



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

October - December 1998 Vol. 8/No. 4

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Towards a Metropolitan Police System in Karachi

The 'Gun Free Society' campaign, jointly launched by Shehri-CBE, CPLC and HRCF seems to have had a trigger effect. Efforts to de-weaponise the city and putting in place a 'Metropolitan Police System', in Karachi are taking concrete shape. This initiative can only succeed with the active involvement and participation of the civil society, and the putting in place of a strong metropolitan government

Learning from the Colombian Experience

In the last week of October, 1998, the Government of Pakistan decided to embark upon a package of reforms to improve the security climate and living conditions in Karachi. The government started by imposing *Governors Rule* in the Province of Sindh. In a meeting called to discuss the law and order situation, which was presided over by the Prime Minister of Pakistan, it was decided to seek assistance from international organizations, as well as



Can the metropolitan police extinguish the raging fire in Karachi?

from friendly countries, having experience in facing similar law and order situations. The task to seek and co-ordinate such assistance was entrusted to the Governor of Sindh, who is the constitutional head of the province and of the Citizens - Police Liaison Committee (CPLC).

In pursuance of these decisions the CPLC approached the United Nations Development

Programme (UNDP), seeking their guidance in the matter. The Governor of Sindh, Mr. Moinuddin Haider had previously discussed with the Chief of the UNDP Governance Unit, the relevance of the learning experiences accumulated with regard to peace processes, organized crime fighting and citizen security in the Republic of Colombia.

Consequently, a mission comprising of Dr. Dario Barbarena, Co-ordinator, Office of the High Commission for Peace, Presidency of the Republic of Colombia (Ex-Director, Plan for National Rehabilitation and ex-Secretary of Popular Integration, Presidency of the Republic), Mr. Edger Suarez, Advisor, Office of the High Commission for Peace, Presidency of the Republic of Colombia (Ex-Chief of Police) and Dr. Paul Oquist, Chief of Governance Unit, UNDP / Pakistan arrived in Karachi on the 23rd of November 1998.

Salient features of the proposed KMPD

KMPD shall be headed by an Inspector General of Police (IGP).

KMPD Chief shall be responsible to a Public Safety Commission comprising the following:

- a. Chief Minister or his nominee to be the Chairman.
- b. One MPA from the Treasury to be nominated by Leader of the House.
- c. One MPA from opposition to be nominated by Leader of the Opposition.
- d. Five members from amongst eminent professionals to be nominated by the Governor.
- e. CPLC Chief as ex-officio member.

The Commission itself as a body would be under the guidance and control of the Chief Minister (Provincial Govt). The Chief Minister or his nominee has been proposed to head the Commission. The commission is expected to place its annual performance before the Provin-

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Interested contributors should contact the SHEHRI office for writers guidelines. SHEHRI newsletter readership is from students, professionals, environmentalists, policy makers, NGOs and other organizations.

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EDITORIAL**Death of an Institution**

To say that the murder of Hakim Said has deprived the nation of a great benefactor and 'Hamdard'

(well wisher) is to state the obvious. In actual fact, in his death, the nation has lost an institution.

For amidst the crumbling institutional framework of the state, they are individuals like Hakim Said, Maulana Edhi, Akhtar Hameed Khan and Dr. Adeb-ul-Hasan Rizvi, to name a few, who are filling to some extent this administrative gap.



This is unfortunate, for the beginnings were very promising. It is a historical fact that our country was born on the 27th of Ramazan, based on the ideology of Islam—a religion whose early followers were the primary builders of many institutions of the state which now form integral pillars of modern age's administrative structures. Hakim Sahib was one such person who knew the importance of institution building. He was first and foremost a man of action, who had the capacity (for which he was ever thankful to God Almighty) of translating his dreams and visions into concrete reality. He possessed numerous valued facets to his impressive personality. Provision of health services and quality education for his fellow countrymen were his priorities, which he pursued with great vigor. But for many, his supreme lasting legacy was that he devoted much of his time towards caring for the most neglected segment of our society - our children.

In any civilized society, children are considered VVIP's and are looked after in a manner commensurate with their exalted status in society. Reasons are obvious. They are quite simply, the nations future. Hakim Sahib cared for children from the bottom of his heart

and always found the time to write for them.

It is often said that producing literature for children is the most difficult of literary assignment. Hakim Sahib achieved this objective with such ease and facility that young minds instantly related with and learnt from his educative and character building writings. He wanted to develop a model Pakistani, aware and respectful of his/her religious and eastern values and capable of

blending them with the requirements of the present age. Of late, he had moved from character building to putting in place modern, state of the art educational services for the youth of the country.

Now that Hakim Sahib is no more amongst us, who will further this legacy. Do we, as common citizens comprehend that this most precious of resources is going to waste. Or is the state even aware of its awesome responsibility of nurturing and developing the 'Pakistani Child'?

On the untimely death of his adopted son, Zain-ul-Abden Khan Arif, Mirza Asadullah Khan Ghalib wrote a moving and poignant elegy, worth its weight in gold (as is the case with all of Ghalib's work). A couplet from that elegy goes a long way in illustrating our profound grief. □

جاتے ہوئے کہتے ہو قیامت کو ملیں گے

کیا خوب قیامت کا ہے گویا کوئی دن اور



The main objective of the mission was to prepare recommendations for the Karachi Peace Process based on international learning experiences, from the perspectives of national actors and stakeholders. Following field work and preparation of preliminary report in Karachi, the final report was to be compiled in Colombia by the 21st of December, 1998.

On the 25th of November, 1998, the Colombian mission was introduced to the press and noted citizen organizations and agencies in a local hotel by Mr Jameel Yusuf, Chief of CPLC. Shehri-CBE was among the selected group of invitees.

Dr. Dario Barbarena in response to several questions put to the Colombian experts, gave a briefing on this occasion about the aims and objectives of their mission. He gave an insight into their work in Colombia. He said that Bogota, the capital city of Colombia is inhabited by about 9 million people, out of which 60% live in illegal settlements. When they started their work in Bogota, their aim was to enforce the rule of law by ensuring justice and equality. In Colombia the national police is controlled by the military. Dr. Barbarena said that they were trying to push for a 'Metropolitan Police System'. He informed that presently municipalities are financing the policing system in certain areas, which he termed as "the first step towards Metropolitan Policing", which is people friendly and responsive to their

needs and concerns.

Tracing the history of the crisis, he said that once policemen and school teachers were symbols of public respect. However, from the 50's, onwards the police became politicised as it was used by successive political governments to suppress the opposition. This practice continued till the imposition of martial law. In addition, other problems emerged which further aggravated the situation. These included political violence, guerrilla

warfare, drug mafia and social violence.

Presently, there is social inequality in the system, as European influenced sections dominate while the blacks and the Indians are the marginalized and victimised sections of society. Most of them find refuge in cultural activities. Dr. Barbarena informed that about 6 years ago the annual homicide rate in Bogota was about 9000, out of which, it was found that 10% related to guerilla movement activities, 10% due to infightings among drug cartels and 80% were common crimes. Due to the efforts of the High Commission for Peace, aided by the civil society, the rate was last year brought down to 2800.

In the de-weaponisation programme and in the efforts to reduce corruption levels, the active involvement of the civil society was the prime facilitating factor. The city of Bogota has been

divided into 20 sub divisions to further decentralize and enhance the community development and participation process.

An interesting fact was highlighted by Dr. Barbarena, when he said that even business groups have contributed in the process of rehabilitation. In the Kali area, business groups have worked for the rehabilitation of 'Aqueous Blancos', a tough neighbourhood inhabited by the marginalised sectors of the Colombian society.

Dr. Dario Barbarena identified various new initiatives taken in Colombia. He said that their *Witness Protection Programme* has proven very successful, as has the programme of '*Judges Without Faces*'. The experiment of introducing *Local Courts* has also yielded positive results.

Dr. Barbarena laid great stress on the positive role played by the NGO's in this regard. He said that in 1992 a new constitution was passed due to NGO pressure. In the municipal elections a '*vote for peace*', in Colombia was taken owing to pressure from NGO's. He informed that now NGO's can execute about 10% to 15% of the municipal budget.

He cited a particular case when the death of a girl in a police station resulted in the formation of a '*Commission*', to put forward recommendations for police reforms. Businessmen, academics, NGO's and lawyers were represented on the commission. A law was formulated as a result of the findings of the commission in which specific kinds of police malpractices were identified. It was decided that only a high school graduate could become a policeman.

Also, an '*Adult Education Programme*', was initiated for



existing staff. In Colombia there is necessary military service. Option was provided to undertake police service as an alternative to military service. This policy attracted a lot of youth towards police from good backgrounds. Salary levels of policemen were also increased.

Dr. Dario also lauded the role played by academic institutions. He said universities have been involved to educate police towards their role in the society. This police staff was required to go to universities for training and education. A 'School for Police Training', has also

been opened.

Dr. Dario said that "Alliance Against Crime" the present peace movement in Colombia has posed two questions to all sectors of Colombian society.

1. How can each sector of society contribute to the peace process.
2. Where do they see themselves and Colombia, thirty years down the road.

Dr. Edgar Saurez also briefly spoke on the modalities of the implementation of the ongoing peace programme. The Colombia experts

said that in Karachi also, the rehabilitation of the public institutions should be spearheaded by civil society, which is a learning and evolving process.

Mr. Jameel Yusuf stressed the importance of communities and citizen organizations and said that the process of de-weaponization constitutes only a short term policy in the overall drive for peace in Karachi. He mentioned the viability of the Japanese model for Karachi and stressed the urgent need of putting in place a metropolitan police system in Karachi.

