

SUSTAINABLE *TRANSPORT*

Number 7

Winter 1997

INDIA: MUST it MOTORIZE to MODERNIZE?

SAVING
INDIA'S
CYCLE
RICKSHAWS

p.8



ENDING TRANSPORT APARTHEID
IN SOUTH AFRICA p. 4

THE BATTLE OVER ISTE
REAUTHORIZATION WARMS UP p. 10

FIGHTING HUNGARY'S
HIGHWAY TO NOWHERE p. 18

ITDP Mobilizes HABITAT

An Update of Recent Activities

Letter from the Executive Director

ITDP has had an extremely active year. In late May and June, ITDP chaired the Transport Caucus for the UN Habitat II Conference in Istanbul. Thanks to the hard work of the Transport Caucus, Co-Chaired by ITDP and Andy Anderson, representing the UITP (Intl. Union of Public Transit Authorities), some very progressive language was included in the Habitat II Global Plan of Action, the conference's official document. One key paragraph recognizes the importance of Non-Motorized transport, stating that: (par.147) "Non-motorized transport is a major mode of mobility, particularly for low-income, vulnerable and disadvantaged groups. One structural measure to counteract the socio-economic marginalization of these groups is to foster their mobility by promoting affordable, efficient and energy-saving modes of transport."

Another relevant paragraph, par. 41(n), recognizes the 'polluter pays principle' for transport, although it was watered down by the Saudi Arabians. Sustainable transport will be achieved, it reads, "by promoting spatial development patterns and communications policies that reduce transport demand, promoting fiscal and economic measures as appropriate, so that the polluter bears the cost of pollution to discourage polluting modes of transport, with special consideration for developing countries."

Besides several smaller events, the major transport event was the "Transport Dialogue for the 21st Century." ITDP's Executive Director was the primary critical respondent to the World Bank's pro-privatization paper, and Board Member Michael Replogle was the chief respondent to Daimler Benz' Vice President's paper outlining their view of the future of transport. For a full update of transport events at Habitat II, and the full text of the Habitat II Global Plan of Action,

you can check the following two websites: <http://www.bway.net/urbandev/apaid/ap01000.html> ("Habitat II Comes out promoting Sustainable Transport Policies") and <http://www.undp.org/un/habitat> ("Habitat Agenda").

Meanwhile, ITDP Associate Dr. Yaakov Garb was in Israel, building a coalition of sympathetic government officials and NGOs to fight the Trans-Israel Highway, and to move public opinion against the highway.

From Istanbul, ITDP went to Western Europe to research our new report "The Road to Europe," developing a strategy for Central European NGOs to influence the growing power of the European Union over the evolution of transport systems in their countries. From there, we went to

the central focus of a major meeting ITDP and other NGOs held with the EIB Vice President and senior bank officials in September. The meeting, a cornerstone of our EIB reform strategy, was organized by Friends of the Earth, France.

Meanwhile, ITDP's Karen Overton and Special Consultant Jon Orcutt of the Tri-State Transportation Campaign spent the Summer in Johannesburg, South Africa. Karen set up a pilot project providing informal sector recyclers access to work-bikes in order to increase the amount of recycled goods they can collect (in cooperation with Mondi Recycling), and laid the groundwork for an Afribike Center in Soweto. From there she went on to Mozambique to evaluate the women's bicycle project as part of a joint-research project being sponsored by IT Transport in England. Jon Orcutt worked with the Group for Environmental Monitoring and SANCO (South African National Civics Organization) laying the ground work for sustainable transport campaigns. (see enclosed articles)

The fall found Vice President Matteo Martignoni and I in India, at the invitation of U.S. AID and the U.S. EPA, putting together a feasibility study for technologically improving India's cycle rickshaws (see the enclosed article), while ITDP's Karen Overton and Deike Peters held a workshop on "Gender, Transportation, and the World Bank" at the 50-Years-Is-Enough Annual Conference in Washington, D.C. The conference, entitled "Gender Justice and the World Bank," was organized by 50 Years' new Executive Director and long-time ITDP Board member Lisa McGowan.

In October, we presented the results of our most recent critique of World Bank transport sector lending, "Wheels Out of Balance," to World Bank directors and staff. There was much acknowledgement



ITDP's Matteo Martignoni testing a cycle rickshaw near the Taj Mahal

Hungary, to work with the Clean Air Action Group preparing a case study on the European Investment Bank's (the house bank of the European Union) ill-advised loan to the M3 highway to the Ukraine (see article this issue). The abuses we documented, such as the lack of public hearings, the use of obsolete environmental impact assessment methods, the poor economic rate of return, and lack of a public information disclosure policy, became

Contents

Number 7

Winter1997

Articles:

- South Africa:* 4
Transportation Struggles in the Post Apartheid City
- ISTEA Reauthorization:* 6
Will the Highway Lobby Steer U.S. Transport Reform Off the Road?
- The Cycle Rickshaw can Save the Taj Mahal** 8
- Networks for Green Transport:* 10
Fighting for the 'Seoul' of Transport in Korea
- Bikeways Come to Lima's Mean Streets** 16
- Fighting the M3 Highway in Hungary** 18

Features:

- Letter from ITDP's Executive Director** 2
- News Briefs** 12
- New Titles** 22
- Bulletin Board** 23

Cover photos: *above*-by Walter Hook, *below*-by Matteo Martignoni

that the current loan evaluation procedures are biased in favor of road loans, and discussions are now underway on how to change this.

In November, Karen and Matteo were busy sending a much-belated shipment of second-hand bicycles, parts, and equipment to the Mouvmman Peyizan Papay and the Asosyasyon Groupaman Agrikol Peyizn Atibonit, two leading peasant organizations in Haiti. Another container of bikes from Pedals for Progress was also shipped to our women's mobility project in Mozambique.

The new year promises to be even more challenging. We have requests for technical assistance from campaigns in Central Europe, South East Asia, South Africa, Israel, Latin America, and for bicycle projects in Africa and the Carribean. Meanwhile the U.N. Commission on Sustainable Development plans to take up transport, and has asked for our involvement. We've been asked to evaluate World Bank highway projects for 50 Years is

Enough. Here at home, ISTEA is up for reauthorization (see article), and we've been asked to help influence this debate as well.

Thank you for your help. We can't do any of it without you. We hope you'll stay involved. Thanks also to Virginia "Model Worker" Parks, our intern from UCLA, who spent her summer coordinating ITDP's outreach efforts, and to Paul White, of Adventure Cycling, for organizing the Gift of Freedom membership drive. Special thanks also to the Turner Foundation, the Rockefeller Brothers Foundation, the New Land Foundation, the International Foundation, Alternative Gift Markets, the Tucker Foundation, and the Fair Share Foundation, Jay Harris, Marty Seldman, and the Bell Family for their continuing support.

Sincerely,

Walter Hook,
Executive Director

Sustainable **TRANSPORT**

is a publication of:

The Institute for
Transportation and Development Policy
611 Broadway, Rm. 616
New York, NY 10012

Tel. (212)260-8144 • Fax (212)260-7353
email: Mobility@igc.apc.org

Editors: Walter Hook, Karen Overton, Deike Peters

Art Direction: Cliff Harris, Dana Wilner

Board of Directors:

Keith Oberg, President
Inter-American Foundation
Matteo Martignoni, Vice President
International Human Powered
Vehicle Association

Walter Hook, Secretary
Executive Director, ITDP

Robin Stallings, Treasurer
Media Consultant

Michael Replogle
Environmental Defense Fund

Lisa McGowan,
50 Years is Enough Campaign

Marijke Torfs
Friends of the Earth

John Howe
Professor, IHE Delft

Setty Pendakur
Chairman, NMT Task Force
Transportation Research Board,
Professor, Univ. of British Columbia

Ariadne Delon-Scott
Bike Safety Coordinator

Elliott Sclar
Professor, Columbia University

David Gurin
Acting Commissioner of Planning, City of Toronto

All views expressed in the articles in this publication are the views of the authors and not necessarily the views of ITDP. *Sustainable Transport* welcomes submissions of articles about non-motorized transportation and information about sustainable transportation activities worldwide.

ITDP is a non-profit research, dissemination, and project-implementing agency which seeks to promote the use of non-motorized vehicles (NMVs) and the broader implementation of sustainable transportation policies worldwide. ITDP is registered in the United States as a charitable agency eligible for tax-deductible contributions under the Internal Revenue Service code. Members include bicycle activists, transportation planners, economic development specialists, small businesspeople, environmentalists, and other professionals, primarily but not exclusively U.S. citizens.

South Africa: Transportation Struggles in the Post Apartheid City

by Jon Orcutt

ITDP representatives Jon Orcutt and Karen Overton spent five weeks in South Africa in mid-1996, discussing transportation advocacy strategies with organizations in the Johannesburg metropolitan region.

The transportation system most South Africans face today is a mixture of patched-up, third-rate public transport inherited from apartheid and a chaotic, unregulated minibus-taxi system that is a source of swelling public complaint.

But political transformation in South Africa has opened the door for equitable and sustainable urban transportation policies. New government policies seek to reverse apartheid policy by dramatically expanding and improving public transport and discouraging urban motoring. But the application of these policies across the country is uneven, and possibly in serious jeopardy.

The evolution of South African transportation policy is not only of great concern to South Africans seeking to integrate their badly fragmented cities. It is also of interest to transportation reform advocates globally, because:

1. The combination of high social wealth, huge transit-dependent populations and a political mandate for sweeping change contains very strong potential for the development of modern transit- and pedestrian-based cities;

2. In one major metropolis (Cape Town), policy-makers are advancing principles that western environmentalists and transit activists have succeeding in advancing only slightly — financing a “transit first” policy by taxing urban motorists for the congestion, pollution and other harms they cause.

3. In the many cities where transportation reform is receiving little or no political attention, growing grassroots action in the townships could produce transportation policy insurgencies by poor and working class people on an unprecedented scale.



