INSTITUTE OF CURRENT WORLD AFFAIRS

For a cleaner and greener Kathmandu Valley

Kathmandu, Nepal
May 11, 1994

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Dear Peter,

Touts, with trousers barely touching their ankles whisper in my ear,"Change money, madam? Good price." The shops and restaurants blast out the best of the new and the old in Western music as Madonna and Kansas mix with Nepali film songs in the sound waves of the narrow streets. "Come sit and drink tea with me madam. No? Maa-dam, it is breaking my heart!" a shopkeeper shouts as I pass by. That's me. A regular heart breaker.

Welcome to Kathmandu. I am here for final arrangements for my visa into Bhutan, the largely unknown Himal Kingdom east of Nepal. Kathmandu seems relatively unchanged since my last visit in 1989. The narrow roads wind the same way I remember. Shops overflow with the same goods; 'Free Tibet' T-shirts, Buddhist tankas delicately painted on canvas with colors from crushed stone, colorful woolen rugs, and silver jewelry inlaid with gem stones.

The city itself overflows with people and transport. Vehicle exhaust is black, thick and tickles the throat. I pity the individual standing behind a lorry when it shakes, grinds and exhales its choking fumes. I notice a number of motorists and pedestrians wearing small pieces of cloth across the nose and mouth, affixed with string like a surgical mask. I only recall such inventions in Bangkok and Colombo, larger more humid cities, where the air is heavy enough that one can almost feel oneself walking through it. But in Kathmandu's setting, which is much like L.A.'s, the pollution can trap itself and hover over the valley.

Do not mistake this for a city of chronic pollution. It is not one of Asia's most polluted cities (In 1988, the United Nations cited five of the seven **world's** worst polluted cities in Asia including Beijing, Calcutta, Jakarta, New Delhi and Shenyang in China). It is not even one of the cities listed as one of Asia's future megacities (Megacities, urban areas, where the population is expected to be over 5 million by the year 2010. The United Nations estimates that Asia will have 30 such cities by then, all with the associated health problems of a swelling urban center [1]).

Kathmandu is the capital of Nepal. International institutions, technological facilities and embassies are based here. If you want to trek to Everest or in the Annapurnas, a stop in Kathmandu is

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essential to obtain a trekking permit. Compared to its many of its Asian neighbors the city appears healthy, but Kathmandu's mayor, P.L. Singh says "Kathmandu is dying and no one's helping." [2] Solid waste and air pollution are two of the environmental problems associated with the city's rapid and unplanned urbanization.

The women, with thick calloused feet, hired by the municipality as sweepers, have a never ending task before them. The dust rises, swirls and settles again. Even when their baskets are full, so are the gutters.

Before shops open, women are busy cleaning the city's streets

Creating awareness

Yogi Kayastha is managing director of KEEP, the Kathmandu Environmental Education Program, off Tridevi Marg in Thamel. Thamel, the section of the city crowded with restaurants, shops and guest houses, caters to the low budget tourist. It also supplies most of KEEP's foreign clientele.

KEEP is a new non-governmental organization (NGO) and one of nearly 100 dedicated to educating local people and foreigners about Nepal, its environment and ways to protect them. Radio broadcasts, videos, environmental camps for middle school children and brochures are among the educational strategies. Every September before trekking season begins, KEEP runs eco-trekking workshops on sanitation, campsite preparation and maintenance for national park rangers, independent trekking guides and group trek leaders.

Yogi, expressive and animated when he talks about the challenges of environmental education, cannot be any older than I. He recently finished his master's degree in geology at Tribhuvan University here in Kathmandu and studied for one year at Northern Illinois University. Before KEEP he worked for another environmental education organization, Environment Camps for Conservation Awareness, where he is now a member of the board of directors. He has spoken to environmental conservation groups in Central California about trekking in and conservation of the Himalayan ecosystem.

