from 1st July, 1995 with 90 RON and 0.4 gm lead/litre.

— A separate grade of 90 RON unleaded gasoline be introduced by 1st July, 1995.

— By year 2000 lead level be reduced to 0.15 g/litre in 90RON gasoline.

— All imported gasoline be unleaded by 1st July, 1995.

— Future refineries be designed on unleaded gasoline.

### INDUSTRIAL FURNACE OIL

— Sulphur content furnace oil from local refineries be reduced to 2.5 wt. % maximum by 1st January 1995 from existing level of 8.5 wt. %.

— Imported Furnace oil should be of 2.5 wt. % sulphur by 1st October, 1994.

— All future refineries be designed on 2.5 wt. % sulphur.

The second meeting of the Sub-Committee is scheduled to be held on 5th July, 1994. ■

## Solar sewerage treatment plant

Solution to Karachi's multi-faceted problems

By Dr S. Iftikhar Ahmed (Dawn-Dec.93)

A waste-water treatment system has been developed which not only treats raw sewerage, like the traditional bio-gas plant but also removes pesticides and heavy metals, produces methane gas, organic fertiliser and purified clean water.

In the same system, there is provision for fish culturing which supplies the most needed protein. The system is simple and practices nature's method of purifying polluted water by using plants and animals. A touch of modern technology is added to it for control, reliability and reduced land use.

The working of the system is simple. For the primary treatment, raw sewerage enters a totally enclosed small pond, lined and covered with a rubber membrane. Here 30 to 50 percent of the solids are digested producing methane gas. In the cold places, methane could be used to maintain the temperature of the fermenter, whereas in other places it could be used as fuel for heating, cooking, electrification and different other purposes. The sewerage then flows into an aerated 8 ft. deep shallow lagoon (pool), covered by a greenhouse like structure of polythene. The waste water needs only two to six days retention in the lagoon, depending on the effluent quality desired, compared to 30 to 50 days required for conventional treatment.

A lagoon is an interesting place for a biologist. Different plants and animals live in the lagoon, each subscribing to the purification process.

The hyacinths and duckweed plants float on the surface of water, absorbing nutrients and toxins. These plants possess strong capability to absorb heavy metals and toxins. The water hyacinth double their size every two weeks in summer, using the sewerage and chemicals in the process. Hyacinth grown on an area of one acre absorbs annually 3,500 pounds nitrogen, 800 pounds of phosphorus, 27,000 pounds of phenol and 96 pounds of highly toxic trace elements.

The plants growing in the first lagoon (after the primary treatment pond) remove most of the toxic materials from waste water in one day. These plants are finally harvested and put to the fermenter for digestion and production of methane.

One acre yields up to one million cubic feet methane annually. The residue left from the methane production is toxic and must be disposed off in landfills. The plants could also be used for animal feed since the poisonous substances have been removed in the previous stage. When grown in the nutrition rich water of lagoons, water hyacinth average 20% protein and duckweed average 30 to 35%.

**Energy efficient:** The yield can be up to 70 tonnes of dry organic matter per acre. In addition to the plants, the lagoons contain thousands of square feet of algal webbing which provides a perfect protection and food for bacteria and protozoa. These organisms break down the sewerage. Advanced-treatment lagoons may also support fish and even fresh-water shrimp, and thus, considerable amount of protein may also be obtained in the form of fish and fresh water shrimp. After the advanced treatment, the effluent passes slowly through a sand filter, which filters out escaping aquatic life, and then to the ozone-contact chamber, where the water is disinfected.

The end result is sparkling clear, clean water that can be used for irrigation, household and other miscellaneous purposes. The solar aquacell process is a large, stable ecosystem requiring little maintenance or electricity and no chemicals. Energy requirements are reduced to one-third to one-sixth of conventional high technology systems. Considering all the qualities, for example, its being easy to maintain, cheaper to run and it's being multi-purpose in the sense that it produces bio-gas and fertiliser on one hand, provides facilities for fish and fresh-water shrimp culturing as well as its utility for recycling of sewerage water into usable water, it is considered rather most suitable for Third World countries. ■

*A ton of paper made from 100 percent recycled, rather than from virgin fiber, saves 17 trees.*



# Manchester and Birmingham

by Jane Jacobs

*The following are excerpts from chapter 3 of Jane Jacobs' book "The Economy of Cities"*

*(as published in the Balaton Group Newsletter)*



Back in 1844 a character in one of Disraeli's novels said, "Certainly Manchester is the most wonderful city of modern times. It is the philosopher alone who can conceive the grandeur of Manchester and the immensity of its future."

