In the US, urban sprawl started with housing, and the malls followed us to the suburbs. In Central Europe and an increasing number of developing countries, the malls and “big box” retailers are the first wave of sprawl, pulling employment and then housing behind it. The number of companies involved is small, their names familiar: Wal-Mart, Carrefour, Tesco, Auchan, IKEA, and Metro, to name the largest. They are rapidly taking over global retailing.

Carrefour, for example, entered China in 1995, and is already China’s single largest retailer, with $963 million in sales last year. Wal-Mart is not far behind, with 12 mega stores. While Carrefour got into trouble by ignoring national regulations in China, an official source said, “There will not be severe sanctions against Carrefour; it would be bad for our image while we are preparing to join the WTO.”

Major cities in Central Europe are being overrun by these big box retailers, and they are spreading rapidly into secondary cities. Small businessmen in Poland, just learning the rules of the capitalist game, said they lost 60% of their business to these big chains. In Hungary and the Czech Republic, big box’s share of retail trade has risen from nothing five years ago to over 40% today, and rising. Carrefour controls a third of supermarket business in Hungary, Tesco, Auchan, Metro, IKEA, Cora, and Baumaxare are all located at the intersection of the EBRD and World Bank-funded M0 Ring Road, near a logistics terminal financed by the EBRD. (see image pp. 10-11) Some new malls, like Polus II, are being developed by companies partially owned by the EBRD. The EBRD’s mandate is to fund the transition, but a transition to what?

These retailers are experts in competing on price, and everybody loves low prices. But why are they so low? They buy the cheapest land possible, on a highway paid for by the taxpayers and the International Financial Institutions (IFIs). They build the cheapest building possible, and use their huge purchasing power to force favorable terms from suppliers. These companies source their products largely from huge agribusinesses (also the recipients of massive subsidies in the US, the EU, and elsewhere). With their large Western capital base, they can sell at a loss until they gain a monopoly position in the market. They can negotiate low interest loans from increasingly globalized banks, while avoiding accountability and risk by doing business through a maze of subsidiaries. For them, the cost of bribing local officials to make necessary zoning and other regulatory changes is modest. (It is no accident that several of these companies have been implicated in recent political scandals: Carrefour in France, Tesco in England, Metro in Poland.)

Finally, sited out of congested cities, with large parking lots, the cost of “delivery” is passed on to the consumer. The driver pays the cost of the last, most expensive leg of the journey by putting everything in his or her car. Ultimately, once one owns a car, and the general taxpayer has picked up the tab for the highway, one saves money by shopping at the megamall. These firms, ultimately,
have been more successful than small downtown shops at getting drivers, taxpayers, and governments to pick up the tab.

In developed countries, we are belatedly learning to deal with such businesses. In Scandinavia, parts of Germany, and England, land use is increasingly tightly regulated to prevent these businesses from externalizing their costs onto society. Increasingly sophisticated ‘conflict of interest’ laws help ensure these regulations are not undermined by corruption. Environmental authorities will block new retail developments if the traffic impacts will drive an area into violation of ambient air quality norms. France has fairly strict laws protecting small businesses from hypermarkets, and most countries have some support mechanisms for small businesses. In these countries, some of these retailers are learning to be good corporate citizens.

Large Western chains, however, are free from these constraints when they operate in Central Europe and developing countries, where the regulatory systems are rarely functional. Conflict of interest is rampant, and often legal. According to Carrefour Argentina’s Director, Bernard Dunand, the total liberty to create, modernize, and expand their stores, in Brazil and Argentina, is a major reason why Carrefour was able to earn 33% of its profits in Latin America, despite the region being responsible for only 20% of its overall sales.

Some of these companies are publicly traded, and all are susceptible to bad publicity. IKEA has been quite responsive.
DHL and UPS Go Human-Powered in Europe; Africa ‘Not Yet Ready’

Modern workbikes are changing the way the world’s leading package delivery companies do business. With just-in-time production and internet-based businesses driving an explosion in small package delivery, delivery companies using traditional motorized vehicles are contributing heavily to global warming and air pollution. They are also the first companies to feel the bite of increased congestion, delivery delays, and increased costs.

In London and Stuttgart, DHL International (UK) Ltd. and UPS are proving that human power can do a similar job as trucks, while creating jobs, minimizing vehicle emissions, and reducing costs. DHL currently has a fleet of twelve quadracycles operating in the London area, each of which carries around 100kg, delivering up to 250 shipments a day. In Stuttgart, Germany, UPS has displaced 50 motorized vehicles with its fleet of 150 tricycles.

DHL incorporated the quadracycle into their alternative fuel fleet when an innovative small company, EMC Logistics, proved the bike to be reliable and of high performance, crucial to DHL providing a premium service. While cheaper than motor vehicle ownership and operation, the primary competitive advantage of the quadracycles is their ability to negotiate congested traffic and the ease with which they can park, with the added benefit of zero emissions, supporting their own Environmental Policy.

Image is also a factor. Airborne Express has used a fleet of tricycles in Manhattan for years, but the vehicles do not bear the corporate name for fear customers would not think their company was ‘modern.’ With their sleek design and state of the art components, workbikes deployed by DHL and UPS in London and Stuttgart are challenging the widely held view that ‘modernization equals motorization.’

To date, UPS and DHL have been reluctant to try human powered delivery in African cities. According to Agnes Bauer, a UPS Public Relations officer based in Belgium, “riding a bicycle is a dangerous activity in the African countries you were targeting and UPS’s policy is to ensure a safe workplace for each of its employees. Our managers were also concerned about the safety of the shipments and felt that, here too, the local circumstances would not allow us to use bicycles.”

Busway Gets Green Light In Los Angeles; Light Rail Project Slogs On

The Los Angeles Metropolitan Transportation Authority recently approved $285 million for a 14-mile bus rapid transit line (BRT) running from the North Hollywood Red Line subway station to Woodland Hills. A $5.2 million bikeway will run beside the busway along with a walkway and trees. Articulated buses holding up to 270 people will operate on exclusive lanes.

The two east-west bus routes currently carry a combined 13,878 riders a day. By comparison, MTA officials estimate the busway would attract a daily ridership of 25,000. It is expected to cut journey times across the Valley from 55 minutes to 30 minutes. Construction is scheduled to begin late next year and be completed in 2005. Some neighborhood groups have opposed the BRT, contending that it will increase accidents, noise and pollution, and will bring down property values.

Meanwhile, construction continues on the Pasadena Blue Line, a light rail service between Los Angeles and Pasadena. The Los Angeles Metropolitan Transit Authority (MTA) has already spent $286.9 million on the line, which was scheduled for completion in 1998. In 1998, a new institution, the Los Angeles to Pasadena Metro Blue Line Construction Authority, was set up to complete the project for an additional $438.8 million, and scheduled completion was shifted to 2003. This estimated price tag is likely to escalate further, if the concerns of several critics are to be answered. The city of

Ultra-modern human-powered delivery by EMC Logistics
South Pasadena, the California Public Utilities Commission, and activist groups in Pasadena and Mt. Washington say that more of the line should be elevated on bridges above the streets or lowered into trenches or tunnels to maximize pedestrian safety.

Modernizing Becaks in Yogyakarta, Indonesia

In April, ITDP launched its first Indonesian becak modernization project in Yogyakarta, the cultural center of Java. Yogyakarta is home to the famous Buddhist monument, Borobodur, and the Hindu monument, Prambanan. Unlike many parts of Indonesia where cycle rickshaws, or becaks, face government repression, in Yogyakarta, they are much more accepted. The main commercial spine, Malioboro Avenue, is half dedicated to non-motorized travel. Yogyakarta is also home to the famous Gadjah Mada University (GMU).

G. Shyam, the leading Indian designer in ITDP’s Indian Cycle Rickshaw Modernization Project, working with faculty and students of GMU and LPIST, has developed four working prototypes, two minor modifications of the existing becak, and is working on two more designs. The vehicles went out for field trials at the end of August.

A half-hour long television special on the project was featured on national television, making the Indonesian public aware that human powered vehicle technologies can play an important role in Indonesia’s modernization process. The project has been nominated for the Putra Bangsa (Son of the Nation) Presidential Award for Community Action.

New World Bank Program to Revitalize Fez Historic Medina

The Medina in Fez, Morocco, a cultural heritage site on UNESCO’s World Heritage List, is about to get a facelift. Facing severe transportation bottlenecks almost as famous as the Medina, the Government of Morocco approached the World Bank to finance an urban improvement project, with heavy emphasis on improving transportation. Resolving these problems without disrupting Fez’s social and architectural fabric posed a major challenge.

The project team first considered a consultant group’s UNDP-sponsored plan to significantly expand roads to improve access to the historic Medina, but the plan was rejected as too threatening to the City’s social and architectural fabric.

A new plan was developed which included only modest widening of a small network of roads deemed critical to improve access by emergency vehicles. Rather than designing the roads to fit the garbage truck, new solid waste collection vehicles were specially designed. Of the $14 million loan, only $2 million will now go to road widening and improvement, while $2 million will rehabilitate historical sites in the Medina, and another $1.2 will help rehabilitate private historic buildings and housing. Another $2 million will go to redesigned parking facilities, and $1.4 million for innovative solid waste removal services. It is hoped that the project will generate considerable lasting employment in the craft and tourist industries, not to mention works.


Car-Free Day Movement Gains Steam

The Car Free Day movement is now on the agenda of at least a thousand cities.

On Thursday, September 21, 2000, the first World Car Free Day was held in more than 50 cities Europe, America, Australia and Asia. This was the first time for most of the participant cities. Organizers criticized the timid reach of the European Car Free Day, since this continued on p.6
continued from p.5

one only closes a few streets in the city center. Cities such as Budapest, Prague, Montreal, Boston, Mexico City, Adeleine, Bangkok and Tel Aviv organized successful events.

One day after the World Car Free Day, September 22, 2000, 760 European towns jointly organized the “In town, without my car!” day. The success of this pan-European event highlights everyone’s willingness to co-operate in developing a greater respect for the environment in an urban context. In 2001 the date will be the same, September 22.

Bogota held its second Car Free Day on February 1, 2001, the first after the public voted to approve the Mayor’s proposal of celebrating a Car Free Day the first Thursday of February of every year. Thanks to the new bus rapid system, TransMilenio, and the 300-kilometer bicycle path network, this Car Free Day improved in terms of velocity and participation.

Eleven weeks later, the first-ever Earth Car Free Day took place on Thursday, April 19, 2001. Led by The Commons and the Earth Day Network, a wide range of self-organized events, large and small, took place in hundreds of cities involving millions of people, from Halifax, Pune, Taipei, Katmandu, Seattle, Pusan, to Hong Kong.

Further information on Car Free Day can be found at www.carfreeday.com - Oscar Edmundo Diaz

TransMilenio: Bogota’s Bus Rapid Transit System Opens New Corridor

TransMilenio, Bogota’s Bus Rapid Transit System (BRT), opened a new 17-kilometer exclusive corridor on August 6. Serving some 53,000 passengers per hour, the new line is already the world’s busiest BRT. The system, created and developed under Mayor Enrique Peñalosa in just three years, began functioning in December 2000. With only 3 corridors (41 kilometers) functioning today, TransMilenio moves 550,000 people daily, 10% of whom used to drive. If system expansion goes forward as planned, by 2015 TransMilenio will have 22 lanes and 6,000 articulated buses providing five million trips per day.

TransMilenio’s articulated buses operate on the central lanes of existing streets, longitudinally segregated from the general traffic. The system is complemented with integrated feeder buses and facilitates pedestrian access. Stations are closed facilities, located in the median every 500 meters on average.

The system is operated by private providers, under conditions stipulated in concession contracts with a central authority. TransMilenio operators are consortiums of traditional local transport companies, associated with national and international investors that own the buses and hire drivers and maintenance personnel. Payment is rendered based on kilometers served by each operator.

The ticketing system is also privately operated. It includes production and distribution of smart cards, acquisition and installation of turnstiles and validating systems, passenger information and money handling. Concessions were awarded through an open bidding process. The money collected from card sales is deposited in a trust fund, which is used to pay the operators.

TransMilenio S.A. operates a Control Center that allows service and passenger access supervision. Each articulated bus is equipped with a GPS and a processing unit reporting its location every 6 seconds. Turnstiles also report to the Control Center the number of passengers entering and leaving the system. Supply and demand is then adjusted.

The same day the new corridor was launched, the current Mayor of Bogota, Antanas Mockus, implemented a peculiar measure that restricts 40 percent of public vehicles from traveling between 5:30 a.m. and 9:00 p.m. in the entire urban area (32,000 hectares).

The restriction on public service vehicles runs Monday through Friday, according to the last number on the license plate. In response, bus and taxi drivers went on strike, blocking main arteries and generating the worst traffic jam Bogota has ever seen. After failed negotiations, a judge declared the restrictions unconstitutional because they compromised the ‘fundamental right of work’. Rumor is that Mayor Mockus may try to reinstate the restrictions.

Due to the enormous interest in TransMilenio, a three-day international conference will be held on November 13. www.transmilenio.gov.co

Fix It First, New Jersey’s Innovative Road Maintenance Law, Fails To Change Permanent Government

In 1999, the New Jersey legislature approved “Fix It First,” an innovative new law spearheaded by the Tri-State Transportation Campaign and other NGOs. The law mandated that the NJ Department of Transportation (NJDOT) use Transportation Trust Fund revenues first to reduce the backlog of structurally deficient bridges and road surfaces by half in five years before funding any new infrastructure. The law also called for 1,000 new lane-miles of bicycle paths to be built during that period. A similar provision was attached to a 2000 trans-
portation bond act, which was approved in a referendum by voters. If enforced, these laws would have diverted part of the $65-$70 million in annual highway capacity expansion projects to road and bridge maintenance and bicycle lanes.

