



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

APRIL-JUNE 1995

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INSIDE

- National NGO Body Formed
- Elsewhere in the World—
Sewage in Calcutta Marshes
- Cairo Rags to Riches Story
- Solid Waste Management
- Shehri's Legal Resource Centre
- Junior Shehri Activities
- Vehicular Pollution
- Tree Planting & Caring Training

Shehri moves to save JHEEL PA RK

Update on Shehri's battle to save PECHS' Jheel Park

Jheel Park is located in the vicinity of Block II and VI, P.E.C.H.S. The site is an amenity plot meant for a park in the original layout plan of PECHS. A small natural lake in the park area gives Jheel Park its name.

The Park's main entrance is at Hamid Hussain Farooqi Road. In the PECHS Master Plan, the Jheel Park covers 70,000 sq. yds, out of which 2,700 sq yds has been encroached upon having been illegally sold to Awami Construction Company. The encroached area faces the Silver Spoon Restaurant on Allama Iqbal Road.

The case of the disputed land is pending in the High Court since 1978. A further five acres facing the intersection of Dr. Mahmood Hussain Road and Sirajuddullah Road, has been illegally sold and re-named Sultan Nagar.

The area of the park which is in public use is about 6.57 acres. The present Jheel Park contains a nursery, 4 lawns and 2 jheels.

The larger jheel is in very bad shape. Earlier Shehri got the KMC to clean it, but unfortunately the KMC did not continue to maintain it. Once again the jheel is full of reeds and garbage.

The smaller jheel is overgrown with reeds and unkempt shrubbery and is home to water fowl, ducks, murghabi, etc. This is the lake that Shehri plans to develop into an eco-pond, for the recreational and educational use of school children.

A pond ecosystem is a very good example of a fresh water ecosystem. It is self-sufficient and self-regulating, and a place where various species of plants and animals live and flourish. It is an ecosystem of great aesthetic and educational value.

A part of Jheel Park, re-

served as a Ladies Park, is being used as a nursery by KMC. One of its entrances has been blocked by the owner of plot No.43-11-E, Block 6, PECHS adjacent to it, who has occupied the land and built a room on it.

In 1971 the societies were taken over by KMC and since then they have assumed responsibility for Jheel Park. A former Administrator of PECHS Mr. R.H. Rajpar sold the 2700 sq yds of Jheel Park (facing Allama Iqbal Road) to Awami Construction. A dispute arose when KMC began to construct a boundary wall around the Park, along its boundary facing Allama Iqbal Road. Awami Construction filed a suit in the High Court restraining the KMC from building the wall (Suit No.918/78 Awami Construction Vs KMC & others). A status quo was granted in favour of Awami Construction.

Much correspondence was exchanged between the various departments of KMC and between Awami Construction and the KMC. It appears that in 1987 KMC was bifurcated into zones and this Park came under the jurisdiction of Horticulture Dept., KMC (East) Karachi. The said case was then transferred to ZMC East.

It seems from the documents received that in April 1989, Awami Construction built a room and began work on the disputed plot, but the KMC later knocked it down. In 1991 encroachers moved on to the disputed plot and Awami Construction moved an

MILES OF MANGROVES

What are mangrove swamps? What lies there? Is their destruction a problem? Is their conservation necessary?

By Syed Aziz Agha

This may come as a surprise to the citizens of Karachi, but their violence-prone city's coastline is ringed by the most tranquil mangrove forest.

Mangrove forests stretch from Ibrahim Hyderi near Korangi Creek to about 100 miles on the western southern coastline. These are seen from DHA's Marine Club and beyond.

Around Port Qasim they are particularly thick and imposing. For those who want to see them, a launch must be hired from Ibrahim Hyderi village (Rehri) for a full day's excursion. The charge is about Rs.500/-. A day's trip will take one to Port Qasim, Phitti and a few other lovely creeks. Refreshments and drinking water should be taken along.

These are spots where one marvels at the scenic splendour of water, shrubs and sea-life. At places, it is impossible to believe that the mangroves are our coastal vegetation, as they create the illusion of a tropical forest similar to those in Indonesia or Thailand.

This forest is paradise for fingerlings, fries and other juvenile crustacea (shellfish) which feed on the mini-micro life in the

Jheel Park: Shehri plans include turning one of the polluted jheels into an eco-pond.



Continued on page 2

Continued on page 3

SHEHRI

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JHEEL PARK

Continued from previous page

application that a boundary wall be constructed to safeguard the plot pending a decision of the High Court. ZMC East were advised to join as defendants in January 1991, but to date they have not done so even though the Jheel Park is under the zonal authority of ZMC East since 1987.

As the encroachers were a third party, the Awami Construction and ZMC East were jointly ordered to bear 50% cost of building a boundary wall to safeguard the plot. Till today no wall has been constructed. The Case No 918/78 has been pending now for 15 years with no result. A letter dated June 15, 1993 was addressed to the Law Officer, Office of the Horticulturist, ZMC (East) enquiring into the reasons for the delay of the case in question. Repeated reminders have received no cooperation/responses despite the fact that Shehri has volunteered to assist them in case of difficulties. Till now Shehri has not been approached.

One of Shehri-CBE's major projects is the development of Jheel Park. Shehri has motivated the residents of PECHS and succeeded in forming the residents association, viz Citizens Society, PECHS c/o Shehri-CBE for the development of Jheel Park.

