December 1992

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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

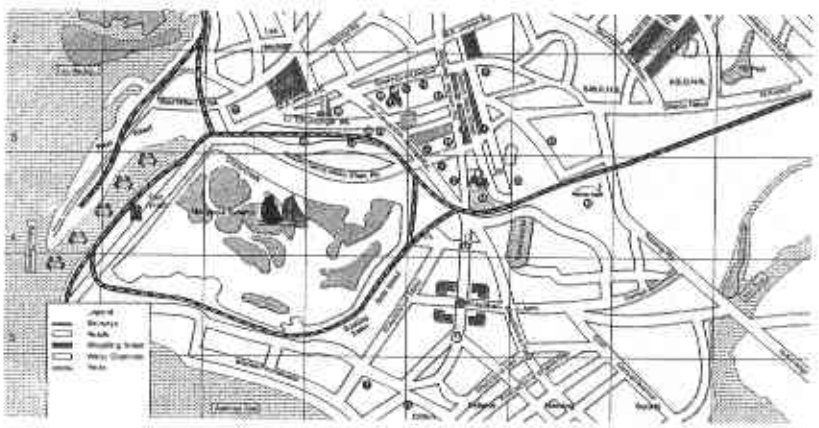
SHEHRI

Vol. 1 No. 5 December 1992

INSIDE

SHEHRI'S REPORT ON POLLUTION IN THE MARINE ENVIRONMENT OF KARACHI

By Dr. Mirza Arshad Ali Beg



Karachi, the only port city of Pakistan has the entire country as well as Afghanistan as its hinterland and a coastal zone stretching over a length of 135 km. Various operations comprising industrial, municipal, transportation and port activities have all compounded here to give rise to pollution of the highest order and the coast is thus faced with serious threats to its marine environment.

There are three major areas in Karachi which contribute to land-based pollution: (i) Manora Channel, located on the estuary of the Lyari river, serves as the main harbour and has vast areas forming western and eastern backwaters characterized by mud flats and mangroves, (ii) Gizri Creek which receives industrial and municipal effluents from the Malir River as well as several industries and power stations, and (iii) the coast line between the Manora Channel and Gizri Creek where the untreated municipal effluents are discharged by the southern districts.

It has been established by the research carried out by SHEHRI that it is the effluents from the Lyari and Malir rivers along which most industrial units are located, which are largely responsible for the degradation of the marine environment.

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Lyari discharges a highly contaminated mixture of sewage from the north and west of the city and industrial effluents from Sindh Industrial Trading Estate (S.I.T.E.) into Manora Channel. The Malir River receives sewage from the south and east of Karachi and industrial effluents from Korangi and Landhi Industrial Areas.

The total quantity of water received by the industrial areas in Manghopir, Landhi and Korangi has not increased from the previous

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TABLE -1
ANALYSIS OF SAMPLES OF WASTEWATER FLOWING INTO THE COASTAL ENVIRONMENT

SAMPLE LOCATION	TOTAL SOLIDS	COD	BOD
1. Lyari Mauripur Bridge	2,000	32.2	97.4
2. Lyari Shershah Bridge	3,000	14.8	514.4
3. Bridge near PIDC House and Furniture Market	1,000	36.5	331.2
4. Wastewater at Korangi Bridge 'Nallah'	1,000	25.9	129.6
5. Wastewater at 1st Big Pump, Korangi Sector 1	1,000	21.6	285.0
6. Wastewater supplied to vegetable farm at Mehran Town, Korangi Sector 6	2,000	21.6	233.3

COD= Chemical Oxygen Demand BOD= Biological Oxygen Demand

APARTHEID ON RELIGIOUS BASIS?

SHEHRI-CBE expresses its concern over the government's recent proposals that would require citizens to declare their religion on national identification cards. Where will this stop and what will it achieve? A section of religious parties might ask for sects to be declared on ID cards next.

A nation that faces ethnic, religious and sectarian strife will be further divided if the government approves of this move to declare personal beliefs on ID cards.

Sustainable development cannot take place if a nation's citizens are categorized and divided on the basis of religion. Every citizen must have an equal stake in the country irrespective of sex, religion or creed. SHEHRI condemns such moves as they violate universal human rights and are an impediment to national cohesion and the development of human resources. SHEHRI calls upon citizens and organisations of goodwill to reject all such moves that are repugnant to human decency.

NATIONAL NGO FORUM

by Navaid Husain

NGOs are increasingly feeling the need for a forum in order to discuss common issues and to formulate timely responses. The work being carried out by NGOs at the moment seems to be very dispersed with little coordination between them. Data and learning experience need to be shared in order to facilitate work. It is also realised by NGOs that under the umbrella of a National NGO Forum there is the need to organise committees pertaining to various fields of work such as health, education, labour, women's issues, human and minority rights, sustainable development etc. The proposed NGO forum will seek to provide the necessary cohesion in order to strengthen the NGO movement.

Needless to say the work at hand is far too vast for any single NGO or group of NGOs to tackle. At a national level there is the need for coordinated action. The GOP (Government of Pakistan) or foreign donors have often felt that there is a lack of direction and coordination amongst NGOs. Furthermore, such a forum will strengthen the NGOs' position in dealing with the GOP, foreign organisations and donors.

At times there are crucial national issues that practically all NGOs feel strongly about, such as the recent moves to add religion on ID cards. Due to the absence of a forum, feeble individual voices are raise__ut they are ineffective and isolated. Similarly, when there is confrontation, NGOs and individuals are left to fend for themselves. The case of Dr. Akhtar Hameed Khan, who has spent his entire life serving the poor is a case in point where he has been harassed by a group of obscurantists and the local administration of Orangi.

At times of national calamities such as the recent floods or in the case of earthquakes or epidemics, the NGO community would be well placed to carry out relief works.

This view was also recently endorsed by Mr. Javed Jabbar of Baanh Beli, Ms. Kausar S. Khan of Aga Khan Community Health Sciences and Mr. Zia Awan of Lawyers for Human Rights and Legal Aid at a joint discussion between NGOs and the German Minister for Environment organised by SHEHRI and the Goethe Institut.

PROPOSED AIMS AND OBJECTIVES OF THE NATIONAL NGO FORUM.

1. To safeguard the independence of national NGOs from international and national pressures/interference.

2. To coordinate work between the NGO community, GOP and foreign agencies.

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Drain corroded due to toxic discharge from an industry. Photograph : Farhan Anwar.

Continued from Page 1

amount of 40 MGD, while that of the sewage generated has increased from 14 MGD in 1951 to 216 MGD as at present. Two sewage treatment plants with a capacity of 20 MGD each were installed in 1966 but neither has their capacity been increased nor has any other plant been installed.

S.I.T.E. has the largest conglomeration of a wide range of industries such as food and beverages, tobacco, paper and paper products, textiles, plastics, rubber products, chemicals, non-metallic minerals, coal, petroleum products, basic metals and machinery. The waste water discharged from S.I.T.E. accounts for more than 80% of the pollution load carried by Lyari to the sea.

The Lyari River, according to 1974 estimates, discharged 130,000 tons of dissolved solids every year. Analyses shown in Table-1 have recently been carried out on samples collected from 3 sites on the Lyari river, one before the industrial wastewater is discharged into the mainstream, the second from the point where the industrial effluents are discharged and the third where the river finally starts making its last journey to the sea. These sites were also sampled previously and it was estimated that the Lyari River, when it finally discharged its wastewater, was carrying approximately 376 tons of total soluble matter daily. Now that industrial activity has increased manifold, their concentration has also increased 2.5 times.