Walter Hook

Soweto: Suburban sprawl, South African style

Background: The Apartheid City

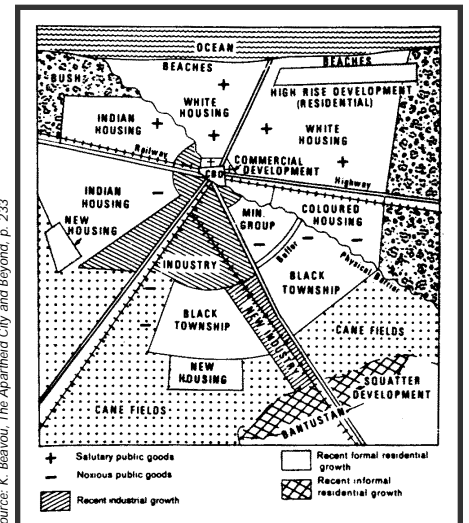
Apartheid required a massive program of spatial engineering. Establishment of largely rural African “homelands” or bantustans and internal passports attempted to control urbanization so that black “influx” was tailored to the labor needs of white-controlled industries. In the cities, black populations were restricted to residential townships on the metropolitan fringe, necessitating long trips to work and other destinations on white-controlled transit systems. The establishment of legislated apartheid after 1948 accelerated the destruction of black settlements near urban centers and the removal of their populations to the urban periphery. The razing of Sophiatown, one of the most culturally and politically vibrant black communities in Johannesburg, and the removal of its population to an area south of Johannesburg’s mining belt (Soweto: “South-West Townships”) in 1955 was only one notable case. In other cities, industrial zones, transportation corridors or other buffers separated black townships from white commercial and residential areas (see diagram)

Apartheid Transport

The blueprint for post-apartheid development issued by the African National Congress and its allies, the Reconstruction

and Development Programme (RDP), notes:

The policy of apartheid has moved the poor away from job opportunities and access to amenities. This has burdened the workforce with enormous travel distances to their places of employment and commercial centres, and thus with excessive costs. Apartheid transport policy deprived the majority of people of a say in transport matters; exposed commuters to vast walking distances and insecure rail travel; failed to regulate the kombi-taxi industry adequately; largely ignored the country's



source: K. Beavou, *The Apartheid City and Beyond*, p. 233

outrageous road safety record; paid little attention to the environmental impact of transport projects, and facilitated transport decision-making bodies that are unwieldy, unfocused, unaccountable and bureaucratic.

For these reasons, transportation has a prominent history in township and anti-apartheid politics. Nelson Mandela's first political action was participation in a 1943 mass march supporting a bus boycott in Johannesburg's Alexandra Township — the boycott effectively rolled back a fare increase. The 1955 Freedom Charter, which launched the African National Congress on its 35-year drive to end minority rule, specifically called for the provision of public transport adequate to serve all urban dwellers.

The transport system inherited from apartheid also bears the scars of the anti-

apartheid struggle. Transit suffered especially during the 1980's and early 90's as conflict became most acute. The withering of transit stemmed from a combination of boycotts, non-payment campaigns, labor actions and withdrawal of government support as the costs of repression increased. In some cases, service for entire areas, like crowded Alexandra Township north of Johannesburg, collapsed. Ridership also seriously declined where political violence engulfed commuters, as it did on Johannesburg township commuter trains during the early 1990's in Inkatha Freedom Party attacks on ANC supporters.

The transportation void was filled by 12-20 seat mini-bus taxis, or "combis." The government encouraged small black capital to invest in the mini-buses as it retreated from its investment in public transport.

At the same time, the reality of accelerating urban migration led to the formal abandonment of "influx control" in the mid-1980s. Burgeoning squatter settlements on the edge of already marginal townships had no access to formal services, and even residents in long-established townships increasingly had trouble reaching destinations as jobs and white populations began to move away from central cities.

Combis: "Economic Miracle," Transport Chaos

The combis were thus well-suited to navigate the increasingly complex and de-centered metropolitan areas of the late 1980's and 90's. They are now the central feature of South African urban transport, accounting for up to 50% of many urban transport markets and competing with buses and trains on major routes. Taxi industry growth was fueled not only by need, but also by the barriers black capital faces elsewhere, and because driving is a relatively ubiquitous skill in the townships.

The unfettering of private transport services produced the first major black-run South African industry, but the absence of regulation also promoted chaotic service and schedules, the absence of safety standards or accountability, unregulated fares and the operation of hundreds of vans in major corridors served more efficiently by buses and trains.

Worse still is the violence between rival companies or associations vying to control over-supplied routes and stations. National, provincial and metropolitan government initiatives to bring stability and regulation have fallen short. Though some measure of peace seemed to have been established in early 1996, violence in several cities flared again later in the year. The Baragwanath taxi rank, one of Soweto's main portals to the rest of the Johannesburg region, was closed due to violence several times in August and September. Official efforts have generally not sought to situate the combis within an overall passenger transport plan based on expanded public transport, and have failed to address fundamental problems of regulation and oversupply. But the unabated conflict has fed growing public support for revival of traditional public

PROFILE OF A MOZAMBIKAN WOMAN

Karen Overton conducted interviews with women who received bikes through the ITDP/AMRU Bikes for Africa Project. Here is one sample.

Palmira Machave is 51 years old, and has a third grade education. She lives in 25 de Setembro, a remote village where the National Association for Rural Women Development (AMRU) works extensively. Palmira is the only wife of Mario Sabia, and the mother of seven children. As a young girl she had learned how to cycle. She explained that before the 21

years of war that only ended in 1994, there was an abundance of bicycles. However, the Renamo soldiers burned and pillaged their village, during which bicycles were destroyed or taken. She is grateful that AMRU is helping to bring back bicycles to her village. This is the first opportunity for her to get a bicycle. While Indian models are available in the local market, a bicycle is not affordable for women. In a predominantly subsistence economy, Palmira earns money by brewing traditional alcoholic beverages. She sells 250 litres/month, earning the equivalent of US \$5. In addition to this, she sells surplus produce from her plot of land or the ducks and chickens that she raises. She uses the bicycle six days a week to travel to her small plot of land where she grows the food her family will eat throughout the year. Some-times she sends her older children on errands into the city rather than make the trip herself. She says that the bicycle helps her to save a few extra dollars every month. However, more important than the savings is the freedom and status the bike gives her. Sometimes, when men stare at her as she rides by, she shouts at them - Yes, you can believe what you see. Women too ride bikes!



Palmira Machave on a bicycle

Photo: Karen Overton

continued on p. 11

ISTEA Reauthorization:

Will the Highway Lobby Steer U.S. Transport Reform off the Road?

by Michael Replogle

America's once jealous love affair with the car turned considerably more open with passage of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 and key transportation provisions in the Clean Air Act Amendments (CAAA) of 1990. But the new ISTEA law expires at the end of September 1997, and has to be reauthorized.

At stake is whether U.S. transport reform will continue, giving hope for renewal of America's older cities and suburbs, or whether highway construction and exurban sprawl will promote further urban disinvestment and decay. Will ISTEA II build a bridge to a 21st Century where the affluent shuttle between gated communities and high-security office parks surrounded by burned-out cities in smart, armored sport utility vehicles? Will the new intelligent transportation technologies lead to yet more high-speed urban flight? Or will it be used to reduce costly subsidies to driving and sprawl, and internalize the massive external costs of our transportation decisions? Will we demand performance for our tax dollars, or throw billions at new road construction while letting our existing systems decay? Will we hold transportation accountable for its environmental consequences, locally, regionally, and globally? What sort of model will the U.S. transport system be for the world?

With ISTEA reauthorization just beginning, it is too soon to tell. The news media, perhaps distracted by \$10 billion a year in automobile industry advertise-

Michael Replogle is Co-Director of the Environmental Defense Fund's Transportation Project, based in Washington, DC. He was ITDP's founder, and served as President from 1985 to 1992.



The Lafayette St. bike lane, New York City: A typical "Enhancement" made possible by ISTEA

ments, will likely pay little attention to the deeper issues. The real fight will be behind the scenes. Sustainable transport advocates are organizing to retain ISTEA's progressive elements, with greater emphasis on performance incentives and accountability to the public. The highway lobby will push hard to kill flexible funding, public involvement in planning, and fiscally responsible long-range planning.

How ISTEA Worked

In the U.S., federal government revenue for the national transportation system comes from the federal gasoline tax.

Until the 1970s, this revenue was tied exclusively to roads, which left rail and public transit systems to collapse. In the 1970s, a small percentage (2%) was earmarked to urban mass transit, allowing the partial and temporary revival of these systems.

With the passage of ISTEA, funds allocated to highways became available for maintenance and rehabilitation, and a large amount of federal transportation funds were allocated to a flexible "Surface Transportation Program", a portion of which was allocated for "enhancements," including safety, pedestrian and bicycle projects, and historic preservation.

ISTEA also made federal funding conditional on the development of 20 year plans by both states and new Metropolitan Planning

Organizations (MPOs). Since public transit, bicycle network development and transportation pricing policies act only slowly to modify land use and travel behavior, this long term planning horizon allows a more sound appraisal of such projects in comparison with short-term engineering pallatives, like new highway construction, that in the long-run worsen rather than solve metropolitan transportation problems.

Under ISTEA, both states and MPOs share responsibility to provide all "citizens, and interested parties with a reasonable opportunity to comment on the proposed plan/program." Public involve-

ment in developing a view of alternative futures is a central promise of ISTEA, though efforts of community stakeholders to participate have been hindered by limited access to documents and planning tools.

The Clean Air Act and its Amendments in 1990 set science-based national ambient air quality health standards for ozone, carbon monoxide, particulate, sulfur oxides, and lead, although not CO₂. The law stipulated five levels of non-attainment of ozone targets, and many major metropolitan areas are either in "Serious," "Severe," or "Extreme" Non-Attainment, for ozone. Each of these non-attainment areas is required to develop a federally approved State Implementation Plan (SIPs) outlining how they would bring the area into compliance. SIPs identify specific emissions budgets for each air pollutant. Agencies must demonstrate that Transportation Improvement Programs (TIPs) and long range plans 'conform' with the SIPs, showing how they will stay within SIP 'mobile-source' budgets and contribute to the timely attainment of the national air quality standards.

Highway-tied national funds from ISTEA were restricted to the old interstate system and new roads to be identified later as part of the "National Transportation System" (NTS). After a long political battle, the new NTS of 1995 did not designate any new interstate highways. However, it included sixteen proposed new regional beltway ringroads, many of them second, outer ring roads, around metropolitan areas, along with a number of proposed new long-distance Interstate-type highways. It also abolished Federal control over speed limits, and suspended the EPA's enhanced vehicle inspection system.

ISTEA's Effects

Although implementation of ISTEA reforms has been slow, the \$155 billion in federal transportation spending authorized by ISTEA over six years has shaped several times as much in-state and local transportation expenditures. ISTEA and the CAA have brought many new stakeholders into the transportation planning process, and spurred significant technical progress in transportation/land use/air quality analysis. Highway expansion

plans have been curtailed and transit, bicycling, walking, land use planning, and traffic demand management have been enhanced. Innovations like electronic congestion pricing are spreading from California to Virginia, and being considered in New York, Florida, Minnesota, Maine, and elsewhere.

Regional planning bodies were given greater authority. ISTEA began to break the hegemony of departments of transport (DOTs) and the Federal Highway Administration (FHWA) over transportation policy. For the first time federal funds were allocated directly to regions.

These reforms have made it possible for towns like Portland, Oregon, to reduce air emissions and adopt plans to reduce vehicle miles traveled (VMT) per person by 20% over the next 30 years. Boulder has reduced its share of trips made by single occupant vehicles by several percent a year over the past several years.