In 1993-94 the Administrator of ZMC East was approached, after which extensive repair and renovation was started at the park. Hoardings that were blocking the park from view were removed, garbage was cleared and signs forbidding the dumping of garbage were put up at several places. Pedestrian paths around and inside the park were constructed. Both lakes in the park were drained of stagnant water and sewage, and reeds were removed. Soling of the sides of the lakes is being done to prevent seepage of water and a retaining wall is being constructed for safety. Shehri ordered the plantation of 239 trees at Jheel Park. Mr. Malik, the then Director of Parks and Recreation, personally supervised the construction work and the setting up of nurseries in the park.

Jheel Park was renamed after the famous Scientist Saleemuzzaman Siddiqui on 6th June, 1994.

ZMC East organised a program on this occasion. Mr. Shahzad Khan, Director Parks and Recreation, ZMC East, and Mohammad Hussain Syed, Commissioner, ZMC East had a meeting with Shehri where the latter gave details of encroachments and proposals for the development of the Park. It was

decided that ZMC East will co-ordinate with Shehri in the development efforts and a committee comprising residents and ZMC East will be formed for the maintenance of the Park. The Development Budget of ZMC East is Rs.20,00,000/- for the year 1993/94 and a similar amount for the year 1994/95. There are 54 employees on their payroll. Shehri then wrote requesting additional information regarding other resources. Till date this has not been received. Letters requesting a meeting regarding the program and planning for the upliftment of the Jheel Park have been sent to Mr. Hakim Sheikh, the former administrator ZMC East, Mr. Muhammad Hussain Syed, the ex-Commissioner, ZMC East and Mr. Suhrawardy, Advisor to the Chief Minister. No response has been received. Ms. Amber Alibhai, Head of Shehri' Legal Sub-Committee, met Dr. Atar Dar, the new Health Officer, on September 5, 1994 and discussed the development of Jheel Park and illegal encroachments of poultry shops on Tariq Road.

Shehri-CBE is still pursuing its proposed plans to develop an eco-pond in the smaller of the two lakes of Jheel Park. The eco-pond is an ideal educational source for schools within the area comprising ZMC East.

Adopt a tree programme

This campaign is organised by Ms. Amirah Qaiser, Coordinator Shehri CBE, in coordination with Mr. Hanif Nasir, Director Parks KMC, who is instrumental in supplying saplings.

Saplings are distributed amongst school children to induce awareness and responsibility towards conservation and protection of the environment.

Shehri CBE strives to raise public interest towards creating a pollution free environment. It is rightly said "Child is the Father of Man" and hence Shehri believes in activating the mind of the child, at the school level in creating a better environment.

During the year 1994, about 3,600 saplings were distributed among 11 schools in Karachi.

This year, Shehri CBE proposes to continue this activity by,

1. Follow up of all trees planted by the school children.
2. Distributing fresh saplings to the remaining schools.
3. Providing incentives of

prizes to deserving children.

4. Shehri CBE proposes to conduct a Training Programme in Horticulture in schools, to provide information to kids in gardening and tree planting.

Enthusiastic participation in Shehri's 'Adopt a tree' programme



MILES OF MANGROVES

Continued from cover page

submerged roots of the mangroves until they are strong enough to venture out into the open sea for independent, communal life. The larger fish, crabs, prawns, lobster and dolphins abound here to feed on the crustacean life as well.

Since our mangroves are the second largest in the world (in the arid zones), their potential is limitless, inspite of the continuous destruction by man for fuel, fodder and wood for housebuilding. Afforestation is being carried out and regeneration is rapid.

One of the most amazing and striking features of our mangroves is they are still pest-free, which is very fortunate.

During winter the migratory birds—storks, egrets, cormorants, herons and at times the spoon bills, build nests and present a great colourful spectacle for wildlife photographers and bird watchers.

Since our mangroves are the second largest in the world (in the arid zones), their potential is limitless, inspite of the continuous destruction by man for fuel, fodder and wood for housebuilding. Afforestation is being carried out and regeneration is rapid.

Mangroves are found in tropical and subtropical estuaries and sheltered coastal areas. They tend to develop on mud flats which are exposed at low tide. There exists a considerable diversity of mangrove trees which are adapted to life in the extreme environmental conditions of this intertidal zone.

The genus *Rhizophora* is a common mangrove tree which grows to a large size and is supported above the surface by a number of down curving prop roots. These roots contain air spaces which provide oxygen for the underground roots system embedded in the water-logged oxygen-deficient mud. In some genus, such as the *Avicennia*, there are aerial roots growing vertically off the mud as slender erect structures.

Mr. Tahir Qureshi, the division forest officer, in charge of

coastal afforestation once measured an *Avicennia* tree which had an astounding girth of 28 feet.

Some mangrove species also have pillar roots which support the branches. This elaborate rooting system reduces water movement and entraps and stabilizes the mud so that the mangroves tend to multiply, forming broad, flat areas of swamp cut by drainage channels through which the sea water flows with the rise and fall of the tide.

The reproductive peculiarity of some mangrove species assists the spread and consolidation of the swampy forest. As the mangrove forest advances, the vegetation becomes zoned between land and sea with different species of mangroves at each level

and some small salt marsh shrub plants between the trees.

Mangroves are perfect traps for large quantities of mud and silt that would otherwise be washed out to sea. This in itself makes them nature's natural process of reclaiming land.

Most important of all, mangroves are home to a wide variety of animals and are one of the most productive ecosystems around. They support a large number of leaf-eating crabs, mud crabs, gastropods and insects. Mangroves are nesting ground to a wide variety of marine birds and more important, they are the spawning area and nursery for many commercially-important fish and prawns. Thus the destruction of the mangrove forest will result in large quantities of sediment being released into the sea. The tides and prevailing currents can carry



these sediments for many miles. The effect on offshore reefs is invariably degradation and a reduction in the variety of many marine species. This makes mangrove conservation a vital necessity.