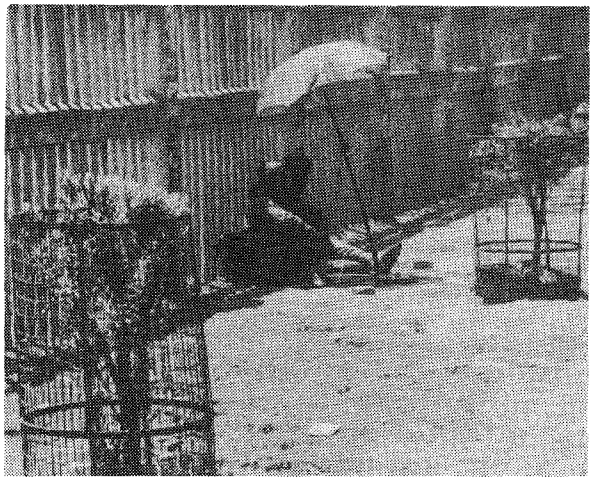
Recalling the last mayoral election, his face shows disappointment, "When he (the mayor) was campaigning he said he would make Kathmandu the next Singapore. One of his slogans was Clean, Green and Healthy Kathmandu." It has not happened yet. A tree planting initiative began after the election. The municipality planted trees along sidewalks and in small parks until funds ran out. But the Kathmandu Municipality's financial situation will soon change. For the first time in its

history, the municipality is receiving a loan of US $ 5.6 million from the Asian Development Bank. The Department of Roads will receive US $ 6.9 million [2]. This will help develop the infrastructure the city desperately needs.

There are tales to tell about solid waste in Kathmandu. Trash bins cannot be found on every corner. During youth education programs, environmental educators try to instruct children to walk the extra 5 or 10 minutes to the nearest trash bin to dispose of garbage instead of throwing the waste out of the window and into the street, or even worse into the rivers. In Ratna Park, Yogi sees people eating peanuts and buying fruits and throwing the shells and waste on the grass or on the walkways. This behavior must change but the municipality must provide the needed receptacles.

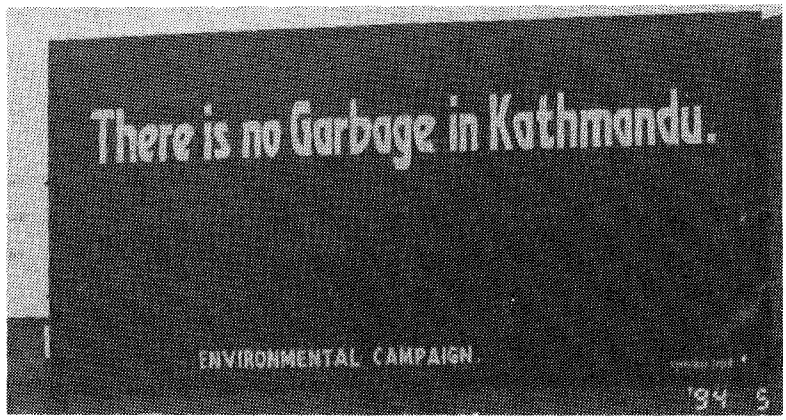
"The municipality has many responsibilities," Yogi states. "So even when individuals do take the time to properly dispose of their garbage the trash bin soon overflows. If someone calls the municipality to come and to collect the garbage it takes two or three days. In the meanwhile, the garbage continues to pile up".

Among the municipality's responsibilities are planting and protecting urban street trees like these on Durbar Marg (left), and collecting solid waste from centralized locations in the city (right)



As Kathmanduites and visitors complain about mounting garbage on the city streets, the residents near a Kathmandu landfill site are not happy about their garbage situation either. "About four months ago there was a protest at Kathmandu's Mulpani landfill located in the eastern section of the city," Yogi retells the story to me. "The people who live near the landfill were upset about the management specifically the way the municipality was disposing of the garbage. Workers were just tossing garbage into piles. Sometimes these piles were not in, only next to, the landfill. Garbage was not properly covered. The stench of decay was awful and visits by vultures increasing. The residents did not want the government's lease on the land renewed. Garbage collection and disposal was interrupted for three weeks," he says. "Only then did the municipality begin a search for a second landfill site in the city."