What impressed Disraeli, and what made Manchester seem...the most advanced of all cities of the time was the stunning efficiency of its immense textile mills. The mills were Manchester. By the 1840s their work dominated the city completely. Here, it seemed, was the coming thing. Here was the kind of city that made all other cities old-fashioned....

Birmingham was just the kind of city that seemed to have been outmoded by Manchester... Birmingham had a few relatively large industries, although nothing remotely approaching the scale of Manchester's... Most of Birmingham's manufacturing was carried out in small organizations employing no more than a dozen workmen. A lot of these little organizations did bits and pieces of work for other little organisations. They were not rationally and efficiently consolidated. There was a lot of waste motion, overlapping work. Furthermore, able workmen were forever breaking away from their employers in Birmingham and setting up for themselves, compounding the fragmentation of work.

It was also a little hard work to say just what Birmingham was living on, because it had no obvious speciality of the kind that made Manchester's economy so easy to understand. In the old days, saddle and harness making seems to have been the chief industry, but all sorts

of other hardware and tool manufacturing had been added. The city had enjoyed a large trade in shoe buckles, but the shoelace put an end to that. A rising button industry had more than compensated for the loss. Some of the button makers used glass, and this had afforded opportunity to makers of colored glass, who, working from this foothold, had managed to build up a considerable local glass industry. Birmingham was also making guns, jewelry, cheap trinkets and trays. The work of making metal toys led to making steel penpoints. The work of making guns afforded opportunities for making rifling machine and other machine tools.

All this was just the sort of old-fashioned muddling that people of England were accustomed to see going on in cities. It was not modern. Nobody was nominating Birmingham as the city of the future. But as it turned out Manchester was not the city of the future, and Birmingham was.

Manchester's efficient specialization portended stagnation and a profoundly obsolescent city. "The immensity of its future" consisted of immense losses of its markets as other people in other places learned how to spin and weave cotton efficiently too. Today it has become the very symbol of a city in long and unremitting decline. Only two cities in all of Britain remain economically vigorous and prosperous. One is London. The second is Birmingham. Manchester had acquired the efficiency of a company town. Birmingham had retained something different: a high rate of development.

Efficiency as it is commonly defined is the ratio of

work accomplished to energy supplied. Manchester turned out a great deal of cloth relative to the energy supplied by its workers. Development is a messy time- and energy-consuming business of trial and error. Success is not a certainty. Indeed, development work is so inherently chancy that by the law of averages, chances of success are greatly improved if there is much duplication of effort. What was going on in Birmingham at a great rate, as opposed to Manchester, was much trial and error. In effect, the city contained a great collection of mundane development laboratories---which were also doing production work.

As long ago as 2500 B.C. there were cities of "terrible efficiency," according to the archeologist Stuart Piggott. He was referring to Mohenjo-daro and Harappa the twin capital cities of an ancient empire of the Indus. Mohenjo-daro and Harappa were marvelously developed, to a point. But at some time, development work had halted. They added no goods and services from that time on, nor did they make any improvements in their old products. They simply repeated themselves. Their old production must have been stupendous. The same standardized bricks were used in truly staggering quantities, throughout the towns in the empires. The same wonderfully accurate stone weights were turned out endlessly. And the voracious wood-fired kilns mass-produced so many identical pottery cups that Piggott speculates it may have been the custom to drink from a cup and then break it.

While other people were

developing the spoked wheel and the light chariot, Harappa and Mohenjo-daro kept turning out only clumsy, solid wheels and cumbersome heavy wagons. While other people were learning to strengthen bronze tools with a thickened central rib, Harappa and Mohenjo-daro kept turning out one-piece, flat, easily broken implements. At length the Indus River at Mohenjodaro became a lake of mud (perhaps from the immense destruction of forests to the brick and pottery kilns). The people seem to have been incapable of any response that involved changed ways of doing things. After every mud flood they rebuilt exactly as before, with their interminable bricks.

Is it not possible for the economy of a city to be highly efficient and for the city also to excel at the development of new goods and services? No, it seems not. The conditions that promote development and the conditions that promote efficient production and distribution are not only different, in most ways they are diametrically opposed.