Since the turn of the century mangroves have been recognized as a valuable resource. They are one of the major sources for charcoal. Approximately one ton of charcoal is produced from five tons of mangrove wood. Mangrove wood is also used in shipbuilding because of its high termite and saltwater resistance.

Even today, mangrove wood is still used for wharf piles as well as scaffolding. In many countries, this swampy and brackish water environment is commercially exploited with the construction of a number of ponds to culture fish, crabs, prawn, bivalves and even snails.

The value of mangroves cannot be overestimated scientifically.

Mangroves often occupy coastal locations and the unmanaged large scale clearance of mangroves not only results in the siltation of nearby reefs but can also lead to serious erosion because this natural barrier is removed.

Other than destruction caused by man, pollution is another major threat to mangroves. These forests are very susceptible to oil pollution. Oil particles, brought in by rising tides get trapped by the intricate root systems. Oil pollution has a devastating effect especially on the plankton larvae of resident animals and migratory fish. Fortunately for us, we have mangroves in abundance.

If we want to save our marine environment, it is imperative that our mangrove forests are declared a protected area.

TREE TRUTHS

- *Street trees filter out air and noise pollution, absorb CO₂ and release oxygen. They also stabilise city air temperatures and act as natural windbreaks.*
- *Many street trees have historical or cultural significance and are key elements in our city landscapes.*
- *City trees bring wildlife into our streets and gardens, by forming green corridors to and from the countryside.*



NATIONAL NGO BODY FORMED

Representatives of over a thousand NGOs from all over the country announced the formation of a national federation of NGOs. The NGO coalitions from Islamabad and the four provinces convened a day-long meeting in Islamabad on Wednesday, June 7, with the following three point agenda.

- * to consider the structure and function of the national NGO federation;
- * to discuss the proposed NGO Bill approved by the Cabinet and the NGO response to its policy stand, and follow-up actions;
- * to discuss recent interventions by the state to control and harass the independent NGO sector.

Representatives of all five regions, who had come prepared with a mandate from their substantial membership (which

now exceeds a thousand NGOs), met and discussed the above issues in great detail. The meeting agreed to formally federate the already established regional federations/coalitions of NGOs, within a loosely structured national umbrella whose operational details will subsequently be announced. The principal objectives of the national body are:

- * to promote and encourage the NGO movement and NGOs working in the areas of advocacy, strengthening community-based linkages, and the social sectors;
- * to counter the current anti-NGO campaign by highlighting and strengthening the positive contributions made by NGOs to national development.

Regarding the proposed NGO legislation, it was noted with regret that the initial spirit

of openness and dialogue exhibited by the Social Welfare Division has not been continued. The current draft of the Bill is wholly regulatory in character. The government has completely ignored the suggestion from NGOs to include any facilitative and enabling clauses. The NGO representatives from all the provinces jointly prepared written comments and suggestions on the latest draft of the Bill which will be presented to the Government.

The NGO community reaffirmed its commitment to working with the Government towards a just, peaceful, tolerant and equitable society, based on democratic norms. It pledged to strengthen the NGO movement, and to promote the cause of all disadvantaged and marginalized sections of civil society.

However, the NGOs took strong exception to the recent

harassment of the NGO sector through intimidatory measures, increasing politicization and government control over funding mechanisms, and unsubstantiated accusations aimed at maligning the NGO sector. Programmes have been viewed with suspicion and even condemned without undertaking any evaluation of their impact. Recent inspection of NGOs by the Special Branch, personal threats made against NGO activists, and the refusal of the police department to register cases or cooperate in investigations have needlessly created an atmosphere of suspicion and harassments.

(This is the press release that was prepared at the conclusion of the national meeting of NGO representatives from the provincial federations and the coalition of Islamabad/Pindi NGOs).

Three industrialists held for dumping chemical effluent

The Senior Special Magistrate of Faisalabad Development Authority has rounded up the owners of three factories and sealed their industrial units on the charge of throwing effluent water on Samundri Road, said a press release of the Faisalabad Development Authority issued recently.

A major portion of the Faisalabad-Samundri Road has been inundated by effluent from industrial units, stopping traffic for the past 24 hours.

According to the press release the operation against the defaulting factories including Iqbal Fabrics, Mohammadi Dyeing and New Khan Dyeing was taken jointly by the FDA and Faisalabad Municipal Corporation.

The effluent, including chemicals, has caused damage

to the buildings in the area.

Shopkeepers on Samundri Road have alleged that the local Water and Sanitation Agency is the sole culprit and punitive action should be taken against its officials for negligence of duties.

However, the press release said WASA disconnected their sewerage connections and they were warned not to dispose of the effluent water of their industrial units on Samundri Road, but they violated the instructions and started disposing of their industrial waste in the water channel and on Samundri Road by allegedly breaking the channel to drain out the industrial waste.



Courtesy: Dawn, April 12, 1995

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Salvation from sewage in Calcutta Marshes

Over the past century, Calcutta has developed a system of sewage disposal that is among the most efficient and ecologically benign in existence. *Charlie Pye-Smith* reports.

Calcutta is one of India's most beautiful cities; it is also the most squalid. Kipling's 'City of Dreadful Night' was built for one million people; it now houses ten times that many. The municipal authorities are crippled by apathy and overmanning and the public services are a disgrace.