Salient features of the proposed KMPD (Cont.)

cial Assembly for its evaluation and future guidance. The responsibilities of maintenance of law and order will continue to rest with the Provincial Government.

The proposed system provides for a single control system of the Provincial Govt. through the *Public Safety Commission*. Members will not act as individuals and will only act as a unified body.

- The screening of corrupt and inefficient members of Police is a requirement of any system. Better mechanism will be provided by the Metropolitan Public Safety Commission.
- Checks and balances have been proposed at all levels through a linear chain of command.
- The Office of the Chief KMPD will provide the Secretariat of Public Safety Commission. The Commission will have the same linkages with the Provincial Govt. as other commissions (e.g. Public Service Commission).
- The *Metropolitan Police Act* envisages the creation of an inde-

pendent prosecution service.

- The proposed Metropolitan Act lays down responsibilities and powers of the police officers to deal with the unlawful assemblies and processions. Necessary amendments in CrPC have been proposed.
- The proposed system gives only such Magisterial powers to the police officers of KMPD which are necessary to deal with unlawful assemblies and agitation. The remaining Magisterial powers of the District Magistrate shall rest with the competent courts.
- KMPD in co-ordination with the Relief Commissioner will provide help and relief.
- Separation of judiciary from the executive is an internationally accepted principle. This has also been incorporated in the Constitution. The implementation of this principle has not resulted in the breakdown of Administration in any country. Metropolitan system of policing is functioning successfully in many countries.



Jameel Yusuf of CPLC:
Fighting against heavy odds

- Any system of policing has to be supported by an efficient, responsive and independent (not subordinate) judiciary for efficient administration of criminal justice system.
- Necessary rules relating to horizontal mobilities shall be framed by the Public Safety Commission in consultation with the IGP Sindh.

The system may be implemented as per following plan:

Phase-I

1. Promulgation of Karachi



- Metropolitan Police Act/
Ordinance.
2. Formation of Karachi Metropolitan Public Safety Commission.
 3. Selection/designation of KMPD Chief.
 4. Establish Secretariat of the Commission in the KMPD Headquarters.
 5. Fine tune the relevant laws and the proposed amendments in Cr. P.C. Evidence Act, Traffic Laws.
 6. Organise functional/branches of KMPD i.e. CID, Administration, Special Branch, Central Reserves etc.
 7. Apportion assets and liabilities between KMPD and the remaining Sindh Police.
 8. Re-organizing operational units i.e. Police Stations/Police Division.
 9. Work out the manpower

- required for various units and distribute existing human/physical resources.
10. Impart the training of behavioural and attitude changes.

Phase-II:

1. Take measures to weed out corrupt and inefficient elements on war footings.
2. Revamp the police by:
 - i) Procuring operational vehicles.
 - ii) Procuring Communication and Computer equipment.
 - iii) Procuring Forensic Science Laboratory equipment.
 - iv) Procuring Anti-Riots equipment, Arms and Ammunition.
3. Recruiting against existing vacancies as per policy framed by the Karachi Metropolitan Public Safety Commission.

4. Take steps to rectify Officers-Subordinate ratio.
5. Upgrade and equip training schools to impart training on modern lines.
6. Computer Networking.
7. Develop Data Bank relating to all subjects.
8. Establishment of Forensic Lab for KMPD.

Phase-III

1. Restructuring judiciary for speedy dispensation of justice.
2. Recorganize/reform prisons system. □

(Note: The salient features of the KMPD have been extracted from the publicised "Proposed Metropolitan Police Setup", in daily DAWN, October 21, 1998, and can be subject to change - Ed)

Congratulations!



Dr. Rene Klaff, formerly the Country Representative of Friedrich Naumann Foundation (FNF) in Pakistan has now joined the United Nations of Germany, as its General Secretary. During his stay in Pakistan, Shehri-CBE as a local partner of FNF, gained much from his experience and insight in mobilizing individual and collective efforts for the benefit of the civil society as a whole. The strong and mutually beneficial partnership which has been fostered over the years between FNF and Shehri owes much to the efforts and initiatives of Dr. Klaff. Shehri management/staff and members extend their hearty felicitations to Dr. Rene Klaff on the assumption of the important office of General Secretary of the United Nations of Germany and wish him all the success in his future pursuits. □



SHEHRI ACTIVITIES

Seminar on the 'Transportation Sector' in Karachi

A seminar on the 'Transportation Sector' in Karachi was held by Shehri-CBE in collaboration with the Friedrich Naumann Foundation on the 14th of November 1998, at Hotel Marriott, Karachi.

The focus of the seminar was on the public transport system in Karachi, (being run by the private sector!). The concept of the seminar was to discuss among other things, the setting in place of a rational fare structure, acceptable to the general public, transporters and the government agencies managing the transport system in Karachi.

It was also asked of the transporters to come up with such a fare structure, which would not be a burden on the public and at the same time ensure that the public received a high standard of service. For this purpose a detailed questionnaire was also circulated among the transporters prior to the seminar. The concept for this seminar was prepared by Mr. Navaid Husain, a member of the Managing Committee of Shehri-CBE.

On the seminar day Ms. Amber Ali Bhai and Mr. Farhan Anwar, acting as joint seminar moderators highlighted the aims and objectives of the seminar.

Mr. Shafiq Paracha, Commissioner, Karachi Division, said that the transportation sector in Karachi was faced with many problems. Traffic jams on roads meant lost productivity in time and money, which was a national loss. Overcrowding in buses and coaches was another issue. Mr. Paracha also blamed the public for their



Mr. Shafiq Paracha, Commissioner Karachi Division, being welcomed to the seminar by the Shehri team

apathy and failure to stand up and demand what was for the common good of all the citizens.

He praised the role of Shehri, which he said was an organization working to remove the apathy among the public and making them aware of their rights and responsibilities.

Mr. Masood Iqbal Qureshi, Secretary, Regional Transport Authority, said that research has shown that the common man, at an average spends 10% of his monthly income on transportation related expenses. As such, he felt that any increase in fares would result in public anger and disapproval. He said that the government was trying to improve the conditions of public transport. In this regard, he cited the decision to have proper partitioned seating for ladies in buses.

Mr. Malik Zaheer-ul-Islam, Director General Traffic Engineering Bureau (TEB), informed the participants that their were 10 lac registered vehicles in Karachi out of which 82.3% were private cars and vehicles, which showed that public transport was not an attractive option in Karachi.

Mr. Islam said that in 1971 a 'Free Transport Policy' was introduced in Karachi whereby anyone could bring buses/mini buses on the road. Presently there were 110 classified bus routes out of which



(L-R) Mr. Masood Iqbal Qureshi, Mr. Malik Zaheer-ul-Islam, Mr. Irshad Bukhari and Mr. Tehmas Malik



buses were plying only on 48 routes! He proposed the introduction of a 'Composite Transport Policy' in place of a 'Free Transport Policy'. Absence of proper bus terminals was another problem.

Mr. Islam informed the seminar participants that a scheme was underway in which 32 plots were to be converted into 'Bus Terminals'. Out of these 32 sites, 18 were to be operated by KDA, 12 by KMC and 2 by DHA.

Malik Zaheer-ul-Islam, also stressed the need of constructing by passes so that heavy commercial traffic could be diverted. He gave details of TEB's work in improving various roundabouts in the city.

Mr. Mohammad Tehmas Malik, said that the very low fare structures were the main cause of the bad state public transport was in. He said that transporters in Karachi were being treated unjustly as the fare structure in other parts of the country was much more rational than it was in

Karachi. He said that because of unjust government policies, new investment was impossible. Mr. Malik said that there was a ban on introducing new mini buses since 1985. Non availability of loan facility was another hindrance.

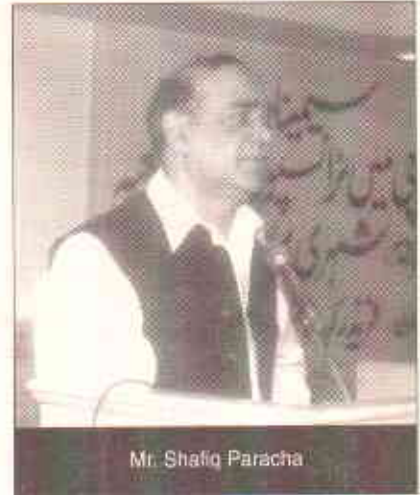
Mr. Islam informed the seminar participants that a scheme was underway in which 32 plots were to be converted into 'Bus Terminals'. Out of these 32 sites, 18 were to be operated by KDA, 12 by KMC and 2 by DHA.

Another major concern of transporters, said Mr. Malik was the issue of compensation of vehicles burnt during frequent rioting and strikes in the city. he said that 25,000 private buses have been burnt so far for which minimum or no compensation has been provided.

He also deplored the improper behavior of traffic police and the 'Bhatta' system. Bad

conditions of roads also contributed towards damaging the vehicles.

The speeches were followed by an extremely interactive question and answer and dialogue session. The general participants raised various issues of public concern with the speakers, which included, overloading and rash driving and the use of pressure horns and



Mr. Shafiq Paracha

playing of music in buses. Need for observing traffic rules, such as the respect of the right of pedestrian on Zebra crossings was also highlighted.

Malik Zaheer put forward various proposals such as franchising of routes (as was being done in Lahore) and tendering system for profitable routes such as Landhi - Tower. The transporters dispelled the impression that they were against the Karachi Mass Transit Project. The transporters also demanded that the fares should atleast be increased three times from the present rates.