Impact of Industrial and Municipal Effluents on Manora Channel

The Manora Channel, occupying 7.17 sq km of the estuarine area of the Lyari, has five salt works located on the right bank, the port and the fish harbour on the left bank. The entrance to the Channel is through a narrow mouth guarded by the 'breakwater wall' on the western side and a 'sea wall' on the eastern side. A wall in dilapidated condition is supposed to guard the flow and intermixing of the river water with seawater but this has not really been stopped. The approximately 3.5 million cubic metres of seawater that enters and leaves the Channel daily during the tides is polluted. The tidal flow of seawater is ineffective in flushing out the pollution load brought by the Lyari and therefore whatever enters the Channel remains stagnant for some time. The water which used to be crystal clear at the harbour during the '50s, when divers could take a dip into it to retrieve a coin, has now become turbid mainly due to discharges from fishing trawlers and oil spills and the suspended solids carried by the Lyari every day.

The Lyari water is invariably grey to black and its sediments contain all the hazardous pollutants as is indicated by the recent analysis of sludge form the estuarine area. The adverse effect of polluted water in the harbour is measurable on the catch brought in by the fishermen. Firstly, the ice used is contaminated with bacteria which enter the fish when put into the ice chest. Secondly, the catch receives a full dose of bacteria on landing when the fishermen give it a dip in the dirty harbour water.

Impact of Industrial and Municipal Effluents on Gizri Creek

The second major coastal area which is exposed to the hazards of land-based pollution is the Gizri and Korangi creeks system. This system is swampy and used to have a luxuriant growth of mangroves which has now thinned out. Extensive biodegradation has taken place in the swamps where some mollusks, including the ones which bear black pearls, have managed to survive. This creek system used to serve as a nursery for young fish, shrimps, oysters and other marine life. However, the bio-diversity of the creeks has largely been reduced during the last two decades as a result of the construction of Port Qasim and the Steel Mills facilities for which millions of tons of bottom soil had to be removed to deepen the channel. This has created siltation problems which are just as problematic here as in the Manora Channel.

The marine environment of the creeks is under serious stress due to the discharge of industrial and domestic effluents from the metropolitan area as well as the fishing villages, the port and shipping activities in Port Qasim and the fishing boats in the Ibrahim Haideri fish harbour. The Malir River is the principal recipient of (i) industrial effluents from the Korangi Industrial Area and the Landhi Industrial Trading Estate, and (ii) municipal effluents from the Mahmoodabad Sewage Treatment plant and a number of channels which have been constructed for carrying sewage from large and small residential localities.

TABLE-2
ANALYSIS OF SAMPLES OF SLUDGE AND VEGETABLES COLLECTED FROM FARMS LOCATED ON THE MALIR RIVER.

S.No.	Sample	Lead (pb)	Chromium(Cr)	Moisture	Location
1.	Sludge (dried)	468	533	—	1 mile from Lyari outfall
2.	'Chaulai' (Red)	6.1 ppm	2.9 ppm	85.00%	1st Pump Korangi No. 1
3.	'Turai'	2.9 ppm	7.8 ppm	89.90%	Mehran Town, Korangi No. 6

ppm= parts per million

Note: Analysis was carried out on dried samples.

Effects of Industrial Pollution on the Food Chain

The free availability of wastewater in large quantities in the industrial areas has induced unscrupulous farmers to use it commercially.

The free availability of wastewater in large quantities in the industrial areas has induced unscrupulous farmers to use it commercially. The water is pumped into fields located all along the river bed and the vegetables grown on this wastewater contain excessive quantities of heavy metals.

The water is pumped into fields located all along the river bed and the vegetables grown on this wastewater contain excessive quantities of heavy metals as shown in Table-2. 'Turai' (courgette) for example contains 7.5 ppm (parts per million) of chromium metal whose permissible limit is only 0.05 ppm. The concentration of chromium is 150 times more than the acceptable level which can only be arrived at if the industrial wastewater from tanneries is used for irrigating the soil. The impact of usage of contaminated vegetables and fruits may not be readily apparent since the cumulative effects take a long time to surface, but they would certainly be detrimental.

Industrial Pollution from Landhi-Korangi

The large and small industrial units in the Landhi and Korangi industrial areas discharge their wastewater into 'Korangi Nallah' which terminates in the Malir River at Gizri Creek.

Tanneries are next to the textile industry in terms of volume of water consumed but they are major polluters. Korangi Creek also has some established salt works which have been producing good quality sea salt for several decades. These units, unlike the ones in the Manora Channel, receive uncontaminated input from the intake channel constructed for this purpose. These open into the creek whose water has the higher salinity required for salt production. The salt works, however, do not utilize bittern, the waste product which is higher in ionic concentration than sea water, but discharge it into the sea. This output is low and hence they may not be considered as polluting industries. Their input may also not be considered as polluted by industrial effluents e.g. those from the soda ash industry because the latter is sufficiently diluted to have any adverse effect on the process of crystallization, which is all that this industry is concerned with.

Korangi Creek receives strong sewage from a cattle colony in Quaidabad which holds more than 50,000 heads of buffalo, and also from a slaughter house in the vicinity. The discharge of waste water is approximately 0.8 MGD containing biodegradable organic matter having a BOD (Biological Oxygen Demand) value of 15,000 tons per annum. The cattle owners also make extensive use of agrochemicals, and these ultimately find their way into the Creek.

Pollution of Beaches

Analysis of seawater at the beaches, carried out in the '80s, had suggested that faecal contamination from the indiscriminate discharge of municipal effluents into and ultimately by the Lyari had reached recreation spots. The quality of wastes flowing through the various streams into the open beaches of Karachi, stretching from Keamari, Chinna Creek to Clifton and Gizri, had not been estimated at that time. Judging from the recent analyses, it is possible to say that they comprise strong sewage mixed with oils and grease from automobile workshops, and wastes discharged by small industries located in residential areas. They have spoiled the recreational value of these beaches to the extent that the institutionalization of water sports which was likely to be introduced at Chinna Creek had to be shelved.

The Overall Position

The total quantity of dissolved solids that were being discharged into the sea was estimated in 1974 to be approximately 262,000 tons annually, of which 50% passed through the Lyari while the rest was discharged through the Malir and other channels. The recent estimates suggest that the Lyari discharges approximately 900 tonnes of dissolved solids which amounts to over 320,000 tonnes of dissolved matter each year. The pollutants from the Korangi area tanneries alone have now been estimated to be more than 131,000 tons per year. However, since a substantial quantity of wastewater is being intercepted by the vegetable growers, it is quite likely that the pollution load, besides being heavy, finds a direct pathway into the food chain.

The contribution of sewage has increased during recent years. The estimated discharge of 216 MGD includes industrial effluents. This large quantity of sewage is generated by using not only the 350 MGD fresh water supplied to the city but also from wells and bore holes. The total BOD load carried by the wastewater reaching the marine environment has been estimated at 1.368 million tonnes each year which is quite high by all standards and calls for immediate attention to remedy the situation.

(Dr. Beg is ex-Director PCSIR and Chairman, Standing Committee on Environment, Federation of Pakistan Chambers of Commerce & Industry. He also serves as an expert on SHEHRI's Water Pollution sub-committee.)

SHEHRI - KPT TRIP

On Friday, October 23rd 1992, SHEHRI-CBE and KPT (Karachi Port Trust) collaborated to organise an educational trip along the coastal areas of Karachi.

30 children (Junior Citizen members of SHEHRI) ranging in age from 5 to 18 years participated and included students from both government and private schools.

The 'M.T. Firdausi' was the launch provided by KPT for the trip. The group which comprised member Junior Citizens, several members of SHEHRI, representatives of KPT and an expert from IUCN set off from Keamari Harbour at 10:30 a.m. The launch followed a path from the harbour, along the sea wall towards the mangrove swamps and back. Mr. Peter John Meynell of IUCN and Mr. Khatib Ahmed of SHEHRI gave a short talk to the children about the mangroves growing in the coastal areas. They explained how mangroves are different from other trees because they have special breathing roots called 'puenmataphores' and are equipped to cope with the high salt content of sea water. The importance of mangroves and the need to protect them was explained. Mangroves are important because they: i) protect the coastline from erosion by heavy waves, storms and winds ii) are nursery grounds for many commercial fish species iii) provide fuel wood for coastal villages iv) are important feeding grounds for many bird and animal species.