Yet in one field the city is a world leader: every day 20,000 people living and working in the East Calcutta Marshes transform a third of the city's sewage and virtually all of its domestic refuse into 20 tonnes of fish and 150 tonnes of vegetables.

"It is a system of genius," explains Dr. Dhrubajyoti Ghosh, executive engineer for the Calcutta Metropolitan Water and Sanitation Authority, "and it's perfectly suited to countries in the developing world. The two basic requirements seem to be poverty and sunshine, and we have plenty of both."

The journey towards the marshes takes you through some of the grimmier parts of Calcutta, past the rancid slums of refugees, the tanneries of Chinatown and up to the city refuse dumps of the Dhapa Square Mile. Here gangs of men, women and children comb through mountains of rubbish, picking out metal, plastic, wood, indeed anything with a recyclable value. What is left is a rotting mass of organic matter, the ideal substrate for growing vegetables.

Soon after you leave the dumps you enter an area of startling beauty. The East Calcutta Marshes are a sort of tropical version of the Camargue or the Norfolk Broads: an intimate patchwork of tree-fringed canals, vegetable plots, rice paddies and fish ponds covering some 20,000 acres in all. At the heart of the marshes is the Bantalla sewage works. Built by the British in 1943, these closed down two years later. The fishermen and vegetable farmers of the marshes - the natural ecologists, as Dr. Ghosh calls them - had already developed a cheaper and more productive way of dealing with sewage.

Approximately a third of the city's sewage enters the marshes. While some goes straight to the *bheris*, the sewage-fed fish ponds which cover around 7,500 acres, some is channelled towards the garbage farms. These are mainly clustered around the area of inflow and the Dhapa Square Mile and they are hugely productive: the vegetables here are grown on a rich layer of organic matter taken from the refuse dumps and irrigated with sewage water.

In the *bheris* algae feed on the raw sewage, whose nutritional



value is transformed into edible protein with a dozen commercial species of fish gorging themselves on the thick algal soup. The affluent from the *bheris* is also used, mostly in the rice paddies which are dotted around outer reaches of the marshes.

This is a system of great complexity and the fact that we now understand how it works is largely thanks to Dr. Ghosh, who first visited the marshes in 1980. "The law and order situation was terrible then," he recalls. "Gangsters frequently looted fish and the local political leaders were sometimes keen to keep the dishonest happenings quiet. In the early days I was frequently threatened and told, 'We'll kill you if you come back.'"

Dr. Ghosh kept coming back and by 1985 he had mapped the entire area. Since then he has persistently argued that Calcutta's self-help sanitation system is replicable elsewhere in India and the tropics. His work has made him many enemies. Engineers, he points out, have little enthusiasm for such self-help schemes: "Conventional sewage systems are invariably funded by multinationals or other highly financed groups - and they are prepared to pay engineers large sums of money to design and build them." However, it has been the property speculators who have proved to be Dr. Ghosh's most unsavoury adversaries. Over the years various developments have chipped away at the marshes. In the 1960s a large chunk was lost to a housing scheme; in the 1980s a new road brought the marshes closer to the city and many fish ponds were drained to make way for housing for the rich.

Dr. Ghosh opposed many of these schemes and for many years he was constantly threatened. Recently the state government saw sense and recognized the area officially as a waste recycling region. There is now a general presumption against further development, though whether that holds good remains to be seen.

During the past few years Dr. Ghosh's department has helped to install a number of low-cost, self-help sanitation schemes outside Calcutta. At one site I visited 21 hectares of land had been set aside to treat 1 million litres of sewage a day. Dr. Ghosh hoped that the ponds, which were in the process of being dug, would yield 50 tonnes of fish a year. "This isn't a money spending exercise," he said. "It's money saving, and we could do something similar



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almost anywhere else in the tropics."

A keen supporter of these natural systems of sewage disposal is the West Bengal Fisheries Department. The department has appointed a technical adviser who had done much to help a number of fishermen's co-operatives. The best known of these is the Mudialy Fishermen's Co-operative Society, whose 430 members harvest over one tonne of fish a day from ponds at the heart of Calcutta's dockland.

Since 1980, the Mudialy fish catch has risen by a factor of seven, reflecting both the hard work of the co-operative members and the expertise of the Fisheries Department ecologist who has helped to refine the system. The 23 million litres of polluted water which enters the ponds each day contain not only sewage, but industrial waste as well; by the time the water leaves it is almost drinkable and it supports 40 species of fish. Water hyacinth is used to leech out heavy metals, while other plants absorb the grease and oil. "Nature has given us the means to purify water and that's what we do here," explained the chairman of the co-operative. A study carried out by the National Environment Engineering Research Institute attests to the efficiency of the system: 99.9 per cent of



THE BREVITY AND WISDOM OF THE QURAN

"Make not mischief in the earth"

Surah Al Baqra, verse

faecal coliform coming into the system was removed during the passage through the ponds. Mercury levels in the incoming water were high, but none could be detected in the outflow.

Several dozen of the Mudialy fishermen are reformed criminals: fishing, they have discovered, pays better than crime. "When I joined the co-op in 1961," the co-operative accountant (never a member of the criminal classes) told me, "our living conditions were dreadful. I lived in a one-room mud hut and couldn't afford to eat much. Since 1986, our standard of living has risen dramatically."

Now the accountant has a three-room house with a pleasant garden and view over a large pond. His children eat three decent meals a day, with fish every lunch. The educational costs, as well as medical care for the whole family, are paid by the co-operative's earnings from fish. In 1980, barely a fifth of the fishermen's children attended school. Now they all do.