In the end Mr. Farhan Anwar concluded the workshop proceedings with a vote of thanks to the speakers and participants. □



A question for the panel members



Ms. Amber Ali Bhal and Mr. Farhan Anwar

Seminar on the 'Housing Sector in Karachi: Strategies for Sustainable Development'

A seminar on the 'Housing Sector in Karachi: Strategies for Sustainable Development', was held by Shehri-CBE in collaboration with the Friedrich-Naumann-Foundation, on November 28, 1998 at Hotel Marriott, Karachi.

Mr. Farhan Anwar, of Shehri-CBE, who acted as Seminar Moderator outlined the aims and objectives of the seminar and provided an overview of the Housing Sector in Karachi. He said that a growing and healthy housing sector was indicative of the overall prosperous economic growth of the country. He deplored the fact that the Karachi Development Authority (KDA) for long had been failing to provide this service to the residents of Karachi.

He identified the role of the builders as very important, as it was the builders who were facilitating access to adequate housing to the residents. Mr. Anwar however, felt that in so doing, the builder community was proving guilty of violating existing building laws and regulations. He also asked for the updating of the laws.

Mr. Anwar lauded that role of organizations like Orangi Pilot Project (OPP) who were facilitat-

ing access to adequate housing to millions of inhabitants in squatter settlements like Orangi.

He also spoke of the need of strengthening the role of House Building Finance Corporation (HBFC) so that its policies could



The housing sector in focus

become people friendly and its reach is enhanced.

Mr. Abdul Moid Khan, Deputy Managing Director, HBFC spoke about the role and responsibilities of HBFC. He stressed the need of financial strengthening of the organization so that its services could be accessible to a large percentage of the population.

Ms. Perveen Rehman, Director, Orangi Pilot Project (OPP) informed the seminar participants that now in practical terms there is no difference between the formal and informal sectors. She said that presently 60% of Karachi's population resides in 'Katchi Abadies'. She termed the development initiatives taking place in places like Orangi as 'Peoples Alternatives'.

Ms. Rehman gave a historical perspective of the growth of Katchi Abadi's in Karachi, which she said had started with the influx of refugees in 1947, when places like Lines Area, Bazzerta Lines and Barracks were converted into housing colonies.

The next watershed was the 'Green Revolution' during Ayub Khan's era when settlements like Korangi, Landhi and Baldia were formed where industrial workers used to live.

Ms. Rehman pointed out some planning defects when she said that KDA schemes like Metroville,



(L-R) Mr. Tasneem Ahmed Siddiqui, Mr. Allah Rakha Aasi, Mr. Abdul Moid Khan and Mr. Firdous Shamim



meant to house low income groups are actually housing people belonging to the middle income bracket.

She said that in the absence of government role, characters like the 'Dallal' (Middle Man) and 'Thalle Walla' (Block Maker) are playing the role of providers of land and housing material.

Ms. Rehman informed that huge amounts of money has been invested in these so called 'Katchi Abadis', as 6000 out of the 7000 lanes in Orangi are served by sewer lines! She also lauded the role of Sindh Katchi Abadi Authority (SKAA) in improving the lot of squatters and stressed the need of the involvement of professionals in providing services in the informal sector by providing social and technical guidance, as was being done by OPP.

Mr. Firdous Shamim Naqvi, representing the Association of Builders and Developers (ABAD) said that we need to reduce the number of Katchi Abadis rather than wait for them to increase. He deplored the fact that while there was a short fall of 7 million housing units annually in Karachi, only 50,000 new units were being built every year.

He discussed in detail the role being played by ABAD and the

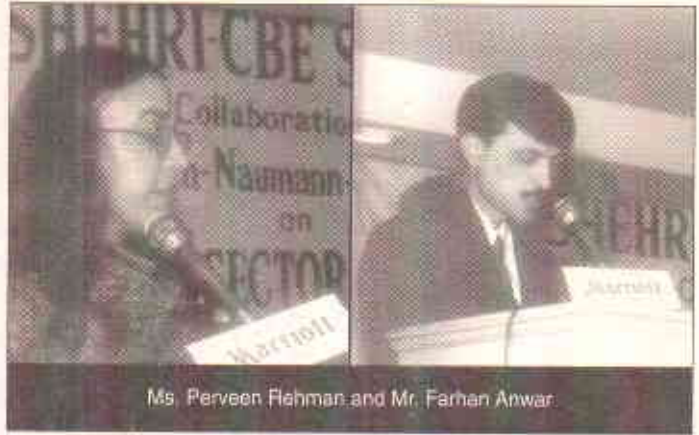
problems being faced by the builders. He said that there was no acceptable 'National Housing Policy'. Mr. Naqvi said that apart from Karachi

very little land was owned by the government in other parts of the country and the builders have to first buy the land at exorbitant rates before going for construction which automatically raises the price of the housing unit.

Lack of infrastructure is another inhibiting factor. He said that there are so many departments and agencies in Karachi that most projects fail because of interdepartmental clashes. He cited the example of Scheme # 33, which failed due to non cooperation between KW&SB and KDA. He said that till this date there is no grid station in scheme # 33!

Mr. Naqvi gave various suggestions for improving the functioning of the housing sector. He said that first government should acquire land and then provide it to the private sector so that the cost factor is brought down. Infrastructure development should precede the development of housing facilities.

Mr. Naqvi stressed the need of building satellite towns. He also said that the cost of construction material should be brought down and the housing sector should be recognized by the govern-



Ms. Perveen Rehman and Mr. Farhan Anwar.

ment as an industry.

Mr. Allah Rakha Aasi, Director General, KDA agreed that a more active role of KDA was needed in the housing sector. He said that the issuance of licenses to builders was done through a transparent process and all the rules and regulations were followed in this regard. Mr. Aasi said that he was open to suggestions from all sectors of society on how the functioning of KDA could be improved to bring it in line with the demands and aspirations of the public.

Mr. Tasneem Ahmed Siddiqui, Director General, Sindh Katchi Abadi Authority (SKAA), in his address said that the aim should be to provide affordable housing to the public. He said that the government has a vital role to play in this sector. In this regard he cited the example of 'Khuda Ki Busti' project of the Hyderabad Development Authority (HDA) in which the people were provided cheap housing by the government.

The speeches were followed by an interactive dialogue and question and answers session. Mr. Farhan Anwar concluded the seminar with a vote of thanks to the speakers and the participants. □



A captive audience



TRANSPORTATION

Towards a better public transport system

Among the various factors plaguing our urban transport system is the deplorable state of public transport. Navaid Husain identifies various strategies which can be adopted to make public transport an attractive option for the people of Karachi.

We in Pakistan are faced with numerous problems. An extremely low level of industrial production leading to low level of workers, an extremely high birth rate thereby increasing the number of people in search of jobs which is keeping the income level very low. We, in fact will become the third largest country in population terms in the world at 358 million people in 50 years time!

All aspects of life i.e. work, housing, education and transport are related to the cost of wages of a country. In other words, in a crowded country like Japan, all the aspects inspite of it being overcrowded are much better than Pakistan. In Pakistan the problems are being made worse still by the population increase which if not halted is going to bring the country to its knees.

If we take the case of transport, we need to correlate the level of income with transport. Every one, the world over must pay for transport from his or her pocket which constitutes a portion of their earnings. It may be interesting for everyone to note that for example the same kind of bus will be carrying individuals from one place to another in Tokyo, London, Buenos Aires, Kenya or Karachi yet the costs will differ. For example it may cost us fifteen pounds i.e. rupees one thousand five in London yet only rupees twenty in Karachi to travel the same distance, why? The buses are the same, although in London

the passengers sit in comfort yet why this astronomical difference between the tickets?

The price of petrol in London may be double of Karachi but why the difference between fifteen hundred rupees and rupees twenty for the same distance traveled? Firstly the bus driver gets twenty times the salary compared to the one in Karachi. Secondly the bus driver in London will follow all the traffic rules and codes irrespective of the fact that the owner might tell him not to. In Karachi the buses may be falling apart and crammed with passengers, overtaking each other at breath taking speeds but it still does not explain the huge difference in tickets.

But it might be worthwhile pointing out that the bus driver in London is not stuffing his pocket with say a thousand pounds a month i.e. a hundred thousand rupees. In fact these hundred thousand rupees go directly or indirectly towards a lot of things which make life livable there. Better education, housing and amongst other things indirectly, towards better traffic on the road. You might ask how does it make traffic better? It makes traffic better because the taxes on the income of one hundred thousand are taken up in a small part by the traffic planning department, higher salaries for the policemen on the road, better facilities for the urban planning bureau. In other words the taxes go towards promoting better salaries for everyone and in turn when every-

one gets higher salaries the quality of life improves.

The difference in ticket prices is to do with income levels of society as a whole. Because the levels of income are extremely low here, there is government pressure to keep transport prices to a bare minimum. Therefore every form of transport be it bus, rickshaw or taxis is at the lowest cost. For example taxi fare in UAE where taxis are duty free and the price of petrol one third of Pakistan, fares are higher than Pakistan. Why? This is irrespective of the fact that the taxi can barely run on the road in Pakistan but it does carry passengers which is its job. Abroad many of our vehicles may be banned from running on the road because they are emitting too much smoke or are not road worthy.



Will our public transport system ever become people friendly?