The new law, however, is being undermined by NJDOT, who's proposed 2002 budget for road maintenance and bike lanes falls $45 million short, and even falls below previous year spending levels, while new highway construction funds remain in the $66-$70 million range. In the political vacuum created by the departure of Governor Whitman to head the US EPA, Democratic lawmakers and public interest groups were unable to force NJ DOT to change its priorities during the 2002 budget negotiations.

Immediately after the vote, Tri-State and four other groups filed a lawsuit to hold the Department of Transportation to the Fix-It First law. At the end of July, the case was dismissed by the New Jersey Superior Court, on the grounds that laws cannot dictate the spending priorities of the following year’s legislature, raising questions about the possibility of multi-year budgeting. “In effect, it is a victory for the permanent government,” says Tri-State Deputy Director Jon Orcutt.

Afribike Update

South African Transport Minister Dullah Omar is teaming up with Afribike to mobilize one million low-income South Africans with bicycles and training by 2010. “The time has come to promote bicycle transport as a strategic solution,” said Omar. Thousands have already been mobilized this year, with Afribike programs getting underway in all nine South African provinces.

“Shova Lula”, which means “Ride Easy” in Tswana, is the name given to the government’s ambitious national cycling program, which focuses on mobilizing primary and secondary students and day laborers who, without bicycles, are virtually stranded from schools and jobs.

Most of the Afribike bicycles are coming from Re-Cycle, a UK based group that joined ITDP’s efforts to found Afribike back in 1998. Re-Cycle receives used bicycles from the Royal Mail, which renews its nationwide fleet of postal delivery bicycles every few years. Pedals for Progress is also sending thousands of used bicycles from New Jersey.

Afribike has already mobilized thousands

Afribike has already mobilized thousands

Bicycles are also coming from donors in the Netherlands, and from within South Africa. The distribution of the bicycles to local townships and rural communities is executed via Afribike’s container-based workshop, or “Afribike Franchise” unit.

To address the safety issue, Afribike is working to establish South Africa’s first bicycle path network. The network, being constructed in Ivory Park, a township north of Johannesburg, will link schools, homes, and popular markets.

The Dutch consulting firm Interface for Cycling Expertise (ICE) provided consulting support to the project. Alexandra Township is also slated for bicycle tracks, which will be placed as a key part of a new US $20,000,000 infrastructure upgrade package.


New US Bill An Incentive To Cycling

If passed, the US “Bicycle Commuter Act” will allow employers to give their employees up to $65 per month in tax benefits for commuting to work by bike. The landmark pro-bicycle legislation was introduced in March 2001 by Representatives Earl Blumenauer (D - Oregon) and Mark Foley (R - Florida).

The bill is modeled after the newly enacted transportation fringe benefit, or Transit Chek, which allows employers to give employees a $65 per month tax benefit for commuting to work by mass transit or carpool. The new bill adds bicycling to the list of alternatives modes of transit eligible for the benefit. Opponents of the bill argue that there is no way to guarantee that those who take advantage of the cycling benefit actually ride. Proponents contend that since the benefit is intended to reduce single occupancy vehicle trips it can be utilized as long as the employee does not receive parking benefits.

To support the Bike Commuter Act (H.R. 1265) please call or write to your Member of Congress to encourage them to support this legislation. Continued on p.32
We first heard the rumor in December 1996. In the kitchen of a neighbor in Barrio Bellavista (an artsy area just outside downtown Santiago, like Greenwich Village in New York) the neighborhood association’s Ecological Committee was discussing how to quiet the newly installed discoteques enough to get a decent night’s sleep. Then someone mentioned that a highway project, the “Costanera Norte”, was being planned, to slice east to west through the middle of our city, Santiago, Chile.

That day, our small citizens group started a struggle that has brought the Costanera Norte highway project to its knees. Out of that struggle grew a representative and heterogeneous citizens’ organization, Ciudad Viva, or Living City.

Barrio Bellavista

Three months later, official news of the highway project hit with the force of a hurricane. Our neighborhood association— and the Ecological Committee— found themselves hastily trying to learn about how highway projects impact cities. It didn’t sound good.

Chris Zegras, then with the International Institute for Energy Conservation’s Santiago office, was the first expert to throw us a life jacket, giving a talk at one of our meetings. Then, a neighborhood chemist started researching emissions. Within weeks we had a series of fact sheets that painted a very ugly picture. Soon architects began to rally, as did Santiago’s lively, expert, and extremely generous community of environmental non-government organizations. Then, transport engineers and architects, some of them working within the national government, began to support us. We were developing a clear picture of what we were up against. The highway project was the brainchild of the national Public Works’ Ministry, then headed by Ricardo Lagos, now the President of Chile. The 33 km city freeway project would be built as a private concession. Lagos intended it to be the shining star in the somewhat tarnished crown of the government’s program for using concession contracts to build up sea ports, airports and highways throughout the country. Our ragtag group of common citizens were up against the most powerful ministry in the country and one of its most powerful and ambitious politicians. Even our friends (especially our friends!) told us to shut up and stay home. But we couldn’t.

When the Ministry opened bidding on the concession contract, no Environmental Impact Assessment (EIA) on the project had been submitted. We filed a writ of habeas corpus in the Chilean courts. It was a terrifying decision – lawyers are very expensive and we were relatively poor. Lagos fought back in the press. Screaming headlines in El Mercurio, Chile’s most influential newspaper, attacked us. The government threatened to change laws so groups like ours could be sued for filing this kind of writ. I pasted George Eliot’s quote (at the top of this article) to my office door and we quoted it at panels and seminars, NGO meetings and workshops, neighborhood assemblies, rallies and marches. For months, we had no hope of winning, as the government hammered us constantly through the press. Reporters treated us like Luddites battling against the common good.

A Train with Many Wagons

Gradually, the winds of fortune began to change. To raise money to pay the lawyer, local artists donated works. Maria Ines Solimano, a neighbourhood designer, organized an art auction, which has now become an annual event. Cesar Garrido, leader of the “Movimiento de los Furiosos Ciclistas”, Santiago’s creative, rebellious cycling organization, donated his expertise to develop our web site.

We lost our writ, but only because the Ministry finally presented an Environmental Impact Assessment. Despite grave reservations about the newly created national environmental commission (composed entirely of ministerial appointees, including one representing the project’s proponent) we participated fully in the formal review process. With data from the government’s own technical departments criticizing the project and from studies of similar projects abroad, we drafted a
lengthy critique of the highway project, supported by 100 pages of footnotes and bibliographic references. A forester, Mauricio Montecinos, coordinated the many talented people who contributed to our environmental impact study.

By early 1998, our two humble Bellavista groups were joined by many others. Expert geographers joined us in predicting disaster. The market organizations around the Vega Central – the Vega Chica, the Pergola Santa Maria (flower vendors), the Tirso de Molina, the Acófer, Túnel del Tiempo, Baratillo and others – joined the campaign; they were fighting for their economic lives. The well-heeled and well-connected Pedro de Valdivia neighborhood, appalled at the destruction the road would bring to the Cerro San Cristobal, the most important of Santiago’s few parks, spent every weekend for a year collecting over 10,000 signatures against the project. Two poor communities from Independencia joined the struggle because their homes would be expropriated. Architects, alarmed at the impact on the urban fabric, particularly the planned destruction of the historical buildings surrounding the former home and museum of Pablo Neruda, Chile’s Nobel prize-winning poet, began to speak out and organize forums. Then key transport engineers joined in, several with international reputations. Almost without exception, the professional society and distinguished transport engineers joined the opposition and some very brave ones were willing to join us speaking out publicly against the project at congressional committees, and on national television.

Winning Over the Press

We decided to publish a book: “Costanera Norte: what kind of city do we want?” We held a press breakfast to launch the book in the Antojo restaurant, with home-baked bread, fresh fruit, flowers from our markets, and fresh jam from neighbors, things representing the communities we were fighting to defend. Dr. Ricardo Araya showed slides demonstrating the damage to the hill, and we provided a blow-by-blow account of the project’s devastating effects on the city’s architectural and human heritage, as well as a thriving local economy, central to the city’s food supply and entertainment. Francisco Martínez, then president of Chile’s prestigious Society of Transport Engineers, spoke too. Patricio Lanfranco offered an economist’s view. It turned the press around. Suddenly they began to look at us as people with an important message.

Bad Business

By this time, the projected cost of the highway had ballooned from US$140 million to US$360 million (it now stands at US$480 million). We started questioning the fairness of spending at least $80 million of taxpayers’ money to subsidize the wealthiest 20% of citizens who chose to commute by automobile, when there was ‘no money’ for the 60% of Santiago citizens who commute by bus.

Information leaked to us made it clear that the project was too poorly conceived and studied to be a sound business opportunity. Profitability studies, we learned, had been suspended when results indicated it would not work financially. We started a campaign focusing on the companies interested in concession contracts, launching a web site in Spanish, French and English, aimed at potential foreign investors. As it turned out, it proved impossible to raise the money abroad.

By this time, the Environmental Commission had approved the project, over the objections of its own regional Advisory Board, the only independent body involved in the environmental evaluation of projects in Chile. The approval was made in a matter of minutes, but writing the justification of this decision took over a month. However, the environmental review process revealed such serious faults that when the government opened bidding no one was interested.

The Highway Promoter Fights Back

In 1998, it appeared that the highway was dead. But, despite considerable opposition within its own ranks, the government regrouped. It increased the level of subsidies and guarantees, and a new bid was able to attract investors. We researched the firms participating in the tender, and attacked continued on p.31

“Our ragtag group of common citizens were up against one of Chile’s most powerful politicians. Even our friends told us to shut up and stay home.”

Santiago’s few parks, spent every weekend for a year collecting over 10,000 signatures against the project. Two poor communities from Independencia joined the struggle because their homes would be expropriated. Architects, alarmed at the impact on the urban fabric, particularly the planned destruction of the historical buildings surrounding the former home and museum of Pablo Neruda, Chile’s Nobel prize-winning poet, began to speak out and organize forums. Then key transport engineers joined in, several with international reputations. Almost without exception, the professional society and distinguished transport engineers joined the opposition and some very brave ones were willing to join us speaking out publicly against the project at congressional committees, and on national television.
Developers in Central Europe don’t necessarily prefer the city-edge sites that promote sprawl. Some would love more central, transit-accessible locations. In Prague alone, there are some 2,500 acres of derelict land (“brownfields”), much of it in excellent locations adjacent to subway stops, tramlines, and in walking distance from the city’s core. This land is the legacy of Central Europe’s rapid deindustrialization and demilitarization after the fall of socialism. If rehabilitated, these brownfields could provide transit-friendly locations for most needed new homes, offices, parks, and shopping facilities.

Unfortunately, fear of discovering contamination, and a host of other problems, have scared off legitimate developers. Developers able to tackle brownfield sites tend to be shady, willing to ‘cut corners’ on toxic cleanup, or ‘accidently’ burning down historically-protected buildings on the site. Even legitimate developers are shy about discussing their success in rehabilitating sites, not wanting to stigmatize the development as ‘brownfield,’ and thus potentially contaminated.

An exceptionally large percentage of urban land in Central and Eastern Europe is brownfield. (see graph) Some brownfields are decommissioned urban military bases, others are obsolete railway sidings and marshaling areas, but most are old industrial sites. Socialist state enterprises, unconcerned about land prices, tended to build their oversized industries in urban areas.

The transition from socialism created major obstacles to revitalizing these sites. When the state enterprises that occupied them were privatized, they were not bought by investors interested in saving these companies. Rather, the new investors were out to strip them of their assets. In a process known as ‘tunneling,’ a group of investors would buy a state-owned enterprise, borrowing money from a bank, and using the land as collateral. Then, the investors would sell off all the valuable assets, including choice parcels of land, at fire-sale prices to other companies, also under their control. These companies in turn re-sold the land again, which under current law ensured that creditors would never be able to recover it. In the meanwhile, the investors treated themselves to generous salaries and perks. Naturally, such companies went bankrupt. Banks seized their remaining assets, but their collateral, such as the remaining land, was now mostly worthless.

Hoping to sell the land fast for a good price, banks and other creditors then split the land into small parcels. Speculators then

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Photo below:
The Budapest suburbs—retail sprawl near Budaörs as seen from Kalvaria Hill.

by Yaakov Garb and Jirina Jackson
bought them up, hoping a large developer needing to assemble a larger tract of land would be forced to buy them out. To make matters worse, tunneling rendered invalid Environmental Clearance Contracts, or ECCs. ECCs were guarantees issued by the state’s National Property Fund, to protect private investors in case any unknown environmental hazards were found on the property. Because ECCs were vested with the originally-privatized company, and not with the land itself, they disappeared when this company went bankrupt. The creditors had little interest in making known any environmental encumbrances, since these compromised their ability to maximize sale price.

As a result, potential brownfield developers face tremendous risks, high costs, legal headaches, and significant site re-assembly problems. In the West, a municipal development corporation would deal with many of these problems, assembling the site using the state’s power to expropriate land. In Central Europe, there are few of these institutions, and, as a reaction to decades of heavy-handed abuse, the state’s expropriation powers are limited to public facilities recognized in an approved land use plan. A developer doesn’t want to buy six pieces of land, only to find they cannot buy the seventh needed to make their development viable. The legal tools to make conditional purchase viable, however, have been ruled illegal or have proven ineffective. Without the possibility of assembling sites back into single ownership, many brownfields will remain brown for years.