Breakaways of workers—especially very able workers—from existing organisations are not good for the parent company. Rochester, New York, used to be a city in which immense numbers of breakaways occurred. So many Rochester breakaways were creative and successful, particularly in the development of scientific equipment, that in the early twentieth century, it would have appeared that Rochester was destined to become one of the country's most important cities. But George Eastman put an end to that. Once Eastman had developed Kodak into a strong company, he fought breakaways from his company with every means at his command. He entangled in law suits the men who had the temerity to try to leave and form their own enterprises. And as Eastman Kodak came to dominate Rochester, breakaways from the city's other industries also dwindled.

*Continued on next page*



# Negligence...Negligence...Negligence

## Mauripur Sewage Treatment Plant goes down the drain?

Thanks to the crass negligence of the Central Board of Revenue (CBR), a much needed sewage treatment plant in Mauripur may be scrapped.

The Mauripur Sewage Treatment Plant worth Rs.2.6 billion is already in the first of its three-phase construction, being funded by the Asian Development Bank (ADB). The Sindh government had committed 1,200 acres of land for the plant in a tripartite agreement in 1990 between the federal government and the ADB. Work has begun on 500 acres under phase 1 of the project near Graax Village on the road leading to Sandspit.

In spite of warnings by KWSB to concerned quarters in May 1992, not to allot the land for any purpose, the CBR issued leases in 1993 to two salt works, Farooq Taj Salt Works and Graax Salt Works on this very land. The CBR issued the leases on very unusual terms, i.e. for 33 years

with a special clause requiring a three year notice for cancellation.

As a consequence, the KWSB has been dragged into litigation by the salt works to the Sindh High Court, which granted a status quo order and stopped work on phase 1. ADB has suspended financing till the dispute is cleared up and the land made available.

The project aims at checking the disposal of 80 per cent of Karachi's sewage untreated directly into the sea which is causing severe marine pollution and damage to the coastal environment. The Karachi Port Trust had earlier served notice on the KWSB and Sindh government for the severe pollution.

Should the project implementation be delayed, the cost in terms of marine pollution to Karachi would be devastating.

*Continued from previous page*

Consider also the question of suppliers to other producers. Many relatively small suppliers are indispensable to a high rate of development. But they are not efficient, neither in respect to their own work nor the operations of the producers who buy from them. For example, during the years when the automobile industry was developing in Detroit, there were more than five hundred suppliers. Some of those suppliers became automobile manufacturers themselves. Buick began with sheet-metal work, Dodge with supplying engines. But a multiplicity of small suppliers was not an efficient arrangement for the three huge manufacturers who came to dominate the Detroit industry.

Consider also the conflict between development and efficiency as it applies to the work of investing development capital. The most efficient way to invest capital is through a relatively few large investments or loans, not through many small ones. If small loans are made, it is efficient to consolidate them, by making them only for pur-

poses that have already become standardized and routinized. Also, it is efficient to invest capital in a sure thing. But for a city to develop new work means that its enterprises must have access to much inefficiently dispensed capital, many, many small loans, a high proportion of them out of the routine. And investments must be available from a variety of sources, because preconceptions infuse the business of investing and lending as surely as they do other endeavors. Note everyone glimpses an opportunity.

It is most efficient for large construction firms to produce monotonous multiples of identical buildings. Superblocks are more efficient than smaller blocks because traffic can flow more freely, utilities can be distributed more efficiently, and the maintenance of streets costs less. One of the great advantages of a company town, for the company, is that there are few alternative ways for people to earn their livings. But from the point of view of development, a man or woman trained to specific work is most valuable if he or she adds something new to the work.

A country's basic wealth is in its productive capacity, created by the practical opportunities people have had to add new work to older work. All developing countries generate capital. Thus to say that underdeveloped countries must be financed from abroad is equivalent to saying that they are to be "developed" as inert colonial dependencies, not self-generating economies. If economic development is actually occurring within an aided country or region, outside help is only briefly necessary at most.

Inescapably, a country's economic development depends upon its own work. The relevant assistance that a highly developed and prospering country can extend to an underdeveloped county is to buy from it: give its embryonic cities an opportunity to serve expanding export work, earn imports, and replace imports. No form of financing, however lavish, can help an economy develop if people within its own cities are not adding new kinds of work to old, and if organizations are not being created there to finance the process. But the same rule ap-

plies to highly developed economies too: if they do not continually create organizations to supply capital for new work in their cities, they too must stagnate and then their wealth must inevitably begin to dwindle.