This informative lecture was followed by a question and answer session. Refreshments were served on board for the children and a high point of the morning's trip was when a school of dolphin was spotted!

DIALOGUE ON 'THE NGO MOVEMENT AND SUSTAINABLE DEVELOPMENT'

When the government does not respond to national problems, NGOs are needed to show alternatives. This was stated by Mr. Jo Leinen, German Minister of State for Environment, at a Dialogue organised by SHEHRI-CBE and the Goethe Institut. The topic of the Dialogue was 'NGO Movement and Sustainable Development' which took place on Sunday, 15th November 1992 at Hotel Beach Luxury, Karachi.

Representatives of a wide cross-section of NGOs attended this dialogue. Participants included those from SCOPE, WWF, IUCN, WAF, APWA, Edhi Foundation and others. Four main speakers were: 1) Dr. Zaki Hasan (Pakistan Institute of Labour Education and Research) 2) Kausar S. Khan (Aga Khan Community Health Sciences) 3) Zia Awan (Lawyers for Human Rights and Legal Aid) 4) Javed Jabbar (Baanhn Beli). Navaid Husain (Chairman SHEHRI-CBE) presided over the proceedings.

Several of the participants expressed their desire to see better coordination and closer cooperation between different NGOs and for the establishment of a National NGO Forum.

Other issues discussed included how NGOs contribute to Sustainable Development; and to what extent NGOs reflect the needs of the people.

Mr. Leinen said that efforts should be made to involve students in active work for the environment. NGOs and the media were in a position to spread awareness amongst industrialists, trade unionists and policy-makers about how effectively framed environmental laws and regulations will be beneficial in the long run. He referred to the 21st Century as the Century of Ecology in which the global community must work to redress the damage done in the present Century of Industrialisation.

In his concluding remarks, Mr. Javed Jabbar said that Pakistan is a developing nation, both politically and economically, so environmental protection has not received the attention it deserves. In spite of this, NGDOs (Non Government Development Organisations) are still doing a good job and if proper legislation is formulated, they will be able to work even more effectively.

UNIVERSAL CHILDREN'S DAY

To observe Universal Children's Day, the International Affairs Section of APWA (All Pakistan Women's Association) organised a function at their Small Projects Office in Korangi. School children from the area had rehearsed a number of tableaux which they performed in front of all present. SHEHRI member Mrs. Meherafroze Habib who is Vice President, International Affairs Division APWA, gave the welcome address, while Amir Masood (also a SHEHRI member and on the Water Pollution sub-committee) gave a short lecture to the children on the importance of health and environment. He explained to them the need for personal hygiene and how they could safeguard their own health by drinking boiled water, keeping their homes and schools clean and free of garbage etc. Mr. Zahirul Karim of UNICEF was the Chief Guest and he also gave a short talk to the children.

SHEHRI'S FUND COLLECTION FOR FOOD AFFECTEES

SHEHRI-CBE wishes to thank all those who donated so generously to our Flood Relief Fund.

SHEHRI ACTIVITIES:

1) WATER POLLUTION SUB-COMMITTEE: is being headed by Khatib Ahmed, member SHEHRI Managing Committee, in the absence of Dr. M. Ajmal Khan. The sub-committee has recently carried out sampling and analysis of water, vegetable and sludge samples at several sites along the Malir and Lyari rivers - the report of which has been published in part as our cover story. The analysis was carried out by National Testing and Consultancy Services and Dr. Mirza Arshad Ali Beg interpreted the results.

Seminar on 'Industrial Pollution: Causes and Remedies.' SHEHRI is organising a seminar on the above topic on December 26th, 1992. In it, speakers will be outlining steps that can be taken to control industrial pollution. Everyone is well aware of the fact that industrial pollution is rampant, but in order to correct this situation, practical remedies must be adopted, and this is what we intend to highlight at the seminar. Justice Saleem Akhtar of the Supreme Court of Pakistan will be the Chief Guest at this seminar.

2) ARCHITECTURAL HERITAGE SUB-COMMITTEE: is headed by Danish Azar Zuby, Treasurer SHEHRI-CBE. The sub-committee recently organised a joint forum on the status of our architectural heritage with KMC, KDA Design Bureau and DCET. The sub-committee now plans to follow up on the recommendations made at the seminar in order to establish proper procedures for the preservation and restoration of our architectural heritage.

3) LEGAL SUB-COMMITTEE: is headed by Qazi Faez Isa, Vice Chairperson SHEHRI-CBE. In addition to providing assistance to the Block 8 Clifton Residents' Association in the Cliff Towers case, SHEHRI is also participating in a public litigation case against the Quetta Municipal Corporation.

4) PUBLICATIONS SUB-COMMITTEE: is headed by Humaira Rahman, Gen. Secretary SHEHRI-CBE. The sub-committee works to take out bi-monthly issues of the SHEHRI newsletter in English and Urdu. Contributions to the newsletters in the form of articles, photostories, interesting facts, letters to the Editor etc. are welcome.

5) FUND RAISER SUB-COMMITTEE: is our latest sub-committee. This sub-committee was formed because SHEHRI needs to generate funds in order to carry out our many projects and activities.

All members of SHEHRI-CBE are welcome to join any of these sub-committees. For more information, please contact the SHEHRI office.

CLIFF TOWERS

Cliff Towers, in Block 8 Clifton, Karachi, is the latest under-construction building that has been found to be violating several building laws. Built by the same company that has constructed the neighbouring Gulf Way Towers, (another structure built in gross violation of building laws) it seems that Cliff Towers is heading the same way. Laws regarding number of storeys, building height, provision for parking and covered mezzanine have all been disregarded. The residents of the area, who are already suffering with the burden the construction of Gulf Way has caused on the infrastructure, are hoping that this construction can be stopped. Let us hope that the KDA and Clifton Cantonment Board, two organisations that are supposed to check these sorts of violations, will not give in to pressure from the builders and will prevent yet another example of illegal construction from defacing our city.

JOIN SHEHRI TO CREATE A BETTER ENVIRONMENT

If you wish to join Shehri please drop this card at:

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

Name: _____ Tel: (Res) _____

Address: _____

_____

Occupation: _____ Tel:(Off) _____

NEW MEMBERS

Our new members are:

1. Mr. Amanullah Amir
2. Mrs. Fareeda Amir
3. Syed Zia ur Rehman
4. Ms. Shazma Leghari
5. Dr. Muzaffar Ali
6. Mr. Hasan Akhtar
7. Syed Muzaffar Hossain Akbar
8. Dr. Mansur A. Nurbhai
9. Mr. Khwaja A.R. Tariq
10. Mr. S. Wazir Iqbal
11. Mr. Khwaja Azizullah
12. Mr. F.R. Salehjee
13. Engr. Nisar Ahmed Khan
14. Ms. Aisha Subhani
15. Mr. Mohd. Najeeb Beg
16. Mr. Ghayur A. Khan
17. Mr. Bernard Vellozo
18. Mrs. Meherafroze Habib
19. Dr. Behrooz Hashim
20. Ms. Kanwar N. Khan
21. Mrs.E.C. Pinto
22. Ms. Janice Burns
23. Mr. Mohammad Imran
24. Mr. Christian Nakone
25. Mr. Syed Anicer Hussain
26. Mr. Faisal Butt
27. Mr. Khalidul Aziz
28. Mr. Kamran Kazi
29. Dr. Asad Khan
30. Mr. Qamar M. Walajahi
31. Mr. Aazim Hussain Siddiqi
32. Mr. Faisal Nasim
33. Ms. Amina
34. Mr. Younus Rizwani Sheikh
35. Mr. Maroof Gilani
36. Mr. Shakil Ahmed
37. Ms. Sana Akram Minhas
38. Mr. Ali Sajjad
39. Dr. Mansoor Ahmad
40. Mr. M. Azam Ali Siddiqui

SETTING A GOOD EXAMPLE

When it comes to garbage collection, the authorities are not always able to do a thorough job. As responsible citizens, we should do whatever we can to avoid creating more garbage dumps in our areas.