Cities worldwide are becoming increasingly aware of the social costs of urban sprawl and the drag on urban vitality created by derelict brownfields. In Britain, planning guidance from the national government aims to concentrate 50% of new housing development on brownfields between now and 2011, and they hope to raise this percentage to 70%.

This is even more important in Central Europe, where brownfields are much more extensive, and sprawl still relatively constrained. Central European cities have only recently started to establish the necessary policies and instruments to deal with these problems.

The workshop brought together all the major governmental agencies and private sector stakeholders whose cooperation is necessary if new development is to be channeled away from greenfields onto brownfields. For example, the Ministry of Environment shared its significant expertise in the technical aspects of site evaluation and treatment, while other stakeholders made clear that stringent undifferentiated environmental clearance standards make little sense. To clean a site to the level required for growing vegetables or a children’s playground is needlessly expensive if the site is destined to become a new industrial site.

The Ministry of Finance will play a key role in enabling brownfield rehabilitation programs, both in directly shaping the various fiscal incentives for brownfield redevelopment, and in approving the budgets of the other ministries that

A derelict site in Prague

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World Leaders Pedal Sustainable Transport at UN

by Noah Budnick

For two weeks in April, environment and transportation ministers, labor unions, local government representatives, scientists, business people, and advocates came to New York for the 9th Meeting of the United Nations Commission on Sustainable Development (CSD). The meeting featured the first-ever United Nations bicycle ride; a rousing presentation from Enrique Peñalosa, the ex-Mayor of Bogota; and some promising yet unenforceable guidelines for reforming the way national governments develop their transportation systems. While these and other positive outcomes resulted from this follow-up meeting to the Rio Earth Summit, the dialogue was eclipsed by the US pull out of the Kyoto Protocol.

The UN CSD

The United Nations CSD was created in the wake of the 1992 Rio de Janeiro Earth Summit, as an international body to monitor the implementation of the “Agenda for the 21st Century” (or “Agenda 21” as it is popularly known). Agenda 21, which makes recommendations for transport, forestry, and other key environmental issues, was adopted by more than 178 governments in Rio de Janeiro in June of 1992. Each year since then, the Commission has met to discuss specific topics of Agenda 21. This year’s topics were sustainable transportation, and energy.

As co-chairs of the UN Sustainable Transport Caucus, ITDP and the Sustainable Transport Action Network for Asia and the Pacific (SUSTRAN) played a major role in preparing and executing the meeting.

Prior to the meeting, the UN Sustainable Transport Caucus assembled a delegation of twenty sustainable transportation specialists, from technical experts to grassroots advocates. The international cast included Ms. Ana Bravo (International Forum for Rural Transport and Development, Panama), Ms. Moekti Handajani Soejachmoen (Sustainable Transport Action Network for Asia and the Pacific, Jakarta), Mr. Patricio Lanfranco (Ciudad Viva, Santiago), Jeffrey Maganya (Intermediate Technology Development Group, Nairobi), Mr. Roger Torode (Inter-national Association of Public Transport, Brussels), and Ms. Beatrice Schell (European Federation for Transport and Environment, Brussels).

The First Ever UN Bicycle Ride

During the meeting, ITDP staged the first bicycle ride ever held on United Nations grounds. The event highlighted the bicycle as a modern and environmentally sustainable mode of transportation. Ministers and UN ambassadors pedaled alongside sustainable transport advocates and representatives from the labor unions. In all, ministers and ambassadors from Sweden, Belgium, the Czech Republic, France, Spain, Finland, South Africa, and New Zealand participated in the ride. Invigorated with the spirit of cycling, the Ministers joined the NGO Sustainable Transport Caucus in ensuring that the final CSD statement prominently featured support for non-motorized transport.

The Caucus hosted two other events. “Creating a Global Network of Sustainable Transport Organizations” began the early discussion and planning
of an international transportation advocacy network. The idea is to build global networks analogous to SUSTRAN that link individual groups within regions and then link those larger bodies to create a global forum. The Latin America network will be hosted by Living City (see article this issue), and in Africa by ITDG Kenya.

The second event, “Towards Sustainable Public Transit Systems and Urban Land Use Policies,” featured Enrique Peñalosa, the former mayor of Bogotá, Colombia (see ST#11 “Peñalosa Lets It Ride”), who gave an inspiring presentation on how Bogotá reformed its transportation policies, built public support, and implemented its massive busway and cycling networks.

Setting the Stage for Earth Summit II

While the recommendations produced at CSD 9 were vague, they did support non-motorized transport and suggested, at the behest of the NGO Transport Caucus, that the regional UN commissions initiate the development of regional minimum tailpipe standards, fuel specifications, ambient air standards, and safety standards, following on work done by the UN ECE.

Brownfields

continued from p.11

Brownfields propose various brownfield measures. The newly formed regional administrations, who will control spatial planning in their jurisdiction, and who will be recipients of EU funds, will also play a key role. The workshop, drawing from international experts, outlined a number of public measures which, if adroitly applied, would give brownfields a fighting competitive chance against greenfield development. The measures needed include coordinating registration and environmental analysis of sites, assessment of their commercial potentials, sophisticated area-wide planning and zoning changes, and the development of a range of financial incentives. The incentives can include assistance in assembling a site into single ownership, providing guarantees that companies will not be responsible for future cleanup costs beyond a fixed cap, provision of supporting infrastructure, providing grants for demolition and cleanup, or tax breaks that allow companies to deduct these expenses.

However, in a meeting between the EU Environmental Ministers and the Transport Caucus, the EU Delegates described these regional dialogues as ‘frustrating.’ In a Multi-Stakeholder dialogue, with representatives of businesses, NGOs, labor unions, and local governments, some general consensus was reached on the phase out of lead and other issues. Despite calls from the Group of 77 countries from developing nations for new funding mechanisms to support transport system development, such calls were rejected by the US, (they promised to reject any new funding mechanisms) as well as the EU and the NGOs, for fear such funds would be misused to subsidize motorists. The final statement of CSD 9 will serve as the basis for any transport discussions at the Earth Summit next year in Johannesburg, though it is likely that the US pullout of Kyoto will dominate these meetings.

For more information, see:


Istanbul +5

Immediately after CSD, a follow up meeting to the City Summit in Istanbul was held, also in New York. Each Member State presented a report on national and local implementation of the Habitat Agenda. The discussion focused exclusively on housing, and excluded any discussion of the transport provisions in the Istanbul Global Plan of Action. This was unfortunate because the UN Center for Human Settlements is the only UN Agency with a specific mandate to work on transport issues. Without a vote, the Member States adopted a Declaration on Cities and Other Human Settlements in the New Millennium.

A side event on transportation sponsored by the World Bank, UNCHS, and the W.Alton Jones Foundation was also held at Istanbul +5, bringing back together many of the same speakers from the Transport Dialogue for the 21st Century in Istanbul in 1996. Ken Gwilliam of the World Bank presented the broad outlines of the World Bank’s new urban transport strategy, while ITDP presented an overview of the World Bank’s loan for the Guangzhou inner ring road, illustrating how far World Bank transport lending still has to travel before it can realize its new sustainable vision.

Regional administrations. Another agency that has taken leadership on the issue is CzechInvest, the government investment promotion agency. They have studied the brownfield issue in an effort to steer investors not only to greenfields, but to central brownfields as well, and developed a quite comprehensive package of incentives.

While there is much to be said for increasing the state’s powers to accelerate the development of brownfield sites, many feel this could be a two-edged sword. Without constant supervision and participation by civil society, these new powers could be misused. Brownfield development can strengthen the city center, but questions still remain: what kind of development, and for whom?

Many of the presentations and associated materials (in English and/or Czech) from the workshop described in this article, and a set of further brownfield resources and websites, are provided on the ITDP web site, www.itdp.org.
Blanquita Soria, an Ecuadorian domestic worker, awakes well before dawn to prepare for a several hour commute. It begins with a 2-kilometer walk to the nearest bus stop, where she waits in line to board an overcrowded, informal bus that takes her only on the next frustrating leg of her long journey. Last year, at this very bus stop, her 7-year old son, Fausto Alejandro, was killed when a private bus operator – eagerly rushing to complete as many daily trips as possible – jumped the curb while making an abrupt u-turn. The bus operator paid a mere $350 and was back operating his bus in a matter of days. Stories like these have led to efforts now underway to end the chaos on Ecuador’s urban streets.

Cuenca’s alternative

Finally, the dramatic improvements of bus services in nearby Quito and Bogota are starting to ripple across the region, even to smaller and less affluent locales. While clearly a work-in-progress, Cuenca, Ecuador has taken key first steps. Cuenca has already developed bus rapid transit plans, formalized its previously unregulated bus operators, removed many of its oldest buses from service, implemented an innovative parking scheme, and upgraded pedestrian services.

Nestled in the Andes mountains, Cuenca, Ecuador, is an important tourist destination mainly because of its colonial-era historical center, a UNESCO World Heritage Site. An unregulated transit system combined with escalating motor vehicle use brought congestion to its historical core. The narrow, colonial streets entrapped and concentrated pollutants. Recently installed monitoring equipment shows particulate and noise levels well above World Health Organization guidelines. Traffic is responsible for 85% of this pollution. This growing daily bombardment is undermining Cuenca’s status as a premiere tourist destination.

In partnership with the Inter-American Development Bank, Cuenca’s dynamic mayor, Fernando Cordero, has created an alternative vision: the Cuenca Plan for Sustainable Transport and Transit. Using the Curitiba system as a model, the Cuenca system will feature 24 kilometers of principal trunk lines and approximately 100 kilometers of feeder routes. Over 11 kilometers of the inner-city trunk lines will operate on segregated busways to improve travel times. Several terminal stations will provide integrated transfers between the trunk and feeder lines as well as access to regional and long-distance bus services. The Cuenca system will also include other innovations such as automated fare collection and improved shelter and station design.

The Two-Phase Plan

For too long, public transport in Ecuadorian cities was characterized by uncomfortable, unsafe, and unregulated services provided by private operators who suffer under the poor economics of their trade. With multiple operators on the same route, operators drive aggressively to beat the competition for passengers. This practice along with 12-16 hour working days for many drivers creates an array of safety and security problems.

Cuenca’s aging bus fleet is a major source of air pollution. The average bus age is 18 years, and 150 of the fleet of 650 private buses are more than 20 years old. The new transport plan calls for 110 of the oldest units to be immediately retired while the other units will be gradually phased-out. At present the buses are envisioned to be of low-floor design with three wide doorways for rapid boarding and alighting. Overall, the system will reduce the number of buses and vehicles kilometers traveled, while the coverage and access for passengers will actually increase. The plan will be implemented over two phases, with the entire system to be completed by 2008.

Formalization without confrontation

To focus the plan’s management and oversight, the municipality has created the Municipal Transit and Transport Unit (Unidad Municipal de Transito y Transporte Terrestre or...
unregulated private bus operations into a rational and formal system has not been an easy road. In Bogota and nearby Quito, the development of bus rapid transit systems stirred opposition from some existing transit operators. These existing bus owners and drivers viewed the new integrated systems as a serious threat to their continued economic viability and near monopolistic control of transport options. While cities eventually overcame such opposition, the resulting protests and violence did predicate the use of military and police officials to restore calm.

Benefiting from knowledge of the experiences of Bogota and Quito, Cuenca has sought to retire buses and rationalize bus lines without substantially affecting employment and personal livelihoods. By using a highly participative decision-making process and phased implementation, Cuenca has not only avoided confrontation but has also gained the confidence of the private sector. Already the private sector operators have enjoyed financial benefit from the formal distribution of routes and control of tariff rates. During the first year of the plan’s implementation, the sector’s total revenues increased a remarkable 80% from $15 million to more than $27 million. The formalized system has not been an easy road. In Bogota and nearby Quito, the calming of traffic, installing of traffic signals, widening and beautifying of sidewalks, and formalizing of sidewalk vendors has made strolling in the city center a more pleasurable and time-efficient experience. The city’s geographical center, the Tomebamba River, provides a natural corridor for both pedestrians and cyclists along its banks. Extensive cycle ways are being constructed along both the Tomebamba (6.1 km) and Tarqui Rivers (5.8 km). The cycle ways will form an integrated network that will connect with residential and commercial centers as well as the formal bus system; cycle parking facilities will be available at bus stations. Already many members of the Cuenca police force have converted to making their rounds with bicycles.

Sizing it up
As a smaller-sized city in the developing world, Cuenca is making for an important test case. Innovations in the design of urban bus systems are not limited to the wealthiest or largest cities. With Cuenca as a successful base, the IDB is now leading similar initiatives in other secondary and smaller cities in Ecuador as well as the state of Parana in Brazil. Bus rapid transit initiatives may well be the preferred economic choice even for cities of 100,000 inhabitants.

The trend started in Curitiba and then adapted in Quito, Bogota, and now Cuenca shows remarkable similarities. In each case, a dynamic mayor in tandem with a skilled technical team has overcome institutional and political barriers to create excellence in transit design and implementation. The thrifty economics of bus rapid transit in conjunction with strong political will is proving to be a successful combination in Latin America and beyond.

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Delhi, India, one of the most polluted cities in the world, has finally taken some serious steps to address its air pollution problem. Recent events in Delhi—from transit strikes, riots by irate bus passengers, to negotiations with Pakistan about a natural gas pipeline from Iran—provide a rich case study in the promise and pitfalls of alternative fuel vehicles. This innovation in vehicle technology, meanwhile, has unfortunately not been accompanied by innovative traffic management measures.