With proposals for two new landfill sites, the municipality again faced objection. The NIMBY (not in my backyard) philosophy is universal. A new landfill recently opened in the southern section of the city in Chhampi. The municipality offers incentives of road and other institution building to the community in exchange for their cooperation with the landfill initiative.



Billboards are one way that corporate Nepal tries to create environmental awareness

There are no plastic recycling facilities in Nepal. Recyclables are not separated from non recyclables nor biodegradables from nonbiodegradables. Middlemen collect and buy plastics from individuals, mostly garbage scavengers who make a living selling plastics, iron and metal, which they then take to India for recycling. The bottles are recycled and brought back into Nepal. In KEEP's information center amongst the Nepalese cultural tips for trekkers is a do's and don'ts series for those about to embark on an expedition. One chart advocates iodine tablets over bottled water. Not only are tablets lighter and cheaper but pollution free.

The vehicles clogging Kathmandu's streets are a major source of the city's air pollution. The vehicle feared most for its smog by cyclists and pedestrians alike is the notorious Tata truck from India. Sixty-six per cent of the country's vehicles including cars, auto rickshaws and motorcycles are in the Kathmandu Valley - an area encompassing only 0.4% of the country's total land mass. There are no laws forbidding the sale of older vehicles. Often car owners from Europe and India sell their older models in Kathmandu at low prices. Since Nepal is without vehicle emissions standards, vehicles not passing European air quality standards have a market here. A 1986 survey in the valley found that 38% of the trucks were 15 years old and 17.5% were at least 20 years old [3].

His Majesty's Government's Environment Protection Council with UNDP (United Nations Development Program) began the Kathmandu Valley Vehicle Emissions Control Project (KVVECP) one year ago. The project's two objectives are to control vehicular emissions pollution through the development of inspection programs and technology to monitor air quality standards, and to design institutional and legal means of sustaining a vehicular emissions control program. Negative impacts of air pollution on the environment and public health are at this proposal's heart. Thus far the program has provided free exhaust fume checks on all diesel vehicles in Kathmandu.

There are plans to build an air quality monitoring station to record and monitor the valley's air quality and to enact vehicle emissions standards [3].

"And you have a motorbike?" I ask Yogi as part question part comment.

He smiles about a motorbike purchase a few months ago. Commuting 13 km one way along the Lhasa-Kathmandu highway, previously he sought out a minibus accommodating 20, squeezing in 50 and leaving another 45 behind. Always wearing a mask to keep out fumes and the smell from rotting garbage, he still suffers two or three sore throats a month. These are not the only hazards of motorbike owners. I think Yogi knows every pot hole, its shape and size, in the valley.

"You have been to Nepal before?" Devendra Amatya, a forestry consultant asks me. "Does it seem the same?" The urban environment has changed much since he first arrived in Kathmandu from the terai. It was1956, the beginning of his university studies. He remembers marveling at the snowcapped mountains beyond the valley. The terai region of Nepal lies south of Kathmandu running east-west along the Indian border. It is a land of flat fertile floodplains. Never had Devendra seen mountains like this. The snowy peaks were visible every day during the dry season. Now mountains make a brief and lucid appearance on a few November nights and only after the dust has settled.

Moving from words into action

> *So, you watch yourself about complaining, Sister. What you're supposed to do when you don't like a thing is change it. If you can't change it, change the way you think about it. Don't complain.*
> From: Wouldn't take nothing for my journey now. Maya Angelou 1993.