If a community is motivated and cooperative, successful results can be achieved in the management of solid waste. There are some existing examples in Karachi where it has been proved that community involvement is the best way to cater to the garbage problem. Below are two good ideas that have worked out. Why not use them as an example to set up the same practice in your neighbourhood?

The Suzuki garbage collection system has successfully been implemented in F. B. Area.

1. THE SUZUKI GARBAGE COLLECTION SYSTEM IN F.B. AREA

M. Rafi Peerzada, an elected Councillor of F.B. Area, introduced a house to house garbage collection system four years ago by means of Suzuki vans with enhanced side walls. His team of volunteers and him worked hard to motivate and convince the residents of the area to co-operate with them in keeping the environment clean and healthy.

The system runs under his vigilant supervision. Work starts at 8:30 a.m. with a driver and two sanitary workers in each Suzuki. The vehicle, while entering the lane, blows a horn and indicates its arrival. The garbage bins are brought to the gates of the houses, emptied into the vehicle by the workers and returned. This process continues until the vehicle is filled. The van is then brought to a single dumping point with the municipality's arm roll container. The garbage is removed by the workers and the recyclable materials are sorted during this operation, which serves as an additional source of income for the vehicle staff. After the lunch break, the second shift starts and covers the remaining area up to about 4:00 in the evening. Each Suzuki covers about 350 houses which includes residential, commercial and industrial units.

KAWWS have set up bins like this all over their locality. Photograph courtesy KAWWS.

This system is financed by contribution/service charges collected from the served units. A nominal monthly charge is fixed i.e. Rs. 25/- per residential unit and Rs. 50/- to Rs. 100/- for commercial units to cover expenses such as salaries, petrol and maintenance of the vehicles. The remaining amount is reserved for major maintenance purposes such as engine and body repairs every third or fourth month. The system is running successfully, is economically feasible and is serving 70% of the residents of the area.

This locally managed solid waste collection system has ensured a garbage-free, clean environment for the entire area by the regular removal of domestic garbage from houses and the presence of only one dump for the whole area instead of scattered illegitimate dumps.

2. GARBAGE REMOVAL SYSTEM IN KARACHI ADMINISTRATIVE SOCIETY

Due to unhealthy living conditions and non-provision of basic civic facilities, a group of ladies formed an association by the name of Karachi Administrative Womens' Welfare Society (KAWWS) in 1988, with Mrs. Safina Siddiqi as the President.

In their area garbage was a major problem as there were no municipality bins and no facility for garbage removal by the municipality. These ladies acted as a pressure group and convinced the ZMC (Zonal Municipal Committee) to provide garbage removal facilities.

Now there are 82 members in this Society, each of whom contributes a sum of Rs. 100/- per month. The major portion of this fund is reserved for sanitation purposes.

The ZMC's garbage collection vehicle makes trips twice a week to collect garbage from the area. There are about 45 circular metal bins in the area of 5 Blocks, the majority of which have been provided by the society fund. The active members of the society make morning trips to the entire area and monitor whether the waste has been dumped in the provided bins or not. If anyone is found throwing the garbage elsewhere, the ladies pressurise the guilty person not to do so again in the future.

Funds are also spent to create awareness amongst the residents. They distribute brochures/ pamphlets and hold meetings regularly to check progress and chalk out future plans. All the members work on a volunteer basis.

KAWWS has recently received a grant from the Environment and Urban Affairs Division for development work. They have utilised it to provide the area with specially made garbage drums and plant protectors on which slogans related to health and environment are written. They also set up a park in collaboration with ZMC South.

These housewives have succeeded in their four-year long effort and the whole area has been greatly improved. They are now planning to extend these services to adjacent Blocks and 'katchi abadis' in the nearby areas. They also have a plan to introduce the Suzuki garbage collection system.

Community involvement and participation could play a vital role in managing the domestic waste problem as discussed above. Such systems should be introduced in other areas also in order to reduce the load of garbage collection on the responsible agencies and to cater to the waste problem. Since the cost involvement is not much, donor agencies could provide funds for the establishment of these systems. These systems could be made more feasible cost-wise by effective separation of recyclable material and composting of organic waste near the community dump.

Report by Amir Masood and Khatib Ahmed, both of whom are active members of SHEHRI-CBE. Photographs by Khatib Ahmed.

READERS' VIEWS

From: Aliya Agha,

Secretary UN Affairs, APWA

We appreciate the steps taken by SHEHRI towards a better environment. We would be happy if our suggestions are communicated to concerned authorities through your prestigious organisation.

The headquarters of APWA are located in Garden which is the heart of the city. It is surrounded by the biggest business centres, hospitals, markets and congested residential areas. It has become a matter of great concern as to how this city is being neglected. It is shockingly dirty and it seems no one has even thought about cleanliness.

The road conditions are deteriorating due to overflowing gutters and the stagnant smell of rain water. Foot paths have turned into mini markets for hawkers, without leaving any space for the pedestrians to walk. Thus without any choice they walk on the roads, jeopardising their lives as the speeding buses mercilessly pass through. ■

SHEHRI invites all its readers to send us letters expressing their views etc. However, please try to keep your letters to a maximum of 200 words as our space is limited. -Eds

PIA LIFTS NO SMOKING BAN!

Pakistan's national airline, PIA's, recent decision to lift the 'No Smoking' ban on domestic flights is yet another example of our lack of concern for health and for the environment. Ignoring the fact that passive smoking is highly injurious to health and that non-smokers will be greatly disturbed by clouds of smoke wafting around them, PIA has decided to lift the ban. It seems that one of the reasons for lifting it was that people were hiding in various corners of the aircraft in order to smoke. Considering the short span of most domestic flights, isn't it possible for all smokers to exercise a little self control and not risk the lives of their fellow passengers?

THE HOUBARA BUSTARD IS THREATENED AGAIN!

The Vice President of IUCN- the World Conservation Union and World Wide Fund for Nature WWF International, Syed Babar Ali expressed concern over the government's plans to amend Sindh Wildlife Protection plans to allow foreign visitors to hunt Houbara Bustards in the country.

In a letter to Prime Minister Nawaz Sharif, the conservationist has pointed out that the country was a signatory to several international conservation treaties, including the Bonn Convention, the Convention on International Trade of Endangered Species (CITES) etc. and it would be embarrassing for Pakistan in the international community if the ban on Houbara hunting was lifted.

DAWN Friday, November 6, 1992

NATIONAL NGO FORUM

Continued From Page 1

3. Evaluate policies drawn up by the GOP, foreign countries or international organisations pertaining to Pakistan so that they are found to be in the best interests of the country and its people.

4. To ensure that all national and foreign grants be distributed through proper consultation with the elected Committee of the Forum.

5. To formulate rules and elect a Standing Committee that will draw up the terms of reference for the Forum.

6. To determine the mandate of the elected Committee in dealing with the GOP and national/ international agencies.

7. To meet periodically in order to have mutual consultations and to formulate timely responses pertaining to national issues.