Will ISTEA II build a bridge to a 21st Century where the affluent shuttle between gated communities and high-security office parks surrounded by burned-out cities in smart, armored sport utility vehicles?

Milwaukee, Baltimore, Sacramento, Washington, DC, Miami, and other regions are evaluating strategies that could have similar effects.

But progress has not been uniform. State DOTs, FHWA and the U.S. Environmental Protection Agency (EPA) have resisted strict implementation of the CAAA and ISTEA, sometimes in blatant violation of the law. There was a lengthy battle over the rules by which the EPA determined the 'conformity' of SIPs to the CAAA. Early FHWA guidelines, for instance, only required that new investments lower emissions below what they would have been without the investment, (what became known as EPA's "build/no build" test), and not that they actually lower aggregate emissions. The MPOs often use gimmicks and outmoded transportation modeling methods to allow a conformity finding for road expansion plans.

Many states have been slow to spend ISTEA funds specifically targeted to congestion mitigation and air quality

(CMAQ), and have withheld these funds from locally supported initiatives that would reduce motor vehicle dependence, claiming that emissions reductions could not be adequately demonstrated. Some states have even used such funds for highway expansion projects.

The 1997 Battle Over ISTEA Reauthorization

The battle in 1997 will take place on different political terrain. Pro-highway interests are mobilized and working actively to overturn ISTEA and CAA reforms. Some have called for the repeal of conformity requirements. Many states would be pleased to see a \$20 billion a year federal block grant for transportation with no accountability and no requirement to ensure that metropolitan regions get a fair share. Some are calling for the federal government to limit or end its taxation of gasoline, allowing states to make up the difference, or limiting federal gas tax spending to Interstate and National Highway System maintenance. While this might provoke a fiscal crisis for funding new highways in some states that chose not to increase their gasoline taxes, it could pose big problems for transit and other ISTEA funded non-highway initiatives.

In any case, the surplus of gas tax revenues that existed in 1991 has been spent down. In this tighter fiscal climate, less funding is available for authorization, further increasing the chances of a fight over the 'formulas' used to 'divide the pie.' The highway lobby is pressing for elimination of CMAQ funds. If the CMAQ program is killed, CAAA's air quality conformity requirements will be more vulnerable to attacks from conservatives and local governments as 'unfunded federal mandates.'

Fights over ISTEA Funding Formulas

ISTEA uses formulas to determine both how much of the Highway Trust Funds are spent on new highways, maintenance, and transit, etc, and also on how much goes to different geographical areas. The battles are not likely to be along party lines. Rather, members of Congress from states that receive more funds than their motorists contribute in gas taxes, or 'donee' states, including NY and most Northeastern states, will tend to align

continued on p. 20

The Cycle Rickshaw can Save the Taj Mahal; The Taj Mahal can save the Cycle Rickshaw

by Walter Hook and Matteo Martignoni

ITDP Executive Director Walter Hook and Vice President Matteo Martignoni were invited to India by U.S. AID and the U.S. EPA to study the feasibility of a cycle rickshaw upgrading project in Agra. The following is taken from their trip report.

Agra, India, is the home of the Taj Mahal, one of the worlds most famous monuments. Indians say the world is divided between those who have seen the Taj Mahal, and those who have not. It was 7:00 Thursday morning when Matteo and I finally joined the first category of people. Like an estimated 1/3 of all tourists, we wanted to get there by cycle rickshaw. We walked out of our hotel, and asked the concierge, a man in a tall turban, white tunic and red pants, to call a bicycle rickshaw for us. We quickly found out, however, that unlike taxis which could drive right up to the door, the cycle rickshaws were not permitted onto the hotel grounds. The concierge led us down the driveway, off the hotel grounds, and motioned to the 'wallahs,' who are the cycle rickshaw drivers who sit across the street. These wallahs also operate a motorized two-stroke engined three-wheeler known as a Bajaj. They tried to get us to take the Bajaj, which belches black smoke, makes a lot of noise, and is more expensive. We insisted on taking the cycle rickshaw.

Agra's cycle rickshaws are a tight squeeze for two Americans who are used to a certain amount of personal space, so we hired two. The price? Whatever we like, they said, knowing that whatever we paid would be far more than they normally earn. The route to the Taj Mahal goes for about 1 km down the busy Fatehabad Road, then turns suddenly into the narrow streets of the Taj Ganj, (a modest-income neighborhood), and winds down hill to the Taj Mahal gate. On the way back, the rickshaws had to go up a modest hill, and even with only one passenger it proved too steep for the wallahs to pedal. They walked us up. Matteo got out and walked. It was a little embarrassing, and a little slow. Then Matteo took a turn at the pedals. Afterwards, soaked in sweat, he was more convinced than ever of the need to improve the vehicle.

While previous efforts to upgrade cycle rickshaws in India have developed vehicles of improved design, none of them have ever been successfully adopted into commercial production. Meanwhile, the public image of the cycle rickshaw is deteriorating. The recent ban on their use in Calcutta, and announcements of further restrictions in Delhi show just how near to extinction

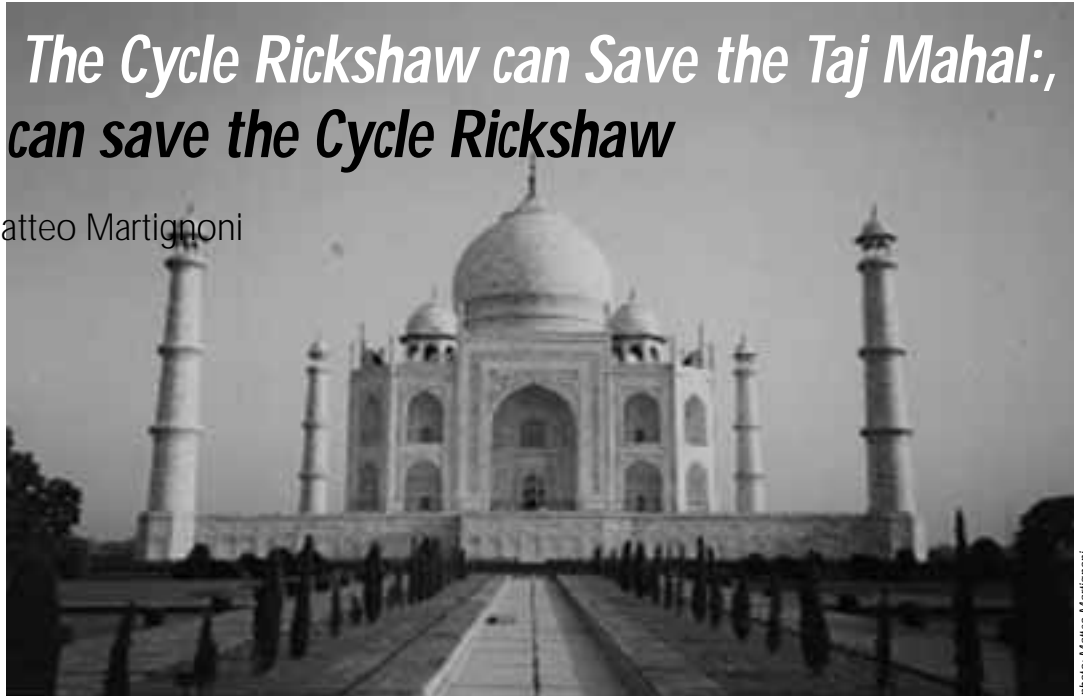


photo: Matteo Martignoni

this sustainable and job creating mode may be. The particular conditions in Agra, however, gave us hope that an improved cycle rickshaw could be introduced into the market.

Tourism is a major source of income for Agra. Besides the Taj Mahal, there are also the Agra Fort, Akbar's Tomb at Sikandra, Krishna's birth site, and the Itmad-Ud Daula, which are located in the immediate vicinity of Agra. All these precious monuments are being permanently discolored by air pollution. The main problem is carbon soot and black smoke, a lot of which comes from trucks, two-stroke-engined or diesel taxis. The importance of tourism to the Agra economy has helped to galvanize public opinion to improve the environment, particularly around the Taj Mahal and other monuments. In 1994 the Indian Supreme Court placed tight restrictions on motor vehicle traffic in the 4 km radius immediately surrounding the Taj Mahal's grounds. This situation holds particular promise for the introduction of an improved cycle rickshaw. They would represent an ideal alternative for the 1000 tourists who visit the Taj Mahal every day.

Solving the Rickshaws Image Problem

Agra, like many of India's cities, already has the ingredients of a sustainable transportation system. Unfortunately, many of the most modern and sustainable elements of their transportation system suffer from an image problem. Public attitudes toward the cycle rickshaw are often extremely negative. Car drivers complain that they are blocking traffic, while progressive politicians complain that they are exploitative. Everyone, it seems, believes that 'modernization means motorization.' If the current trend towards banning them continues, people will then have to walk instead, often carrying heavy bags. For longer trips, they'll have to push onto overcrowded buses, or rent a highly polluting three-wheeled Bajaj or four-wheel Ambassador taxi. Of course, air pollution and traffic congestion will only get worse. Over 1000 people can pass through a meter of roadway per hour on cycle rickshaws while generating no pollution, compared to only 200 to

500 in private cars or taxis. So cycle rickshaws actually reduce rather than cause congestion.

Many Indian urban planners see the congested, narrow streets of Agra, accessible only by foot or cycle-rickshaw, as backward, and plan to build new roads and wider boulevards. To up-to-date Western traffic planners, however, these neighborhoods are a perfect example of what the U.S. Architect Peter Calthorpe calls 'Pedestrian Pockets,' neighborhoods designed to encourage walking. Indian taxi drivers also complain about the cows, sacred to the Hindus, that wander into the middle of traffic even in downtown Agra. The cows, however, 'traffic calm' vehicles on residential streets, thus creating a safer environment for pedestrians, bicyclists, and children. In India, one can still find carts pulled by camel and bullock, and people riding to town on elephant, creating a 'modal diversity' we no longer see in the West.

Improving the cycle rickshaw in Agra will require further working with the Associated Chambers of Commerce, national, regional and local government officials, the cycle rickshaw manufacturers, the owners, the wallah unions, and community groups in New Delhi and Agra, and convincing them that human powered transport is the wave of the future, not a vestige of the past. In our meetings, we pointed out that all across the U.S. and Europe cycle rickshaws are on the upswing. Modern, light-weight vehicles are being marketed as 'green-taxis', or 'pedicabs.' Pedicabs of New York's (PONY) chauffeurs are making around twenty dollars an hour: four times the U.S. minimum wage. After hearing from us how these cycle rickshaw businesses were blossoming in the West, many came to see human powered transport in a new light. Ultimately, most were supportive of the idea of introducing a modern, efficient, and less exploitative cycle rickshaw.