Delhi's Contentious CNG Conversion

In April of this year, the Supreme Court of India finally decided to enforce their 1998 decree requiring all commercial vehicles in Delhi to convert to compressed natural gas (CNG). Few were ready to comply with the law. The day the law went into effect, only 2,000 out of Delhi’s 14,000 buses, 12,000 of its 58,000 auto rickshaws, and 1,000 of its 2,000 taxis had made the conversion to CNG and were in service. The result was pandemonium. Some 10% of workers failed to make it to work at all, others were hours late. After waiting hours for a bus, thousands of enraged passengers went on a bus-burning rampage. Only 70 service stations were selling CNG, so commercial vehicles waited in queues more than a kilometer long. By August, waits at fueling stations increased to six hours or more in some locations. Once at the pump, refueling takes another 15 to 20 minutes. Unlike in Western countries, irate passengers typically waited with their buses. Two people were killed when one bus exploded during refueling. With the public transit system in chaos, trips by highly polluting motorcycle skyrocketed.

Witnessing the chaos, the Supreme Court again relented, and granted a further extension until 30 September 2001, but in order to meet the deadline all commercial vehicles needed to have a purchase order for CNG conversion by the 14th of May. On August 29, a month before the ban was to go into effect, 95% of private bus and auto rickshaws went on strike, paralyzing the transport system for a day. While the Supreme Court has now decided to also allow taxis to use low sulfur diesel if in compliance with EURO-2 standards, the required CNG conversion for buses still stood at press time.

While it still remains likely that the Supreme Court’s actions will eventually force a shift to cleaner commercial vehicles, public transit fares will increase, and the loss of public transit ridership to polluting motorcycles may be permanent, countering environmental gains. Politicians, bureaucrats, experts, and environmentalists are still apportioning the credit and the blame.

Back in 1995, M.C. Mehta, an environmental lawyer affiliated with Anil Agarwal’s Center for Science and Environment (CSE), filed a petition to the Supreme Court of India demanding that the Delhi government protect the public’s health by reducing pollution from motor vehicles. While in Western countries on-road commercial vehicles would have to comply with national or EU emission standards using any technology in compliance, CSE argued that vehicle emission inspection and maintenance had proven ineffective in India. In the lawsuit, they therefore asked the court to name a specific clean vehicle technology as the only viable means of enforcing the ban. The Delhi Municipal Corporation then put together a committee to recommend a technology. This committee, not composed of technical experts, in 1997 identified CNG as the most reasonable conversion technology.

Debate continues to rage as to whether the recommendation of CNG was the best one. While CSE basically endorses the CNG decision, Tata Energy Research Institute (TERI) argues that clean diesel technology would have been more effective. Others, like Dr. Dinesh Mohan at Indian Institute of Technology, contend...
there is sufficient uncertainty about how these vehicles will perform in Indian conditions that several alternatives should have been phased in and tested before locking the city into one technology. It is not yet clear how well this technology will perform in India’s typical hot weather. Overloading and poor engine maintenance, also typical in India, further reduce the environmental advantages of CNG.

Experts generally agree that converting buses and taxis from diesel will reduce SO2, and converting taxis and motorcycle rickshaws (Bajaj) from leaded petrol will reduce lead. Most also agree that carbon monoxide emissions and large particles, or soot, will be reduced, which will make the air appear much cleaner. Debate primarily centers on their impact on NOx emissions, Hydrocarbon (HC) emissions, and micro-particles. Many believe that these emissions will increase or only marginally improve by the conversion to CNG in Indian conditions. Until the CNG vehicles are actually tested in these conditions, nobody really knows.

Bus CNG technology is immature, and developed countries only recently introduced CNG buses on any scale. In India, there are only two companies that sell CNG buses, Ashok/Leland and Telco, and they import the CNG engine. These monopoly market conditions are contributing to the high cost of conversion. While ordinary Indian diesel buses cost between $11,000 and $20,000, new CNG buses cost around $40,000. To convert an existing bus to CNG costs around $8000, but with the ban looming, just making an appointment is costing around $1100. As all but 2000 of Delhi buses are privately owned and operated, these costs are being pushed onto small businessmen, who in turn are clamoring for fare increases. Unregulated charter bus fares are already rising sharply. Some are arguing that the government should step in and purchase the buses, then re-sell them to small bus operators at cost or even at a subsidy, as the government would be able to negotiate a better price with private manufacturers.

While motorcycle rickshaw operators are poorer than bus companies, the conversion technology for small CNG engines is more mature, as it is already extensively used in Egypt, Argentina, Bangkok, Italy, and several other countries. Conversion, costing as much as $450, is a burden, but this is generally made up for over time by lower vehicle operating costs. Refueling is also easier as they simply replace an old canister with a new one.

The political economy of natural gas is also a consideration. While India has its own natural gas, demand is projected to quadruple by 2020, rapidly outstripping domestic sources. Iran is the likely source of imported natural gas, but this requires building a pipeline across Pakistan. Two options are discussed, overland through Pakistan, and offshore. While the offshore option may make it harder for Pakistan to tamper with, it also dramatically increases the cost. The on-shore pipeline will cost over $3 billion, and the off-shore pipeline over $5 billion. This is not to mention the environmental risks of leaks from underwater gas pipelines. Nor would the underwater version be immune from submarine attack or depth charges. As a hedge against sabotage, India is proposing to share the gas from the pipeline with a major Pakistani city like Lahore.

Finally, with bus fares increasing and service plummeting because of the conversion, critics like Dr. Dinesh Mohan, argue that the anticipated environmental benefits are being undercut by more and more people switching to motor scooters, which are now much cheaper and more convenient than buses, and face no emission controls.

There are three other important alternative fuel vehicle projects currently underway in India. The US Agency for International Development (US AID) has funded the development of modern human powered vehicles (ITDP’s cycle rickshaw modernization project) and electric vehicle technologies. The Indian Government has also supported electric vehicle projects. Finally, the Global Environmental Facility (GEF), under the Ministry of Non-Conventional Energy Sources, has a program to support hydrogen fuel cell buses.

**Cycle Rickshaw Modernization**

ITDP’s US AID-funded cycle rickshaw modernization project ended in October of 2000, though it continues in a reduced capacity with private funding. A visit in June 2001 indicated that today roughly 2,000 of the modern cycle rickshaws have been manufactured and sold in India. As they are luring roughly a fifth of their passengers away from highly polluting motorized modes, modernized human powered vehicles pro-actively reduce greenhouse gases and other emissions. The largest concentration of the modern vehicles is in Vrindavan, a smaller city between Delhi and Agra, where there is a popular Krishna temple. There, the entire rickshaw fleet has been converted to the modern vehicles. The tourist area around the Taj Mahal and the Dayal Bagh area in Agra have both also been fully converted. There are concentrations of modern cycle rickshaws in eight other cities.

In areas where the modern cycle rickshaws have taken root, they have entirely displaced the traditional rickshaw. Even without requiring the new vehicles, as soon as they are introduced the traditional vehicle operators are unable to attract new passengers. As a result, it has created a burgeoning market for a retrofit-design, also developed by the project. The retrofit reduces the hardship of conversion for poor operators.

Now that several large manufacturers and assemblers have entered the business, the cost of the modern cycle rickshaws has come down to parity with the traditional cycle rickshaw, and may continue to fall, though the market price remains higher. Daily rental rates are currently $0.11 more than for the traditional vehicle.

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While public sector hostility to cycle rickshaws remains, with bans continuing in large parts of New Delhi, Hyderabad, Calcutta, Bangalore, and many other cities, the project helped convince the Prime Minister to call for a meeting with the Chief Minister of Delhi to consider loosening these restrictions and replacing the outmoded 70-year old cycle rickshaw registration system.

Electric Vehicle Projects

Electric vehicles hold the promise of completely removing all tailpipe emissions from heavily polluted urban areas, though they increase the demand for electric power. In India, electric power is another major source of air pollution as much of it is generated using coal or other fossil fuels. For electric vehicles to reduce greenhouse gas emissions, they would have to use electricity generated from hydro, wind, or solar sources.

Electric Two and Three-Wheelers

Of the various electric vehicle projects in India, the one currently most visible on the road is the electric Vikram. The Vikram is a three-wheeled six-seater slightly larger than the Bajaj (motorcycle rickshaw), manufactured by a state-owned company called “Scooters India” in Pune. There are 8 in commercial operation in Agra, and maybe a dozen in Delhi. In Agra, the electric Vikrams were introduced on two routes, including around the Taj Mahal, where traditional Vikrams were banned. Whereas a traditional Vikram costs only about $1,200 and is cheap to operate and maintain, the electric Vikram costs $6,100, not including batteries, which cost another $1,750, and wear out after twelve to eighteen months. Charging equipment costs about $400. Unlike the petrol Vikrams which were sold to operators, thus far only one electric Vikram has been sold. The rest of the electric fleet is operating on a rental basis from the distributor, who received a subsidy from the government company of roughly $300 per vehicle. They are only earning about $400 per year per vehicle above the cost of the battery, so the business is not very profitable.

The banning of the petrol Vikrams, meanwhile, has dramatically reduced their value. Virtually no one is buying new ones in anticipation of further bans, and as a result the resale value of these vehicles is extremely low. Vikram owners, therefore, have seen their largest capital asset dramatically devalued. There does not appear to be any simple retrofit technology for the Vikram, unlike the CNG conversion of the Bajaj.

USAID has also provided roughly $4 million in financial support and technical assistance for the development of an electric motorcycle rickshaw and an electric motorcycle, with Unique Mobility Inc. (Unique), Golden, Co. (now partially owned by a Lee Iaccoca group) and Bajaj Auto, Pune. Most financial support went to the US companies involved in the project.

Bajaj made prototypes for fifteen electric two-wheelers to be operated by Pizza Hut for delivery of pizzas in Delhi, and ten three-wheeled taxis in Delhi for exposure to basic driving conditions. Five three-wheelers are also being tested in Agra, at the Mughal Sheraton. As of today, the vehicles were not available for commercial sale so cost and performance data is not yet available.

Closest in size to the Philippine jeepney, a somewhat larger, 10 seater-three wheeler called a Bijlee has also been introduced in India. Now available for sale, they cost about $6,300 in India. As the Bijlee can only go 90 km before it needs a recharge or a battery switch, Mahindra and Mahindra, the manufacturer, designed it as a fixed-route passenger taxi in Delhi. There are seven electric Bijeles in test operation in Delhi, and Nepal has ordered 51.

The Bijlee’s are competing in Nepal for the market share now taken by the Safari Tempo, an electric vehicle introduced in Kathmandu when conventional diesel-fuelled Tempos were banned. The electric Safari Tempo project was also supported by U.S. AID-Nepal in 1996, as well as by the Government of Nepal. The Safari Tempo, which has a maximum capacity of 10 passengers and a driver, can travel only 60 kilometers, go only 40 kph, and has a maximum payload of only 600kgs. This requires that the batteries be switched twice during a standard day of operation.

Electric Cars

An electric car has been developed for the Indian market with support from US AID, the Indian Technology Development Board, and the Ministry of Non-Conventional Energy Sources. US AID gave two grants for a US company, Amerigon, to develop and test the prototype. The result, the “Reva,” made by a joint venture between Amerigon and the Indian company Maini, went on the market this year. So far, sales have been few but it may be too early to tell. Designed as a clean upgrade from a motor scooter, at $5,900 plus a $450 battery pack that needs to be replaced every two years, it’s cheaper than the

Electric Buses

Bharat Heavy Electrical Limited (BHEL), another government-owned company, has also been producing an electric 15 seater bus called Electravan. It costs about $25,000, and can only go about 40kph, and its range is only 70km, and can only handle 10% gradients. Its battery weight, at 1,100kgs, is actually greater than its payload capacity of 1,000kgs. The cost of replacing the batteries is significant. The vehicles are a...
cheapest petrol car. However, it only seats two people, can go only 65 kph, and its range is only about 100 kilometers, making inter-city travel impractical.

The GEF Fuel-Cell Bus Project in Delhi

By far the most expensive alternative fuel vehicle project in Delhi is the new $62.8 million Global Environmental Facility (GEF)-funded hydrogen fuel cell bus demonstration project. For the hydrogen bus, the only tailpipe emission is water, and the vehicle can go 400 km without refueling. The main obstacle, of course, is cost.

The GEF funds will go mainly to purchase three $1.2 million prototypes manufactured by Ballard Power, a joint venture between Shell Hydrogen, Daimler Chrysler, and Ford. The vehicle costs roughly a hundred times the price of a cheap diesel bus, and the fuel cell stack has to be replaced every 4,000 km, compared to 30,000 km for major engine overhaul for a diesel engine. More subsidies from GEF went to an electrolyser unit, high pressure hydrogen gas storage cylinders, hydrogen compressors, dispensers, and other expenses. According to the project’s promoters, even by 2010 the fuel cell bus will cost 20%-30% more than a standard US diesel bus. (i.e. it will still be 15 times the cost of a standard Indian diesel bus today.) This still does not explain who will pick up the cost of the alternative fuel system development. India is still a decade away from full commercial viability for hydrogen fuel cell buses, and reaching that stage will require a minimum additional $2 million in subsidies, $15 million from Indian taxpayers. At $1,500 per ton of CO2 emission reduction—the best estimates—the project is far less cost-effective than a host of other measures. Even this may be an exaggeration. (ITDP’s cycle rickshaw modernization project cost less than $2 per ton of CO2 reduction). The full fuel cycle greenhouse gas emissions reduction depends on where the hydrogen comes from. Project promoters are saying it would come from electrolysis. According to a study by Pembina in Canada, full fuel cycle CO2 emissions reductions when electrolysis is used are only 5% less than for a standard diesel vehicle.