There are two obvious ways by which road transport can be improved. The first, if there is a government subsidy for transport whereby passengers and the governmental subsidies together can contribute to making up a fair ticket so that we may move in comfort. That is extremely difficult because of our economic situation. In fact recently the government closed down the Karachi Transport Corporation.

The other way is if we manage to stabilize our population and eventually bring it down and our earning becomes much more so that we can pay better for transport. Barring these two, all other attempts will just keep on adding to our misery on the roads and with time the situation will just get worse.

Our roads are controlled by not a professional traffic police, the roads are covered with all forms of transport where buses or trucks that run slowly are on the right side of the streets and often encroachments cover the road. How can we blame the traffic police when they are grossly underpaid. Why blame them for taking a kickback from a car driver when the traffic policeman knows that he will never be able to afford a car.

For example a policeman used to get rupees three thousand three hundred a day when the dollar was forty to the rupee and still gets the same when it has fallen to rupees fifty six. In other words the policeman has grown poorer, in fact so have all of us!

It may be of interest for you to know that in South Asia, the air borne pollution is eight times the acceptable levels. In New Delhi the pollution is lethal and ten to

twelve thousand people a year die from breathing this polluted air and hundreds of thousands others suffer from all sorts of diseases. There, the Supreme Court of India has issued suo moto rulings on controlling pollution and traffic. All buses that have been on the road for ten years are forbidden from plying in New Delhi. Cars have to have an annual car fitness test.

There is a new addition in buses in India whereby each bus will be fitted with a card reader which is similar to the plastic cards we use for telephones. Each card will carry a certain value the user can afford. For example a card with a value of rupees five hundreds will carry you in a bus and each time you board the bus you will punch in where you want to travel with your card in the machine and that amount will automatically be deducted for your card. And when the value of your card is finished you get a new card. This way the bus owner will each day get what he has earned instead of the conductor short changing him and the government will get its taxes as well. With a conductor on board a bus, both the owner and the government lose revenue.

In short there is no other way to improve traffic on the road unless we as a whole make simultaneous attempts to bring other things under control such as education, increase our wage levels, improve our housing, otherwise we will end up as a nation that will tear

apart and perish. And then in Pakistan unlike other countries there is the risk of a bus, van, taxi or rickshaw being burnt by some hooligan without insurance and the transporter has to bear the brunt of its loss.

Because the levels of income are extremely low here, there is government pressure to keep transport prices to a bare minimum. Therefore every form of transport be it bus, rickshaw or taxis is at the lowest cost.

We would like to recommend to the transporters that they develop an insurance on their own. Insurance money they collect can be put away in a high profit account and in case of loss they can be covered. The insurance money will be collected from everyone willing to join this scheme. Buses

and taxis will be examined by insurance specialists who know the value of the vehicle plying on the road and the vehicle insured will be only up to that value and no more. In case the vehicle is set afire by some hooligan, the owner will only get what it is worth, no more.

All of us need a higher income in order to live with dignity. Low, income leads to all forms of vices developing amongst us all especially in a society where there is breakdown of rule of law. It is up to us, especially the better off class to lend our time and money into improving society. If this society wants to improve then all of us have to put in our best and make that effort. □

(Navaid Husain is Member, Managing Committee, Shehri-CBE)



HOUSING

Looking ahead: The housing sector in Karachi

Farhan Anwar takes stock of the issues and concerns facing the housing sector in Karachi and calls for an integrated approach towards problem solving

More than a decade and a half ago, the Habitat I conference identified the provision of housing as one of the key issues facing developing countries urban settlements.

The overriding objectives of settlements policies should be to make shelter, infrastructure and services available to those who need them, in the sequence in which they are needed and at a monetary or social cost they can afford. Social justice depends on the way in which these facilities are distributed among the population and the extent to which they are made available.

One of the most basic responsibility of the state is to provide adequate housing for the residents, or to facilitate, through policy measures, the growth of housing industry in the private sector in such a way that the common man can gain easy access to proper housing. There are various ways of attaining this objective. Making availability of land at affordable rates, putting in place easily manageable loan mechanisms and controlling prices of construction materials are some such measures.

In many developing countries, e.g. the United States of America, the number of new housing units built each year, as a statistic is quoted by the government as a national economic growth indica-

tor. It is because this figure indicates the growing affluence of the society and since many industrial and economic activities are closely related with the housing industry, economic/industrial growth and consequently rising employment levels are also indicated. So, the importance of the housing industry in the overall economic growth of the country is thus highlighted.

Various tiers of housing develop-



We need fewer and fewer of these illegal settlements to dot the urban landscape of tomorrow's Karachi

ment can also be promoted, which cater from the low income groups to the wealthier sections of the society. In the developing and the Third World, of which we are a part, various emerging development models can be clearly identified. These range from the state providing 'site and services' facilities to the 'self help' model of development.

If we take the case of Karachi city, our primary development agency, the Karachi Development

Authority (KDA) has for the last 25 years or so been unable to 'develop' a proper housing scheme.

In their defense, it can be said that the support infrastructure, especially rapid urban transit facilities, so vital in sustaining housing projects in the urban peripheral districts have also not materialized.

In the absence of the state playing the role of the 'provider', private enterprise has filled the gap. The 'builders', have moved in a big way. Although their positive role in providing housing for the growing population is undeniable, their non-compliance with land-use/zoning laws and regulations with the resulting degradation in the local environment is a matter of concern and serious debate in the society.

In the absence of peripheral development the urban downtown and already developed neighborhoods are greatly stressed.

Then there is the other face of Karachi about which most people are less aware of. For a long time, governments in the developing countries saw squatter settlements as a problem that had to be eradicated. They were viewed as centers of social evils, distinct from the tax paying and law



abiding citizens of the state. This notion led to slum clearance projects through the 1960's in many parts of the world. Those days are now a part of history. Today's squatter settlements offer various housing models of sustainable growth from which the formal sector can and has learnt a lot.

Almost 45% of Karachi's population resides in illegal settlements or 'Katchi Abadies', as we call them. This has resulted in the development of our own 'self help' models, most significant being the 'Orangi Pilot Project'. In this area, it is felt, potential for further positive development exists.

Organizations which provide loans for housing to the common man play an important role in this equation. Is there room for improvement in further simplifying the lending procedures of an organization like the HBFC to facilitate access? This is another area which needs to be looked into.

Much can be learnt from regional neighbours, significant advances have been made in India, South Korea and Indonesia in developing housing finance systems. The promotion of the Housing Development Finance Corporation (HDFC) as the primary finance institution in the private sector has given a tremendous impetus to housing finance in India. It was developed with little or no government support. Today, it is a premier housing finance institution in India and touted as a model of success. Housing finance has become a major component of the total formal sector finance, with loan disbursements for over 400,000 units.

Ten years after the promotion of the HDFC, the government set up the National Housing Bank (NHB) to develop a network of specialized housing finance institutions in the country. It is an interesting experiment as the NHB also acts as a regulatory body. Maybe we also need to go for new innovations in

this vital and neglected link of our housing sector.

As one looks at the hideous high-rises mushrooming in many parts of the city, it is also being felt that the importance of aesthetics is being neglected. Concrete structures, including housing complexes should not serve as eyesores, rather they should blend with the environment and enhance the quality of living. Karachi can boast of many structures of architectural beauty; mostly related to its distant past. Can we hope for a matching performance in the future?

It has to be realized that the formal and informal housing sectors have to better co-ordinate and complement each other in a partnership to form an integrated whole for the city of Karachi. □

(Farhan Anwar is Editor, *Shehri Newsletter*)

URBAN PHOTO ALBUM



Waste water treatment plant for the irrigation of Aziz Bhatti Park: a commendable initiative



Spiritual healing: Abdullah Shah Ghazi Mazar in Clifton



Wither quality of living



The sign on the traffic control post says it all



CONSUMER PROTECTION

Problem Solving

Khatib Ahmed offers guidance to those facing problems regarding booking of flats, apartments shops etc.

If you are a person who has booked an apartment, house, shop, etc. with a construction company, developer or builder or any one acting as an agent to sell/book an apartment, house, etc. and if you are confronted with any of the following problems please contact the Design Section, KBCA.

- If you are not given possession during the prescribed period
- If the builder increases the sale price already fixed for payment, by giving reasons of budget enhancement and increases it three folds
- If the builder cancels the booked property for no justifiable reason, and transfers it in the name of another buyer
- Land was not leased to the builder who starts construction in violation of the lease rules, and then the building is sealed by the KBCA
- Change of apartment, shop number if the builder allots a flat, shop to you and later changes it on his own accord, without consulting you
- Loan: when the builder makes a commitment that he will give you a loan facility and later backs out of his commitment
- If the builder does not fulfil the technical requirements or other terms and conditions specified in the No Objection Certificate issued by KBCA/KDA

Or, if you are facing any other problem concerning property matters, all you have to do is contact the Design Section of Karachi

Building Control Authority

For Citizen's Guidance, Convenience

Contact: Deputy Controller of Design-I
Ground Floor, Annexe Building

(i) If Your Booked Property is in:

Nazimabad, Rizvia Society, Pak Colony, Manghopir Road, F. B. Area, Clifton, Civil Lines, North Karachi, New Karachi, Surjani Town, Buffer Zone, North Nazimabad, Frere Town, Artillery Maidan, Keamari, Serai Quarters, Lyari, Hawkes Bay, Preedy Quarters, etc.

(ii) If Your Booked Property is in:-

Landhi, Korangi, PECHS, Shahrah-e-Faisal, Shah Faisal Colony, Model Colony, Lines Area, Saddar, Khudad Colony, SMCHS, KCHS, Gulshan-e-Iqbal, Chandni Chowk, Gulistan-e-Jauhar, KDA Scheme-33, KDA Scheme I, Highway, Muhammad Ali Society.