Cycle Rickshaws Generate Jobs and Profits

In Agra, there are officially 10,000 licensed cycle rickshaws employing 30,000 'wallahs'; three wallahs will use a single cycle rickshaw in shifts. Unofficial estimates from Agra residents indicate that there are at least another 10,000 to 20,000 unregistered cycle rickshaws, meaning that there are between 30,000 and 90,000 wallahs in Agra, representing about 5% to 10% of total employment in Agra.

Some 30% to 40% of wallahs own and operate their own vehicles, and 60% to 70% rent them from an owner of several cycle rickshaws. Average earnings are \$1.30 per day, of which \$0.30 goes to the owner of the cycle rickshaw. Total annual revenue to the sector thus ranges between \$14.3 million and \$42.7 million.

Agra is also an important center for manufacturing cycle rickshaws. Agra produces between 30,000 and 50,000 cycle rickshaws per year. The majority are exported throughout the Agra region within a roughly 80 km radius of the city. There are 5 major cycle rickshaw manufacturers in Agra, each employing 20 or more people. A rough estimate of total employment generated by the manufacturing and service side of the cycle rickshaw industry in Agra, including subcontracts and maintenance activities ranges between 500 and 1000 jobs. Considering that each firm is producing 10 to 20 rickshaws per day and that prices are \$100-\$200 per vehicle, cycle rickshaw manufacturing brings a value added to Agra of roughly \$3 - \$5 million.

ITDP's Planned Cycle Rickshaw Improvement Project

The current cycle rickshaw used in Agra is little different from those used fifty or even seventy years ago. It is a hybrid of both indigenous craft production and mass production. The front is mass produced and sold as a 'cycle rickshaw kit'. The carriage and rear axle is then built by smaller informal sector manufacturers in Agra, where it is also assembled. The carriage and rear assembly is made out of steel and wood, and decorated with paint and tin plate.

The current vehicle has several advantages given Indian conditions: it's cheap, easy to repair, and extremely durable. It costs less than 1/12 of most commercially available cycle rickshaws in the U.S, and although ridden some 60km per day, often carrying heavy loads, it can last from 8 to 10 years if properly maintained. At the same time, the rickshaw is extremely heavy and very difficult to pedal uphill. It has no rear-end differential, creates a lot of unnecessary drag and is quite unstable. With only one outmoded brake, it is also hard to stop in traffic. Finally, the wallahs sitting position is uncomfortable, causing unnecessary back, neck and leg stress. Why has the private sector not developed a better vehicle?



Cycle rickshaw manufacturer in Agra

One obstruction to innovation is that no single firm manufactures an entirely mass produced cycle rickshaw. If they did, as a commercial vehicle, the kit would be subject to a 15% excise tax. The current 'kit', however, not being the end product, does not have to pay the excise tax. The small scale local manufacturers, unlike the larger company producing the 'kit', are able to avoid the 15% excise tax as they operate in the 'informal sector.'

It is less surprising that there has been little technical innovation by the local manufacturers of the rear end framework and seat. These manufacturers are small scale, conservative operations without the capacity or know-how for any significant redesign of their vehicle. Working at a very small profit margin, and producing a vehicle that enjoys a solid market, they are risk adverse. As for the wallahs, they are quite poor, and want the cheapest vehicle they can get.

In the 1970s and 1980s there were two attempts by Canadian, British, and Indian NGOs to improve the cycle rickshaw. In both

continued on p. 19

Networks for Green Transport: Fighting for the 'Seoul' of Transport in Korea

The following article is taken from "Motorization and People-Centered Transport: A Perspective on Transport in Korea," by Samjin Lim. See *New Titles*.

The growth in automobile use in Korea is one of the fastest in the world. Between 1980 and 1995, the number of cars in Korea increased from 527,000 to 8,469,000. Increasing along with car use has been congestion, air pollution, and roadway accidents. Fortunately, the Networks for Green Transport (NGT), an impressive citizen's advocacy group based in Seoul, has been fighting since 1992 for transport policies that address the negative consequences of automobile dependence.

Curiously, despite the rapid expansion of the motor vehicle fleet, cars have not contributed towards transporting greater numbers of people. Private car use as a share of total travel in Seoul has remained constant at between 14% and 15% for over a decade. High density public sector housing developments and very tight land use regulation in Seoul's green belt may have played a role in maintaining public transit mode share, but it has also increased the level of externalities created by car use and the cost of land. In order to accommodate the additional cars, road investments increased from \$4,873 million in 1982 to \$66,838 million in 1993. As a share of total public investments into transport, roads increased from 47% to 61.5%, mostly at the expense of public transport, which is in decline. Because car owners tend to be the highest income Koreans, while public transit users tend to be the lowest income urban residents, this shift towards more road spending represents a regressive redistribution of wealth. It also means that Korea is spending far more money to achieve the same level of basic mobility that they used to enjoy.

The cost of motorization is passed on to Koreans in other ways. Air pollution is on the rise, of which auto emissions accounts for 77%. The impact on health is devastating. Increased automotive exhaust may have contributed to the dramatic rise in lung cancer deaths from 1984 to 1994, from 6.1% of deaths per 100,000 to 19.1%. Increasing air pollution may also contribute to the rise in upper respiratory and pulmonary disease.

The human cost of a car-dependent Korea is more directly measured by the 201,588 death toll resulting from automobile accidents over the past 25 years. The number of people killed per year has doubled, from 7,468 in 1984, to 15,351 in 1994. A disproportionate number of these fatalities occur among pedestrians

(46.61% of total traffic deaths). Pedestrian deaths are generally 10 times higher per vehicle than in most developed countries. The devastation does not stop here. The number of people handicapped each year due to traffic accidents is estimated at 50,000.

NGT blames Korea's poor transportation safety record on a sense of superiority among motorists, lack of safe pedestrian and cycling facilities, lack of traffic calming on residential streets, and a lack of enforcement of traffic safety laws and regulations. In Korea, drivers treat pedestrians and bicyclists as obstacles in the road or as criminals. Road space, despite being public property, is designed for cars. Sidewalks, crosswalks, pedestrian streets, and traffic calming measures are inadequate or totally absent from the urban landscape. Only those motorists who commit a minimum of 10 traffic infractions are arraigned. Pedestrians are

"The chances of achieving a pedestrian-safe environment under such conditions are about as good as the chances of 'catching a fish in a tree.'

readily subject to jay walking fines, while drivers must commit atrocities before punitive action is taken. NGT claims that the chances of achieving a pedestrian-safe environment

under such conditions are about as good as the chances of "catching a fish in a tree."

NGT has been at the forefront of promoting the use of a 'rights' framework for transport. The problem, according to Lim, is that the transport rights of everyone are not equally respected. The rights of pedestrians, women, youth, bicyclists, the poor, and the handicapped are often sacrificed to the private motorist. Pedestrians and cyclists should have a right to safe use of road and sidewalk facilities.

NTG's over 4000 members have begun to successfully challenge people's concept of the car as a status symbol. Over 200 articles about their efforts have been published and they have organized several highly publicized marches, including the Walking March for the Rights of Pedestrians in 1993 and Walking Together for Securing Mobility of the Transportation Poor and Handicapped in 1994. By organizing a growing and often under-represented constituency of pedestrians, bicyclists, handicapped, and elderly people, they have fought for better transport facilities for the disabled, for at-grade safe crosswalks and against difficult to use overpasses and underpasses, for better pedestrian facilities at subway stations, traffic calming, bike lanes and parking, and exclusive bus lanes. They are also one of the most active members of the Sustainable Transportation Action Network for Asia and the Pacific, and the U.N. Habitat II Transport Caucus. ♦

South Africa

continued from p. 5

transit.

Combi Boycotts

Popular protest aimed at the combi industry followed the renewed violence. "I think Madiba (Mandela) should solve this problem. He must ban these taxis and buses should start operating. We've had enough of these unruly drivers," an elderly woman told a Johannesburg weekly. In August and September, renewed taxi violence near Cape Town led to a march by residents of KTC Township, who demanded that police close a nearby taxi terminus. Gunfighting had spilled over from the station into their neighborhood and killed five residents. Local ANC branches called for a taxi boycott in Western Cape Province, though activists face the problem of few commuter options. But a mid-October boycott in townships near Pretoria was supported by police and bus companies and appeared

to be working — media reported "mostly idle and empty" taxis.

From the taxi boycotts, it is a short step to advocacy for investment of public resources in public transport alternatives. Government policy-makers envision a strong continuing role for the combis as feeder and supplemental transit services, but will need strong public support as they attempt to subject the combis to regular processes of planning and regulation.

Cape Town: Transit First

The RDP's recommendation for a strong "transit first" investment policy is being developed into a metropolitan action plan in Cape Town. The Provincial (Western Cape) Transport Minister, Leonard Ramatlakane, has proposed a series of parking and road levies to reduce the impacts of urban driving and generate revenue for expanded public transport. In a recent opinion piece, Ramatlakane wrote that dramatically expanded public transport was essential to overcome the legacy of the apartheid city and that motoring taxes are "to make [motorists'] costs closer

to the costs they impose on society. These costs include congestion, pollution, traffic enforcement and road accidents." The minister, a former trade union activist, is working to broaden support for the strategy by using the media and recruiting support among other provincial and municipal officials. Cape Town's new regional transport plan aims to reduce car commuting by 20%.

Ramatlakane has also made a priority of changing a monopolistic bus company concession policy that has inhibited new service in cities around the country. A new plan to significantly increase the metropolitan passenger rail system's capacity will be released next year. It dovetails with Cape Town's "Metropolitan Spatial Development Framework," which restricts new development at the urban periphery to promote higher density and contain sprawl. It also designates established transport corridors as recipients for new business "nodes" and much-needed new public housing. Cape Town also looks likely to be the first region to inte-

continued on p. 14

Bikes Mean Better Business for Paper Pedalers

Recycling is a growing source of employment for low-income people in South Africa's largest city, Johannesburg with unemployment estimated at 50%. Paper collecting is a good opportunity, even for the uneducated. Self-employed paper collectors spend their week collecting paper from offices, shopping malls and in some instances, private homes, and bring it to Mondi Recycling Buy-In Centres.

Mondi Recycling, Inc. has found recycling to be a profitable business. Besides the actual recycling operations and an environmental education program, Mondi also sponsors the Small Business Development Programme. This program's goal is to encourage people to start their own recycling collection businesses by offering advice, training, equipment and ongoing assistance.