8. To try and evaluate:

a) That funds given to NGOs are spent judicially in a manner that conforms to the aims and objectives of the individual NGOs that are members of this Forum.

b) Try and ensure that foreign grants given to the GOP for the purpose of sustainable development are judicially spent.

9. To ensure that international agencies in Pakistan adopt a hands-off approach in terms of carrying out development work as their increased responsibilities may not always be in the best national interests.

"Pouring industrial garbage into the air is a cheap form of waste disposal provided that it drifts into someone else's backyard."

NEW NGO PROVIDED RS. 12 MILLION !

An uproar took place in the National Assembly when it was disclosed that the Ministry of Environment with the approval of the Federal Minister, Anwar Saifullah, sanctioned a sum of Rs. 12 million for a new NGO that was set up in a record time of six weeks. All NGOs know from experience that it takes at least six months just to get government registration and even that seldom takes place without pulling strings or giving bribes.

"The News" (16th Oct. 1992), in its coverage of the assembly proceedings reported that the treasury bench's reply to the opposition's charges regarding the new NGO was that "the government evaluated the NGO on a professional basis only. A fact which can be corroborated from the fact that the economic advisor of Mohtarma Benazir Bhutto, V.A. Jaffery, who happens to be the patron of the said NGO and the editor of a very critical paper is one of the governing board members."

However, through experience, NGOs are skeptical of donor-driven and government-galvanised NGOs that are set up with exceptional speed on 12 million rupee budgets. If professionalism is really the criterion for giving 12 million rupees, the government should start looking around for NGOs that have people with equal qualifications such as this new NGO called the Sustainable Development Institute. Existing NGOs which have a long track record of grassroot work should get equal financial support from the government.

At a time when there is the need for strengthening government institutions, it is important that we do not waste money on building new organisations. The emphasis should be on training existing personnel rather than creating new organisations, leading to further demoralisation amongst the staff of the Ministry of Environment and other departments. A government sponsored organisation is just an extension of a state institution and is bound to draw little public participation. It also disregards all the work honest and competent government officials have been doing for years.

NGOs should be wary of breaking ranks in a rush for badly needed support by directly or indirectly supporting such practices. Support will come, but with the common consensus of the government, NGOs and donors. Breaking ranks will create divisions within the NGO movement. Furthermore, national strategies can only be drawn up by genuine national organisations with their active participation.

Pakistani tax payers and foreign donors that are genuinely interested in sustainable development must express their support for genuine community participation and accountability and this is why NGO work is essential as it bridges the gap between the community and institutions. Instead of strengthening technical capabilities of existing NGOs, new institutions will divert badly needed funds on an ongoing basis over time and create greater bureaucracy which could prove to be a set-back to sustainable development.

PARA-LEGAL TRAINING

Lawyers for Human Rights and Legal Aid (LHRLA) organised a second two-week legal awareness course for women in mid-november 1992. Participants included representatives of women's organisations, social groups, teachers and journalists. Mrs. Naheed Tasneem represented SHEHRI-CBE while Mrs. E.C. Pinto, also a member of SHEHRI and the Director of LHRLA, was one of the main organisers.

Prominent lawyers gave lectures on Violence against Women, Family Laws, Environmental Law, Minority Rights, Fundamental Rights in the Constitution, Succession Laws, Hudood Ordinance etc. Participants were also taken on trips to jails, courts, Edhi Centre, CPLC (Citizens-Police Liaison Committee), police stations and for meetings with police high officials.

UNNATURAL DISASTER

A worker at the Coors brewing plant in Golden, Colorado, turned the wrong valve and sent at least 155,000 gallons of beer into the adjacent Clear Creek, killing 3,000 fish.

DAWN 13 Dec. 1992

SAVING THE COAST

By Peter Mason

AN artificial barrier reef made of 100 million old tyres off the Humberside coast, north-east England, could solve two environmental crises in one go.

The reef, planned to be 30 miles long, 100 metres wide and five metres high, could reduce coastal erosion from Humberside to Spurnhead and, say the Humberside council officials who are developing the idea, help dispose of every old tyre for miles around for the next 30 years.

After years of discussions the idea is moving to fruition with a six-month laboratory test at Southampton University, England, to be followed by a two-year research project. Tyre dumping could start in 1995. There are hurdles to overcome, not least getting a sea dumping licence from the British Government's Ministry of Agriculture, Fisheries and Food. But the key players are confident the Government will support the plan if research shows there are no significant ecological problems.

- *Dawn/Guardian Service*

NGO COLUMN

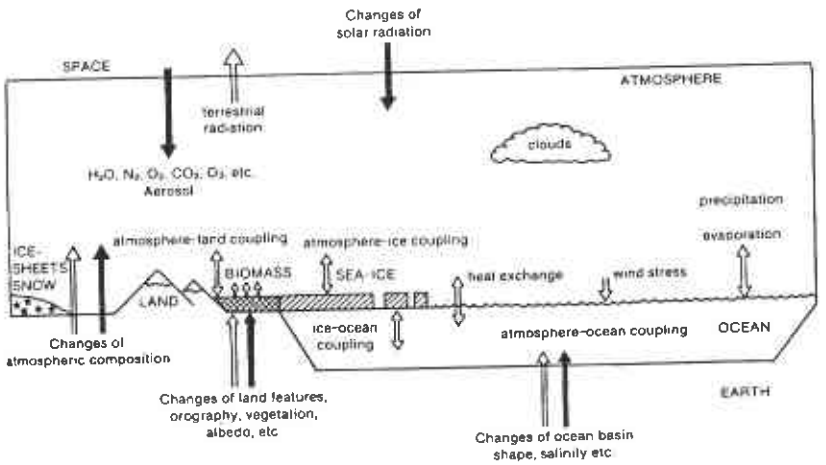
Are you or your organisation doing anything for sustainable development or to improve (or prevent further degradation of) the environment? If so, please send us the information so that we can disseminate it.

AN INTRODUCTION TO THE CLIMATE SYSTEM

Climate change is one of the most profound challenges facing humanity today. Ironically, it is also the direct result of one of our greatest achievements - the massive creation of material wealth on a scale never before seen in human history. We now know that mankind's industrial and agricultural activities emit carbon dioxide and other "greenhouse gases". Because they change the way the atmosphere absorbs the sun's energy, these gases threaten to upset our climate's delicate balance. The consequences could prove disastrous: A 3° Celsius increase in average global temperatures within 100 years, the inundation of islands and coastlines by rising sea levels, intensifying storms and droughts, crop failures, social upheaval, and more.

In the years ahead, we will have to learn how to meet the physical needs of the planet's ever-growing population without emitting more greenhouse gases. But we will have to learn quickly: today's greenhouse gas emissions will remain in the atmosphere and continue to influence our climate for many decades to come. The solutions we pursue will no doubt prove difficult and costly to implement - but the costs of inaction would prove much higher still. This is true not only for the most vulnerable countries of the South, but for the better-protected countries of the North as well. And because these wealthier countries are the leading emitters of greenhouse gases and possess the greatest technological resources, they have a special responsibility for tackling climate change head-on.

Schematic illustration of the climate system



Source: J. Houghton et. al., eds, 'Climate Change: The IPCC Scientific Assessment', Cambridge (1990)

■ **The climate system is complex.** It is governed not only by what happens in the atmosphere, but in the oceans, the cryosphere (glaciers, sea ice, and continental ice caps), the geopshere (the earth's solid surface) and the biosphere (living organisms in the oceans and on land). The interactions between these various "spheres" are difficult to predict because their respective processes occur on widely differing time scales e.g. from a single day to a few centuries.

■ **The amount of warming that results from solar radiation depends in part on the nature of the earth's surface.** Ocean and land surfaces warm at different rates, and land covered by vegetation absorbs and reflects solar energy differently than do deserts or ice-caps. In this way, surface variations create complex patterns of surface energy distribution.