"Awareness is not the problem," begins Dr. P.R. Mishra, the director of the Center for Environmental and Agricultural Policy Research, Extension and Development (CEAPRED) in the Kupondole area of Patan. Patan is the second largest city in the valley across the Bagmati River from Kathmandu. The organization, whose funding comes from international institutions like the Canadian Cooperation Office (CCO), the International Union for the Conservation of Nature (IUCN) and the Rockefeller Foundation, promotes a holistic approach to sustainable development and environmental management. "People are aware," he adds, "of the smell and unsightliness of garbage in the streets. This is an upper middle class neighborhood. Still people throw garbage into the street because everyone else is doing it. Also in part because they don't know what they can do about it. When this center came into this neighborhood in 1990, people asked what we (the organization) were going to do. 'This place is a mess,' they said, 'if you care so much about the environment why don't you start here?'"

Neighborhood surveys identify local problems. In CEAPRED's neighborhood there are three major environmental ones. First there is a problem with the local water supply. There are often water shortages in the valley and tap water is not always fit to drink. Second, the sewerage and drainage system is a public health threat as well as an olfactory nuisance. Third, solid waste in the street and along the gutter creates the same nuisances as the sewerage system. Tackling this last

problem though is not a project in sanitation engineering. The problem is solved easily with a project in social engineering.

Eight local women with the help of CEAPRED workers visit every household in the neighborhood to create awareness about a community solid waste management program, to rally project support and to recruit volunteers. Next CEAPRED sponsors numerous training sessions for 35 women volunteers on community management needs and techniques, waste problems and its hazardous effects, gender issues and the power of women and reducing the volume of waste disposal. These women again campaign door to door requesting that people not throw garbage on the street but instead use one of the 24 two foot drums located on street corners.

"Can you image what the problem was?" Mishra asks rhetorically. "Dogs. The bins were low to the ground so children could participate in waste disposal but so low that dogs scavenging for food tossed garbage into the street. We had to change our strategy. You only learn these things by doing."

The new strategy - daily household collection. Tricycle riders pick up household trash and deposit it in one of two central locations. The first month's pick-up is free, paid by CEAPRED, but free is not sustainable. At the end of the first month volunteers canvass door to door to discuss imposing a tax. Community members vote on rates. Each neighborhood resident receives a tariff card. The fees range from five rupees per month (US $ 0.10) for a single room rental to two hundred rupees per month (US $4.10) for nursing homes and hotels. This largely residential neighborhood charges thirty rupees a month (US $0.62) for a single family house. The monthly fees total approximately Rs. 6000 and pay the salaries of three tricycle riders, a small stipend to the two community members directing the project and Rs. 1000 in savings. To ensure program efficiency, there is a set daily collection time and a set pick up time for the municipality, the Solid Waste Management and Resource Mobilisation Centre, to remove the waste from the central collection bins. Over 350 households and businesses benefit from the collection program; they dispose an average of 2.28 kg of waste per day [4].

The neighborhood women responsible for the solid waste management program formed a community group called WEPCO (Women Environmental Preservation Committee). Over three hundred women volunteers participate in the organization. Two volunteers patrol the neighborhood each day to monitor collection. Being a community program, garbage is collected from all houses even if the tariff goes unpaid. Volunteers hope that with social pressure these 'free riders' will come around. After one year of CEAPRED's assistance the project became the sole responsibility of WEPCO. The project is running smoothly and is financially independent.

On May 15th WEPCO, with the help of an IUCN grant, will begin replicating their project in an adjacent community. This first attempt at replication will be a challenge. The new neighborhood is only half residential. It may be hard to find enthusiasm for the project and volunteer time from business owners. Like the project in Kupondole, the residents will have one year of assistance before they, as a community, are responsible for its management.

WEPCO's vice president, Ms. Sudha Poudel tells me, "Committee work is very difficult but we have been successful. We are trying to take a systematic approach so we can share our ideas and

experience with other communities. The main problem we are facing now is marketing of our handicrafts." Members produce needlepoint wall hangings with environmental slogans, shawls and purses to fund other on-going projects.