ITDP is working with Mondi Recycling to implement the Workbike Pilot Project. The project facilitates the work of paper collectors, while simultaneously promoting an environmentally sustainable form of transport. The Workbike Project is making eleven workbikes available for use by paper collectors, selected by Mondi. Over an eight month period, each collector contributes to a revolving credit fund which ITDP and Mondi jointly capitalized. Participants receive a \$200 subsidy which reduces the cost of the workbike

to US \$411, and ultimately come to own the workbike. Mondi estimates that 1,000 collectors bring paper and cardboard to the Buy-In Centres. Lacking resources, the collectors drag paper in large canvas bags, or steal shopping carts from the local grocery store, Pick-N-Pay, or Woolworths to transport paper to the Buy-In Centres. Based on the testing of two workbike models this spring, Mondi Recycling estimates that the

acquisition of a workbike will enable a collector to increase his or her territory by 100%. The ability to haul 125 lbs. at a faster speed will improve efficiency. More importantly, it means higher incomes and reduced working hours for collectors.

To assure that the program runs smoothly, Mondi has contracted the supplier of the workbike, Johnson Cycles, to offer a basic maintenance and repair course for participants, and to service the workbikes on a bi-monthly basis.

ITDP has provided basic tools to

initiate a bike shop that collectors may access when needed.

In March 1997, the Workbike Pilot Project will be evaluated. ITDP and Mondi will replicate the project in Soweto at the Win-Win Village, a micro-enterprise development project of the United Nations Conference on Trade and Development.



Recycling work bikes provided by ITDP and Mondi Recycling

Teheran, Iran***Women Banned From Biking***

Women must avoid anything that attracts strangers, so female cyclists in public places involves corruption and is forbidden. Iran's spiritual leader, Ayatollah Ali Kamenei, adopted this position in the September edition of Sobh, the country's voice of religious orthodoxy. Women's cycling in Teheran is currently limited to a five mile trail secluded behind a pine board fence which is monitored by the police. A brand new sign marks the entrance to the trail: a man with a red X across his body. "Well I am certainly not coming back here again," a young woman commented after riding along this new path. "The police stood next to the trail the whole time and told me not to look at men and to cover my hair. So where can the women go?" Col Agha, Iran's satirical weekly, recently offered the obvious solution, limiting riding to a stationary bicycle in the kitchen.

Source: New York Times

Car-Sharing Increasingly Popular

Club in Bremen, Germany has already more than 1000 members

Car-sharing — a new model of car-ownership where people agree to share common vehicles — is becoming increasingly popular throughout Europe. For car-owners, the biggest expense is the acquisition of the vehicle. Afterwards, usage and maintenance fees are relatively low. People thus use their car as much as possible to make it worth the original expense, especially since a car is losing value over time, whether it's driven or not. Car-sharing, by loading the full cost of driving into the usage fees, creates a disincentive to use the car. Recent studies show that people make far more efficient travel decisions this way, actually driving up to 50% less. In Europe, interested people presently can join a club and pay a monthly membership fee of about \$10 per month. The clubs charge their members additional usage fees according to the amount of time and vehicle kilometres travelled. Members then have access to a range of vehicles (9

seat bus, small car, utility, ect.) without having to worry about vehicle maintenance. Members also enjoy reciprocal rights with car clubs in other cities.

UK Agrees On National Cycling Strategy

UK's first ever National Cycling Strategy was announced in London in July by Britain's Transport Secretary, Sir George Young. The policy aims to double the number of cycle trips in Britain by 2002, and to double them again by 2012. The Strategy, useful reading for cycling advocates everywhere, is now available on-line at:<http://www.open.gov.uk/dot/ncs/ncs.htm>

Source: ITE Webpage/ITDP

Bike Cops Prove Effective in US

Originally thought of as a community-relations tool, policing on bicycles has proven extremely effective in day-to-day patrolling and crime-fighting, and its popularity is rising. Police departments first began turning to bicycles in 1992, based on successful community policing programs in Seattle and elsewhere. The bike officers were considered more approachable than squad cars, thus improving citizen contact. In poor districts around Washington DC, bicycles were also immediately recognized as cheaper alternatives to police cruisers. In Fairfax's Mount Vernon District, where bike officers make up about 25% of the districts 35-officer evening shift, the biking cops made almost 40% of all criminal arrests. One of the bike cops' biggest advantages is their ability to silently sneak up on potential crimes in progress. They are also better able to patrol pedestrian zones, traffic calmed areas, and public housing superblocks. So even without considering any of the environmental and health benefits associated with bicycling, US police departments have discovered bikes for their own purposes.

Source: Washington Post

**Sustainable
News****World Bank Gives \$80 for Albanian Roads**

A World Bank publication headline recently trumpeted: Roads and More



Photo: Transportation Alternatives

Bike cops prove to be n

Roads — That's What Albania Needs. The brief article goes on to justify a \$79.5 million World Bank expenditure for Albanian road building as necessary for trade and tourism. The number of motor vehicles in Albania has soared from 5,000 in 1992 to 160,000 today, according to the Bank.

Transportation Briefs

Global Traffic Death Epidemic

Road traffic accidents are reaching epidemic proportions, especially in developing countries. By 1990, road traffic



effective crime fighters.

accidents were the ninth leading cause of death and disability in the world. By the year 2020, the world road traffic toll will have jumped to third place worldwide, second for developing countries. Developed countries tend to have more total deaths from traffic accidents per capita, while developing countries tend

to have more traffic deaths per vehicle. In developed, more motorized countries, motorists often kill other motorists, while in developing countries, they kill mostly pedestrians and cyclists. For example, only 5 percent of all people killed in New Delhi are in cars, and 60 percent of the victims are killed by buses and trucks. Therefore, in-car safety improvements in India could only reduce fatalities by 2%. Globally, the cost of traffic accidents in 1990 alone was around \$230 billion, of which the total cost to all developing countries was around \$36 billion.

Source: The New Scientist (9/14/96)

Motorizing China?

The Ministry of Machine-Building Industry, with over two million workers in dozens of automobile plants around the country, is busy implementing their so-called pillar-industry strategy to create a half-dozen giant Chinese automakers in partnership with GM, Volkswagen and other foreign companies. The ministry wants China's central and local governments to divert more money into highway and road construction and to support an automobile-based economy. But China's scientific community, in a major report last summer, began a campaign to challenge this policy. Ticking off the problems of China's future energy supplies, worsening pollution and the shortage of land, one of the country's leading physicists, Prof. He Zuoxi concluded that China just simply cannot sustain the development of a car economy. He fears, however, that government policy is being driven by a desire to keep two million auto workers employed. In addition, many top officials in Li's cabinet come from the auto industry.

Source: New York Times

Palm Springs

De-Motorizing Southern California?

When ITDP members John and Dorothy Harte first moved to Palm Springs from Key West, Fla, they sold their bikes because the streets in Palm Springs were

unsafe and freeway-like. But thanks to a new City Council-approved plan, the city will recalibrate traffic signals to slow drivers 20 mph, limit the hours for commercial trucks, and allow people to cross the intersection diagonally. Further provisions call for the promotion of cycle rickshaws for hotel service, moped and bike rentals, and the installation of bike racks along shopping areas and parks. In addition, new horse-drawn carriages would join the current ones in the downtown area. If Palm Springs can change, every place can change!

Source: The Desert Sun/Dorothy Harte

Taken for a Ride

How the Auto Lobby Dismantled Public Transit in the US

A new film, *Taken for a Ride*, broadcast by National Public Television on August 6, documents how GM dismantled the US trolley systems, thus clearing the way for their buses and a road dependent transport system. Film rental is \$55, or it may be purchased by grassroots organizations for \$95 and \$225 for educational and insitutional use. Contact: New Day Films, 22D Hollywood Ave., Hohokus, NJ 07423, phone (201) 652-1989, fax (201) 652-1973

Korean Auto Manufacturer Bets the Bank on Central Europe

One of the largest players in the Central European automobile market is Daewoo, the debt-ridden Korean auto manufacturer with a reputation for poor quality products. Daewoo has invested \$5 billion into Central Europe, gambling that low labor costs there will create an excellent launching pad not only for sales to Poland, where auto sales jumped 30% last year, but also for the lucrative Western European market. Daewoo outbid General Motors for the take-over of Poland's state automobile company Fabryka Samochodow Osobowych, bidding \$1.1 billion. In the last two years, Daewoo also bought a Czech truck manufacturer for \$200 million, a Polish truck manufacturer for \$700 million, and a car factory in

continued on p. 15

South Africa

continued from p. 11

grate policy-making and resource allocation among its various transportation agencies into a new "Metropolitan Transport Authority," as required by national law. If structured and managed effectively, the MTAs could be critical mechanisms for reorienting transport policy along the lines described in the RDP.

Johannesburg: Disarray

But Cape Town appears to be the exception among South Africa's major cities. In Johannesburg, by far the country's largest city, no public figure has emerged to put transportation on the public map the way Ramatlakane has done for Cape Town. On the contrary, Johannesburg's most well-known transport figure of late is a mid-level bureaucrat who unilaterally altered many bus routes and schedules without any public notice. Other than problems in the taxi industry, transport issues seem all but ignored by top leadership.

Possibilities for expanding Johannesburg's public transportation system have been studied and re-studied. London Transport examined the potential for passenger rail development, with options that include a network of subway lines and a major light rail corridor traversing downtown with termini in Alexandra and Soweto (Feasibility Study into a Mass Transit System for Johannesburg — "MassTran," 1991). Other recent studies commissioned by regional planners include a Travel Demand Survey (1993), a Rail Upgrade Study (1993) a Regional Passenger Transport Plan (1994) and others. Together, the studies contain hundreds of unimplemented steps to improve transportation in the Johannesburg area. The Metropolitan Council and regional planners are now considering another study to sort all the recommendations out.

But on the streets, levels of bus service have remained static since the last years of the apartheid regime, while capital investment in the commuter rail system — with the exception of a few high-profile projects like the renovation of Johannesburg's central train station into a regional intermodal bus/train/taxi hub — is barely sufficient to repair old infrastructure. Regional planners say that rail station

upgrades in the townships are not being carried out in coordination with other metropolitan transportation and land use planning initiatives. Meanwhile, a number of expensive highway expansion projects are underway. Institutional competition and resistance, as well as political inattention, is hampering the formation of an effective Metropolitan Transport Authority. The provincial (Gauteng) Transport Ministry, traditionally in charge of highway construction and operation, favors a provincial-scale MTA, encompassing Johannesburg and Pretoria, while Johannesburg municipal and metropolitan governments favor MTAs for each city.

Mobilizing the Masses

Growing popular discontent with bad conditions and the pace of change has the potential to make transportation reform a serious social movement in South Africa. The following groups would likely play key roles:

- Civic associations: Grassroots township organizations provided a pillar of opposition to apartheid in the 1980s and 1990s and remain a vital non-governmental force in the country today. Many town-

ship "civics" are integrated into a national organization, the South African National Civic Association (SANCO), which facilitates communication and represents the civics at provincial and national levels. In some cases, strong civics have been able to impose a measure of local, informal regulation on combi service, especially regarding fares.