Kipling described Calcutta as the city "where the cholera, the cyclone, and the crow come and go, by the sewerage rendered foetid, by the sewer made impure." Since Kipling's day, sewage has taken on a new meaning for Calcutta: it has become a resource rather than a nuisance, thanks to the 20,000 natural ecologists who have created the marshes.

Charlie Pye-Smith is a writer on environmental issues and co-author of The Wealth of Communities (Earthscan, London, 1994).

How Cairo *zabbaleen* turn rags into riches

Half of Cairo's garbage is recycled by an army of collectors who have found ways to improve their lives and plan their families. *Bishakha Datta* reports. Photographs by *Jeremy Hamand*.

Eid Anwar's Cairo home would make a rainbow blush. The roof is a clamour of plastic debris bursting with every made hue and colour. Inside, a whirring machine rhythmically chews uneven plastic pieces and spits out shapeless blobs, while a rusty metal arm showers out handfuls of recycled plastic granules.

Recycling plastic is a relatively recent occupation for Eid Anwar Abu El Saad, who was earlier a trader. After buying used plastic from garbage collectors. "I would just wash it and cut it into small pieces," he says. "Then I would sell it to someone who would recycle it." Today, with a plastic crusher bought on credit, Eid Anwar is a proud cottage industrialist with three employees, a bigger house - and rowing stature among his neighbours.

Behind Eid Anwar's visible success lies the unseen hand of the Association of Garbage Collectors for Community Development. The non-profit Association, which has 7,000 members, provides health care, learning facilities, animal clinics,



and credit to the *zabbaleen* - landless migrants from southern Egypt who collect half the 6,000 tons of garbage that Cairo generates each day. "The Association gave me a loan to buy this," says Eid Anwar, who owns one of the three plastic crushers in the Mokattam, a sandy quarried hill that is home to many *zabbaleen*.

Like Anwar, others in the Mokattam have now turned to recycling - some even risking their own money for uncertain gains. A walk through Rashid Bassit's kitchen reveals a factory in the room behind. "I bought it with my own money," says Bassit, who manufactures hangers from recycled plastic pellets. Round the corner from his house, a metallic crusher draws attention to another home-based recycler, who is turning waste cotton into wadding for mattresses.

But if the transforming waste transformed the fortunes of men like Anwar and Bassit, it did not, at first, do much for *zabbaleen* women whose culture chained them to the indoor task of sorting rubbish. The chains loosened for the first time in the late 1980s, when another voluntary agency stepped in and taught the women how to recycle waste cotton into wildly colourful rugs.

"A new kind of recycling experiment was needed for the women of the Mokattam," says Laila Iskander Kamel who designed the project for the Association for the Protection of the Environment. The rags-to-rugs project began in 1988 with six looms and 10 teenage girls. "It started by building on an existing community skill - sorting garbage - to address a very urgent need of the people - earning money."

Today, transforming rags has changed the lives of 170 *zabbaleen* girls who earn £E70 to 80 (US\$20-24) each month. The girls collect rags each Monday from the Association which gets cotton scraps from ready-made factories. While the long strips are woven into rugs, the square pieces become patchwork quilts. "We don't waste even one tiny bit," says

Samira Abou Seif of the Association.

Seif explains that the project - which trains about 100 girls each year - typically selects the poorest of the poor: those who have never been to school, those in large families, those who still sort garbage, those whose families do not own recycling machines. "Earlier, we used to beg families to give us their daughters," she says. "They would refuse. Today we have a waiting list."

Samia Wadie Hanna is one of the project's oldest employees - and one of its biggest successes. Hanna, who used to ride on the donkey cart with her father to pick up trash each day, is now one of five project officers at the Association. Like every other girl at the project, Hanna started out as a trainee on a monthly stipend of £E40 (\$12). Today, she supervises storerooms, records sales and inventory, conducts quality control checks - and supports a widowed mother on her monthly salary of £E300-350 (\$88-100).

But hauling oneself up from one rung to the next is not as easy as it sounds. Graduation is the first hurdle: to graduate, a trainee must not only complete a 3-6 month course, but must progress from churning out wildly mismatched 'salad' rugs - that are reputedly popular with Texan customers - to crafting delicate, personalized rugs.

The decision to take home a loom is the next big step. Even if a Mokattam girl can commit to repay the £E250 loaned to buy the

loom, can she commit to keep the loom spotlessly clean in a tiny house bursting with everything from toddlers to pigs? Doors can't be kept closed since each room has multiple uses; a goat might sneak in and eat the cotton rags. How will she then earn?

"To make a clean rug required a deliberate, conscious effort at keeping the immediate environment surrounding the loom clean," says Kamel. "Thus the loom, the mighty loom, succeeded in taking with it all of the principles of personal and environmental hygiene."

If the Mokattam girls have learnt to keep their environment clean, it is because the reward - income - meets a real need. Many of the girls have learnt to read and write for similar reasons. "The crucial difference between this and other literacy programmes," points out Kamel, "is that literacy addresses a real need - generating income."

For instance, a girl must be able to read and write Arabic names if she wants to weave personalized rugs that fetch her more money. And a girl who wants to staff a sale at a posh hotel must know how to read the price list. "Otherwise she won't be chosen," says Seif.

This bottom-up need-based approach is the key to the Association's success. A few years back, married women started approaching the Association: like their daughters, they wanted to weave to earn. When household chores made it impossible for

them to meet weekly deadlines, the Association did not give up. Instead, it showed the women how to recycle square cotton pieces - too beautiful to be sold for mattress stuffing - into patchwork quilts.