The Road Less Traveled: Retrofits and Fuel Improvements

There are a number of alternative ways of addressing these problems that have not been sufficiently explored. While particle traps have to be cleaned regularly, they are a much cheaper way of reducing particulate emissions from trucks and buses. They have reduced particulate by 21% in field tests in Asia, with better results in Germany. These filters are much cheaper than many alternative fuel technologies. A top of the line bus particle filter can reduce particulates by 97%, according to Axel Friedrich of the German Environmental Agency. Other hopeful retrofits require first reformulating diesel fuel to reduce the sulfur. Hong Kong introduced Ultra-Low Sulfur Diesel (ULSD) recently. ULSD makes possible the use of catalytic converters with diesel engines, which can reduce many emissions but their impact on micro-particles remains in doubt. It also makes possible the use of a Continuous Regenerative Trap for particles, which does not require regular cleaning. Field trials in Japan reduced particles by 84% to 95% in some cases, though not in others. These measures do little to address greenhouse gas emissions, however.

Busways or Flyovers?

Meanwhile, India has done almost nothing to introduce the host of innovative traffic demand management measures that have been so successful in Western Europe, Singapore, Curitiba, and other cities. A pilot integrated busway/bikeway in Delhi on the highly congested inner ring road has been stalled for years. Instead, the Delhi metro is going forward, despite a cost per kilometer one hundred times that of the busway. Meanwhile, a proposal to build a second, elevated ring road on top of the existing ring road, costing billions of dollars, is being seriously considered. Fifteen highway flyovers are under construction, each one costing tens of millions of dollars, and another 30 are planned.

The benefits of fly-overs are far from clear. According to traffic planners at the World Bank and IIT Delhi, the benefits are only felt after they are built along an entire corridor, and even then their benefits have not been fully demonstrated. One or two merely move the congestion problem to the next intersection. Furthermore, they create enormous problems for public transit passengers wishing to change buses, forcing them to walk hundreds of meters, often in very unsafe and uncomfortable conditions.

The situation in other metro areas is similar. Highway flyovers are being built from Bombay to Hyderabad to Calcutta. Surface trams in Calcutta continue to deteriorate, while nothing is done to give buses priority in the traffic system. A bus rapid transit system in Bangalore is stalled by competition with a light rail project.

Meanwhile, cyclists, pedestrians, and cycle rickshaws, still accounting for more than 35% of trips in many cities, are virtually ignored by traffic planners. While studies show that segregating slow and fast moving traffic would increase the capacity and improve safety for both, while reducing fuel consumption by 28% and health costs by 29%, a poorly planned bikeway built in Pune is used to descredit wider implementation.

Conclusion

For alternative fuel vehicle projects to really protect the environment, the impacts on public transit ridership need to be considered. If public transit vehicle and operation costs increase, and fare prices increase, more passengers will be pushed to far more polluting modes like motorcycles. Meanwhile, the Government of India needs to consider how its scarce public funds can cost effectively clean up Indian cities. Traffic demand and management measures, ultimately, will have to be part of the solution.
Corporate Welfare
or Livable Communities?
Rerouting US Foreign Aid

Two years ago ITDP began reviewing the overseas transport-sector activities of US Government agencies. As US companies dominate the global oil, aircraft and automobile industries, it was not surprising to learn that the vast majority of US international transport work supports these industries.

While US agencies are not heavily involved in overseas highway development, the US is financing numerous transport projects that are contributing to global auto and oil dependence. Save a few exceptions, US agencies prefer to leave direct financing of highway infrastructure to the World Bank and other development banks, over which the US wields enormous influence. Since highway projects financed in this way must be open to international competitive bidding, US highway construction firms are reasonably well served by the development banks.

US Foreign Programs Providing Corporate Welfare to the Airline Industry

The US Export Import Bank (ExIm Bank) is by far the largest US institution directly involved in the transport sector, providing billions of dollars of loans, loan guarantees, and small grants every year. They lend over $2 billion annually to foreign government-owned airlines to buy airplanes from Boeing. With air travel emissions one of the fastest growing sources of greenhouse gas emissions, the international community is duly outraged at the US Kyoto Protocol walkout.

Oil pipelines have been the next most important area of lending. The ExIm Bank financed a large part of the controversial Chad and Cameroon oil pipeline, as well as oil drilling and oil equipment sales in the former Soviet Union. In 1999 they provided loans and credit guarantees to hasten the development of the oil pipeline from Baku through Turkey to Ceyhan, and a planned natural gas pipeline under the Caspian Sea. They also co-financed a Ford-owned motor vehicle manufacturing plant in Turkey, and some highway reconstruction done by Bechtel in Croatia.

Working hand in hand with the US ExIm Bank is the US Overseas Private Investment Corporation (OPIC), which provides low interest loans and political risk guarantees to US private companies investing overseas. They funded the first Ford auto dealership in Kiev, and an offshore oil platform co-owned by Marathon Oil off the Sakhalin Islands (Russian Far East). Other clients include General Motors, Texaco, and Conoco.

Also working closely with these two export credit institutions is the US Trade and Development Agency. TDA funds feasibility studies for infrastructure projects where US firms have a good chance of winning the actual construction bid. As the PHARE grant program assists EU-based firms, TDA was set up to help US firms compete for largely the same business. TDA has funded numerous feasibility studies for oil pipelines, highways (e.g. Sofia ring road, a Bulgaria to Albania corridor), and rail restructuring. TDA also funded several trade missions by the American Road and Transport Builders Association.

These institutions, providing mostly loans and guarantees, are generally not placing a huge burden on taxpayers, their services are open to any US corporation and have no specific focus on promoting US auto and air industries. However, not one dollar from any of these three institutions has gone to benefit pedestrians, cyclists, or public transit passengers, despite the fact that the majority of the population in developing countries rely exclusively on these modes.

US influence over the United Nations Development Programme (UNDP) has also helped to ensure that 60% of their support for transport programs has gone to civil aviation.
tion, UNDP’s mission of poverty alleviation notwithstanding.

A junior partner to these efforts has been the US Department of Transportation (US DOT). US DOT recently began funding a new organization called the “Transportation Export Council,” comprised of US industry associations dedicated to road building and car-dependent development. The Transportation Export Council’s mission is to “export the US transportation story to Third World countries through US foreign aid agencies like US AID and the Foreign Commercial Service.” This initiative is currently not heavily funded, but this could change under the Bush Administration.

The US Federal Highway Administration, a branch of US DOT, set up a series of Technology Transfer Centers in developing nations. To date over 90 of these centers have been created throughout the developing world, including such countries as Latvia, Zimbabwe and Malawi. The Centers are heavily focused on road networks and so-called ‘Intelligent Transport Systems’ technology. While an area with growing US corporate expertise, the ‘advice’ of these Centers is hardly applicable to the 95% of the Malawi population that is too poor to ever be able to afford a motor vehicle.

An example of US DOT advice to developing countries can be seen from their recent activity in Nigeria. In July 1999 US DOT assessed Nigeria’s transport situation. The emphasis of the US technical team and the resulting US AID program focuses first and foremost on normalizing air travel connections, and on road rehabilitation. While privatization of railways was recommended, increasing Nigerian oil prices, which at $0.10 per liter are some of the most heavily subsidized in the world, was not mentioned. Measures to address Nigeria’s world-leading roadway fatalities were also absent from the recommendations.

**Signs of Hope: Other US Government Programs**

The US Agency for International Development’s (US AID) activity in the transport sector has been fairly limited to date. Since 1996 it has been difficult to take a comprehensive look at US AID’s programs, as there is no directory listing all US AID grants by sector. Further complicating the issue, more and more US foreign aid is controlled through Congressional earmarks, or is responsive to disasters, undermining the ability of the Agency to develop coherent, longer-term strategies. Nonetheless, some positive work has been achieved.

India hosts perhaps the largest transport program under US AID’s auspices. (see article in this issue) Support has gone mainly to electric vehicle development, but also to ITDP’s Cycle Rickshaw Modernization Project. A comprehensive sustainable transport program is also being developed with the Indian city of Hyderabad. Details of this program have yet to be determined. A program in Cairo played a role in the conversion of the taxi and bus fleet to Compressed Natural Gas (CNG). US AID also recently initiated a program in

South Africa to get bicycles to healthcare workers trying to stem the HIV/AIDS epidemic.

Also led by US AID is the US Asia Environmental Partnership (US AEP). US AEP has been actively involved in promoting alternatives to diesel-fuelled vehicles, particularly promoting natural gas vehicles. They have also worked with US EPA to help countries phase out leaded gasoline. US AEP was also a key co-funder and co-organizer of the International Conference on Transport and Clean Air in Jakarta last year, and made possible the participation of regional NGOs in the conference.

International work on transport at the US Environmental Protection Agency (US EPA) is done not only by their Office of International Activities, but also by their transport and policy divisions. In the past, US EPA supported the joint efforts of ITDP and the International Institute for Energy Conservation (IIIEC) to monitor and reform the transport sector lending of the World Bank, and was instrumental in initiating the transport policy reform process at the World Bank. They supported numerous studies developing greenhouse gas and other emission inventories in Central and Eastern Europe.

US EPA has an extensive program of technical cooperation with China, training their counterparts in transport-sector air quality monitoring and regulation. They have developed a kit of training materials for environmental policy makers in the air quality sector, though their usefulness has not been carefully evaluated. US EPA also funded some brownfield revitalization programs in the Czech Republic. Most recently, they are developing a program to work with the World Bank on developing mechanisms for incorporating induced demand into the economic and environmental appraisal of road projects in China. They have also worked with several countries on developing lead phase out strategies, and supported the Regional Environmental Center in Budapest, which in turn has supported many local NGOs in Central and Eastern Europe.

The US Federal Transit Administration under the US DOT also has a small international program. While largely focused on exchange programs between public transit agency professionals, it played an important role in popularizing the success of bus rapid transit (BRT) programs in Latin America with US public transit agencies.

The US Department of Energy’s (US DOE) Clean Cities initiative funded several trade missions between Chile and the US which led ultimately to the adoption and subsidization of natural gas buses in Santiago, Chile. The pros and cons of natural gas buses are more fully discussed in the article on India in this issue.

**A New Vision: Exporting America’s Livable Communities**

While much of the US foreign aid establishment continues to export US-style auto dependence of the 1950s, America today is a very different place. While big auto, big oil, and big highway are heavy manufacturing industries typical of the 20th Century, the growth sectors of the 21st Century economy will be knowledge-intensive industries which thrive best in livable communities.

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Growing car use among women explains a large part of the rapid growth of car use in the US and the UK over the last decade. For a variety of reasons, women will use a car if one is available, either as a driver or a passenger. The failure to produce transport policies and services that meet women’s needs has exacerbated the social exclusion and environmental pollution which result from automobile dependence. The travel needs of women differ from men in important ways which tend to encourage rather than discourage car use, making it increasingly essential to women’s access to employment, education, health and the political process.

While only 57% of British women hold a drivers license, compared to 81% of British men, the gap is rapidly closing. In the US this disparity had almost disappeared by 1990, with 96% of men and 90% of women between age 30 and 49 being licensed to drive. Thus, while car use is still dominated by men, the growth of car use is much faster among women. While women still constitute a majority of public transit and walking trips, this is more a reflection of lack of car access than a clear preference for alternative modes. While statistics based on ‘the household’ have done much to hide the full extent of gender inequality in car access, it is clear that when there is only one car, the male driver has priority.

Underlying the growth in car use among women in developed countries has been the dramatic increase in women in paid employment and the growth in female-headed households. Since 1970 the number of American women in paid employment increased by over 14% - male employment over the same period dropped by 4%. Currently, almost 60% of all women in the US are wage earners. Families headed by a lone female parent account for almost a quarter of all US families. Over the three decades since 1960 the percentage of children living with just one parent tripled. In 1990 around 22% of all children lived in single women households. Trends in Sweden and the UK are similar.

Unlike men, however, who tend to work full-time, women are far more likely to work part time. Women, meanwhile, continue to be primarily responsible for domestic work, including shopping, child rearing, and care for elderly or sick family members. In Britain, 88% of part-time workers are women. In Sweden, 29% of employed women work only part time.

As a result of conflicting demands on their time, and continued lack of equal pay for equal work, women tend to have lower paid jobs closer to their homes. In 1998 in the UK, the average male full-time hourly rate was £9.22 (part-time £6.71), while for women, the full-time rate was £7.48 (part-time £5.68). In Sweden, college educated women earn between 85-89% of men’s salary. These differences result in very different travel patterns and mobility needs for women. In the UK, walking trips accounted for 30% of women’s journeys, compared to 25% of men’s, while car trips accounted for only 30% of women’s trips, compared to 47% by men. In addition, over 7% of women’s journeys were by bus, compared to only 5% by men. These differences are mainly explained by lack of equal access to motor vehicles.

While in England and Sweden, men and women make roughly the same number of trips per day, but their trips tend to be shorter. In the US mothers in particular make more than 21% more trips per day than men, and the time and distance of women’s trips are rapidly growing. In Sweden, men travelled approximately 71 billion kilometres in 1994 and women travelled 45 billion. In the UK in 1995/97, men travelled on average nine thousand miles per year, compared with an average of fewer than six thousand miles travelled by women. Longer journeys to work tend to account for a higher proportion of men’s journeys, while shorter shopping and school trips account for a higher proportion of women’s travel.