Contact: Deputy Controller of Design-II
Ground Floor, Annexe Building

In case you do not get satisfactory response from the two Deputy Controllers mentioned above, please contact:

Controller of Design Section,
Civic Centre (5th Floor)
Phone 4930002 (8 lines) Ext. 570

The above mentioned officers are responsible public officials in

'Khuli Katcheri' in KBCA

A 'Khuli Katcheri' (open hearing) is being held regularly on every Tuesday and Saturday of the week in the premises of KBCA to hear and seek redressal of public grievances on matters related to booking, sale, purchase of property. Shehri members are present to facilitate the process by helping citizens fill out the required forms and guide them in other documentation procedures. However, more citizen input is needed in this process. So, citizens are invited to lend a helping hand. □

KBCA and they will provide you with the best possible solutions to your problems with the builders.

In case you still require further assistance, please send a photocopy of your complaints submitted to the above mentioned officers, to Mr. Khatib Ahmed at Shehri, Ph/Fax No. 4530646 □

(Khatib Ahmed is Treasurer and Member, Managing Committee Shehri-CBE)



RENEWABLE ENERGY

Clean as a breeze

Fossil fuels pollute the air and heat the planet. You say you want a revolution? You'll find it in the sun and the wind, writes Christopher Flavin

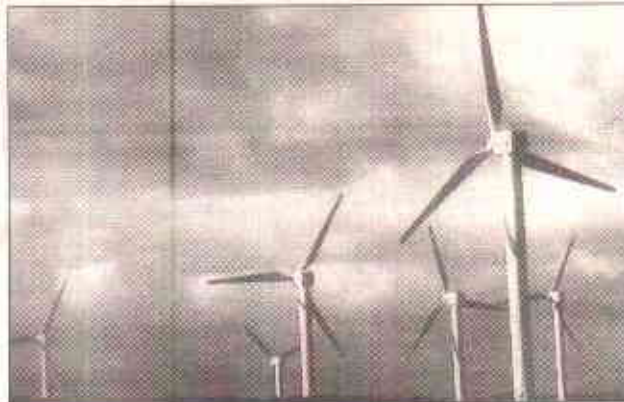
Across the broad, fertile plains of northern Germany, a new crop has sprouted over the past five years. Sprinkled among the barns and silos are thousands of 30-m-tall towers topped by sleek, fiberglass blades that whirl slowly in the breeze. Functioning as clean, trim powerhouses, these modern windmills use even gentle currents of air to put out strong currents of electricity – energizing the region's businesses and homes without hurting the environment.

Half a world away, on the Indonesian island of Java, hundreds of rural families have mounted small, silvery panels on poles near their homes. Made of silicon semiconductor chips similar to the microprocessors found in computers, these solar cells convert the energy of sunshine into electricity. With these almost magical devices, people living a day's walk from the nearest power lines are able to turn on light bulbs radios and TV sets for the first time.

In Europe, Southeast Asia and all sorts of places in between, something remarkable is happening. Alternative-energy technologies have moved quietly but decisively from experimental curiosity to commercial reality, economically turning sunlight, wind and other renewable resources into useful forms of energy. This achievement

opens up an intriguing possibility. Just as the economic miracles of the 20th century may be marked by an equally dramatic move away from those fuels – and the environmental havoc they have wrought. The result may be nothing less than an energy revolution.

Roughly 100 years have passed



Wind energy: an efficient and environment friendly method of generating energy, which could be put to valuable use in Pakistan

since a transition of this magnitude has taken place. Much of the energy system now in place was created by an explosion of invention between 1890 and 1910. During that short period, cities were transformed, as automobiles and electric lights replaced horse-drawn carriages and gas lamps. The old technologies had prevailed for centuries, but they became obsolete in a matter of years.

Today we may be at a similar turning point. Thanks to a potent combination of government incentives and private investment, technolo-

gies that use synthetic materials, advanced electronics and biotechnology are sweeping through the energy industry. That will foster a new generation of mass-produced machines that efficiently and cleanly provide the energy that enables people to take a hot shower, sip a cold beer or even surf the Internet. The revolution is proceeding on at least three major fronts:

Here comes the sun The world market for solar cells has gone from \$340 million in 1988 to \$900 million in 1996-growth spurred by the fall in the cost of these devices from \$70 a watt in the 1970s to \$4 today. Although the cost of the electricity they put out is still far above the cost of that produced by conventional generators, solar cells are already the least expensive source of power for rural homes

not connected to a region's electric grid.

Further price decreases in the next decade may make solar power an economically attractive option for many urban buildings as well.

That prospect is stirring excitement all around the globe. In Japan, major housing companies have introduced a new type of dwelling with silicon roof tiles that generate enough electricity to meet most of a family's needs. Thanks to government incentives, some 70,000 of these homes are expected



to be built in the next several years. In Switzerland and Germany dozens of office buildings have been constructed with solar cells integrated into the glass of their south-facing facades, allowing the windows to produce power, as well as transmit filtered sunlight.

Blowing In the wind

The global wind-power industry, already a \$ 2 billion-a-year business, is growing by 25% annually. Two decades of research have yielded a thoroughly modern wind turbine with tough fiberglass blades and electronic controls. The cost of the electricity produced is comparable with that of fossil-fuel power and still plunging.

Already thousands of wind turbines have been installed in a dozen European countries. Some developers are turning to the shallow North Sea, whose winds could one day meet a sizable fraction of Europe's power needs. The boom is also being felt in Asia, where wind-power companies are setting up successful joint ventures that are installing large numbers of turbines in India, China and other developing countries.

No Smoke in your Eyes

A small Canadian company named Ballard Power Systems is commercializing a device called a fuel cell. It cleanly and quietly combines hydrogen and oxygen to produce electricity – and the only waste is water. Small, mass-produced and containing no moving parts, fuel cells are a product of the U.S. space program, where they are used to meet the electricity needs of the shuttle fleet.

Fuel cells could one day sit in millions of basements producing power and hot water, without fossil fuels. They could also replace the internal combustion engines that now power most motor vehicles.

Clean energy is not just a long-shot investment option for venture capitalists. In the past two years Enron, one of the biggest energy conglomerates in the world, bought Zond, the leading wind-power company in the U.S., and a major interest in Solarex, the country's second largest solar-cell manufacturer. With these acquisitions Enron is pursuing renewable energy projects from the U.S. Great Plains to the deserts in Rajasthan, India.

Other major firms are moving as well. In late 1995 Bechtel Enterprises, once a leading builder of nuclear power plants, and Pacific Corp, a giant utility that operates coal-fired generators in the northwestern U.S., announced that they were teaming up to form a joint venture called Energy Works to invest in solar power and other "human-scale energy systems."

Japan's Tomen, a major trading company, unveiled plans last May to invest \$1.2 billion installing 1,000 wind turbines in Europe during the next five years. Even such oil-industry mainstay as British Petroleum and Shell are diversifying into

renewable energy.

That's not surprising, since the use of wind and solar power is growing much faster than the markets for oil and coal, which are expanding only 1% to 2% a year. But old-line companies will find that the new energy technologies demand a **new** business model. While the current system is based on such massive, centralized installations as giant oil tankers, refineries and power plants, the new technologies rely on thousands of small machines that convert, store and use energy. Their cost will fall dramatically as the scale of manufacturing rises.

The emergence of these devices may cause the energy industry to under-

go a transformation not all that different from the one computers went through as we moved from mainframes to PCs in the last decade.

Micropower, like microcomputers, will rely on sophisticated electronic controls that seamlessly link thousands of small generators and storage devices. With such controls, each solar rooftop, fueled cell and air-conditioner can be connected via digital signals, so that the entire power grid operates as a single smart system, turning individual devices on and off as needed.

Although some fossil-fueled lobbyists and economic modelers still argue that it will be difficult and expensive to find an alternative to oil and coal—and that we should delay the transition for as long as possible – their conclusions are based on a technological pessimism that seems out of place in today's world.



Although some fossil-fueled lobbyists and economic modelers still argue that it will be difficult and expensive to find an alternative to oil and coal—and that we should delay the transition for as long as possible – their conclusions are based on a technological pessimism that seems out of place in today's world.

The first automobiles and computers were difficult to use and expensive, but as their pioneers persevered and made improvements, they ultimately triumphed in the marketplace. Just as automobiles followed horses, and computers supplanted typewriters and slide rules, so will the advance of technology make today's energy systems look primitive, inefficient and uneconomical.

Unlike fossil fuels, renewable energy is not subject to supply constraints, and geologists will not have to travel to the Alaskan North Slope or the shores of the Caspian Sea to find new sources. The sunlight falling on the surface of the earth each day contains 6,000 times as much energy as is used by all countries combined.

European analysts have calculated that covering the flat roof space of existing buildings with solar cells could provide half to three-quarters of the electricity that many cities require. In the U.S., North Dakota, South Dakota and Texas together are swept by sufficient wind to meet the electricity needs of the entire country.

An energy revolution would offer huge business opportunities.

Throughout the last century the world's richest person has often been an energy baron, from John D. Rockefeller to the Sultan of Brunei.