In the years ahead, we will have to learn how to meet the physical needs of the planet's ever-growing population without emitting more greenhouse gases.

■ **The oceans are the major regulator of climate.** Water circulates within the oceans because of differences in temperature and density. Meanwhile, the ocean surface absorbs heat and gases such as carbon dioxide from the atmosphere. When surface currents eventually descend, they transport this heat and gas down which then becomes trapped within deep-water currents for a millennium or more. In this way, the oceans modulate the climate by, for example, storing "excess" carbon for long periods of time.

■ **Research shows that the circulation pattern of the oceans gradually changes over time.** Such changes could account for some past climate fluctuations. Any future change in ocean circulation could shift the zones of deep-water formation and so have a powerful influence on climate change in the next century.

■ **Ice reflects a significant amount of incoming solar energy back into space.** So any changes to the spatial extent of the cryosphere - some climate models suggest that the Arctic Ocean's ice covering would all but disappear in a warmer climate - would impact the amount of solar energy absorbed by the atmosphere.

■ **The biosphere's role in the climate system is not yet well understood.** The biosphere is made up of living organisms on land and in the seas. It helps to regulate climate through its role in the carbon cycle. Furthermore, land vegetation has a significant effect on surface reflectivity, heat, moisture, and energy. Because of the complexity of the biological processes involved, scientists can make only very general estimates of the biosphere's role in the climate system. Much more research will be needed before the biosphere's contribution to climate variation and the removal of various greenhouse gases from the atmosphere can be quantified.

(Courtesy IUCC (Information Unit on Climate Change), UNEP Global Environment Monitoring System. SHEHRI will, from time to time, carry facts on climate and the environment from fact sheets supplied by IUCC for the information of our readers.)

THE SEAGRASS LADY

Anitra Thorhaug put on face mask and fins, adjusted the tank of compressed air on her back, grasped a small plug of seagrass and plunged into the water. Six feet down in Manila Bay she dug a small hole in the bottom, then anchored the seagrass in the sand.

Because the water was badly polluted, the light was dim. Anitra had to use some cave-diving techniques - holding a lantern and reeling out a line so she would know where she was. She wore a wet suit as protection against the pollution and sewage and kicked her fins as little as possible to avoid disturbing toxic sediments. 'This is diving by Braille', she thought.

Three local fishermen worked alongside Anitra, spacing the pollution-tolerant seagrass plugs a foot apart. By the end of their 12-hour shift, the four had planted one underwater acre.

As soon as the undersea farmers surfaced, they washed the debris off their wet suits and used antiseptic to kill viruses and bacteria on their faces and in their ears. Chemical poisons and disease-causing organisms made it unpleasant and conceivably dangerous work, but they were satisfied. Anitra hoped that within weeks the acre of seagrass would become a submerged meadow where shrimp and fish could graze again.

Anitra Thorhaug dives the world's harbours to transform barren coastal areas into submerged meadows. When power plants, harbour facilities or sewage treatment plants have polluted coastlines and killed marine life - even where chemical pollutants poison the water - she tries to repair coastal ecosystems with seagrass and sometimes with mangrove trees. As a result of her work, more than 1,000 new acres of submerged meadows grow in several places in the world. In the Philippines her efforts have begun to reverse pollution and dredging damage, allowing the re-establishment of many fisheries. "And we need fish," Anitra says, "because we are running out of farmland."

A barren coast before seagrass planting

The grass has taken hold

Two years later, the same area is a thriving marsh

When power plants, harbour facilities or sewage treatment plants have polluted coastlines and killed marine life - even where chemical pollutants poison the water - she tries to repair coastal ecosystems with seagrass and sometimes with mangrove trees.

Anitra, a research scientist at Miami's Florida International University, has improved more than 50 acres at 20 different sites in Jamaica. In the Bahamas, she planted several seagrass farms and saw fish return there in just two months. She has also repaired various spots along the Florida coast.

Anitra's ecological expertise impressed representatives of Thailand. So they asked her to help with a major fisheries project in the southern river delta, where most of the country's fish are harvested. Diving in the river south of Bangkok, she found no signs of plant life. She suspected chemical contamination and took water samples to identify the pollution. Her diagnosis: poor soil management and runoff of hazardous chemicals had polluted the river, killing the natural seagrass that fed its ecosystem. Anitra found a seagrass that would tolerate the poisons and provide food and habitat for small clams, fish and other aquatic organisms.

In another section of the delta, mariculture ponds, built along much of the shoreline, were too infertile for shrimp. Anitra learned that mangroves had been cut to build the ponds. These trees are essential to the ecosystem because their decaying leaves enriched the soil and water, and their roots trapped soil, providing a landing place for algae that served as food for shrimp. Anitra revived the ponds by planting mangroves along their edges and seagrass on their floors.

As a student, while studying for her doctorate, Anitra spent many days in a small rowboat near shore and became curious about the seagrasses growing in the shallow, sunlit water. She knew these plants could provide a habitat for many different organisms and began to collect and study the grasses. After doing chemical tests on the water, she discovered which plants could or could not tolerate pollution. Little by little, she painstakingly built a "library" of seagrass species in her laboratory.

During the final year of her Ph.D. programme, Anitra surveyed the undersea life at Turkey Point, Florida, the future site of a nuclear power plant. After examining shallow water life such as crabs and clams for signs of stress, she predicted what would happen to sea life when nuclear plants were built. "I was concerned with mitigation of potentially toxic effects such as those caused by heat or heavy metals," she says. Wherever hot water was discharged by power plants, it damaged the natural ecosystem, causing some coastal creatures to grow more slowly and other species to disappear. As she thought about it, she became convinced that seagrass could re-create the system.

After she received her Ph.D., she began to do research on the effects of temperature and pollutants on tropical organisms. At Turkey Point she found that many of the sea creatures were disappearing, so she planted 3 1/2 acres of seed in the sea floor. It was her first successful large-scale project. Within days she saw a few fish. Six months later, clams and crustaceans were thriving in a seagrass meadow. "When we build a house, we landscape around it," she says. "After constructing a power plant or a port, we should replant the disturbed area."

Like prairie grass, seagrass has a tremendous root system that reaches down four of five feet. This, plus the ability to spread laterally, allows the plant to eventually dominate other vegetation, including seaweeds (which are algae). Before choosing a species of seagrass, Anitra determines what lived in an ecosystem before it was damaged. Then she asks herself, 'what kind of seagrass would make the best nursery?' When the area has ongoing pollution, she plants a species that will withstand the pollution.

Anitra is also investigating how seagrass is damaged by oil spills and testing oil dispersants - chemicals that break up the oil so it washes away with the tide - to save coastlines and shallow marine ecosystems.

"She is passionately committed to the care of the oceans," says Noel Brown, director of UNEP. "She is a remarkable scientist who is always trying to break new ground." The "seagrass lady" simply says, "I feel I am helping to heal the earth."

(By Isabel S. Abrams - Courtesy Reader's Digest)

'VANISHING KARACHI' - A JOINT FORUM ON THE STATUS OF OUR ARCHITECTURAL HERITAGE

A seminar on the above topic was organised by SHEHRI-CBE on 7th November 1992. SHEHRI felt that it was very necessary for concerned organisations and individuals to get together in order to highlight the need to preserve and protect our buildings and culture. All of Pakistan and the city of Karachi in particular have been subject to rampant growth and commercialisation, very often at the expense of our architectural heritage - a trend which must stop if we are to preserve anything of our past values and traditions.

The seminar was held at Frere Hall, which is a protected building itself, built in the Venetian Gothic style in 1865. The venue served to remind everyone of the important task at hand.