Paper recycling is WEPCO's newest project. The committee owns a blender but water shortages often stop production. There is a high demand for recycled paper especially in government offices. The women's sheet paper and folders, compared to those of other recycling centers, is of low quality. The finish of their paper is rough and difficult to write on because they do not have a calendar press to smooth out the finished product. WEPCO's elected board members are writing a grant for funds to purchase the press which costs between US $2,000 - $3,000. Mishra hopes money will be forthcoming, because "these women are truly the doers."

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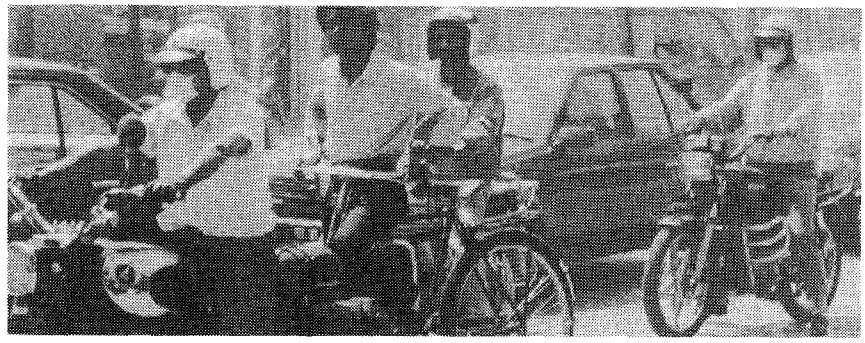
"Often I'll be at a gathering and my friends will complain about how polluted the city is becoming. When I ask them if they have joined RUN they say they are thinking about it. Thinking is not enough," says Tom Crees, an Australian trained architect and ad-hoc President of Road Users of Nepal (RUN). RUN is a non-profit citizen's action group trying to combat the pollution arising from Nepal's roadways. It is the country's first and only chapter. The board of directors is composed of professionals with their own responsibilities in addition to RUN's. Time to create awareness becomes a valuable resource. The newsletter does not always get out like it should. Meetings are sometimes canceled.

Tom leans back in his chair and says, "Everyone has fire in their eyes at the meetings, like we really want to get something done. We have one secretary, but without additional staff or many volunteers, commitments are broken. For a while I was spending two working days on this handbook (a road users manual), but my business was suffering so now I spend less time. So far we have only been using Nepalese money and the Australian embassy has donated some supplies. I don't want to get involved with foreign money, yet I may suggest at the next meeting that we try to find a small organization abroad that would fund five salaries. Salaries only. If we could have competent people doing subscriptions, fundraising, public relations and communications full timwe could really expand our membership and have an effect on the government and legislation", he finishes sounding full of determination.



People taking to Kathmandu's roads are taking masks along with them

The small group tries to tackle many issues in its 10 subcommittees. Among the divisions and focal points are the substandard vehicles legislation division, proposing tax increases on progressively older vehicles, the road construction codes division, proposing minimum road/pavement size codes and standards for road construction throughout the country; the fuel standards and emission control division, educating on the hazards of sub grade fuel and working on a testings laboratory, and a legal division, checking the laws in support of proposals and coordinating lobbying efforts [5]. Among its member services, RUN provides legal council for traffic related incidents and subsidized blood testing for the RUN membership card carried with the driver's license.

Their efforts are noticed. The government asked RUN to prepare the Road Users Manual for Nepal, a traffic handbook. Based on its Australian counterpart, ("There's no need to reinvent the wheel," Tom says) the manual will be part of police training and a supplement to the current road and written test for new drivers. Frequently RUN is asked to send a representative to Department of Roads meetings to offer technical advice.

Tom wishes things would speed up. "They (the government) are debating technicalities. Talk of labs and calibrators. To hell with the equipment, I say. Take for instance the definition of a polluting car in Victoria, Australia. If you can see exhaust coming from the car within 10 seconds after starting the ignition, then the car is polluting. Can you imagine a definition like that in Kathmandu? Give vehicle owner's three years for car clean-up. After if exhaust is visible, then the vehicle should be fined or impounded until the fine is paid and forced to clean up. We had great visions of such a program, with a large flashing clock counting down the days until there is less air pollution in Kathmandu. Everyone would be aware and excited. We don't need all of this high-tech equipment that foreign aid projects abandon after two or three years. It always happens, and then we are left with nothing. How come foreign aid agencies won't fund an electric battery program?" he sighs, exasperated.