Today, with the ascendancy of the information age, Bill Gates tops the annual rankings of wealth. But the micropower revolution underway relies heavily on electronic innovations and may create sizable fortunes of its own. □

(Christopher Flavin is Senior Vice President at Worldwatch Institute and co-author with Nicholas Lenssen of Power Surge: Guide to the Coming Energy Revolution)

(Courtesy: Our Precious Planet, TIME Special Issue, November 1997)

TIME TO SEEK TRUE GUIDANCE

Amra Javed deplors the state of affairs prevailing in our country and asks people to seek guidance from the Holy Quran and the life and teachings of Prophet Mohammad (PBUH)

A few days back on my way home from Tariq Road, I saw banners condemning Cowasjee and Shehri organization. They asked the government to expel Cowasjee and scrap the Shehri organization.

I kept asking myself "where are we headed? what is wrong with our nation? Moreso now with the murder of Hakim Said, the question arises ever so often in my mind," Is this country worth living any more?" A city where even people like Hakim Said are not spared surely cannot be called a city of civilized people. It seems there is no rule of law.

Those who call themselves the champions of Islam are actually trying to deceive people. They may succeed in their aims in this world but perhaps they have not given thought to the 8th Ayat of Sura-e-Baqra. Where Allah says that "They think they are

deceiving momins, but in reality are deceiving themselves without realizing" A mosque, considered as the house of Allah should not become the object of conflict. During the life time of Hazrat Muhammad (PBUH) Allah ordered him not to even stand in the mosque erected with ulterior motives.

What is needed at present is not the passing of the 15th Amendment, but practice of true and noble principals of Islam. Organizations like Shehri and people like Cowasjee are only concerned citizens who are trying to save this city from greedy and corrupt agencies which are busy in minting money. They don't care whether this city will be worth living for our children or not. They are busy in turning this city into a mass of concrete where such maniacs will be raised who don't hesitate while taking the lives of people like Hakim Said. We can create a just and tolerant society by not just memorising the Quran but we need to study, understand and follow the Holy Book, in its entirety. □

(Mrs. Amra Javed is President, Active Parents Association and member, Shehri-CBE)



SANITATION

Water, sanitation and sustainability: an opinion on future directions

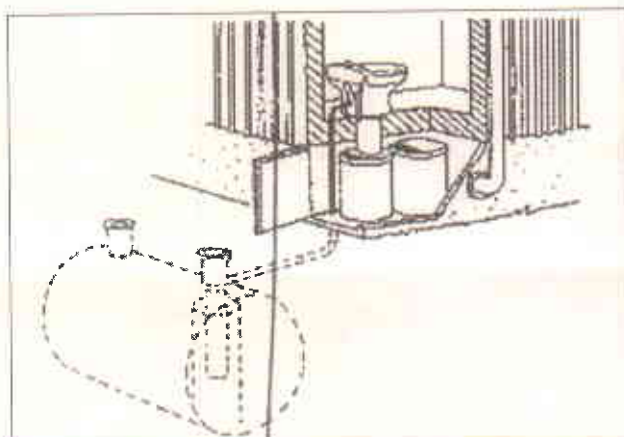
Dr. Janusz Niemczynowicz calls for the use of alternative systems and technologies in sanitation systems which put less strain on water resources and the environment

Water is the most important consumption article in the world. Water is also a natural resource that we have mismanaged to such a degree that a "global thirst" is in our future. National and international conflicts in the decades to come can be the result. Reasons for this situation are to be found in the wrong assumption that water can be obtained from nature in any quantity desired by the use of appropriate technology. The question of what quantities and qualities of water we need was not formulated until very recently.

Growing urban populations and drinking water demand in urban areas, especially in megacities in the developing world, takes an increasing part of the world's total water resources. In spite of the fact that urban populations use only about 15% of total water consumption in the world, delivery of sufficient water volumes constitutes a difficult logistic and economic problem. In spite of great efforts during the International Drinking Water Supply and Sanitation Decade (1981-1990), still about 1.2 billion people in the developing countries lack access to a safe drinking water supply.

Drinking and cooking constitute only every small fraction of total

water consumption. Although drinking water quality is needed for only drinking and cooking, all delivered water has the same high quality because usually there is only one water network. Apart from water losses through leakage



The basic principle of eco-sanitation is "don't mix". Don't mix water and human excreta, don't mix urine and faeces, don't mix compostable organic matter with dangerous chemicals

from the network, a large proportion of delivered water will be immediately contaminated and discharged if the flush toilet is used.

The use of clean water to conduct human waste is a waste of our fresh water resources. From the figures on water availability it is clear that the world cannot afford wasting clean water any more. Decreasing availability of clean water in the world suggests that alternatives to water-borne sanitation should be explored, especially for dry countries. Thus, an important conclusion can be drawn: one

important reason for the shortage of clean drinking water is the use of large volumes of high quality water for the operation of water-borne sanitation systems.

World Bank predictions (Megali 1992) indicate that over the next 40 years production of food must increase at least three times. From present statistics it is known that total grain production per capita in the world is decreasing with no signs of change (USDA, 1994). In order to reverse this trend, a huge amount of nutrients will be required to increase food production. This would either require expansion of agriculture with increasing use of fertilizers and pesticides bringing economic burdens, environmental pollution and a further decrease of clean water resources or, alternatively, nutrients present in wastewater (phosphorous, nitrogen, potassium and carbon) should be used in agriculture instead of artificial fertilizers. The content of nutrients in the excreta of one person is sufficient to produce grain with all nutrition necessary to maintain the life one person (Geigy 1960). Thus, a second conclusion can be drawn: an important reason for hunger in the world is the lack of sanitation technology capable of recycling nutrients from households to agriculture.



Western conventional technology used in urban water management, and especially end-of-pipe wastewater treatment, mixes useful nutrients present in faeces and urine with persistent pollutants, making the end-products, the effluent and sludge, unusable in agriculture. Thus, nutrients necessary for food production are lost. It is doubtful if additional investments in traditional sanitation systems could make sludge available for agricultural uses. It is also doubtful if the expected benefits in a global environmental sense may exceed investments in terms of money and natural resources used. Thus, a third conclusion can now be made: conventional sewerage technology is depleting natural resources, disperses useful nutrients, and pollutes the environment.

Several large cities, mostly in South America and Asia, are, at least partially, equipped with water-borne sanitation and sewerage networks but lack or have insufficient capacity for wastewater treatment. Waste water is released to the surface water bodies bringing not only pollution, but also causing a loss of nutrients that, instead of being used in agriculture, fill up rivers with contamination and pollute fragile coastal zones. In many places raw waste water is used for irrigation which in turn

imposes health hazards, if done without consideration of the risks involved.

The great majority of human beings have no access to water-borne sanitation, mainly due to the high cost of water-borne sanitation solutions. The necessary investments in water and sanitation are far beyond the economic potential of countries. In many countries GNP per capita is so low that, even if the necessary infrastructure and treatment plants would be constructed free of charge, the country would not be able to maintain them. According to Grau (1994), countries with GNP per capita less than US\$ 500 annually not only lack resources to construct treatment plants but also cannot maintain them.

The wrong assumption that water-borne sanitation is the only solution for all peoples and countries has brought economic burdens, lack of any sanitation for half of the world's population, and global environmental pollution. This, in turn, has substantially contributed to the present inequity among people and countries, and put the possibility of sustainable development in danger.

If provisions for sanitation continue in the future as it has in the past, between 3.2 and 5.5 billion people will be without sanitation by the year 2035. Thus, the next important conclusion can be made: the wrong assumption that water-borne sanitation is the only solution for all peoples and countries has brought economic burdens, lack of any sanitation for half of the world's population, and global environmental pollution. This, in turn, has substantially contributed to the present inequity among people and countries, and put the possibility of sustainable development in danger.

Conclusion

Water is the most important natural resource and consumption article in the world. Because conventional sewerage systems are water-dependent, wider application of these systems would further deplete global water resources creating a global water crisis. Efficient and safe sanitation systems not requiring water should be developed and implemented for those lacking sanitation.

Through the use of conventional sewerage systems huge amounts of nutrients present in waste water are continuously being lost. This puts global food security in danger. In order to increase agricultural productivity without excessive use of artificial fertilizers, waste water nutrients must be used. This requires development of sewerage systems in which nutrients are neither lost nor contaminated.

In order to make progress in sanitation on equal terms for all, not only new technologies are needed but also new system solutions encompassing water supply, quality-dependent water consumption, non-water-borne sanitation, and new methods of water use and re-use in households, industry and agriculture must be developed.

Water and water management are the key issues connected to society's functions and questions of equity and sustainability. □

*(Dr. Janusz Niemczynowicz,
Department of Water Resources
Engineering, University of Lund)*

*(Courtesy: WHO Environmental
Health Newsletter,
October 1997)*

RESEARCH & DEVELOPMENT

Low cost housing: The OPP model

Nearly half the population of Karachi lives in 'Katchi Abadis'. These settlements, though undesirable from a planning perspective are nevertheless a reality. Orangi Pilot Project is running an efficient 'Low Cost Housing Program' based on years of research, which can be termed as a model of growth in this sector

OPP started a housing program in 1986. Surveys showed that poor peoples houses in Orangi had the following defects:-

- use of sub-standard manually made concrete blocks - the main building components for walls and foundation - caused cracks.
- faulty construction techniques were used due to the ignorance of masons.
- the existing structure being weak could not take the load of the conventional RCC roof for ground plus one construction.
- faulty ventilation

Two years were spent on research on these problems and the next two years on extension of research findings.