The panelists at the Seminar are (from left to right): Mr. Qazi Faez Isa, Mr. Danish Azar Zuby, Mr. Syed Zaigham S. Jaffery, Mr. Sabahat Ali Khan, Mr. Shabbar Siddiqi and Mr. Cyrus Cowasjee.

Mr. Danish Azar Zuby, head of the SHEHRI Architectural Heritage sub-committee gave the welcome address in which he cited Karachi as a classic example of mismanagement. There is a lack of coordination amongst the authorities and a sense of general apathy amongst our citizens with the greed for commercialisation taking precedence over the need for preservation. Other speakers were Mr. Shabbar Siddiqi, D.G. Tech. Services KMC, Prof. Kausar Bashir Ahmed and Mr. Humair Ahmad of Dawood College of Engg. & Technology (both SHEHRI members). Qazi Faez Isa, head of our Legal sub-committee, gave the legal aspects of conservation along with a slide presentation and Mr. Cyrus Cowasjee, owner of Mules Mansion, a valuable old building, gave his point of view. The keynote address was read out by Ms. Humaira Rahman, Gen. Secretary SHEHRI-CBE, in the absence of Mr. Abu Shamim Ariff and was greatly appreciated. In it, Mr. Ariff traced the growth of Karachi, both demographically and commercially, over the past 1 1/2 centuries to the present day and outlined some measures that could be taken to promote conservation. Mr. Zaigham S. Jaffery, Director KDA Design Bureau, acted as Moderator for the seminar.

Mr. Sabahat Ali Khan, D.G. KDA, summed up the proceedings and gave prizes to the winners of the 'Duarte Mansion' competition organised by SHEHRI earlier this year. Students from DCET took part in this competition in which they had to reconstruct Duarte Mansion (a beautiful building in Saddar, Karachi, which has been torn down, with only the facade remaining) on paper, keeping the facade as it is. Several participants then expressed their own ideas and suggestions in the Qs. & Ans. session that was followed by tea.

SHEHRI hopes that this event will be the first step towards formulating a practical plan of

Continued on page 7

WHAT IS BIO DIVERSITY?

Biological diversity is the total variety of genetic strains, species and ecosystems. It is continually changing as evolution gives rise to new species, while new ecological conditions cause others to disappear. Human activities are now accelerating the depletion and extinction of species and changing the conditions for evolution and this is a matter of considerable concern. Bio diversity should be conserved as a matter of principle, because all species deserve respect regardless of their use to humanity and because they are all components of our life support system.

Plants and animals, evolving over hundreds of millions of years, have made the planet fit for the forms of life we know today. They help maintain the chemical balance of the Earth, and stabilize climate. They protect watersheds and renew soil. We are only beginning to understand these roles, and know too little about the relative importance of different ecosystems or of the species that compose them. All societies, urban and rural, industrial and non-industrial, continue to draw on a wide range of ecosystems, species and genetic variants to meet their ever-changing needs. They are the source of all biological wealth-supplying all of our food, much of our raw materials, a wide range of goods and services, and genetic materials for agriculture, medicine and industry worth billions of dollars per year.

Prudence dictates that we keep as much variety as possible. But natural diversity is more threatened now than since the extinction of the dinosaurs 65 million years ago. The trend is steadily downwards, as more habitats are converted to human uses. While we are still uncertain about how many species now exist, some experts calculate that if present trends continue, up to 25% of the world's species could become extinct, or be reduced to tiny remnants, by the middle of the next century. Many more species are losing a considerable part of their genetic variation.

The most threatened ecosystems-those with the smallest proportion remaining in a nearly natural condition- are those of fresh waters, wetlands, coral reefs, oceanic islands, Mediterranean-climate areas, temperate rain forests, temperate grasslands, tropical dry forests, and tropical moist forests. Since tropical moist forests contain the greatest proportion of the world's species, their continuing destruction will cause the biggest losses.

(Caring for the Earth- A Strategy for Sustainable Living)

JHEEL PARK PROJECT

A large part of Jheel Park Lake is overrun with weeds, with garbage lying around it. Photograph: F. Anwar/A. Hussain

As the first project for our Parks and Recreation sub-committee, SHEHRI-CBE has undertaken the renovation of Jheel Park in P.E.C.H.S., Karachi. With the involvement of many interested residents of the area, a 'Citizens/ Residents Association of P.E.C.H.S.' has been formed to lobby for the renovation of the park. They will also lobby for the establishment of a Ladies' Park on the premises, which was part of the original plan, whose entrance has been occupied by Bungalow No. 43-11-E, Block-6 of P.E.C.H.S.

Two members of SHEHRI, Mr. Farhan Anwar and Mr. Aazim Hussain, both engineers, have submitted a report on Jheel Park in which they have put forward several proposals for the upliftment of the park in order to provide better facilities to visitors. Mr. Saleem Khan, the former Administrator of ZMC East and present Commissioner of Karachi, visited the SHEHRI office to see this report and SHEHRI will be working with ZMC East on this project. So far the area of Jheel Park facing Tariq Road has been cleared of garbage and hoardings.

"OUR HOMES ARE EXPOSED TO LEAD POISONING"

Our homes and residents are exposed to the hazards of lead poisoning, as the paints used in our homes in Pakistan contain lead". This was stated by Professor Dr. Rehan Tayab (Member SHEHRI) of the Institute of Environmental Engineering and Research, while speaking at a seminar on World Environment Day. Dr. Rehan Tayab said that paint has a big impact on our environment. Its waste contains lead, and children, if exposed to lead fumes, can get lead poisoning.

Dr. Tayab proposed that instead of lead paints, emulsion paints or water paints should be used. He said the use of tissue paper should be discouraged and we should use water for cleaning our hands. He also said that washing powder with phosphates and nitrates, when discharged, acts as a fertilizer for uncontrolled growth of algae and other water plants, which interfere with normal marine life. We should use nitrogen-free detergents. Speaking on the subject of plastic bags, Dr. Tayab said that they are not bio-degradable. They are non-renewable resources and ruin the environment. Therefore we should use recycled paper bags and reusable plastic bags.

(NED Varsity News Sep. 1992)

CONGRATULATIONS, AGHA'S SUPERMARKET!

It seems that Agha's Supermarket (one of Karachi's best-known supermarkets) has turned environment-friendly. When one of our SHEHRI members was presented with an eco-friendly paper bag instead of a plastic one and asked the reason for this, the reply was "For environmental reasons." We hope that other shops will follow suit so that we can put an end to the plastic bag invasion once and for all.

RESOLUTION AGAINST RELIGION COLUMN ON I.D. CARDS

"The recent proposal by the government to introduce a separate column for religion on National Identity Cards is totally unacceptable to non-governmental organisations". This view was endorsed by representatives of: SHEHRI-CBE, Alfalah Volunteers Trust, Poor Families Welfare Society, IUCN, SCOPE, Edhi Foundation, LHRLA, KAWWS, PILER, WAF, HRCP, WWF, Baanhn Beli and several other NGOs.

GERMAN MINISTER ADVOCATES SETTING UP INTERNATIONAL CRIMINAL COURT

German Federal Minister for Ecological Affairs and Environment, Mr. Toepfer, in a speech before the UN General Assembly in New York, advocated the setting up of an international criminal court which could try crimes like genocide, serious violations against human rights as well as harm to the environment. He also advised the formation of a UN "Green Beret" commando. Minister Toepfer announced that the Federal Government would pass the ratification law according to the Rio Climate convention and pass it on directly to the German Bundestag.

'VANISHING KARACHI' - A JOINT FORUM ON THE STATUS OF OUR ARCHITECTURAL HERITAGE *(Continued from Pg 6)*

action that will bring all concerned departments, organisations and individuals together to work for this important cause.