- Rail passenger groups: In its efforts to build a greater sense of citizen "ownership" of the rail system, Metrorail has organized "focus groups" of township commuter train riders (SANCO participated in establishing these in some areas). The groups are generating many more demands than mid-level rail officials can or want to handle. It may not be long before focus group participants gain sufficient experience with the bureaucracy to lift their sights higher and begin to articulate their wants at the political level, as independent activist commuter associations.

- Local political organizations: The minibus boycotts were organized by local civics and political party branches — the organizations best positioned to marshal public sentiment behind a platform for

Rebuilding Rails, and Image

Metrorail, a national agency that runs South Africa's commuter rail service, estimates that 30-40% of train riders are fare evaders, costing the railways \$35 million annually. This is variably attributed to poverty and unemployment in the townships, as a habit persisting from anti-apartheid non-payment campaigns or as a protest against crowded and dirty trains. Metrorail also loses about \$2 million a year to vandalism and theft of materials.

Current priority is repairing long-neglected facilities, and upgrading some of its busiest, most dilapidated stations. There are no definitive plans for system expansion, although only about 15% of South Africa's urban population now has decent access to commuter train service.

To combat fare beating and property destruction, the rail agency has attempted to develop a dialogue in

townships to increase a public sense of "ownership" of the system. Some of its stations are being designed for better ticket-verification. Ironically, railroad and the national government are seriously discussing privatizing or selling concessions to run the trains — steps which would probably retard public identification with the system.

Metrorail suffered a major setback in this regard July 31. Private security guards hired to enforce payment at Oakmoor Station in Tembisa, a township between Pretoria and Johannesburg, threatened to use electric prods amid the crush of morning commuters. In the ensuing stampede, 15 were trampled to death. Later, enraged residents attacked a Metrorail building and burned several trains. Horrified observers said the image of security personnel and police standing over township dead was a scene they did not expect to have to witness again. —J.O.

improved mobility and access for township residents, better township quality of life and long-term urban viability.

• **Environmental groups:** South Africa's growing environmental movement, represented by groups like Johannesburg's Group for Environmental Monitoring, is concerned about transportation issues, and could provide critical research and technical assistance in areas like structuring the MTAs around least-cost planning principles consistent with the "public transport first" principle.

Strong public mobilization is necessary even where officials are promoting "transit first" policies. Even in Cape Town, priorities and solutions need to be articulated "from the ground" by representatives of township commuters, not just with a view to providing mobility for the pending (2004) Olympic Games. Motorist fees, regulating and taxing minibuses and taxis, and supplanting combis with new trains and buses has until now only been discussed. Organizing the large natural constituencies for transportation change can give progressive policy-makers the backing and power needed for decisive action.

Toward a People's Transport Program

Key issues for launching potent grassroots transportation improvement campaigns include those listed below. Modest research and organizing capacity could turn each of these areas into a major arena for significant public mobilization:

• **Regional fair share campaigns** for public transport, especially serving townships vs. roads that benefit rich car owners. One estimate says South Africa spends about \$18 billion on cars every year, so the problem is not lack of money, but the political power to channel it where it is most needed. Advocates should support efforts like Cape Town's policy of using motorist user fees to boost public transport.

A related issue is the adequacy and cost of public transport service in particular

locations. This in turn begs the question of whether privatization or concession of a service would include guaranteed service levels and regulations on fares. There is ample room for community watchdog efforts relative to the transit operators.

• **Fair share campaigns** for pressing township infrastructure needs like pavement, drainage, sidewalks, lighting and better transit stations vs. high per capita investment in well-off, infrastructurally rich communities.

An important component of this need is reflected in pedestrian safety. 50% of black traffic fatalities are pedestrians, in large part because of non-existent or poor walking facilities or investment in pedestrian safety. Studies supporting higher levels of investment in townships can compare pedestrian fatality rates in well-off suburbs and the townships and demand that safety and infrastructure resources target areas of highest risk. Pedestrian safety campaigns are now limited to "get out of the way"-type educational campaigns.

• **Structuring metropolitan planning and resource allocation frameworks** to recognize the full fiscal, social and environmental costs of the automobile/highway system and to prioritize the needs of the transit-dependent. Intervention in the formation of the mandated Metropolitan Transport Authorities presents an opportunity for grassroots initiatives to heavily influence the direction of future policy.

The need for public pressure is urgent. Rising incomes and redistribution of wealth are likely to produce fast growth in South Africans households with access to a car. South Africa's per capita income is indeed approaching a level that, in other countries, has touched off rapid motorization. The growth of motorists as an interest group will complicate the politics of transport and may dull the urgency of adopting "public transport first" strategies. Indeed, the ample provision of offi-

cial cars for new government figures and a resultant "windscreen perspective" among the post-apartheid leadership may already be a contributing factor to the stagnation of transportation policy in most metropolitan areas. Unless today's opportunity is seized, the RDP's vision of equity and sustainability may be lost, allowing the "public transport last" reality to persist and possibly become even more pronounced. That in turn will perpetuate the profound have/have not gulf and

Sustainable Transportation **News Briefs**

continued from p. 13

Craiova, Romania for \$53 million, as well as components factories in Hungary. Daewoo's CEO, Mr. Kim Woo Choong, who is under indictment in Korea for bribes, said he expects to borrow 60% of the cost of the new ventures from 'international banks.' Asked about productivity in Daewoo's Polish factory, one shop floor supervisor commented "I'm here every day from 6:30 AM to 9:00 PM That's new."

Source: New York Times

Transport Now Consumes More Energy Than Industry

The European Union's statistical office, Eurostat, concluded that transport now uses up more energy than industry in the EU. The report, Road Transport and the Environment - Energy and Fiscal Aspects, shows that transport's share of energy consumption in EU countries has risen from 16.7% in 1960 to 30.8% in 1994. Road vehicles share of total transport energy consumption rose from 57% in 1960 to a staggering 83.3% in 1994. At the same time, rail transport's share fell from 30.7% to 2.7% in the same time period. Air travel is up from 6.4% to 11.5%. Eurostat also established a clear relationship between the price of transport and the amount people travel, saying that whereas people had to spend 7.7% of their net disposable income to buy 1000 liters of fuel, they now have to pay only 4.9%.

Source: T&E

Bikeways Come to Lima's Mean Streets

By Deike Peters

On the way from the airport to downtown Lima, choking from exhaust, and stuck in a nightmare of horns blaring in gridlocked traffic, I was surprised to see a construction crew narrowing a road in order to construct a bikepath. Did the traffic situation have to deteriorate into this war zone for cyclists and pedestrians before things could change?

I'd seen the statistics. In recent years, over 1,350 people a year have been killed by motor vehicles in Lima, and over 70% of the victims are bicyclists or pedestrians. A pedestrian or cyclist is 5 times more likely to be run down by a car in Lima than in New York, and every car in Lima kills 22 times as many pedestrians and cyclists as the average New York City motorist. While traffic fatalities were generally declining in other countries, Lima suffered an increase at a rate of about 3.6 percent per year between 1977 and 1987.

How a bike lane project was possible in a city where official transport statistics still completely ignore non-motorized transport was a mystery to me at first — until I met Jenny Testino, the director of Lima's Non-Motorized Transport Program. Over the last decade, Jenny Testino, a long-time community activist and nine-time Peruvian National Cycling Champion has been tireless in her efforts to make Lima a more bikable city. Today, under the leadership of an energetic new mayor supportive of non-motorized transport, Lima has launched a plan to increase bicycle use by building bikelanes, making low interest loans available to help low income families buy bicycles, and by promoting bicycle use. Some of the main links in central Lima opened this summer.

Jenny Testino, whose continued personal engagement was crucial to the success of this non-motorized program, is one of these rare people able to bridge the gap between the grassroots and City Hall and maintain political support for her project across party lines. Her non-motorized transport program has also received attention from the media. El Sol, Limas most important daily, ran a major article on the new bike lane.

Success did not come overnight, however. Jenny and other community activists worked for many years to convince the Municipality of Lima to promote increased bike use. Their first big breakthrough was in the early nineties, when they convinced the Municipality to sign 'Degree 159,' which promised to increase non-motorized transport use from 2% to 10% of total trips. Studies indicated that 55% of commuters would be willing to commute by bicycle if bicycling was safer and more affordable. Average prices for bikes range from \$160 to \$300 in Peru, which

is a prohibitive price for poorer people who also have no access to credit. More than 50% of Lima's households have monthly incomes of \$208 or less, and 25% of these even have incomes of \$80 or less.

By 1992, the Metropolitan government began implementing Lima's first non-motorized transport pilot project. Then, in 1994, the World Bank came through with both technical assistance and financing for the project. Of the project's estimated \$4.1 million price tag, \$3 million would be financed by loans from the World Bank as part of a larger \$150 million loan for Transport Rehabilitation in Peru. The rest will be provided by the municipality.

The main project cost, \$2.8 million, will go to the construction of the bikeways, and another \$200,000 went to the feasibility study. The proposed bikeway will connect low-income areas in

the Northern Cone of Lima with an important urban industrial zone, where nearly 9,000 different enterprises employ over 70,000 people (see map). Once finished, the overall construction project will provide 51 km of dedicated cycleways and 35km of bike paths on reconditioned service roads. Most of the people in this area live within 6 km of their workplace (a distance ideal for bike commuting) and are poorly served by public transit and paratransit services which are both expensive and irregular.

Making Bikes Affordable for Everyone

The pilot project also set up a \$600,000 credit facility: a revolving loan fund which will give out \$100 credits repayable over a 12 month period for the purchase of a bicycle. Thus, the fund will be able to give out over 17,000 loans during the first two years of the credit scheme. In order to be eligible, people only have to prove that they live in the area, that their annual income does not exceed \$1,800 and that they do not have more than \$5,000 in their accounts. The credit facility will be managed by the Caja Municipal de Credito Popular de Lima, (CMCPL) and disbursed through its local offices, through participating NGOs, and through industrial enterprises in the project area through payroll deduction schemes.

Results of a socio-economic survey revealed that 67% of the men and 57% of the women interviewed in the area would travel by bicycle if they had access to one. And over 80% of the businesses in the area, together employing over 50,000 workers, are supportive of the credit system. The larger factories have also been approached about providing bike parking facilities.