He is referring to the feasibility study jointly conducted by the Global Research Institute from the United States, RONAST (The Royal Nepal Academy of Science and Technology) and the Institute of Engineering. A vikram, a three wheeled vehicle with two benches in the back for transporting 6-8 passengers, was converted to run on six six volt electric rechargeable batteries. Even the Prime Minister was impressed with the pollution free demonstration vehicle.

The Global Research Institute would like 100 electric battery powered vikrams in Kathmandu. Batteries can be recharged right at home and battery exchanges available in Kathmandu and Patan. The plan is to buy the virkam skeleton from India where it is manufactured and install the electric engine in Nepal. A local hydroelectric power plant is willing to manage the project when and if funding is available. The project is now on hold.

Tempos (also known as tuk-tuks and auto rickshaws in South Asia) and vikrams are among the valley's worst polluters. They run on a two stroke diesel internal combustion engine. The two stroke engine is a simple inexpensive design. It pollutes more and is less fuel efficient than its four stroke alternative because fuel compression and emissions occur together in the second stroke (fuel induction is the first stroke) which lets out significant amounts of carbon monoxide and hydrocarbons. Some vikrams are being upgraded to the four stroke model which has separate compression and emissions steps, more power (11 horsepower compared to the two stroke's seven)

and a smoother ride. There are 4,500 three wheelers in Nepal, 3,800 in Kathmandu. The government has prohibited tempo and vikram imports and none of these vehicles may leave the city. To their credit, tempos and vikrams are popular for carrying small loads and can fit into the tiniest of back alleys. But in terms of public transportation, they carry only a small percentage of commuters. Larger passenger vehicles, micro and minibuses, will gradually replace these smaller ones. There is now a pilot microbus program available to tourists traveling between the airport and Kathmandu's center.

Om Bdr Shrestha, an automobile engineer and team leader for KVVECP says that there are simple things that vikram and other drivers can do to reduce the smoke and toxic fumes emitted from their vehicles.

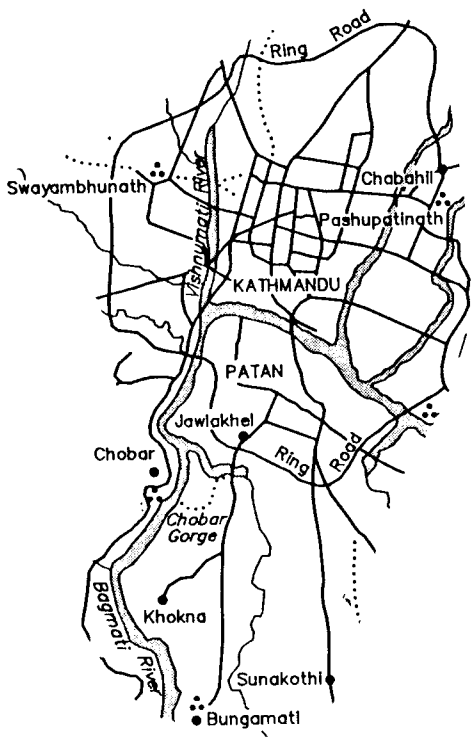
"I am making suggestions about timely, accurate maintenance," he says. "Changing the air filter every two weeks or cleaning it once a week with kerosene. Drivers can do these things themselves and a new filter costs only twenty rupees. Our studies found that smoke from diesel engines is reduced by 38% with proper vehicle maintenance, but drivers say they have no time. Drivers must take fewer passengers especially on inclines. Overloading uses more fuel. In the long run, operators save money and damage to their vehicles. Something also needs to be done about stop lights and police staffed traffic circles. Cars idling for longer than two minutes contribute unnecessary pollution and consume unnecessary fuel. All cars at a stop for longer than two minutes should be turned off. Sometimes police officers stop traffic for 15 minutes all the while cars are idling," he explains.