Women tend to make more linked off-peak trips than men, and these trips are less conveniently served by public transport. In the US, 61% of women stop on the way home, compared to only 46% of
Foreign Aid

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While 80% of the population even in the poorest emerging market could afford a good quality bicycle, the US bike industry, which is as large as the US gun industry, thus far has not focused on emerging markets, nor has it developed the sophistication required to tap US export-promotion programs. US AID could facilitate this process, and build on its growing experience in alternative vehicle promotion, to help expand markets for bicycles and modernize these affordable, non-polluting technologies.

As domestic policy changes, more US traffic engineering firms are developing capacity in traffic calming, bicycle and pedestrian facility design, bus rapid transit, road safety, parking systems, congestion pricing, and traffic demand management—all far more applicable in a developing country context than ITS (Intelligent Transportation Systems). US DOT training facilities would be better utilized focusing on these more relevant issues. US EPA’s increasing sophistication in testing transport system investment plans for conformity with ambient air quality norms could play a key role in re-orienting transport planning in developing countries. US planning and construction firms are as capable of building busways, sidewalks and bike lanes as they are at building highways. Tighter environmental screening and pro-active promotion of more sustainable transport projects by US export credit agencies could help to counteract the environmental consequences of the massive subsidies going to Boeing and the oil industry.

More and more architects and real estate developers are interested in designing transit and pedestrian-friendly communities, and developing vibrant downtown public spaces, but internationally they face obstacles to financing from traditional financial institutions. The tourism, real estate, and retail industries could be allies in working with US government institutions to encourage people-friendly urbanization in developing countries, though to date their focus has been on helping big chains develop auto-oriented hotels and retail outlets.

In the last few months, ITDP has initiated a dialogue with sustainable transport leaders in the US Congress, like Earl Blumenauer (D. Oregon) and James Oberstar (D. Minnesota), and NGO leaders like Environmental Defense, STPP, and others, to redefine US transport programs overseas. In time, we hope to end corporate welfare for the airline and highway lobbies and begin the promotion of livable communities internationally. A journey of a thousand miles begins with a single step.

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*Gender Audit of Public Transport
available at:
www.uel.ac.uk/womenandtransport
also see
www.transact.org/reports/
highmilemoms/text.htm

US Representative Earl Blumenauer

9.9% in 1995. Since 1990 the number of kids walking to school has dropped by 23%, to only 11% of total school trips. Pedestrian deaths per kilometre walked are 14 times higher in the US than in Germany and the Netherlands, and pedestrian deaths per kilometre are increasing rather than decreasing in the US.

The growth of large sports utility vehicles and vans in the United States is also partially attributed to women’s concern about the safety of their children should an accident occur. This is fuelling a destructive upward spiral in vehicle size and weight that is partially responsible for the sudden deterioration in US vehicle fuel efficiency (miles per gallon) after decades of improvement, and the ending of a downward trend in roadway fatalities.

Bicycling and walking can be a viable, low cost means of travel to meet women’s shorter, off-peak trips, but to be feasible requires a safe cycling environment, locating day care, shopping, and elderly care facilities near public transit hubs, and a critical mass of ‘eyes on the street.’

Unless transportation planners pay greater attention to the safety and mobility needs of women and children, the goal of more sustainable transportation systems in developed countries will prove elusive.

*Gender Audit of Public Transport
available at:
www.uel.ac.uk/womenandtransport
also see
www.transact.org/reports/
highmilemoms/text.htm
The Poverty Trap: Walking to Stand Still

It’s 5:30am on Monday and Ghana’s working poor are packing into “Tro-Tros” (minibus taxis) for the second leg of their morning commutes. Many riders have already walked several kilometers to access this taxi stop. Others—unable to pay the fare—are walking all the way to downtown Accra, the capital city located 13 kilometers away. On their way many will hike over Ghana’s latest symbol of modernization: a $30,000,000 highway overpass.

This scenario takes place every morning all over urban Africa, where the lack of efficient transport is stifling the productivity of millions of likely students, wage earners, and entrepreneurs. Dysfunctional transportation systems geared towards a motorized minority are increasing congestion and pollution, choking the engines of economic growth, and causing serious health problems. At their own peril, governments are ignoring the transportation needs of the +90% of their citizens that rely on walking, transit, and cycling.

George Aidoo Finds a Way Out:
“I save money and I beat the traffic”

George Kofi Aidoo, 36, is one Ghanaian who has found a way out of the madness. Because he owns and operates a bicycle shop, George is uniquely positioned to leverage the efficiency of cycling.

George’s taxi commute took three hours each way, including a 30-minute walk near his home where the taxis don’t reach. He shunned cycling as an alternative. Today, rising petrol prices caused him to begin riding one of his shop’s “nice bikes” for his own transportation. Cycling, George now saves four hours of commute time and a significant 2,600 Cedis (US $.75) a day. “I save money and I beat the traffic,” said George. George’s bike is a used Giant brand mountain bike for which he paid about $50 wholesale.

Obstacles to Mainstreaming Utility Cycling

Why don’t more urban Africans employ George’s strategy and cycle to work? To be sure, road conditions are hazardous, and the poorest of the poor cannot afford the upfront cost of a bicycle. An often-overlooked obstacle, however, is the fact that desirable types of bicycles (practical, modern, low-cost quality mountain bikes) are simply not available. Most bicycles are antiquated in design and lack a sense of style—savvy urbanites associate them with poor farmers.

Although some mountain bikes are available, they are low quality and tend to break down after a few months of use—not a good investment for those with severely limited incomes.

Africa’s Bike Dealers Hold Keys to Livable Cities

by Paul Steely White

Hauling water in Senegal

Easing the burden: hauling water in Senegal
While efforts to import donated used bicycles from the Europe and the US have led to some very positive developments, particularly in South Africa, these efforts have rarely led to viable local bike businesses that can supply bicycles absent continued grant funding.

What’s more, the supply of used bicycles remains limited and inconsistent. Also, used bicycles distort rather than aid local markets, making it difficult for local dealers to blossom. There is also the problem of stocking the wide variety of spare parts necessary to service a vast array of recycled bicycles, and in sourcing skilled repairmen. For low-income owners of used bikes, the initial low cost of a used bicycle is too often eclipsed by chronic maintenance problems.

Clearly, local dealers must be empowered to deal in the types of bicycles that people need and want at a price that they can afford. Today most dealers are not up to this task.

What is Ailing Africa’s Bike Businesses?

Africa has been slow to adjust to changing realities in the increasingly global bicycle industry. Laudable efforts during the 70’s and 80’s to found bicycle factories in Senegal, Uganda, Mozambique, Tanzania and other countries have either failed or are struggling, manufacturing decreasing numbers of increasingly antiquated designs and producing overpriced bicycles that status-hungry young adults associate with their poor grandparents.

Increasingly, innovative designers in the US, Europe, Japan, and Taiwan are outsourcing their manufacturing to China, Taiwan, and to a lesser degree India. Good quality production in these counties occurs at so large a scale that price competition from other manufacturers is difficult. Most of the bicycles sold in the US, Holland or Japan, for example, are designed, marketed, and assembled locally, but produced in China or Taiwan, and imported ‘completely knocked down’ (CKD).

Senegal, by contrast, applies high tariffs to protect a domestic manufacturer that sells only 2,000 bicycles per year and generates only 12 full time jobs. Their bikes cost twice as much as a nearly identical bicycle imported in neighboring Guinea. Senegal has do have bicycle importers and assemblers, but because they are heavily taxed, the most highly skilled businessmen have left the industry to focus on more lucrative imports like automobile tires, consumer electronics, or textiles.

Those remaining are small, fragmented, and lack access to suppliers in China and Taiwan, and to sources of credit. Most are comfortable selling familiar antiquated models to older men, and flashy but low-quality bikes to youth. Importers also tend to be foreign nationals, or from minority ethnic groups. This had made the reduction of high tariffs and taxes on imported bicycles more politically difficult.

Even if the small numbers of jobs involved in direct manufacturing are lost, far more jobs will be generated if bike businesses expand and proves to be economically viable. The downstream employment effects of bicycles, not only in the assembly, service, sale and repair of cycle fleets— but also in the use of bicycles for reaching distant jobs and for small scale vending activity— are far more important than the small number of jobs in capital-intensive manufacturing. In Dhaka, Bangladesh, for example, 460,000 people are directly employed by bicycle service industries, or nearly one-fourth of all employment in metropolitan Dhaka.

ITDP’s Strategy for Revitalizing the African Bicycle Industry

Importing and Assembling a Better Bike

ITDP’s strategy is to work at all levels of the bicycle distribution system to bring the industry up to state of the art practice. This process began by developing with industry experts the specifications of a low cost yet modern, durable yet stylish, bicycle aimed at status conscious adults. (See “A New Bike for Africa,” this issue.)

Isency, the Senegalese privatized state bicycle manufacturer who will also receive some modest training to assemble the vehicles, is importing a trial order of these vehicles. By involving Isency directly in the assembly and importation of the new vehicle, we hope to win their political support for reducing tariff barriers.

In South Africa, ITDP is working with PEER Africa, a company developing low-income housing and supporting retail services. PEER is purchasing with ITDP partial support a shipment of these bikes via B. Slotar & Son, South Africa’s second largest bike importer. In this way, ITDP has forged a supply channel between importers and suppliers.

Supporting Bicycle Retailing

Local bicycle retailers and service providers are the vital link between the community and the importer/assembler. ITDP will provide many bikes to critical care providers and other NGOs to help popularize cycling. Rather than donating these bicycles directly, they will be given funds to purchase the vehicles from local retailers who will also service them. In Senegal, continued on p.27
Africa is the most rapidly urbanizing continent in the world. It is also the youngest. Each day millions of ambitious young urban entrepreneurs and wage earners walk to access jobs, inputs and customers. If all of those walking trips were replaced with bicycling trips, all of Africa would reap significant productivity gains.

The most widely available bicycle in Africa, the long-standing “Black Roadster” has decades of proven use, and spare parts are widely available. Yet sales of the Black Roadster have been decreasing in many countries, particularly in urban areas. Why is this bicycle being shunned by a new generation of increasingly urban Africans, most all of whom have an acute need for low-cost transportation?

First, the Black Roadster is synonymous with the elderly, rural, and poor. Young urban entrepreneurs are moving up in the world, and to travel like an ‘old farmer from the village’ runs contrary to their aspirations. Second, the Roadster is almost exclusively considered a man’s bicycle, presenting aspiring female cyclists with yet another obstacle to riding.

The Black Roadster has other problems. Its 1.5-inch wide tires are too thin for many unpaved roads and tracks, and the bicycle itself is too big for women and children. Neither the handlebars nor the seat are easily adjustable. Roadsters rarely have adequate reflectors, and their design does not optimize efficiency. The gearing is generally too high, and thus difficult to pedal, especially for new riders.

What do Africa’s young, increasingly urban and status conscious consumers want in a bicycle? Like their American and European counterparts they want colorful mountain bikes. The problem is that mountain bikes and mountain bike parts (especially derailleurs) are fragile and oftentimes unavailable, and when parts are available they tend to be prohibitively expensive. There is a dearth of moderately priced modern bicycles and related parts.

A Gap in The Urban Market

The increasingly global bicycle industry is focused on developing bicycles for competition and recreation, not for utilitarian purposes. This has changed somewhat in recent years with many of the major brands selling increasing numbers of ‘comfort’ bicycles. Unfortunately, these bicycles target relatively affluent consumers in European and American markets. For low-income consumers in India, Africa, and Asia, the industry has been content to use an old design that has not changed in over 60 years: the Black Roadster.

In September 1999, ITDP began consulting with several leading US-based bicycle designers, asking the question: “What is an appropriate, low-cost and modern bicycle for Africa?” At the same time, single speed mountain bicycles were gaining adherents because of their elegance, efficiency, simplicity, and low maintenance requirements. Leading high-end bicycle companies like Bianchi, VooDoo, and Kona were all rolling out single-speed bicycles. Also around this time ITDP was learning valuable lessons in India, where the most successfully commercialized innovations made to modernized cycle rickshaws were simple, low-cost “off the shelf” improvements—not “new-fangled” ones.

The “Africa Bike” is Born in Soweto

In March of 2000, ITDP began working in Johannesburg, South Africa with Sam Maswangyani. Afribike’s Master Mechanic from Soweto. Mr. Maswangyani began to build a prototype “Africa Bike” from the ground up. Sam and ITDP were working from a price point of about $60, which is about what the Black Roadster costs in many African countries.

ITDP and Afribike started with a basic steel mountain bike frame. Value was placed in the hubs and rims, parts that tend to fail first on low-end mountain bikes. A single low gear (40 tooth chain ring : 18 tooth rear cog) was deemed superior to the higher, less efficient gears generally found on Roadsters. The single gear drive train eliminates the need for fragile parts, such as derailiers, shifters, cogs, and gear cables, that tend to fail frequently and cost plenty to repair and maintain—critical concerns for low-income cyclists.
components compatible with existing Roadster parts were specified, as in the crank and bottom bracket. Finally the bicycles were splashed with color, and donned with several reflectors.

The Road to Commercialization

Fifty “Africa Bikes” outperformed a host of other models (including the Roadster and some low-end “department store” 18-speed mountain bikes) during a rigorous test marketing in Senegal. According to most all of the local Senegalese who received bicycles, our bike was superior to the rest in terms of performance and desirability.