In human history most people in most places most of the time have existed miserably in stagnant economies. Developing economies have been the exceptions, and their histories have been brief. Now here, now there, a group of cities grows vigorously, and then lapses into stagnation for the benefit of people who have already become powerful. I am not one who believes that flying saucers carry creatures from other solar systems. But if such beings were to arrive, with marvelously advanced contrivances, the important question to ask them would not be how their technology worked. The important question would be: What kinds of governments had they invented which had succeeded in keeping open the opportunities for development, instead of closing them off?

*(Courtesy Q.I. Daudpota, SDN Islamabad)*

# POPULATION, ENVIRONMENT & DEVELOPMENT

## *The findings of Public Hearings*

**T**he People's Commission on Environment and Development India (PCED) was launched in 1990. Its primary objective was to ensure that the focus and diversity of opinions that exist in the country on matters of environment and development are gathered together, through the mechanism of Public Hearing on Environment Development, into a coherent package of inputs.

The modality of public hearing was adopted with a view to involving as wide a constituency of stakeholder as possible in the process of making these inputs representative and meaningful. The commission decided to provide a continuing forum where NGO's and individuals come together and share their perspectives on environmental issues and development.

**On the People's Participation in the Environment Movement**, it was felt that the current wave of environmental consciousness is largely confined to the intelligentsia. Information dissemination to the rest of the society is inadequate and ineffective. The need for trans-disciplinary approach bringing together the Government, non-government organisations as well as the private sector was felt.

**Some of the important observations were:**

There were no common platforms where individuals, Government and industry could exchange views and the mechanism for promoting environmental awareness among different sections of the society are inadequate.

**Important suggestions given were:**

Need for the introduction of environmental education in the educational system.

Simple language to be used in the dissemination of environ-

ment related information.

Need for strengthening Government-private sector-NGO partnership.

Private sector to be encouraged to contribute towards environment protection.

### **POPULATION EXPLOSION AND DEVELOPMENT**

The population explosion has resulted in stress on natural resources—both their availability and accessibility.

Large scale rural to urban migration, has put tremendous pressure on the already inadequate urban infrastructure. To reverse the trend, stress has to be laid on rural upliftment through income generation and provision of basic needs. Rehabilitation and resettlement have also become a serious concern.

**The observations in this regard were :**

The number of people living below the poverty line has increased, pushing more people to marginal lands.

The population explosion has led to land fragmentation and decline in agricultural income.

Increment in health and support infrastructure is not keeping pace with population growth.

Current family planning programs are unsuccessful.

**Some of the important suggestions were:**

Quality of life in rural areas has to be improved to decrease current migratory trends.

Rural industrialisation has to be promoted through economic growth centers with adequate marketing facilities for local products.

Voluntary agencies have to actively spread literacy in rural areas.

### **POLARISED DEVELOPMENT AND DETERIORATING URBAN ENVIRONMENT**

Uncontrolled growth of large cities has led to ugly urban sprawls, unauthorised development activities and severe stress on basic amenities. Urbanisation has brought with it a host of socio-psychological and environmental problems.

Solid waste is a growing problem, even the large municipal bodies are not equipped to deal with present levels of waste.

**The observations were:**

Growing cities are monopolising all resources leaving little

for rural areas.

Inadequate living space, civic amenities and extensive pollution are causing socio-psychological problems and deterioration in the quality of urban life.

Environmental considerations are neglected in the urban planning process.

There is practically no comprehensive study on the ecological status of megacities.

High organic content of Indian city refuse necessitates frequent collection as compared to developed countries.

*The suggestions in this regard were:*

Labour intensive industries should be located on the periphery of cities.

Environmental viability parameters need to be included in urban planning.

Waste recycling has to be promoted through mass media and NGOs.

Municipal bodies have to develop low-cost technologies for waste management.

### **MANAGEMENT OF WATER RESOURCES**

India's agriculture and economy are driven by the monsoon, but only thirty percent of the rainfall is used. Traditional water harvesting system is mostly defunct. But combating this with large dams has given rise to the problems of oversilted rivers, waterlogged and saline soils, etc.

There are no reliable estimates of India's groundwater sources and due to lack of guidelines or awareness for management, the water table in many areas may drop considerably.

**The observations were:**

Insufficient irrigation for two crops in a year forces people to migrate to cities.

All of India's 1,574 dams are dying prematurely.

Canal irrigation has resulted in extensive waterlogging and salinisation of farm lands.

Flood control measures such as embankments have actually increased frequency of floods.

Groundwater in urban areas is vulnerable to pollution by sewage.