This simple act of recycling patch-work has spiralled into larger benefits for women. Each woman is given a sewing machine and an iron when she produces a perfect bedspread. "She can iron her children's clothes, keep her child clean," says Seif.

"Then she begins to think of family planning."

Laila Kamal's June 1994 study shows that 64 per cent of the patchwork-quilting women use family planning methods - a significant gain in the Mokattam, where according to one doctor, less than 40 per cent of women deliver in hospital or use family planning. "Family planning does not come as an imposed thing from outside," says Seif. "It springs from the woman's own life, when she realizes that her life can be better."

Seif goes on to explain how the project subtly promotes practices like late marriage that empower women - and ultimately reduce the family size. "If girls are married before 18, they are not entitled to anything from us," she says. According to her, such changes are visible: while girls in the previous generation married as young as 12 or 13, the recycling girls wait until they are 22 or 23. "It's a result of this whole process. It's not imposed."

Perhaps the biggest proof that the process works is Samia Wadia Hanna who was overwhelmed when, last year, she launched a restaurant on the same street where she collected garbage as a child. "I have not just been educated," says Hanna, smoothing her skirt. "I have reached a stage where I can take a decision - and the decision is correct."

Bishakha Datta is a People & the Planet correspondent based in India.



Tackling the problem of SOLID WASTE MANAGEMENT

The major civic concern of Karachi is the ever increasing volume of garbage being generated in the city every day. Much of the 6000 tons of garbage that is generated daily in the city does not even reach the KMC refuse collection bins. Instead it is dumped in storm drains, nallahs, nearby rivers and empty plots.

The Karachi Metropolitan Corporation is unable to cope with garbage. As is quite obvious it has failed to do so and the time has come for the community to co-ordinate with KMC to keep the city clear of its garbage.

In order to facilitate such process SHEHRI is initiating a project in collaboration with UNICEF which aims to involve a closer contact between the local municipal officials and community, so that the issue of efficient collection/transfer of garbage can be tackled more effectively.

Solid Waste Management involves a combination of various activities, which start from solid waste generation and continues until all the waste is finally disposed off or recycled.

OBJECTIVES

1. To establish a system of solid waste collection from each house in the community and bring it to a single point i.e. KMC community bin (kundi) from where it will be transported to landfill sites.

2. To discourage practices of indiscriminate dumping of garden waste, construction debris and commercial wastes (unauthorised dumps), and to establish a service through which people generating such waste should pay and get its removal done.

3. To encourage coordination between the community and KMC for better monitoring and improvement of better solid waste management.

4. To promote recycling of waste through initiating sources separation of dry and wet waste.

5. To initiate small scale domestic/community based composting.

STRATEGY (Adopted by Shehri in Mania Society)

1. To Create Awareness Among the Community

It is of prime importance for Shehri to raise the consciousness of the community towards the gravity of this problem of solid



waste management and popularize the idea of self help by supporting the community in the management of solid waste problem in the area.

2. Regularization and Monitoring of Cleaning Service

There is no regular sweeping service in the project area.



Heaps of garbage lying on street corners are not only hazardous but also create problems for residents. Shehri aims at organising a regular cleaning service.

3. Installation of Community Bin

There is no community bin in the area. As a result several



illegal dumping sites have been created and used by the community. Shehri will work for the installation of community bins.

4. Coordination between KMC and Residents

Shehri will train community activists for coordination between KMC and residents for a joint workplan for disposal of waste and monitoring the system.

5. Improvements of Roads

The roads are battered due to the negligence of civic and metropolitan authorities. Shehri is committed to fulfilling the work for the betterment of roads and street lights in the project area.



Report on Solid Waste Management Project (Phase I from November 1994-April 1995)

The first phase of the Solid Waste Management Project was started in November '94 for a period of six months which included the following:

1. Baseline Survey

This was started in November '94 and continued up to the end of January '95.

Shehri staff went from door to door for registration and motivation establishing personal contact with the residents. This procedure was very tedious and with perseverance and hard work, a liaison between the residents and Shehri CBE was established.

2. Area Assessment and Motivation

This activity was implemented in collaboration with the members of the KMC Advisory Council.

Meetings between the residents and Members of the KMC Advisory Council were held from time to time to promote implements was done. Encroachers were discouraged from throwing garbage at the street corners.

The residents have decided not to hire a sweeper for cleaning the area, because they have their own servants who do this work for them. Therefore a sweeper specially hired for the purpose is not in the budget of the residents.

The footpath has been repaired in the Project Area.

A community bin has been installed, the residents have been motivated to dispose their garbage in two different ways.

1. By separating wet kitchen garbage, vegetable and fruit peels, from dry garbage which includes paper, tins, bottles and hardware waste.

2. Composting. This is done by digging a pit in the compound or in the garden, in which the daily kitchen garbage i.e. vegetable and



fruit peels, eggshells and rotten foodstuffs is put into the pit and covered with layers of earth, sprinkling water at intervals.

This not only helps produce manure but also prevents a large amount of garbage from leaving the four walls of the compound.

The roads of the project area were in a broken state, not fit for safe driving. With the co-operation of KMC authorities these have been repaired and are now in proper shape.

With this, Shehri has distributed the final round of pamphlets conveying the message of a better environment to be created and cultivated through constant effort on the part of the residents.

This brings the first phase of the project to a close with Shehri being committed to continue their visits to the area from time to time reminding the residents of their commitment towards the environment.