Research consisted in

- upgrading the load thallas (building component manufacturing yards): improving the concrete blocks and alternative roofing components.
- evolving standard construction design and techniques
- preparing standardized steel shutterings
- writing manuals and instructions sheets
- preparing audio visual aids
- constructing demonstration models

Extension consisted in

- finding thallawalas willing to participate in research and development (R&D)
- training masons - teaching them improved design and construction techniques and the better use of tools
- lending tools and shutterings
- providing accurate plans and estimates

R & E has reduced the cost and improved the quality of construction.

Present package of advice - the load bearing technology

The preset package of advice is as follows:-

- Appropriately designed in-situ foundation for a minimum ground + 1st floor construction
- 6" thick load bearing walls of machine made blocks
- Batten/tile or T-girder / tile roofing and proper fixing methods.
- Precast staircase
- Proper orientation and ventilation

This load bearing construction is 1/3rd the cost of RCC (Reinforced Concrete Construction).

Extension of package: An impact study has been undertaken. Total 64 units constructed within the span of 5 years have

been surveyed.

The study shows:-

1. In 88% cases, foundations have been made of proper ratio in situ concrete, however design dimensions have not been adopted. Foundation bed is not laid, instead a straight footing of width 10" - 1' .6" concrete is constructed.
2. Damp proof course is not used.
3. Walls are made of machine made blocks. The wall courses are proper, wall is in plumb and the wall joints are proper.
4. In 80% cases where need was to construct another story, Botten tiles have been used. In 16% cases tier girder tiles. However it has been made stronger by reinforcement. The used the ring beam but the specifications have varied, effort has been to make it unnecessarily stronger so expensive.
5. In 62% cases cross ventilation has been adopted.

In efforts to facilitate extension of techniques, we have decided to present and discuss this study with a group of Orangi masons good in their work.

Upgrading the thalla

In 1987 thru research and extension, first in one thalla (building component manufacturing yard) the block making process was



Scenes from the OPP low cost housing program

modernized. Instead of the hand process of concrete block production which produced very poor quality blocks, the mechanized process was introduced. The unit comprised of a block making machine, moulds, a concrete mixture machine and water pump for curing.

Ratio of concrete mix was determined, improved and cost effective aggregate was introduced. Compaction, vibration curing and drying process was streamlined. Standard sizes of blocks were determined. The result was, the machine made blocks were 4 times stronger than the hand made blocks but were sold at the same price. This was because mechanization trebled daily production of blocks from 700/800 (in case of the hand

process) to 2000/3000. Therefore the ratio of cement could be increased. This combined with the use of better aggregates, proper vibration, compaction, curing and drying, increased the load bearing capacity of machine made blocks to 800/1000 psi.

the machine made blocks were 4 times stronger than the hand made blocks but were sold at the same price. This was because mechanization trebled daily production of blocks

In 1987 four private thallas were mechanized with OPP-RTI supervision and loan. The production in these 4 thallas has been documented.

mented.

Following the example of the four mechanized thallas, 53 thallas adopted the machine making process without any loan from OPP (survey Dec. '96).

One thalla has started producing hollow blocks. We are studying the process to see if introduction of

low cost, good quality hollow blocks is possible.

Research - T-Girder and concrete tile roofing

After the research on batten tile roof construction, research on another low cost roofing system was undertaken. Cost of the T-girder tile roofing is the same as batten/tile roofing (for Gd+1 construction, spanning 12ft oneway). Advantage is that the capital cost for production, which includes cost of a 2' x 2' vibrator table and moulds for 1' x 1' x 1-1/2" concrete tiles, is 1/2 that required for batten/tile production.

Production of concrete tiles at Raza Saheb's thalla started in March '96. Initial defects were controlled. However, production stopped at Raza Saheb's thalla due to law and order situation.

The unit was shifted to a thalla in Mansoor Nagar. The owner could not manage production. A feasibility study of the unit was undertaken. it was found that as the unit is



small it is profitable to start as a side business. If the owner himself works as skilled labour and employs just one unskilled labour it is all the more better.

On request the production unit was handed over to a lead mason. Since the last three quarters there has been no production of tiles due to law and order situation.

On Raza Sahebs advise another thalla owner Yamin is producing similar tiles.

Use of proper design and construction techniques for roofing

In addition to clay tiles, a availability of other locally made concrete tiles has increased. Sample tiles were tested. Strength was found to be adequate for ground plus one construction, provided the girder and tier sections, their spacing, fixing and screening methods are proper. Extension of proper design and construction method is in progress.

Construction and demonstration

With the introduction of appropriate techniques, the construction units require careful supervi-

sion. To reduce pressure on our team we are concentrating on training masons and youths as para architects. Efforts are also being made to educate the house owners through leaflets and contacts.

Training and Documentation

1. **Training:** Two trained youths have started working independently as para architects. They completed plans and estimates for total 72 units. For 54 units they received fees from owners. On 1 project preparation of plan and estimate is in progress. Supervision of total 27 projects was completed by them, of 2 projects, is in progress. Agreement has been signed with the team for survey, plan/estimate and supervision of schools, under the Education Project School Upgrading Program. Work in 21 school projects is complete. Guidance is being provided to

this team.

2. Masons are being trained, total trained 33.

3. Complete records are being maintained for each unit.

To reduce pressure on our team we are concentrating on training masons and youths as para architects. Efforts are also being made to educate the house owners through leaflets and contacts.

4. Lack of proper ventilation is a recurring problem in houses and schools. Through on site guidance, leaflets, posters, meeting with masons and house owners the importance

of ventilation is being emphasized. This quarter plans and estimates for upgrading 2 schools were prepared.

Construction in 4 schools was completed, in another 1 school it is in progress. In total 23 schools construction with proper ventilation has been completed. □

(Courtesy: OPP Quarterly Progress Report, # 75 October '98)

Eighth Annual General Meeting of Shehri-CBE

The 8th Annual General Meeting of Shehri-CBE, will be held on Saturday, 20th Februry, 1999 (3:00 p.m.) at the Shehri Office. This is an election year so all members are requested to attend in order to ensure maximum participation in the process □



HEALTH

Women and Nutrition

Beena Hasan reports about an informative discussion held on the issue of womens health and its connection with a balanced diet.

On Thursday 29th October 1998, at Women's Club PECHS Karachi, WADA (Women and Development Association) had organised a discussion on "Women and Nutrition" which was attended by large number of audience in which female community workers and intellectuals from different segments of society were included.

Dr. Nelofer Safdar, Consultant Nutritionist – Kidney Centre and Prof. Rehana Anis – Nutritionist and Chairperson (Women Wing) World Conference on Religion and Peace spoke on the subject;

During the discussion Dr. Nelofer Safdar informed the audience that due to insufficient intake of calcium, 85% Pakistani Women suffer from Osteoporosis after crossing 35 years of age.

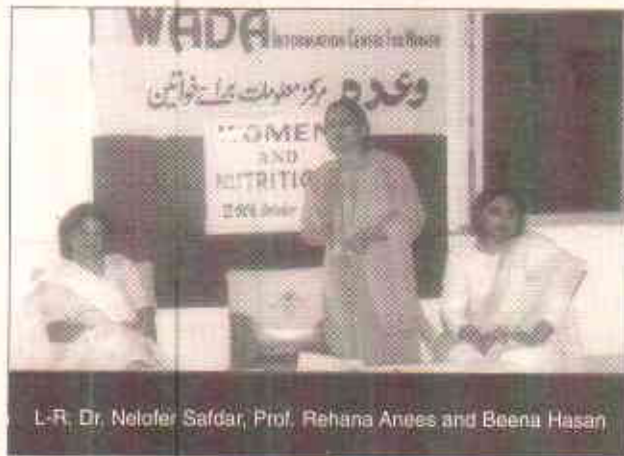
She further added that; Pakistani Women have become more vulnerable to the health consequences of excess weight, deconditioned bodies and diseases such as hypertension, cardiac ailments and diabetes (57% in females as compared to 43% in males) with increased leisure time, availability of labour saving devices and abundance of rich foods.

Addressing the audience Prof.

Rehana Anis said that with the high prices, so many of our people are not able to plan a balanced diet. She said that a Balanced diet contains items from each of the four essential group.

1. Milk, meat, egg and fish group
2. Fruits and vegetable group
3. Cereals
4. Fats

What is required then is to find foods that are cheap comparative-



L-R, Dr. Nelofer Safdar, Prof. Rehana Anis and Beena Hasan

ly but are high in nutrients.

She promoted the idea that, with a little knowledge women can have low cost foods with high nutrients in diet such as Dal Channa, Masoor, Mash,, Moong, White and Black Channa, Lobia and Soya Bean are high in protein as well as in iron and B-Complex especially Soya Bean equals to the proteins of

meat, fish and egg.

She further remarked that fruits such as apples, peaches, mangoes and vegetables like tomatoes radishes and cauliflower are now highly priced, but two plums are equivalent to the Vit-A iron Vit-C content of one apple and apricot in nutrients; comparatively cheap in cost.

She said green vegetable such as Chollai, Channa Saag, Sursoon Saag, Drum Sticks, Kari Pata, Dhanya, Pooddeena which are not costly are rich in iron, calcium, B2, folic acid, Vit-C and Vit-A which is essential for healthy skin and better eye sight.

Both the speakers advised that for healthy living, women should stay at reasonable body weight by eating only 25 to 30% calories from fats, eat less, sugar and salt, eat more green leafy vegetable, high fiber foods, fruits and especially a glass of milk

to avoid Osteoporosis.

They emphasised that, to remain healthy and beautiful women should learn the art of balancing their diet and activity.