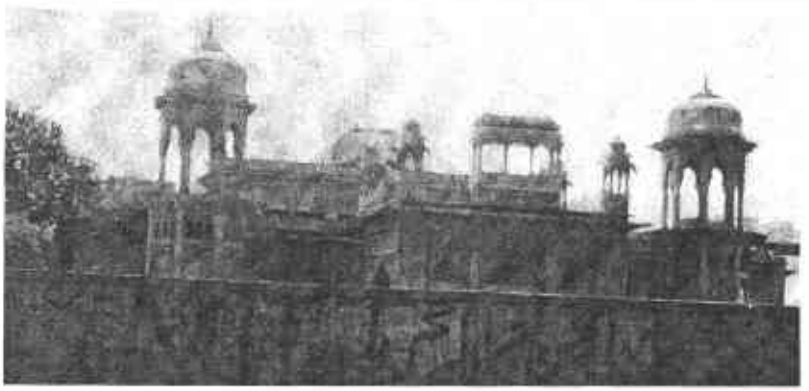
At the seminar, the foll. Recommendations were adopted unanimously:

1. That the committee for protection of historic buildings be reactivated and strengthened.

2. That in addition to the limited number of 44 buildings, a number of other buildings that are in need of immediate protection should be added to the list.

3. That the need should be realised to add historic areas to the Protected list for conservation of our architectural and urban heritage.

4. That there is an urgent need to coordinate the number of authorities and organisations that are responsible for managing the growth of Karachi and create a homogeneity of aims and strategy.



The Hindu Gymkhana, one of the most beautiful buildings in Karachi is badly neglected. It should be renovated and the ugly wall hiding it from view should be replaced by an iron fence.
Photograph: courtesy Ahsan Halim.

5. That the local authority should establish a monitoring cell for coordinating the work of various agencies.

6. That urban design should be given due consideration in connection with the saving of our heritage.

7. That the bye-laws, rules and regulations related to architectural conservation should be further strengthened and strictly implemented.

8. That special concessions should be granted to the owners of old buildings who take an interest in the upkeep and maintenance of historic buildings.

9. Owners of buildings placed on the Protected list should be legally informed through notices that their buildings have been placed on said list.

10. Legal action should be taken against those owners and architects who demolish buildings which have been declared as historic.

11. No Objection Certificate (NOC) for dangerous buildings by concerned agencies should only be granted with respect to historic buildings after thorough investigation. In cases, where possible, facades of buildings having historical significance should be maintained.

12. All public buildings should have compulsory space for parking and other necessary facilities.

13. Television and newspaper coverage should be given to buildings with historic significance.

OUR HERITAGE

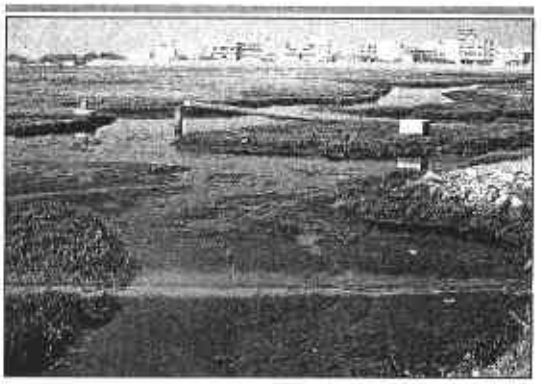
Duarte Mansion in Saddar, Karachi, had become a haven for drug addicts. Its beams of Burma Teak caught fire and the roof of the building collapsed after which the inner core of the building had to be demolished- now only the beautiful facade remains. Duarte Mansion could be rebuilt, keeping the original facade as it is- this was the idea behind the Design Competition organised by SHEHRI in which students of DCET (Dawood College of Engg. And Technology) participated. They had to rebuild Duarte Mansion (on paper) as a building for commercial use, keeping the original facade in mind, and the fact that the building is located in Saddar, one of Karachi's busiest commercial areas. The winner of the competition, Sarwat Viqar, submitted drawings in which she had converted the building into a shopping mall and offices.

MANGROVES UNDER THREAT

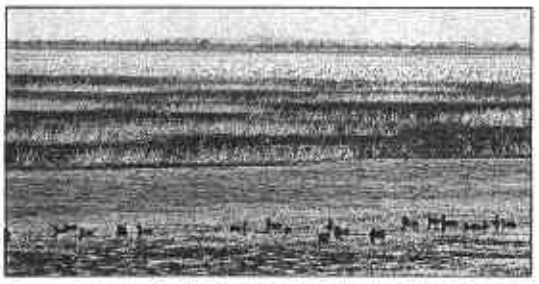
A donkey cart filled with mangroves which are used as fuel wood. Photograph courtesy WWF

Dams and irrigation barrages upstream of the Indus Delta have reduced the flow of fresh water and silt to the mangroves. The trees growing are more likely to be less dense and more stunted than they used to be. This is in addition to uncontrolled cutting for fuelwood and fodder, and browsing by camels. In the last 50 years, large areas of mangrove cover seem to have been lost.

Karachi's growth and increased industrialisation have also adversely affected the mangrove area. Domestic and industrial wastes from the city have encouraged the growth of seaweed, which is smothering young trees in the creeks near Karachi. The delicate balance of life in this system has changed: heavy metals and toxic contaminants have been found at higher than normal levels in fish and crustacea while overfishing and small-gauge nets- which catch even the smallest fish- have reduced fish populations. (IUCN Coastal Ecosystem Unit)



As mentioned in our cover story, there is extensive pollution along the coastline of Karachi. Photograph courtesy WWF



Haleji Lake is a stopover for many migratory bird species. Photograph courtesy WWF

HALEJI LAKE

Haleji Lake, one of Sindh's foremost wildlife sanctuaries, was recently violated by a fishing contractor, with the approval of officials of the Karachi Water and Sewerage Board. It seems that greed overshadows even the laws of conservation and protection which are supposed to apply to the Lake which is the home of numerous fish and aquatic species as well as a stop-over for migratory birds.

PLANT A TREE

Trees have a very special and important part to play in the equation of global warming. The growth of trees is the only process that actually reduces atmospheric carbon dioxide. Tree plantation is an effective way to fight the Greenhouse effect.

Remember:

* The average Pakistani uses 7 trees a year.
* By consuming carbon dioxide plants mitigate the greenhouse effect.
* Loss of a tree not only reduces carbon dioxide consumption but also releases carbon dioxide stored in the tree.
* By providing shade and evaporative cooling, trees also affect the local temperature.
* Each year 27 million acres of tropical rain forest are destroyed.
* Planting trees controls soil erosion and desertification.
* One in four pharmaceuticals comes from trees.

Actions to take:

* If you would like to plant a tree, visit a local nursery or horticultural society.
* Talk to friends and launch a community-wide planting effort.
* If 100,000 people each plant a tree this year, the tree will still be absorbing millions of pounds of carbon dioxide annually. If the same people plant a tree every year from now until the year 2000, the trees will absorb over 15 million lbs of carbon dioxide in that year.

By Dr. Rehan Tayab

The U.S. has
5%
of the world's population. It uses
25%
of the world's energy, emits
22%
of all CO_2 produced and accounts for
25%
of the world's GNP

In the past decade, levels of stratospheric ozone, which shields living things from harmful ultraviolet radiation, have declined 4% to 8% in the northern and southern hemisphere.

INDIA has
16%
of the world's population. It uses
3%
of the world's energy, emits
3%
of all CO_2 produced and accounts for
1%
of the world's GNP.

Because of drought, desertification, erosion and population growth, per capita grain production in Africa has dropped 28% since 1967.

EARTH ALERT

In the past decade, tropical-forest area has shrunk from 4.2 to 4.2 billion acres (1.9 to 1.7 billion hectares). (Source: World Resources Institution)

In the past 20 years, as many as 1 million species have vanished from the world's tropical forests. (Source: E.O. Wilson)

Courtesy: TIME Magazine