*Continued on page 17*

## **ENVIRONMENT,**

*and population issues are at the very core of the world political concern, therefore we have to break new grounds by saying some unpleasant things which might be a bit unpallatable. We have to say it to political elites particularly in our part of the world, where the greatest enemy is attitude.*

*Mariae Lourdes Pentasilgs*



**PUBLIC HEARINGS**  
*Continued from previous page*

Indiscriminate digging of bore-well is slowly leading to desertification in dryland areas.

**The suggestions in this regard were:**

The country needs a comprehensive water conservation policy with emphasis on:

- Small water harvesting projects
- revival of traditional community based water management systems

Efficiency of canal irrigation has to be improved through:

- farmers' organisations
- better co-relation of irrigation charges with volume of water supplied

**CONSERVATION OF BIO-DIVERSITY AND NATURAL ECOSYSTEMS**

The need to conserve diversity at all levels—genetic, species, ecosystem—is well understood and reiterated. Rain forests and wetlands (mangroves, coastal backwater, estuaries, etc.) emerges as the priority areas for action.

**The observations were:**

There is no specific legislation for protection of wetlands.

Non-wood forest produce is extracted from forests with no thought to its replenishment.

Medicinal plants endemic to Himalayan region are fast disappearing due to excessive exploitation.

**The suggestions were:**

Wetlands have to be prioritised for attention, and there should be a legislation on wetlands.

There is need to formulate policy and guidelines to regulate removal of medicinal plants and other non-wood forest produce from forests.

**AGRICULTURE AND ALLIED ACTIVITIES**

The green revolution may have increased agricultural production tremendously in India, but the heavy dosage of fertilisers, pesticides and irrigation has left soils degraded.

Green fodder is scarce throughout the year particularly in summer. The country ranks very low in milk production, despite the fact that livestock popu-

lation in India is the fifth highest in the world. Need for reviewing the country's land use policy and adopting more sustainable practices was felt.

**The observations in this regard were:**

Pastures are no longer protected and managed by villagers resulting in scarcity of fodder.

The agriculture policy encourages irrigation oriented practices while the country's dryland areas are being neglected.

The suggestions included the revival of traditional crops and their cultivars by the farmers, ban on cultivation on slopes steeper than 30 degrees—these areas should be devoted to forestry only. Need for more research on dryland crops was stressed.

**MANAGEMENT OF FOREST RESOURCES**

Forests supply fuel wood, timber, medicines, fodder and a variety of other products. Over the years the people's access to forests has undergone significant changes.

Despite considerable awareness of the importance of forests, felling, clearing and poaching continue unabated. There is urgent need to strengthen management of forests in the country. Another major concern is that fuel wood extraction per capita as well as wood extraction per unit of forest area is increasing.

Some of the observations were:

Unscientific grazing is hampering forest regeneration.

The growing need for paper is putting a lot of stress on forest resources.

Alternatives to fuel wood are not being promoted at the scale which is required.

**Some suggestions were:**

Commercial users of forest produce have to grow their own supplies of raw materials. The need for restructuring taxes on timber and its products for discouraging their use was emphasised. The use of fuel wood in non-household activities in urban areas to be discouraged as they are the largest consumers.

**MANAGING INDUSTRIAL POLLUTION**

The popular belief is that

only large industries pollute, but even small and medium industries are also responsible for pollution.

It is apparent that apart from enforcing pollution control laws, indigenous technologies for cleaner production and pollution control which are affordable by small entrepreneurs must be developed.

**The important observations were:**

*1. Polluting Industries.*

Most hazardous chemicals are made in small and medium scale industries which lack the technology and/or resources for waste treatment.

Immense quantity of flyash is being generated due to use of coal in power generation.

Open cast mining has resulted in loss of fertile top soil. Where mining activity is concentrated, the surface and groundwater regimes are polluted.

*2. Chemicals in Our Environment*

Many hazardous compounds banned in the West are still produced in India.

Air, water and food are pol-

luted by different chemicals. Eighty per cent of cancer cases are of environment origin.

Harmful effects of only a small number of the chemicals introduced in the market are known.

**The problem with policies**

New Industrial Policy requires environmental clearance only for large projects.

Waste recycling has low priority in industrial set-up.

**Important suggestions were:**

Training in waste management is essential for all industrial workers.

Indigenous technology has to be developed to check industrial pollution.

Small industries should be prohibited from producing hazardous chemicals.

Industries should not be located in ecologically rich areas.