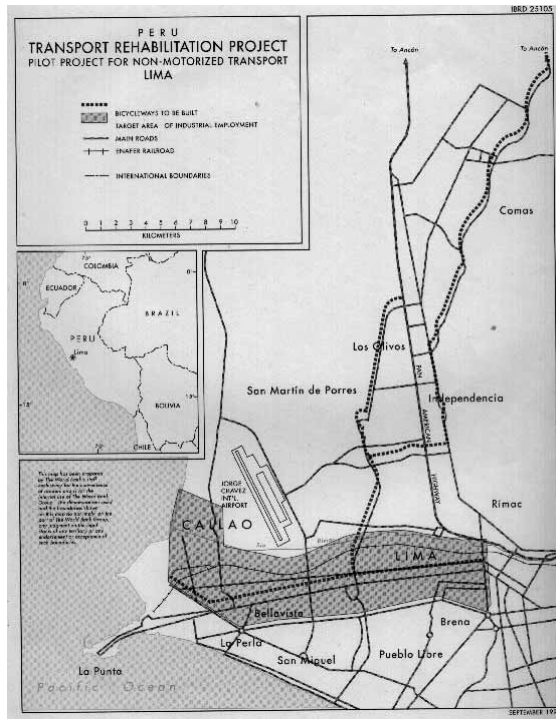
The loan scheme offers three different bikes to its participants:

Lima has committed itself to increasing bike use from 2% to 10% of total trips

the Peruvian-built Goliat, the Chinese Fiverams (both \$100, no gears) and the Indian Hero (\$99, six gears). The total loan will cover an estimated \$91 of the cost of the bike, and at monthly pay-back installments estimated at \$9, \$8 of interest will be paid on the loan.

Considering that 72% of all the people in the project area use buses or mini-vans to commute, and spend about \$25 of their monthly incomes on transport, the introduction of the bicycle will save recipients \$16 a month. For the very low income people, this could increase their annual income by as much as 8% in the first year, and more in following years once the bicycle is paid for. For the 22% of the target population who currently walk, it is likely to cut their travel times in half.

Jenny Testino already has plans for similar projects in Cuzco and Arequipa. Why not Mexico City, Bogota and Port-au-Prince?



Lima's planned bike network

Poor Still Bear Brunt of Lima's Mobility Crisis

Even with this very progressive non-motorized project in place, the larger picture is hardly encouraging. Given current growth rates, there is no end in sight for congestion, motorization and worsening air pollution in Lima. The city grew from under two million in the 1960s to 6.4 million in 1993 and is expected to approach 8 million before the end of the century. Lima is the fifth largest metropolis in Latin America, and the poorest one among them, with average yearly incomes of less than \$1,700 per capita. While average people rely on buses or mini-vans, which accounts for about 50 percent of all trips, or walking, which accounts for another 38 percent of all trips, a disproportionate share of road space is consumed by private cars and taxis.

Despite bikes' great potential to fill a much needed gap in Lima's current transport system, most of the public money still goes into improving conditions for motorized modes. The bike component of the 1994 World Bank Transport Loan, while laudable, only accounted for 2% of the total \$150 million loan.

Low-income people continue to pay a disproportionately high price for their mobility. Most of them live in informal settlements, or pueblos juvenes, at the fringes of the city, facing extremely high commuting costs and/or long walking distances. The roads in the neighborhoods are also often unpaved, thus making vehicle access more difficult.

To make matters worse, public bus service to many pueblos juvenes was terminated in the early 1990s as part of the privatization of ENATRU, Lima's former public transport authority. As part of a package of government austerity measures intending to reduce ENATRU's deficits and enhance competition, the municipality declared freedom of bus operations, fares, and routes in inter-urban transport. As a result, the major travel corridors in the center soon became oversupplied and congested, with air

pollution and fuel consumption soaring. Marginal regions, however, which were formerly called social routes and subsidized under ENATRU service, now faced cutbacks in service because of their low profitability. Only about one sixth of Lima's 12,000 public transport vehicles are large, modern buses with a capacity of about 100 passengers, and these usually run along the most profitable routes in the center. The remaining 10,000 vehicles are old, high-polluting, and generally unlicensed minivans, all competing desperately for fares on the mean streets of Lima. Over a third of these vans are over 20 years old. Since the oldest, most inferior vehicles were unable to compete well downtown, they eventually started servicing the marginal areas, thus filling in the gap left after ENATRU's liquidation. These old vans are generally of poor quality and unreliable, suffering from frequent breakdowns. The government also decided to allow the

import of used vehicles of up to 10 years of age. Car ownership in Lima, which had been consistent at about 270,000 throughout most of the eighties, exploded, soon surpassing the 370,000 mark and is estimated to reach half a million by the end of the century. With rising unemployment and virtually no regulation on public transport, many of these newly imported cars are being used as taxis. Lima now literally swarms with thousands of new taxi cabs stealing fares from the buses and mini-vans. As many as 15,000 of them are operating unofficially without a taxi license. Housewives, retirees, academics and other out-of-work family heads now cruise the city's streets moonlighting as taxi drivers, many of them without any significant driving experience, let alone driver's licenses. Accident rates are soaring.

Prospects for the Future

The city obviously needs to address its serious transport problems on several fronts. Both the taxis and the public transport systems need to be better regulated. New exclusive bus lanes should be designated and traffic safety must be improved for all transport participants, including non-motorized users and pedestrians. The city also needs to set up a metropolitan transit planning authority which would be able to oversee these developments.

Proponents of sustainable transport face institutional obstacles in Lima. Lima's planners and engineers in the transport planning bureaucracy tend to share the traditional bias towards accommodating additional motor vehicle traffic, rather than concentrating on managing existing traffic flows, let alone reducing them. Unless decision makers rethink their overall approach, however, the bike pilot project is likely to remain a unique initia-

continued on p. 21

Fighting the M3 Highway in Hungary

By Walter Hook

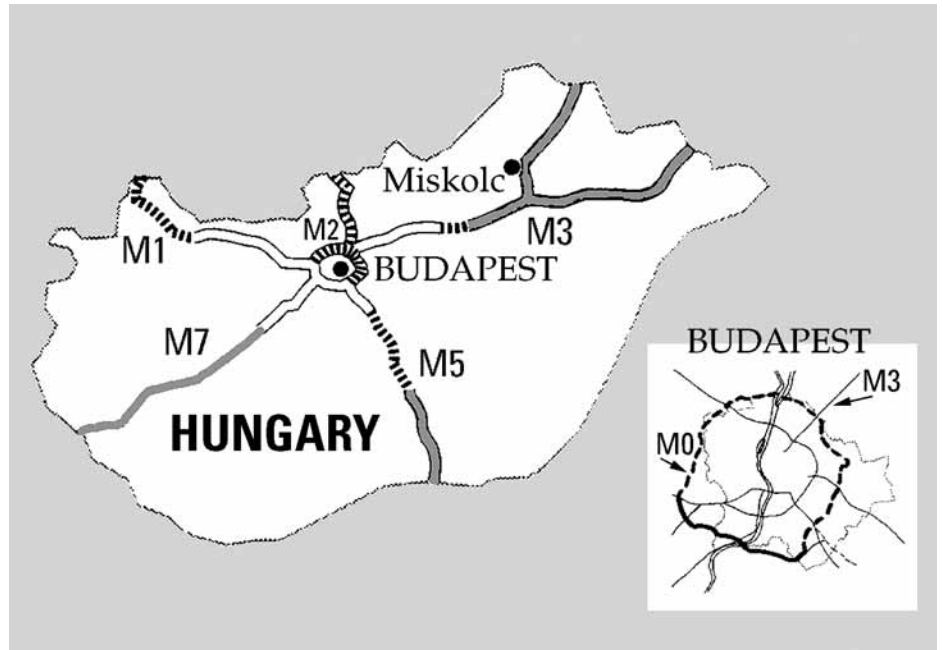
Hungary continues to pour its scarce public funds into new, unneeded highways. Construction continues along the M5 highway from Budapest to the South, the M7 towards Lake Balaton, the M15 connecting the recently completed M1 (from Budapest to Vienna) to Germany, and the M3 towards the Ukraine. This explosion of highway spending is not only accelerating the shift to truck and car; it is also driving Hungary deeper into debt. Fortunately, a major coalition of Western and Eastern NGOs is fighting to prevent Hungary from going down this unsustainable path.

Because Hungary was already deeply in debt when the transition occurred in 1989, the government decided to build most new highways as privately operated toll roads, where in theory the tolls would cover the costs of construction and ongoing maintenance. It also set up a road fund, to collect gas tax revenues and earmark them for ongoing road maintenance.

Unfortunately, even the M1 from Budapest to Vienna, the most financially viable toll road, is an economic debacle. Toll revenues are 45% lower than projected, and loans will have to be rescheduled. Virtually all Hungarian drivers are taking alternative routes to avoid the toll, creating environmental problems along the parallel corridors. The M5 and the M7 highways, also to be operated as tolled private concessions, are not expected to be self-financing. The road fund is already virtually bankrupt, spending over 20% of new revenues on interest payments to multilateral development banks.

Hungarian politicians, hoping to give voters some signs of progress, have overinvested in new prestige projects like superhighways and metros, and underinvested in basic road and transit maintenance, and safety. According to the World Bank, Hungary has a \$300 million backlog in basic road maintenance and safety expenditures.

Of all Hungary's ambitious new road schemes, the M3 highway is the biggest



The M3 Highway: Hungary's Road to Nowhere

'White Elephant'. The World Bank found the road was not economically viable, and feels Hungary should spend more on maintenance and less on new roads. Even the Ministry of Transport concedes that the economic justification for building the M3 highway is weak, and the main justification for the road is political. The European Investment Bank and the German Government's Kreditanstalt für Wiederaufbau (KfW), however, were willing to finance the project anyway.

The M3 and the Trans-European Network Extensions

The M3 highway is part of planned Trans-European Network's (TENs) Central Europe extensions; corridors which the European Union (EU) has decided are critical to the creation of a single European market. The EU is pushing Hungary to build the TENs, and making EIB loans and PHARE grants available to facilitate their development.

The planned tolls on the M3, already too high according to many Hungarians, are too low to cover the costs of construction, and barely sufficient to cover maintenance. As part of the Trieste-Ljubljana-

Budapest-Lviv-Kiev priority TENs corridor, however, the EIB was willing to finance the first section of the M3 despite World Bank economic appraisals showing the benefits to be barely high enough to cover the cost of capital. Germany, whose companies are planning investments into a special economic zone in Eastern Hungary, also provided willing financing.

The EIB and KfW loans for the M3 went ahead despite conclusive evidence that the planning and evaluation of the M3 had not followed EU directives. No public hearings were held to discuss alternatives to the M3, in obvious violation of EU directives. Furthermore, the Environmental Impact Assessment (EIA) ignored the impact of the road on increased traffic inside Budapest, increases in traffic on residential areas along alternative routes, and on animal habitats in the corridor, all in violation of EU norms. A new EIA currently indicates that resulting air emissions in surrounding neighborhoods may be in violation of public health codes.

In short, the economic and political unification agendas of Germany and the

continued on p. 21

Taj Mahal

continued from p. 9

cases, improved vehicle designs were developed, but were never incorporated into commercial production, mainly because they tried to remedy too many of

packages, advertising it as a quintessential Indian experience. Tourists' main deterrents from riding in the current vehicles are safety and embarrassment about exploiting the wallah.