Fuel efficiency saves foreign exchange. Nepal imports its diesel and petrol from India. Fuel quality, all petrol is leaded, contributes to the pollution and toxic fumes. Many vehicle owners mix kerosene with their petrol to extend the twenty-nine rupee per liter fluid. There is no way to test fuel to catch drivers practicing these tactics.

KVVECP is in its first phase testing carbon monoxide emissions and smoke units on diplomatic, corporate and government vehicles. Three per cent carbon monoxide emission and 65 smoke units on a scale of 0-100 are allowed. Vehicles passing this inspection receive a certificate. Failing vehicles must be repaired, and owners lose their driver's license until it is done. The pilot program would be more effective if all vehicles in these categories were required to take the test. It is now conducted on good faith. The program is criticized for not addressing the real polluters; buses, trucks and older vehicles. Diplomatic and government vehicles tend to be newer and well maintained. "Polluters should pay is good in principle," Shrestha says, "but with little institutional support and weak enforcement these are the best initial target groups."

Shrestha has a wish list. First, a proper driving school, an institution, where new drivers learn road safety and proper vehicle maintenance. Most people now do not sit for a driver's test, it is easy enough to buy a license. Second, a number of training centers for a work force skilled in vehicle maintenance. Currently most mechanics learn by doing, do not fully understand the what and why of mechanics and therefore cannot fix parts properly. Third, strong legislation with enforceable standards. Once standards are instituted, then enforcement must be strengthened and taken seriously.

Environmental and cultural conservation projects are beginning on the Bagmati and Vishnumati Rivers. The banks of these rivers are a common dumping ground for solid waste. People with unauthorized access have felled most of the trees and quarry sand for construction. The government-funded maternity hospital has been known to throw still-born babies, umbilical cords and bandages into the river [6]. When the river changes course after the monsoon, once flooded land is immediately occupied by squatters. Reforesting the river banks and restoring the traditional cremation ghats along the rivers are part of the conservation program.



Map of the Ring Road area
From: Lonely Planet. 1990. Nepal: A travel survival kit.

"These ghats are our cultural heritage," says Surya Bhakta Sangachhe, Town Controller of Patan and member of the Kathmandu Valley Town Development Implementation Committee (TDIC).

With Nepal's urbanization rate at 8.2% [7], there is tremendous pressure to develop the valley's agricultural lands. Land use planning objectives and proper zoning are paramount. Surya's job is to preserve Patan's public lands and open spaces, including parks and green belts.

Often it is difficult to reclaim and maintain open spaces. Illegal squatters and their make-shift huts are removed, trash cleared and grass and trees planted. While squatters are a tremendous drain on many urban centers in Asia; they do not present an enormous problem inside Ring Road, the 28 km roadway surrounding Kathmandu and Patan. "In Patan we have about 500 squatters and last year we removed 38 households from open lots. While we destroy their huts, they erect them again somewhere else in the city. Squatting will become a bigger problem in the future if we do not take tough measures against it now," Surya explains.

With few resources he promotes community initiatives to preserve open spaces. "But we Nepalese, we think that the government should do everything, but it is just not possible. Local people can do small projects like maintaining open spaces. Before we (the Central District Office and the TDIC) got some resources from the central government. But now the central government says that the environment is a local government matter. I have a very small budget. Currently I only help people who ask our department to plant trees in their neighborhoods and then only if they promise to maintain the land. Otherwise I use our money on small projects like planting more grass and trees in the compounds of government institutions."

Surya continues by saying that community groups will be instrumental in restoring, maintaining and enforcing regulations in the new Ring Road Green Belt restoration project. "Communities

should notify the municipality if the green belt is not maintained. In the municipality lies the authority and responsibility to undertake regular inspection and enforce green belt regulations. A system of checks and balances is professional," he adds. "If we get land for service ways (sidewalks) along Ring Road more people could enjoy the green belt and feel responsible for its maintenance."