Literature should be circulated among industrial planners on chemicals which are health hazards.

Industry, both large and small, has to pay for cleaning the pollution it causes. ■

## The Rape of the Oak

It stood on display in the art gallery.

A mammoth lifeless oak tree.

"What is this?" was her silent query.

"It's called 'The Tree of Providence'."

A hammock swung from withered branches

A gouged belly spewed paper pulp

Sap congealed on a gaping gash

Wood chips strewn around mangled roots.

Eloquent words enscribed in brass

Nailed to the lifeless trunk,

Extolled the virtues of Mother Nature

In providing for humankind.

Yet gazing at the rotting wood,

The sprawling arms in arrested plea,

In impotent rage, all she could see

Was the brutal rape of an oak tree.

by Cheryl Antao

# NEW MEMBERS

- 219) Mr. Kamal A. Chinoy
- 220) Mr. Safdar Ali Abidi
- 221) Ms. Nighat Husnain - Environmental Consultant
- 222) Ms. Shazia Umer Sailya - Student
- 223) Ms. Shaheen Umer Sailya - Student
- 224) Ms. Saba Kamal - Marketing Representative IBM
- 225) Mr. Humayun Qureshi - Tech Support Manager IMB
- 226) Ms. Mehar Noor - Research Fellow KU
- 227) Mr. Omer Khayyam - Accountant LEC
- 228) Mr. Shazad Iqbal - Student
- 229) Mr. Syed Aijaz Ali Shah - Agriculturist

## JOIN SHEHRI TO CREATE A BETTER ENVIRONMENT

If you wish to join SHEHRI  
please send this card to

SHEHRI - Citizens for a Better Environment  
206-G, Block 2, P.E.C.H.S.,  
Karachi-75400, Pakistan  
Tel: 441769, 442578 Fax: 438226

Name \_\_\_\_\_ Tel (Res) \_\_\_\_\_

Address \_\_\_\_\_

Occupation \_\_\_\_\_ Tel (Off) \_\_\_\_\_

### Editor's Note

*With this issue we introduce a new format for the SHEHRI Newsletter. We welcome your comments on the design and layout, as well as your suggestions for improvement. This issue is a double issue and while apologising for the delay (which honestly was beyond our control!), we look forward to bringing it to you regularly in the future. Your contributions as always are welcome.*

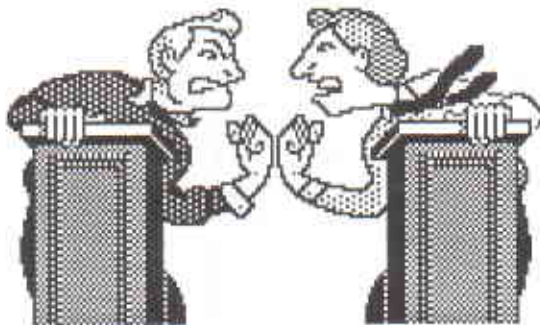
### Growing

by Uta Nagel

Dark trees satisfied with  
their aging  
holding the centuries in  
their branches  
giving the restless time  
a smile  
that knows of eternity

silent they answer  
loneliness  
when I in the early morning  
carry my quietness with their calm.

## Environment Day



SHEHRI organised a debate competition for students belonging to various educational institutions on the occasion of the World Environment Day which is observed on June 5, every year. The topic of the debate was "Youth of today lacks the spirit of sacrifice".

About 130 students participated in the program which aimed to encourage healthy debate between students from various colleges or universities. Lecturers from some of the institutions were also present.

Shehri had requested Mr Karamat Ali of PILER to preside on the occasion and also to be on the panel of judges. The other judges were Mr Saud Siddiqui of Caltex and Ms Shaheena Arslan from Shehri.

The first prize went to a student of D.H.A. College for Women, Ms Saher Khan. The second prize went to Hameed-ul-Haq Zuberi of NED (Mechanical), and the third prize went to Ms. Sarah Samreen of K.M.D.C. The prize money was donated by Caltex.

The success of the occasion was largely due to Mr. Owais Ali Farooqi of K.M.D.C., who was the driving spirit behind the program.