Wajiha Yasmin

Project Incharge, Solid Waste Management

Report from Shehri's Legal Resource Centre

Incharge: Advocate Ms. Amber Alibhai, Barrister Qazi Faez Isa

Cases in Court

One of our field of interest where we are working day and night for relief, is the adhoc and illegal change of land use, resulting in conversion of parks, open spaces and residential plots for commercial slums all in the name of progress.

Shehri CBE is actively involved with residents all over Karachi to help them initiate litigation against some highrises, which are coming up inspite of no parallel development in the existing infrastructure. i.e. water, electricity, sewerage, etc. All these structures are in absolute violation of the lease and the building bye-laws and protests have been entirely ineffective. Litigation is the only peaceful means of attempting to gain redress.

The Managing Committee of Shehri CBE has had several meetings with KBCA (KMC) officials with regard to unplanned urban growth. The result of their latest meeting with Mr. Fahim Zaman, Administrator KMC, has been very encouraging as positive steps seem to have been taken in the appointing of a Committee of Lawyers and Architects who will take the responsibility to rectify the anomalies and other relating laws and amendments in the Sindh

Building Control Ordinance 1979.

Shehri CBE is at present dealing with the plots listed below:

Plot No. 106-A Area: 300 sq. yds. Khalid Bin Waleed Road

KBCA (KMC) was negligent from day one since Shehri CBE lodged complaints against the misuse of this plot in November '94. A half hearted demolition took place in March '95 after which the builder filed for injunction and status-quo which was given under false representation. Shehri CBE filed an application for being made intervenor and orders have been passed by the Court, and Shehri CBE has been made intervenor. Unfortunately status quo is being violated and construction of the building is still proceeding. Shehri filed for contempt as intervenor along with KBCA and the case is up for hearing on 19th June 1995. The general impression in this case is that the search has not acted impartially.

Plot No. 180-A Area: 600 sq. yards Block II, PECHS

This plot is a residential plot converted into commercial without the permission of KBCA(KMC). Construction has been started without permission or plan. Shehri-CBE wrote many letters regarding this plot but KBCA(KMC) has not taken any action.

Plot No. 166-B, Area: 2000 sq. yds. Block III PECHS

Illegal conversion of this residential plot was done in 1994. Shehri CBE had complained to the building authorities to stop further construction. No action has been taken so far, and they have covered all the compulsory open spaces.

Plot No.44 Maqboolabad Co-operative Housing Society Block III Alamgir Road, Karachi

Residents of this area have lodged a complaint that this plot is being converted into a commercial highrise. Shehri CBE is conducting meetings with KBCA(KMC) officials regarding this plot and its misuse.

Plot No. 390 at the intersection of Siraj-ud-Daula Road & Alamir Road.

This plot is being illegally constructed into a commercial structure, irrespective of the residents and their rights. This is a residential plot situated on Alamgir Road. Residents complained to the KBCA (KMC) at Shehri's Office. But KBCA(KMC) has not taken action, Shehri also complained to the Chief Controller KBCA(KMC) but the builder continued construction on this plot. Residents went to Court and got a stay order for maintenance of status quo.

Plot No. 125-N, Block-II, Khalid Bin Waleed Road PECHS

This is a residential plot situated on Khalid Bin Waleed Road. The Builder constructed a car showroom and multistory on this plot. The builder was granted approved master plan for G+2 for a residential construction on a residential road. Shehri got stay order from High Court, the matter is still pending.

Plot No. 111-B, Block-II, Khalid Bin Waleed Road PECHS

This is a residential plot situated on Khalid Bin Waleed Road. Owner has built a car showroom on this plot. Shehri CBE has

"Cities have the capability of providing something for everybody, only because, and only when, they are created by everybody." — Jane Jacobs

received many complaints in this regard. KBCA (KMC) demolished the shelters but owner has resorted to constructing the building again.

Plot No. 107-A, Block-II, Khalid Bin Waleed Road PECHS

This is a residential plot, the builder has built a car showroom and a highrise on this plot. Shehri has written several letters regarding this plot and KBCA(KMC) issued notices to the owner, who got a stay order in the court.

Shehri CBE has become an intervenor after applying for the same in Court which was allowed.

Plot No. 206-A, B, C & D Block-II, Off Tariq Road

These plots are residential plots all approved by KBCA (KMC) for G+2 but the builder has constructed a multistory building on these plots. Shehri CBE has taken a stay order from High Court to maintain status quo but the builder has ignored this and continued construction and built multistory shops, and flats are in occupation. He has also built a pent house on 206A & B. All this is being done, despite having no official electric connection which has been stopped by the Courts.

Advocacy Activities of the SHEHRI LEGAL SUB-COMMITTEE

A series of Meetings with KBCA (KMC) Officials and Shehri CBE M.C. Members have taken place, during the past five months with regard to misuse of residential land and violations of building by-laws in construction by errant builders.

An NGOs Forum was organised by the Shehri CBE Legal Sub-Committee on March 28th '95 at the Shehri CBE Office, with Mr. Mirza Maqbool, Chairman, KBCA (KMC).

The purpose of this Forum was to co-ordinate the activities of NGOs with regard to unplanned urban growth caused by illegal highrise construction in residential areas.

It was proposed that a Vigilance Body headed by private citizens be established to monitor illegal misuse of residential areas. Each time an application for a change of land use whether amenity, residential, etc. is made the public should be informed and according to schedule D Part 11 P of the Karachi Building and Town Planning Regulations 1979 the procedure should be followed. Besides this a Public Notice in the Newspapers should be given and the NGOs should be notified.