When the government first began the Ring Road project in the early 1970's, they could not acquire all the land they wanted. The original plan called for 10 meters of road, 6 meters for service ways and 50 meters for the green belt. The final acquisition did not include enough land for sidewalks. The green belt planting and fencing (25 meters on either side of Ring Road) began in 1975. At that time the Department of Roads, the TDIC, the Forest Department and the municipality were all responsible for green belt maintenance. Interdepartmental coordination was confusing and then in1986 maintenance funds were no longer allocated. Today, the fence is down, few if any trees remain (they have been used for fuelwood), and unauthorized tea stalls, small shops, vegetable stands and huts occupy the area.

"How much open space do you have in Patan?" I ask, wondering how big a task this is.

He laughs at the question as if he was expecting it. "I cannot say how much open space, public land or preserved area there is in Patan. The problem is I have no records. But I can tell there should be more open spaces and public lands than there are. The government's past tendency was to sell available public land. This was the land NGO's and social organizations would buy to build their offices on. Now it is all concrete. The only definite figure I can give is our office is responsible for the 22 km of green belt along Patan's portion of Ring Road," he says.

His Majesty's government has a new policy for public land management; all are to be maintained as green open spaces. Now only the Cabinet, which convenes in Kathmandu, is capable of authorizing the sale of public land. Surya sees forgoing this potential land revenue as proof of the central government's political commitment to environmental preservation. He hopes financial and human resources are forthcoming.

The government though is not solely to blame for disappearing open space. Since public lands are often small plots scattered in between private property, private land owners are known to encroach little by little onto public land until it can no longer be identified from the private lot. An institution responsible for inventorying, mapping and making a proper record of public land and open spaces would be helpful. "I have an old record of where the public lands are, but out in the field they are never there. I cannot prove who is encroaching or who is not because I have no good records," he says, his downturned mouth showing frustration.

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One afternoon a friend and I visit Pashupatinath, a famous Hindu temple. Across from the temple on the bench-lined forested hill overlooking the Bagmati River, a cool breeze blows. It is a busy day, four funerals are in process. The burning ghats or cremation pyres are located on the river banks. The Bagmati, a tributary to the Ganges in India, is sacred to Hindus. This temple is one of

the sacred 12 that all devout Hindus hope to visit before they die. Quite often, my friend tells me, wealthy Hindus ship their or the bodies of their loved one's here for this final ritual.

The corpses, wrapped in white sheets, lay on the cold hard ground. Sons or male relatives carefully carry the loads down the narrow stone steps that lead to the river. The corpses' feet are dripped into the water. Then water is gently sprinkled over the head. To show respect to the dead, the corpse is stripped of its clothing from underneath the sheet carefully so as not to expose the body. The river's water carries the garments away. Downstream, a middle aged man retrieves a sari from the river and lays it out on the bank to dry. Male relations of an elderly women break off her bangles. For the first time I see a bit of plastic around a pair of feet. This family struggles to gracefully remove the plastic that the corpse is bagged in. Perhaps this was a tragic death. The blood-stained plastic is dropped into the holy waters.

Nothing goes to waste here. Dogs and monkeys pick through what remains of the offerings from the smoldering pyre. Wood that does not completely burn is thrown into the river. This, too, is retrieved from the water, set out to dry and re-sold.

Several men have gone on a hunger strike demanding that the Bagmati River be cleaned up in the Pashupatinath temple area [8]. It brings attention to an important issue but somehow misses the point. The Bagmati cannot just be cleaned up in the Pashupati complex alone. Hindus believe in the continuity of their lives through karma. This same concept applies to the life of the river.

As the blood-stained plastic body bag floats down the Bagmati, these ceremonies should be a reminder that pollution, its origin, definition and control, are in many instances culturally defined.

Best regards,

Cynthia

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Received in Hanover 5/23/94