## Waste Minimisation: A Route to Profit and Cleaner Production

by Oliver Bovet, UNIDO—Islamabad

(A summary of the important points in the paper read)

- United Nations Industrial Development Organization (UNIDO), specialised in providing assistance for industrial development since its inception in 1957.
- The National Environmental Quality Standards (NEQSs), which industry in Pakistan is expected to conform to in the near future, is designed to protect against environmental damages (pollution) due to industrialisation.
- Magical recipe: Waste minimisation aims at reducing wastages of costly resources (inputs) and production of polluting wastes (outputs).
- Waste minimisation methods can generally be divided into four categories: Source Reduction, Recycling, Treatment, Disposal.
- Two first methods are: Preventive measures or Recycling. Two remaining measures are: Curative or end-of-pipe measures.
- **Prevention has lower implementation costs and prevention can actually generate profits by either input reduction, increased input efficiency, input recycling or input recovery. Most importantly, prevention keeps governments away.**
- **Typically, it has been found that Improved Operating Practices can be implemented more quickly and at less expense than Input Material and Technology Changes.**
- **Actual examples of projects indicate that no less than 12% of the measures could be implemented at zero cost, whereas 60% of them could be repaid within only one year. 28% of the total could be implemented immediately. 80% of all measures could be implemented over the first twelve months.**
- **Waste minimisation pays as it actually improves profitability since the greatest impact is likely to be on inputs and not on outputs.**



# Legal Cases filed by Shehri-CBE:

## *Current status of cases in Court*

### 1. The Quetta Case:

Quetta Case was filed by Qazi Faez Isa, Barrister-at-Law on September 11, 1992 before the Supreme Court of Pakistan on 'Public Interest Litigation pertaining to the environment and the atmosphere around the city of Quetta.' No update.

### 2. The Daewoo Case (High Court of Sindh at Karachi CP No.1094/93:

This case was filed by the residents and members of Shehri living on Sir Syed Road against the illegal conversion of a residential plot No 162-A for a car showroom. The premises are sealed at the moment and the case is pending. Mr. Zia Awan, Advocate, is representing the residents.

### 3. The Gulfway Towers Case:

This petition was filed by local residents on behalf of Shehri against the unauthorised four stories of this project near Teen Talwar Roundabout in Clifton. The Court gave the decision in favour of Shehri that the illegal five stories must come down. The builders have appealed to the Supreme Court, Matter is still pending, awaiting decision of the court.

### 4. Gutter Baghicha:

Shehri had stopped the illegal sale of Gutter Baghicha. A petition was filed in the Supreme Court, stay was granted. Shehri has filed its suggestions as to how to save this open space of approximately 1100 acres valuing 18 billion rupees in the area of Trans-Lyari. A new advocate on record Mr. Shabbir Ghauri has been appointed.

### 5. Costa Livina, Clifton:

Shehri filed a petition along with the residents of Clifton. Stay has been granted in favour of Shehri.

### 6. Jheel Park Case

Awami Construction Co. Ltd. vs KMC and others Suit No.918/78 in the High Court of Sindh. Order of status quo was passed on

October 15, 1978 and confirmed on February 2, 1986 ZMC (East) was to become a party to the suit. A letter dated June 15, 1993 was addressed to the Law Officer, Office of the Horticulturist, ZMC (East) enquiring into the reasons for the stagnation of the case in question. Repeated reminders have ended up with no cooperation/response despite the fact that Shehri has volunteered to assist them in case of difficulties.

When Jheel Park was renamed Salecmuz-Zaman Park, Shehri had been contacted by ZMC officials for assistance and cooperation in the development of the Park. Letters requesting for a meeting regarding the program and planning for the upliftment of the park have been sent to Mr. Hakim Sheikh, the former administrator ZMC East,

Mr. Muhamad Husain Syed, the former Commissioner ZMC East and Mr. Suhrawardy, Advisor to the Chief Minister. No response has been received. Amber Bhai Ali, Head of Legal Sub-Committee met Dr. Ather Dar, the new Health Officer, on September 5, 1994 and discussed the development of Jheel Park and illegal encroachment of poultry shops on Tariq Road.

### 7. Jheel on Dr. Mahmood Hussain Road on Plot No.SNPA-6

A registered letter dated June 1, 1993 was sent to the Chief Controller, KBCA (KMC) Civic Center, Karachi regarding Plot No. SNPA 6, Dr Mahmood Hussain Road (Khooni Jheel) which has been filled up presumably to be used for construction/commercial property.

A Public Interest Litigation petition dated June 19, 1993 was sent to the Chief Justice of the High Court of Sindh. Petition was filed and stay has been granted in favour of the residents.