The follow up of this Forum was organised on April 30th '95 to ascertain the progress in the delegated responsibilities of the NGOs and also the Building Authorities.

Meeting with Mr. Fahim-uz-Zaman, Administrator, KMC and Shehri CBE was held on April 17th '95 at the KMC Head Office.

This meeting was organised in order to establish communication between KMC and Shehri CBE.

The Administrator KMC has appointed a Legal Committee consisting of Barrister Naim-ur-Rahman, Barrister Qazi Faez Isa, Barrister Maqdoom Ali Khan, Architects Mr. Arif Hasan & Arshad Abdullah which will recommend and suggest changes in the Sindh Building Control Ordinance 1979.

A second meeting between Shehri CBE and Professor Nauman, Technical Advisor to the Administrator KMC, was held on May 17th '95 at the KMC Head Office, to discuss the policies chalked out by the Administrator KMC regarding illegal and adhoc land use.





SHEHRI'S OUTGOING LETTERS

Daily Dawn,
Karachi.

With reference to Dawn's editorial on Lead Poisoning and a previous reader's letter on this subject, "Shehri", Citizens for a Better Environment would like to point out that in 1994 we conducted meetings with the oil companies and refineries namely Caltex, Burmah Shell, PSO, National Refinery, Pak Arab Refinery Ltd. and the Hydrocarbon Institute of Pakistan on this subject with a view to come up with standards for low lead and diesel fuels. This was done keeping in mind the economics of an affordable and cleaner form of vehicular fuel along with our technological limitations. The following recommendations were sent to the Minister for Petroleum, Mr. Anwer Saifullah (previously the Minister for Environment) on 22nd Nov. 1994 for implementation.

Low Sulphur HSD

1. All imported diesel should be of 0.5 wt per cent sulphur from 1st July 1995.
2. Level of Sulphur in HSD (High Speed Diesel) should be reduced to 0.5 wt in three years effective from 1st July, 1995.
3. Efforts be made to import low sulphur crude for processing in local refineries.
4. Sulphur level in HSD from local refineries be reduced to 0.8% by 31st December, 1994.
5. Future planning for local refineries should be based on 0.5 wt. % HSD upto the year 2000.

Low Lead And Unleaded Gasoline

1. Gasoline (regular) be introduced effective from 1st July, 1995 with 87 RON and 0.35 gm lead/litre maximum.
2. A separate grade of 90 RON unleaded gasoline be introduced by 1st July, 1995.
3. By year 2000 lead level be reduced to 0.15 g/litre in 90 RON gasoline.
4. All imported gasoline be unleaded by 1st July, 1995.
5. Future refineries be designed on unleaded gasoline.

Industrial Furnace Oil

1. Sulphur content furnace oil from local refineries be reduced to 3.0 wt. % maximum by 1st January 1995 from existing level of 3.5 wt. %.
2. Imported Furnace oil should be of 2.5 wt. % sulphur by 1st July, 1995 and phased out @ .5 wt % to 1.0 wt% sulphur by 2000.
3. All future refineries be designed on 1.0 wt. % sulphur to be effective by the year 2000 (to be further deliberated).

Ethanol Based Fuel

Possibility of using of ethanol based gasoline were discussed by the participants who were of the view that this proposal was not financially viable. It is requested that this be given a second thought before being dropped from the agenda as there are 15 industrial units with potential to produce ethanol from molasses which are currently being exported. This would introduce a value added product in the market besides reducing the nation's dependence on imported oil.

Use of CNG in Transport

1. All existing retail consumers petrol pumps, should be considered as approved sites for CNG station and may be allowed to set up CNG facilities if meeting CNG Rules, 1992.
2. Future purchases of urban transport be based on CNG with simultaneous installation of Fleet CNG station at consumer sites.

Ancient peoples believed that places had souls. Even in the modern world the basic truth of this ancient relationship still holds: Places that are accorded the respect we have traditionally given to souls are better places as a result. And the people who live there have a better life, too, because places that long have been loved and taken care of can take care of those who dwell in them.

—Elizabeth Vander Schaaf



3. CNG tariff should be attractive to encourage investment in this field.

Lubricants

1. Grease traps be made mandatory at service stations and garages.
2. Disposal of used lube be made environmentally friendly by law.

The above standards may not carry meaning to the layperson but readers should know that South Asia has one of the world's worst standards in terms of usage of leaded fuels leading to a contamination of food chains. Lead deposits in human and animals affects respiratory and nervous system. Aside from cleaner fuels, proper traffic management and a good public transport system are essential in keeping down lead levels which are on the rise and a threat to a healthy population. It is hoped that the Minister of Petroleum will find time to follow up on the above recommendations purely in the interests of the citizenry.

*Mrs. Mansoor,
Administrator, Shehri, CBE.*

MESSAGE

Solid Waste Management is a real problem of the city and Karachi Metropolitan Corporation is also dealing with this. Co-ordination of NGOs with KMC can help people to get rid of garbage, etc.

In N.K.C.H.S. and Manya Society, a project of Solid Waste disposal had successfully completed in co-ordination with K.M.C. and Shehri CBE.

I do appreciate the efforts of the Solid Waste management Shehri CBE in this respect, and I hope that in future, further progress can be seen in the field of Solid Waste Management in creating a pollution free environment for the citizen of Karachi, for which I always need the co-ordination of Shehri CBE.

*Rasheed uddin Rashid
Member Advisory Council KMC
KP.No. 60.*