In the end the talks were followed by discussion among the speakers and the participants. □



NEIGHBOURHOOD WATCH

SHEHRI invites the residents of the city to share with us, their concerns, on issues which are adversely affecting their neighbourhood's environment. Please write to us, preferably with a supporting photograph, so that efforts are made and solutions sought - Ed.

Who will collect our garbage?



Even dead animals can be seen among the rotting litter!

I am a resident of Sharifabad, Federal B. Area, Block 1. One of the main problems of this densely populated pocket of Karachi city is garbage collection and disposal.

There are two main dumping points in the locality. One is near the circular railway station and the other is near a



Serving what purpose?

flat site on the Sir Shah Suleman Road.

Very little of the waste is collected while the rest keeps accumulating near the bins. The volume of the uncollected garbage is particularly large near the circular railway station.

The dump sites are the breeding areas for insects and rodents and pose a serious health hazard. □

*(Mohibullah Jafri,
Sharifabad,
F. B. Area, Block 1,
Karachi)*



JUNIOR SHEHRI

Publish a NEWSLETTER!

One way to make people aware of your environmental concerns is to publish a newsletter about them. You can prepare the original in several ways. For example, you can hand letter it using black ink. You can cut and paste words and pictures from other sources. You can type it on a typewriter, or you can compose it on a computer. Then you can have your finished newsletter photocopied so that you will be able to give or sell copies to others.

1. Think of a name for your newsletter. This name should be no longer than two or three words and should tell people what the newsletter is about. You can use one of the following names or create your own.

Earth Chronicle
The Earth Times
Global Concern

The Planet Protector
Wildlife Watch
The Weekly Wave

2. Display this name in the nameplate at the top of the front page of your newsletter. Below the name, print a line showing the volume number, date, and issue number of your newsletter. If you plan to sell copies, you may also want to include the purchase price.

3. Publishing a newsletter can be a big job, so you may want some help. Ask friends and classmates to become members of the Newsletter staff. Assign duties and list names and titles on your masthead.

4. Discuss the purpose of the newsletter with the members of your staff. Decide what topics you will cover and how you will treat these topics. Will you give the facts in a news story, give opinions in an editorial, or will you write a feature story that is designed to inform and entertain your readers?

Monthly Planet

VOL. 1
April 22, 1991
NO. 1

Protests Persuade Tuna Canners To Protect Dolphins

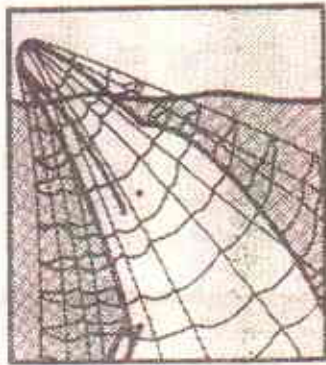
Protests by concerned kids have persuaded tuna canners to protect dolphins by buying tuna only from fishermen whose fishing methods do not harm these mammals.

For many years, tuna fishermen have been using gill nets to catch tuna. These nets catch lots of tuna, but they also catch dolphins that swim with the tuna.

Dolphins are mammals. They cannot breathe under water. They need air.

When dolphins get caught in gill nets, they cannot dive for food. They cannot swim to the top of the water for air. Without food or air, the dolphins die.

Kids heard about the dolphins dying. They became concerned. They would not eat tuna. They wrote to canning company presidents to tell them why they were not eating tuna.



The company presidents read the letters. They cared about dolphins. They decided to buy tuna only from fishermen whose methods do not hurt dolphins

**BUY TUNA
FROM CANNERS
WHO CARE**

5. Talk about your editorial policy. Establish guidelines and set deadlines.

6. To make your newsletter more interesting, plan to include special features like drawings, cartoons, crossword puzzles, riddles, games, little-known facts, an ask-the-experts column, and some letters to the editor. □

(Courtesy: Earth Book for kids)



ASK SHEHRI

Most residents when faced with any civic problem do not know which person or organization to contact in order to solve their problem. In this column we invite the readers to share their worries with us and seek our help, which is always forthcoming - Ed.

Q. I was very much impressed by the profile of 'Book Group', in your July-September 1998 issue. How can the 'Book Group' people be contacted?

(Irum Naqvi, PECHS, Karachi)

A. Book Group
Address: 43/5, Block 6, PECHS, Karachi.
Tel: 4310641

Q. What is the present status of the "Karachi Mass Transit Project"?

(Khalid Mehmood, Gulbahar, Karachi)

A. The financial close of the Karachi Mass Transit Project (KMTP) is to be achieved by January 31st, 1999. One of the main main requirement for the start of ground work on KMTP is the setting up of a *Metropolitan Transport Authority* for the construction and management of the mass transit system.

Q. How many municipal waste water treatment plants are there in Karachi?

(Ayesha Javed, Lahore Cantt.)

A. The Karachi Water & Sewerage Board is served by four municipal waste water treatment plants in the Mehmoodabad SITE, North Karachi and Mauripur areas. Apart from the North Karachi plant, the other and three plants are in use. A few plants also function in the private sector, mainly for irrigation of parks.

Shehri needs volunteers

The various projects of Shehri are managed by its following six sub-committees:

- Anti Pollution
- Media & Outreach (Newsletters)
- Legal (Illegal Buildings)
- Conservation & Heritage (Old Buildings)
- Parks & Recreation Fund Raiser

Any person who wishes to help out in Shehri's ongoing and planned projects (cash / kind) should visit the Shehri Office for further information or contact the Shehri Secretariat through phone, fax or e-mail

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 / Fax : 453-0646

With a cross cheque of Rs. 200/- (Annual Membership Fee) in the name of Shehri-CBE with passport size photograph

Name : _____

Tel. (Off) : _____ Tel. (Res) : _____

Address : _____

Occupation : _____

SHEHRI MEMBERSHIP

Don't forget to renew your membership for 1999! Join Shehri and do your bit as a good citizen to make this city a clean, healthy and environmentally friendly place to live in!



WASTE MANAGEMENT

Making the solid waste disappear!

Shehri comes up with a novel method of collecting your solid waste. Read on

Last year Shehri-CBE prepared a "Citizens Guide to Solid Waste Management". The guide book was meant to serve as a base line orientation exercise for the readers, aimed at enhancing their knowledge and comprehension on the subject of solid waste, its proper management from the legal, administrative and technical stand point. This year, in continuation of that work, another study has been conducted in which the first tier of urban solid waste management i.e. "Neighborhood Collection of Waste" has been looked into.

Issues

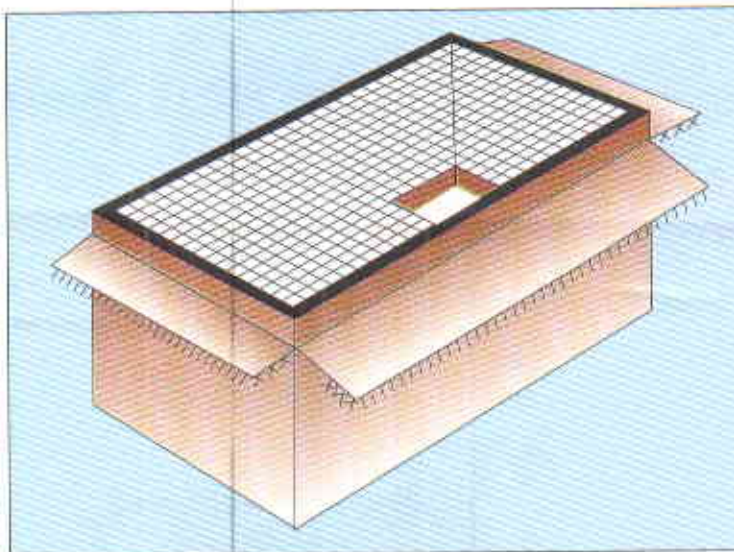
In this study the existing system of neighbourhood level solid waste management in Karachi is analysed and separate case studies of some selected neighbourhoods of Karachi (Gulshan-e-Iqbal, North Nazimabad) have been made. In the study conducted in North Nazimabad Block 'N', a profile of solid waste generation from a typical middle-lower middle income family of Karachi city has been prepared. It was found that 45% of the waste generated at the household level was organic (Kitchen waste) in nature, which is totally wasted. A great potential for waste level minimisation and reuse exists here.

In another study conducted in Gulshan-e-Iqbal, Block # 5, it was found that at an average 10 tons of waste remained uncollected in the neighbourhood. The third study of a block in North Naz-

imabad (Block B) provided very interesting data. The study group identified 73 waste dumping sites in a single block! out of these only 5 spots were officially designated.

Solutions

When traffic becomes unmanageable on ground, an option available is to go underground. Lets see how the same strategy be applied in case of solid waste.



The sub-surface waste collector

It is proposed that underground receptacles be prepared (see sketch of the proposed system) at selected points in a neighbourhood for the collection and storage of the generated solid waste. In this way waste visibility should ideally be zero. The range and number

of collection points can be greatly increased due to public acceptability and non-hindrance to any other public facilities.

At present it is just a concept, whose detailed engineering design and pilot project need to be developed to remove the bugs in the system.

This study was managed by Mr. Farhan Anwar, member of Shehri-CBE and financial assistance was provided by the Friedrich Naumann Foundation. □



**Pulling this string is easy.
Weaving it back might be impossible.**

The fabric of our life is balanced upon a very fine ecological system. Today, this system is in a grave danger.

Degradation of natural resources – air, water and land – is not only a serious threat to our environment, but to life itself.

Act Now. Help clean up our environment.



CALTEX

Caltex Oil (Pakistan) Limited