ITDP then began to work more closely with bicycle dealers and designers from around the globe to explore full commercialization of the new “Africa” bicycle. Mitch Gurdjian of J & B Importers, Ibrahima Diallo (Senegal), Grant Peterson of Rivendell, David Peckham of Village Bicycle Project, Jay Townley (on ITDP’s Board of Directors) all provided key input. Matteo Martignoni, ITDP’s Vice President, oversaw the process.

It was often difficult to balance cost and quality criteria. It was a constant battle to maintain the price point while striving to improve the durability of the bike. Sometimes parts that we wanted were simply not available, or made in such small quantities as to make a more common but lesser value part a more obvious choice.

In March 2001 ITDP finalized the “Africa Bike” spec with designers at Blotar and Son, one of the largest bicycle importers in Africa with close ties to many factories in China. The finalized bicycle sports several features intended to make the bicycle low-cost, easy to maintain, durable, and desirable. The bicycles are also designed to optimize utility for all members of the household. For example, a quick-release seat post makes the bike easily adjustable for use by smaller and larger users. In Senegal, the bicycles sport a sloping top tube to accommodate women and men who wear ‘Bou Bous’, or traditional dresses. The bicycles are wholesaling to local retailers for about US $50 and retailing for $65.

The bicycles come with fenders and a tool kit, and boast names that were chosen by local consumers and marketing experts. The Tanzanian model will be called “Mkombozi”, which means “Savior” in Swahili. The South Africa version is called “Shova Lula”, which means “Ride Easy” in Tswana. In Senegal, bicycles targeting women are called “Tour des Femmes”, and the man’s model is called “Super Thiof GT”. “Thiof” is French for “Tilapia”, the most popular fish in Senegal. (“Thiof” is also a popular slang term for “hunk”).

In 2002 and 2003, ITDP, in cooperation with local bicycle dealers and NGOs, will work to place thousands of these customized Africa bicycles within reach of cyclists throughout Africa. Obstacles to full commercialization include affordability (even at $65 retail, the bike still represents a few months of income for most Africans), spare parts availability (some parts will be difficult to keep in stock until economies of scale are reached), and the hazards of cycling on Africa’s dangerous streets.

Bike Dealers

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the privilege of becoming a distributor of the new bicycle design, where they would also receive business skills training and low interest loans, are being offered on a competitive basis to small bike mechanics, existing bicycle retailers with links to Isency, and non-bicycle retailers. In South Africa, the Kutanlon Integrated Civic Housing Trust, which currently markets eco-housing, will do bike retailing. Local bike mechanics will also be trained to be part of the business. ITDP will be providing the necessary technical support.

In Ghana, ITDP started small, lending money to buy tools to bicycle dealers and repair shops, while giving them training in repair. The tools boosted their profits by 15%, and they repaid the loans. In 2002 those small dealers with a proven credit history with the project will become distributors for the new style bikes. (See “Drumming Up Business at the Accra Bicycle Market”).

Once small retailers receive training and prove they are reliable and will repay low interest loans, ITDP will slowly establish a fund of program-related investments where retailers in low and moderate-income neighborhoods can get low interest loans to expand their businesses. If this process successfully expands in scale, the project will have demonstrated its ability to be ‘bankable’, the litmus test for the World Bank and other large lending institutions.

Mobilizing Key Constituencies with Modernized Bicycles and Training

Once this supply chain has been strengthened, donations of bicycles for HIV/AIDS outreach workers, school children, NGOs, and other critical care providers can be used to strengthen, rather than compete with, the local bicycle industry.

Providing modern, low-cost bikes to targeted organizations, government agencies, and communities demonstrates that bicycles increase the efficiency of their work. This creates a potentially large market from businesses, government agencies, and relief organizations for more bicycles. This also creates a group of politically influential ‘converts’
Through the introduction of specialty bicycle tools, skills training, small loans and community outreach and marketing, bicycle dealers in Ghana are increasing their profits. Before Ghana eliminated the tax and tariff on the importation of bicycles in 1989, the Accra Bicycle Market only housed a handful of small bike dealers. Today the market boasts scores of bicycle dealers, attracting buyers from all over Ghana, and from neighboring Cote d’Ivoire, Burkina Faso, Togo, Benin, and Niger.

Most of the tens of thousands of new and used bicycles sold here per year are imported from Europe and North America. Most dealers buy several bicycles at a time from the importers, then fix them up and resell them to individuals and smaller dealers.

The Right Tools for the Job

Lacking specialty bicycle tools, dealers used to refurbish used bicycles with hammers, chisels, and nails. No more. In March 2000, ITDP and Village Bicycle Project started the “Specialty Bike Tools Program” with support from Park Tool USA, a Minnesota based tools manufacturer.

At first the dealers were wary to pay for tools, as many had never even seen freewheel removers, chain breakers, chain pullers, and pin spanners, much less used them. To surmount this initial obstacle, about $1,000 worth of tools was made available to dealers at a special introductory price. Still, only a handful of dealers and mechanics showed interest; only five out of the Accra Bicycle Markets’ 25 main dealers bought tools.

One dealer who did show interest was George Kofi Aidoo, the proprietor of Geofaido Enterprises.

“These tools help my business very much,” said George. “It was very difficult to rebuild a rear wheel before, you usually would break the free [freewheel] before it would come off…A new free [freewheel] costs 22,000 Cedis [US $4]. I use the free remover twice and it is paid for.”

Samson Ayine is another bicycle dealer who has benefited from the tools program. “I used to have to throw them [wheels] away or sell broken wheels for small money,” said Samson. “Now I can make them like new again…we still have not enough rear wheels, but not like before.”

After the value of the tools began to be recognized, the prices of the second shipment of tools were raised to market value in March 2001. George, who purchased the tools from ITDP with 60 days terms, sold most of these tools. Though demand had dropped off a bit due to the increased price, all the tools were sold and George was able to repay the cost of the tools and make a tidy profit. Now George wants to import increasing amounts of specialty bicycle tools, and meet increasing demand from dealers throughout West Africa who come to the Accra Bicycle Market. ITDP is linking George with suppliers in Asia, and providing financing so that George can import increasing quantities of specialty bicycle tools.

Establishing Credit

Credit in Ghana is prohibitively expensive; if small-scale bicycle dealers want to grow their businesses they must be prepared to pay loan shark interest rates in excess of 30%. After establishing good credit with the tools program, George Aidoo and Samson Ayine were extended $4,000 worth of used bicycles imported from Seattle by Village Bicycle Project (VBP). George and Samson refurbished and resold the bicycles, and netted $1,500 after repaying VBP for the bicycles. As an added bonus, Samson...
was able to use the plywood packing materials (donated by Habitat for Humanity) from the VBP container of bicycles to build his own storage and display shop in the center of the market.

Prior to this, George and Samson did not have a reliable connection to a bicycle importer and their supply was very inconsistent. They also lacked sufficient financing to scale up their businesses to a level necessary to reap economies of scale. What is more, before the project George and Samson, typical of dealers in the market, were isolated from each other and rarely pooled their buying power and expertise to mutual benefit.

Now they work as a team, with George refurbishing bicycles, while Samson specializes in stripping bicycles down for the export bicycle parts market to neighboring countries. They have also pooled their inventories, further boosting their efficiency.

### Community Outreach and Marketing

George and Samson have also teamed with ITDP and Village Bicycle Project to promote bicycle use in rural communities throughout Ghana. In Kopeyia, a community in Ghana’s Southeastern Volta Region, they have been working with ITDP and VBP to help a newly established local bicycle shop become profitable. They’ve also been conducting training workshops, helping farmers, teachers and students reap gains in productivity and attendance.

Besides giving their fellow countrymen a helping hand, George and Samson are drumming up business. Once communities start cycling, demand is created for bicycles, spare parts, accessories and service. By establishing supply connections with local “shade tree mechanics”, they are growing their businesses. Many local mechanics and dealers are now making the Tro-Tro (collective taxi) trip to Accra to buy product and resell it to their communities.

### Bike Dealers

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to the importance of government policies sympathetic to bicycling.

NGOs in northern Ghana, for example, successfully demonstrated that with bicycle riding, training, and access to credit to buy bicycles, women cyclists are able to significantly increase their agricultural output. Similarly, a recently mobilized HIV/AIDS outreach group in Ghana is reaching 50% more beneficiaries, thanks to their new fleet of bicycles. By showing that cycling creates jobs, improves school attendance, slashes household transport budgets, and boosts income generation and access to health care, decision makers take notice and begin to see the value in cycling related investments.

When leading companies and corporations promote cycling as a strategy to cut costs, raise productivity and create jobs, decision makers take notice. When Mondi Recycling, one of South Africa’s largest corporations, began using tricycles to enable efficient recyclable paper collection, local efforts to make streets safer for cyclists were catalyzed.

### Making Cycling a National Priority

In South Africa, a unified group of NGOs, bicycle industry, and sympathetic government officials successfully convinced national and provincial leaders to adopt “Shova Lula” (“Ride Easy” in Tswana language), a package of cycling promotion strategies that aim to put one million new cyclists on the road by 2010. This led to the implementation of the ‘National NMT Promotion Strategy’, a step-by-step plan for making cycling, walking and other forms of non-motorized transport an increasingly larger portion of all trips.

By improving their capacity to supply their communities and key constituencies with appealing, low-cost mobility, and by giving them and their customers a voice in transportation planning and investment, Africa’s bike dealers can lead the charge to make Africa’s cities more livable and productive.

For continuing updates about ITDP’s Senegal, Ghana, Tanzania and South Africa programs, log onto [www.itdp.org](http://www.itdp.org), or subscribe to the bi-weekly email newsletter, ‘Mobilizing Africa’ by sending a ‘subscribe’ message to steely@igc.org.
sive to criticisms about the environmental impact of the production of its products. Others have been responsive to campaigns against selling products produced with child labor. So far, no one has systematically taken these corporations to task for what is arguably one of their most significant environmental impacts—the location of their outlets in car-dependent greenfield locations, which generate traffic that may violate ambient air quality standards, and undermine city centers, smaller shops and local communities. Both a carrot and a stick are in order.

On the one hand, ITDP is working to initiate creative, forward-looking dialogue among stakeholders—including not only planners but retailers and investors—on what the next generation of more accessible retail might look like. At the same time, we are teaching governments to foster more community-oriented development, and working with citizens and environmental groups who are forcing their governments to act. Investors and investment managers should take these globally damaging activities into consideration when screening their portfolios, and anti-globalization protesters might consider aiming directly at corporations involved in this sort of malfeasance.

**ITDP Update: New Programs, Directors, and Staff**

ITDP has initiated several major new programs. With the support of the Rockefeller Brothers Fund, we have started an anti-sprawl campaign in Central Europe, and a program in South China to train municipal officials in pedestrian and Bus Rapid Transit planning. We have recently started a campaign to promote bus rapid transit in Latin America and Asia with support from the W. Alton Jones Foundation. Our efforts to develop a modernized bike industry in Africa and get bikes to women and critical care providers has moved on to Senegal, Tanzania, and Ghana, thanks to support from the International Foundation, Alternative Gifts International, the Marcia Brady Tucker Foundation, and the Roy A. Hunt Foundation. Our efforts to modernize the becak in Indonesia continue, thanks to continued support from the Changing Horizons Fund of the Tides Foundation, our partners Gadjah Mada University, the New Land Foundation, and now Germany’s GTZ. We’ve started to evaluate, influence, and try to change, the numerous ways the US government projects its influence over transport policy in developing countries. We’ve recently worked with the World Bank helping them develop a new, progressive Urban Transport Strategy, pushed along by our new critique of a major project in Guangzhou. We continue to push for changes in the new EBRD Property Policy. We’ve facilitated NGO involvement and monitoring of a host of new auto and oil industry-led initiatives such as the Commission for Sustainable Development’s Global Initiative on Transport Emissions, the Asian Regional Air Quality Initiative, the World Business Council on Sustainable Development’s mobility project, and the evolving Shell Center for Sustainable Transportation.

We would like to welcome Enrique Peñalosa, Gerhard Menckhoff, and Geetam Tiwari to our Board of Directors. Mr. Peñalosa was the Mayor of Bogota until December of last year, when he had to step down because of term limits. In his short term of office, he was able to completely change Bogota’s transportation system from a nightmare of congestion and automobile dependence. Today, Bogota has an extremely successful Bus Rapid Transit system, TransMilenio, much improved public space, a network of hundreds of kilometers of bikeways, new low-income housing served by bikeways and busways, and popular auto-free days. Gerhard Menckhoff recently retired from the World Bank, where he headed the transport division for Latin America. Geetam Tiwari, of the Indian Institute of Technology in Delhi, is one of the world’s leading experts in road safety in developing countries, and the integration of busways with non-motorized traffic. We also welcome to the staff Oscar Edmundo Díaz, previously special advisor on foreign affairs to Mayor Enrique Peñalosa, who has taken over for Noah Budnick as our UN Liaison and Administrative Director, and Lloyd Wright, previously IIEC Director in South Africa, and Advisor to Accion Ecologica in Quito, Ecuador, who becomes our Director for Latin America. These additions have greatly strengthened our background in Latin America and India, and our technical skills in bus rapid transit and road safety.