### 8. Motiwala Construction

Shehri along with the residents of PECHS Block II have filed a petition to stop the illegal construction and conversion of residential areas. KESC has been made a party in the case. Shehri has requested for urgent hearing and inspection which was granted. The inspection took place on August 22, 1994. The matter was then fixed for hearing of the application for disconnection of water, electricity and attachment of the building on September 1, 1994. K.E.S.C. has

*Continued on page 20*

*Jheel Park (below) and illegal construction in PECHS Block I (far below)*



## LEGAL CASES

Continued from previous page

given its comments. It is now fixed in Court on Oct 11, 1994.

### 9. KBCA and PECHS

This petition has been filed against both these institutions to prevail upon them to stop the illegal construction of show-room-cum-flats on main Khalid Bin Waleed Road. The stay has been granted in favour of Shehri. The matter is fixed in court for Oct 1, 1994 for order on our application for disconnection of electricity, water and receivership.

**10. Avanti Park View Plot No.141-A Allama Iqbal Road**  
Mr. Jawad Mir, one of our most dedicated Shehri members has fought courageously against the builder to stop this illegal construction. The case is pending for receivership of the building. It is fixed in court for October 1994.

### 11. PIL—Human Rights Matter Cooperative Housing Society Matter—Supreme Court

Shehri has filed a petition in the Supreme Court against all the illegal conversion of land use in Karachi.

Human Rights Commission and SCOPE have been co-partners. Shehri has carried out door to door survey of nearly all the areas of Karachi and marked all the illegal constructions in Karachi. Shehri has submitted all the necessary documents. Mr. Shabir Ghani is our Advocate on Record.

### 12. Human Rights Case Relating to Smoking Vehicles

To address the issue of noise pollution and vehicular smoke, Shehri had filed a Human Rights Case in the Supreme Court. On November 1, 1993 an order has been passed by High Court and a ban was imposed on silencerless rickshaws and smoke emitting vehicles. But this order could not be implemented by the concerned authorities. However, Shehri is still trying to enforce it and introduce lead free petrol in Pakistan. In pursuance of the subject of vehicular emissions, Shehri organised two round table conferences with oil companies with follow up meetings to the Hydrocarbon Institute. The aim of the meetings was to come up

with a practical agenda for cleaner vehicular fuel in an attempt to reduce emissions and create a healthier environment. The matter is progressing.

As the above reports indicate the forces that have contributed to Karachi's degradation through illegal conversion of land use are the same authorities that were established to preserve the quality and character of the city. For example, if the KDA, KBCA, KMC, KESC and KWSB were to strictly adhere to their own bylaws, rules and regulations, no private individuals no matter how powerful could get away with illegal conversion. Unfortunately, since these organisations are infested with corrupt officials, we the citizens will have to be vigilant and active.

Shehri members and others are invited to come forward to report and assist in cases of illegal conversion or other environmental matters on which they wish to seek legal redress. ■

## KARACHI'S COASTAL CARETAKERS

*The Karachi Offshore Sportfishing Tournament is an event that aims to create awareness about the exciting outdoor sport of salt-water angling and the rich potential of the Karachi coastal waters, which is home to a vast variety of gamefish. Such events help in building an appreciation of the vital issues of conservation of Marine habitat. The fear of its damage through sea pollution and blatant abuse of marine resources is posing a threat to Karachi's coast. The TKO Sportfishing Tournament was held on 7th October 1994, with 136 anglers in 31 boats participating. Organised by Agha's Sportfishing, the tournament was sponsored by Crescent Steel & Allied Products Limited.*

*A new all Pakistan angling record was established with Angler Mateen Haider landing a 58 kg (128 lbs) Cobia (Sangra) on 30 lb. line class to lift the TKO Sportfishing Trophy. A new record for snapper was also created with angler Lala Amin catching a 29 pounder.*



## P.D.C. Beach Bash

PADI (The Pakistan Association of Diving Instructors) Dive Centre (PDC) Karachi, recently organised a diver's get-together at Hawkesbay beach, Karachi. Theme of the party was 'Save Wildlife.' A large number of scuba divers and their aspirants from all over Karachi attended this party which continued till 2 am next day. The PDC Save Wildlife Party announced the forming of Aquatic Awareness (A2) team whose responsibilities include educating divers for the benefit of the environment. A2 team also organised a beach clean-up at the party in which a large number of divers took part. PDC A2 team also pledges to create awareness among divers of Karachi to respect and protect marine life through beach parties in future. *PDC A-2 Team cleaning up Hawkesbay Beach*