Finally, I would like to thank all of ITDP’s new and long-standing supporters. Ultimately, we are trying our best to give a voice to your concerns. Please let us know how we can do this better. ◆
Living City
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the increasingly generous government support. Our attacks pushed several firms, including those with the worst legal records (they had been tried for organizing cartels to defraud the governments in their home countries), to drop out of the bidding. In September 1999, the head of the MOP’s concessions program promised Congress that the winning company would pay at least US$60 million for the right to build. In the end, the winning firm, a consortium controlled by Impregilo, Italy (notorious for its participation in many dam projects that have touched off world-wide campaigns), offered US$12 million.

The government assigned people to work full time to divide and conquer. They offered legal agreements to market organizations that would guarantee their right to remain where they were, near the center, hoping to neutralize their opposition. After a long, heart-searching session under the paintings in María Inés Solimano’s spacious living room, we decided not to expel the market organizations from the coalition, but rather to treat these agreements as a minimum guarantee, a kind of safety net if our general campaign eventually fails to achieve our main objective.

From 1999 until this year, the project stalled. The government had not yet carried out the expropriations necessary to hand over the cleared right of way to the company, nor had it fulfilled any of the commitments it made during the environmental assessment process. Impregilo had not raised the necessary financing. A bitter struggle was going on backstage. Impregilo wanted to change the route in our sector, to sink the highway under the Mapocho River, rather than run it through our neighborhoods. The Public Works ministry was against the idea.

In January 2001, Public Works finally agreed, announcing that the project would go under the river in our neighborhoods (a 7 km stretch of the 37 km project). We celebrated a major, partial, victory.

Today, the project is once again back in the Environmental Impact Assessment process. The company has refused to reveal designs for all-important features: ventilation systems and access ramps (in fact, their latest proposal, announced in early August, was to use access ramps for ventilation and not have any filters at all). In early August we condemned the report as completely inadequate.

“Living City is Born”

During these years of work together, we have built a group with enormous mutual confidence, a very scarce commodity in Chile, where civil society had been completely destroyed under Pinochet by exile, torture, disappearance and terror. Pinochet moved the poor out of wealthy neighborhoods and into shantytowns ringing the city, herding the middle classes into specific areas, creating archipelagos of luxury for the very wealthy. The struggle against the Costanera Norte highway has created a rare coalition of people from every class. Our group consists of leaders elected by grassroots organizations. In sectarian Chile we represent a wide range of political tendencies and ideas, including people who supported and opposed the military regime (an apparently unbridgeable division at the time when we first began to work together). Above all, we came to like each other and to believe in what we were doing.

We eventually concluded that the enormous investment that academics, NGOs and our own members had made in us should go somewhere. We decided we would carry on together as a permanent organization, which we named “Living City,” but on one condition. It wasn’t enough to burn all our energy fighting a single project: even if we win, we will only end up where we started. We decided not to wait for the authorities, but to develop our own innovative, effective proposals for reviving our communities, protecting our heritage, and stimulating local businesses.

In 2000, we developed a citizens’ waste management project, which was awarded financing from the Americas Fund this year. We launched our own “Citizens’ Transport Agenda” in November, with the support of a wide range of community representatives and NGOs, along with government bodies and academics, and now much of our Agenda is reflected in the government’s new urban transportation plan for Santiago. We successfully fought noise pollution and a serious crime wave in Bellavista, hosted what may have been Chile’s first electronic debate on transportation (thanks to the e-group “Redam”, run by an NGO called Casa de la Paz), and started work on urban renewal for two very damaged areas. We host a weekly radio program, widely distributed newsletters and a popular e-newsletter with over 800 recipients. Even President Ricardo Lagos has recognized in several nationally broadcast speeches that, while he was furious with us when we dared to oppose the highway project, he now realizes that we are exactly the kind of group Chile needs to rebuild civil society.

We’ve started to play a role in regional and international efforts. We spoke up for civil society during the World Bank’s consultations in Santiago last year for its urban transport policy, and at a workshop on sustainable transport sponsored by the World Council for Sustainable Business in Sao Paolo in April. We represented Latin American NGOs within the NGO Caucus for Sustainable Transportation during the Ninth Meeting of the UN Commission for Sustainable Development in New York in April. We visited Bogotá in July to see the amazing developments there despite war, poverty, and drug trafficking. In August we launched a Spanish-language version of SusTran, the sustainable transportation discussion group on the Internet, Innovación Urbana.

What started as a terrible burden has gradually found a place in our lives.
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to cosponsor the measure if they have not done so already. For more information, log onto the League of American Bicyclists’ website: [www.bikeleague.org](http://www.bikeleague.org)

**Nigeria’s Transport Minister Cycling To Work**

Nigerian Transport Minister, Chief Ojo Maduekwe, is emerging as one of Africa’s most visible supporters of cycling. In a refreshing departure from the “Wabenzi” (a colloquial term for African civil servants who travel in Mercedes Benzes) Maduekwe and his aides regularly pedal through the streets of Abuja en route to meetings, with their formal clothes and papers strapped to their rear carriers. In fact, Maduekwe loves his bicycle so much that he has named it “Champion”. He recently cycled through a torrential downpour on his way to a cabinet meeting. “Rain doctors did their worst, I defied them. In this business, rain does not really matter,” said Maduekwe.

Maduekwe maintains that Nigerians should embrace cycling as a partial solution to growing gridlock that is crippling Nigeria’s economy. In June, Maduekwe was even hit by a bus and thrown into a ditch while cycling to work. This only led him to redouble his efforts to make cycling viable. According to Dr. Okey Okechukwu, a renowned journalist and Special Assistant to Maduekwe:

“…road construction no longer took care of anyone else except the car road users. There used to be pedestrian crossing and walkways on the sides. But these days, we have one gutter to another. That’s not right. The Minister is not saying that people should travel long distances on bicycle. No, he knows the implications. And also, the elites have imbided the wrong concept of luxury. And of course being well to do, they have abandoned simplicity.”

**Southern China Sustainable Transport Initiative**

ITDP has completed the first year of work in a mutual effort with the City of Guangzhou to develop a more sustainable transport system. As part of this effort, ITDP conducted an independent evaluation of the World Bank’s funding of the inner-ring road in Guangzhou.

The evaluation of the World Bank’s loan found that the Bank’s analysis of the project failed to address the effects of increased motor vehicle traffic induced by the construction of the new road. Instead of requiring offsetting traffic demand management measures, the Bank merely required the study of these measures.

In addition, the road project led to increased air pollution in areas already in violation of national standards. The analysis of the project failed to present alternatives for reducing congestion and air pollution without construction of the new roadway.

To help offset the motor vehicle focus of the ring road construction, ITDP has provided expertise on pedestrian facility design, co-sponsored a seminar with the Guangzhou Transport Planning and Research Institute, and proffered specific alternatives for the city to consider.

For the second year of work, ITDP hopes to assist the city in implementing a priority bus system tied in with pedestrian facilities, similar to measures that have been successfully adopted in Kunming.

—John Ernst,
Asian Regional Director

**Bangalore – Mysore Highway Draws Fire**

A new highway between Bangalore and Mysore, India is the latest “Public-Private Partnership” to draw fire from environmentalists. The developer, the Nandi Infrastructure Corridor Enterprise (NICE) is a non-transparent consortium of firms that will make most of its profits on massive new real estate developments that will create sprawling cities housing 500,000 people along the new highway. The Ministry of Environment and Forests has claimed that the real estate developments associated with the project need not be subject-
tion have been harassed by the police. Independent assessment of the level of financial risk to the taxpayers is thus not available to the public.

NGOs estimate that as many as 200,000 people will be displaced by the project. To make the project viable, the Government of Karnataka is providing massive subsidies to the developer. Some 7,000 acres of government land will be sold to NICE for only $0.22 an acre, and the state is appropriating an additional 14,000 acres and reselling it to the company, well below market price. NICE does not have to bear any of the costs related to the relocation of displaced families, and NICE may be able to keep the land even if they never build the road. The Government of Karnataka is also planning to divert 150 million litres of water per day out of the River Cauvery, despite continuing water crises in Bangalore.

For more information, visit: www.indiatogether.org/campaigns/bmic or contact:
Environment Support Group
esg@bgl.vsnl.net.in

Jakarta Phases out Lead, Continues Becak Crackdown

In early July, unleaded fuel became available in Jakarta for the first time, in preparation for a phase out of leaded gasoline. A ceremony was held at City Hall with Governor Sutiyoso, senior ministers, NGOs, and the press. According to Sonny Keraf, the Minister of Environment, “We’ve been struggling to do this since 1993. However, this is an important step, and it’s amazing that we can see it through in this time of crisis.”

Currently, the use of unleaded gasoline is voluntary. The lead is being replaced with High Octane Mogas Component (HOMC), which currently is imported from Saudi Arabia. Pertamina, the state-owned oil and gas company, currently has refining capacity for 125,000 barrels of unleaded fuel per day. Because this adds cost, unleaded fuel would be more expensive than normal gasoline. However, Minister of Energy and Mineral Resources Purnomo Yusgiantoro, also on hand at the launching ceremony, said that the government would sell the unleaded gasoline at the same price as leaded gasoline, and has allocated $27 million for the first year of subsidies. The Minister of Energy and Mineral Resources is now looking for another $250 million in subsidies to finance the full phase out of leaded gasoline. At press time, the phase-out was all but completed.

Other efforts inside the Ministry of Energy and Mineral Resources to bring fuel quality up to US or EU fuel specifications have floundered, and now they are aiming only to reach the specifica-

Bicycles, Buses and Peds Begin Reclaiming Paris Streets

Paris Mayor Bertrand Delanoe is spearheading a controversial transport policy that is reallocating roadspace to pedestrians, cyclists, and buses.

Over 1.6 million vehicles circulate the city’s roads every day, resulting in severe congestion, and air and noise pollution. Delanoe has earmarked $30 million to boost public transport, walking and cycling. As a 41-km network of dedicated bus routes is planned. Between mid-July and mid-August the Mayor allowed only cyclists, pedestrians and roller-bladers on the central city expressway.

Critics contend that these measures are only aggravating the traffic problem and adding to pollution. A recent opinion poll, however, found that 66% were in favor of the temporary closure.

In addition, a survey by the Mayor’s office revealed a 3% rise for the first quarter in the number of cyclists traveling during rush hour. Nathalie Steinfeld, manager of bike rental group Paris a Velo C’est Sympa, has seen a 20% increase in rentals this year. She said, “Parisians are noticing more and more that the best way to get around is by bike.”
isk@iconnect.co.ke


Regional Workshop on Healthy Cities- Johor Bahru, Malaysia, 17-20 October 2001. Dr Hisashi Ogawa, WHO-Regional Office for the Western Pacific, The World Health Organization Regional Office for the Western Pacific (WPRO), PO Box 2932, 1000 Manila, Philippines. Tel: +632-528 8001. Postmaster@who.org.ph www.wpro.who.int


Road Risk Management, Chile, 23-26 October 2001. Marcelo Medina, PIARC Committee C18 and National Road Directorate of Chile. mmedina@mop.cl

Fourth Conference of the Eastern Asian Society for Transportation Studies (EASTS) - Transportation Science Society, Hanoi, Vietnam, October 24-26, 2001. Office of the EASTS Secretary General, c/o Association for Planning and Transportation Studies, K-Wing 6F, 5-2-1 Kojimachi, Chiyoda-ku, Tokyo 102-0083, J apan. Tel: +81 3 3265-1774. easts@sa2.so-net.ne.jp /ichini.cv.titech.ac.jp/~easts

Sustainable Development in Road Transport, India, 8-10 November. Hari Baral, PIARC Committee C14 and Indian Roads Congress. haribaral@minitel.net

PABIC Pan African Bicycle Conference, J inja, Uganda, 21-25 November 2001. FABIO, First African Bicycle Information Office, J inja Uganda, PO Box 1537, J inja, Uganda. fabio@source.co.ug

8th International Conference on Urban Transport and Environment, Seville, Spain, 13-15 March 2002. shanley@wessex.ac.uk www.wessex.ac.uk/conferences/2002/ut02

Third International Conference on Traffic and Transportation Studies (ICTTS) – Guilin, China, 23-25 J uly 2002. Guiping Xiao PhD Associate Professor of Traffic Safety, School of Traffic & Transportation, Northern J iaotong University, Beijing, 100044, PR China. Tel: +86 10 6324 0314. gpxiiao@center.njtu.edu.cn

The 46th International Federation for Housing and Planning World Congress, Tianjin, PR China, 8-12 September 2002. IFHP Congress Department, J oke Bierhuys, Wassenaarseweg 43, 2596 CG The Hague, The Netherlands. Tel: +31-70-328 1504. IFHP.NL@inter.NL.net


Providing Road Connectivity. The PMGSY approach: A Vision to Transform Rural India. - Conference dates tbc, Bhubaneswar, Orissa, India. Orissa Regional Forum for Rural Transport & Development. C/o OSVSWA, N-1/324, IRC Village, Bhubaneswar 751015, Orissa, India. Tel: +91 674 552496. osvswa@rediffmail.com

UPCOMING CAR FREE DAYS


ONLINE RESOURCES

International Walk to School - www.iwalktoschool.org
European Federation for Transportation and Environment – www.t-e.nu
University of Leeds, Institute for Transport Studies – www.its.leeds.ac.uk
Texas Transportation Institute – http://tti.tamu.edu
Bikes at Work– www.workbike.org
Moving the Economy–www.city.toronto.on.ca/mte
Detour Publications– www.detourpublications.com

Sustainable Transport is now only published annually. Because of the growing use of electronic media, we are publishing an on-line magazine, TransportActions, which appears on our web site, www.itdp.org, three times a year.

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