The initial market is conservatively estimated at 50 to 100 vehicles in the first year, hopefully rising to several hundred

be large. Finally, there is a good possibility of exports. Even the current heavy cycle rickshaw is being exported to Europe.

Engendering A Supportive Policy Environment

A supportive public policy environment would also help. Improvements in

Previous cycle rickshaw improvement projects failed to identify a viable market for a superior vehicle.

the cycle rickshaw's faults at once. Project sponsors also failed to work closely with the cycle rickshaw industry. All of the work was done by universities and NGO's, with minimal cooperation from the private sector, who viewed the project with skepticism. They also tried to distribute the vehicle only to rickshaw puller cooperatives to ensure the benefits would all go to the wallahs. By ignoring the owners, however, they ignored the most powerful buyers in the cycle rickshaw market.

The Market for a Better Cycle Rickshaw

Finally, and perhaps most importantly, previous upgrading projects failed to clearly identify a market for an up-scale cycle rickshaw. But because of the proximity of the hotel district to the Taj Mahal, the 4 km² ban on motorized vehicles around the Taj, the lack of parking facilities, and the prevalence of narrow, congested, winding streets, a concentrated market of higher income tourists exists for an improved cycle rickshaw. Only the much higher revenues from the lucrative and increasingly important tourist market could facilitate the introduction of an improved technology, which, once mass produced, could also become competitively priced.

This upscale tourist market is precisely where the modern cycle rickshaws developed in the U.S. and Europe have found a niche. Their successful introduction into the U.S. and Europe shows that if the vehicle is modern enough, and the driver of the vehicle does not appear to be straining enormously, cycle rickshaws can gain market acceptance among Western tourists. In fact, most Western tours to Agra include a rickshaw ride in their

as tourism increases and the vehicles gain acceptance. The Chamber of Commerce estimates that at least 330 daily visitors would be willing to visit the Taj Mahal by cycle rickshaw; maybe it would be called the "Taj Taxi." At three trips a day, 100 vehicles would meet this level of demand.



Children headed to school, India

They could also be used around the other tourist sites in Agra, and eventually in other Indian cities.

If the wallah charged a plausible 100 Rupiah (roughly \$3.00) for a round-trip from the Taj Mahal to the hotels, at three trips per day, the wallah could afford to pay \$3.00 in a rental fee for the vehicle, and still earn \$6.00 per day; roughly 10 times the current fee. Hence, revenues from this elite cycle rickshaw service should allow for a vehicle costing approximately ten times the cost of the current vehicle, or up to \$1,000.00. Further market research will be conducted once a viable prototype or prototypes are developed.

Another possible market for an improved vehicle is wealthy Indian families who still tend to use the cycle rickshaw to take their children to school. The potential market for such a vehicle would

the traffic safety environment, further traffic calming or restrictions on motorized traffic, and a network of safe cycleways connecting the main landmarks, would all greatly improve the chances of success.

Clearly, restrictions on the use of cycle rickshaws in Indian cities are dampening investor enthusiasm in new human powered technologies, and must be challenged. An exemption to the commercial vehicle excise tax for non-motorized vehicles would also help encourage the large scale manufacturers to develop improved, entirely mass produced cycle rickshaws.

The granting of a cycle rickshaw license with special privileges such as access to military cantonments, hotel driveways, public parks, and the Taj surroundings could help to create incentives to adopt the new improved cycle rickshaw, but ensuring that the total number of cycle rickshaw licenses is expanded rather than reduced will be critical to the project's success.

Developing a cycle rickshaw of superior design could improve its public image, reduce the level of exploitation of the wallah, and demonstrate that 'modernization' need not mean 'motorization.' This would help ensure the long term viability of this non-polluting mode. But the introduction of the new vehicle should not be used as a pretext to ban the older vehicles. Growing restrictions on the current cycle rickshaw is having disastrous consequences for the cycle rickshaw manufacturers, owners, wallahs, and local residents who rely on them. The new vehicle should provide another option in the transport market, rather than replace the current cycle rickshaw, which has proven its viability. ♦

ISTEA

continued from p. 7

against the 'donor' states, that pay more in gas taxes than they receive back, including California, Texas, and Florida.

Urban and inner-suburban interests, and environmentalists, however, are also likely to be aligned against ex-urban and rural interests. Urbanized areas received 46% of federal funds for roads in FY95, although they represent 64% of the nation's population. On a per capita basis, urbanized areas got only \$54 in FY95 federal road funds, compared to \$115 for non-urbanized areas and \$98 for rural areas. State DOTs continue to direct the majority of roadway spending to new high speed roads and additional lanes (averaging around 54%), in sparsely populated areas at the edge of metropolitan areas, encouraging further sprawl, at the expense of urban, inner suburban, and rural areas which face deteriorating pavement conditions and transit services.

Thus, many environmentalists and representatives from urban areas would like to ensure a fairer and more predictable share of federal transportation funding for metropolitan areas by requiring State Plans and TIPs to allocate federal funds to MPOs based on federally-defined objective criteria of need, such as population, VMT, congestion level, and air quality.

Promoting Fair and Efficient Pricing

ISTEA opened the door to increased cost recovery on road projects with a pilot program for congestion pricing, that in selected cases waives long-standing restrictions on the imposition of tolls on highways built with federal aid. The President's Council on Sustainable Development recommended elimination of such restrictions. ISTEA II might also expand incentives for full social cost recovery and private sector involvement

and provide financial incentives for the adoption of automated electronic systems to collect road and parking user fees.

Requirements to Improve the Planning Process

More explicit requirements for consideration of alternatives to current policies



With local advocacy and flexible funding, ISTEA can help make our cities safer

and the measurement of benefits of alternatives against both national and regional policy goals and benchmarks could assure better long-range plans. States like Maine and Oregon have pioneered such approaches under state legislation to assure that new highway capacity projects proceed only if all reasonably available options for improving the efficient use of existing infrastructure have been evaluated.

Involvement of citizens in planning

and project selection could be strengthened by guaranteeing effective, timely and cost-free access to planning documents, electronic data and other information developed with federal assistance. The right of court action to uphold federal ISTEA requirements could be made available to all stakeholders to support timely progress in transportation reforms.

Limits on Grandfathering of Projects

When the CAAA and ISTEA were passed in 1990-91, hundreds of planned but not yet started highway projects already "in the pipeline" received approval in the past under much weaker EPA and DOT guidelines. ISTEA II could put a time limit on projects that have been exempted from ISTEA and Clean Air Act rules.

Federal Research into Intelligent Transportation Systems (ITS)

Over half of all federal transportation research spending has been dedicated to ITS, which encompasses a wide range of information, communications, and control system technologies applied to surface transportation. While ITS could be applied to public transit, travel demand management, and other progressive measures, it has focused mostly on strategies that make driving more attractive. More ITS research funds should be targeted to enhance performance of public and intermodal transportation as well as other alternatives to single-passenger motor vehicle travel.

Conclusion

Since the late 1980s, many communities across America have begun the slow and challenging process of reducing an almost total dependence on private single passenger motor vehicle travel. The upcoming months will determine whether the reforms brought in by ISTEA and the CAAA will be strengthened, or whether the highway lobby will turn back the clock. ♦

photo: Transportation Alternatives

Peru

continued from p. 17

tive unable to relieve the city from its coming transport collapse.

Plans for a \$100 million World Bank loan to the city of Lima, with a possible additional \$100 million in joint financing from the Inter-American Development Bank, include funds for an impressive program to improve transport conditions, including street paving in low-income areas, road maintenance projects, traffic management improvements, a traffic safe-

ty program, and a program to reduce traffic generated air pollution. The new loan also ensures continued support for improving non-motorized transport and pedestrian facilities.

Unfortunately, the highway lobby and city officials have convinced Bank officials to include in the loan significant funds for a ring road in Northern Lima, ostensibly to relieve the traffic congestion in inner Lima. Listing such an expensive new construction project in the loan at a time when vehicles in Lima continue to swerve around potholes, can only further under-

mine the financial and environmental sustainability of a road system already improperly maintained. The completion of the ring road would also require the resettlement of at least 900 households, many of them of low income, pushing more people out of the central city and increasing their mobility needs.

The World Bank loan is still under negotiation until 1998. With mounting external opposition to the ring road, there is still time to redirect this money to more sustainable uses. Given Lima's aged bus fleets and lack of exclusive bus lanes, sure-

M3

continued from p. 18

European Union over-rode the concerns of the World Bank regarding Hungary's indebtedness, and even over-rode many of the EU's own directives.

Hungary's Clean Air Action Group (CAAG) called on the support of international NGOs to help convince the EIB to stop funding the M3. Friends of the Earth, France and the CEEC Bankwatch Network set up a meeting in September between the EIB and Eastern and Western Environmental NGOs to discuss the M3. Details of the M3 case were assembled by ITDP and the CAAG, and presented to EIB officials. The EIB admitted that public hearings had not been held, and that the economic rate of return was very low. Bank officials confirmed that they had only agreed to fund a small initial section of the M3, and that there were no plans to finance further sections. Nonetheless, the EIB refused to release any documents on the economic or environmental analysis. The fight will now be carried to the Directors of the EIB, the European Parliament which already feels the EIB is unaccountable, and to the governments of member states.

Will New Roads Bring Development to Eastern Hungary?

The people of Eastern Hungary have legitimate concerns about unemployment and lack of investment. Eastern Hungary is heavily industrialized, and many of the old socialist-era factories have closed. Meanwhile, little foreign investment has

flowed into the region, as Western investors have favored Western Hungary. Unemployment in the region is high, and voters are angry.

Trade with the Ukraine and the former Soviet Union fell off after 1989, and traffic in the M3 corridor fell by nearly a third. The Ukraine, feeling capacity in the corridor is already sufficient to handle the reduced trade, announced it will not build a road to meet the M3 for at least two decades. Building the M3 in this corridor under these circumstances can only drive up the already severe debts of Hungarian National Railroad by further weakening demand for rail in the corridor.

Nonetheless, 40 Members of Parliament from Eastern Hungary, from the Socialist Party, are pushing for the road, hoping it will help bring investment and jobs to the region. They are supported by the Ministry of Industry and Trade, Hungary's 'highway lobby,' local mayors, Socialist Party organizations, and the biggest association of trade unions.

But the economic development effects of road construction are difficult to predict. According to Ken Gwilliam, a leading transport economist at the World Bank, "As far as regional development is concerned, we have seen little strong evidence to suggest that motorway investment is a powerful influence on inter-regional location of activity." Other studies in England show that townships on

motorways show the exact same rate of economic growth as those of similar size not on motorways. Furthermore, countries with extremely low levels of road infrastructure per capita such as the Newly Industrializing Countries and Japan have achieved very high rates of economic growth.

Nor is road construction necessarily the best way for public investment to generate jobs. While in the past, road construction and automobile manufacturing

were extremely labor-intensive, today road construction and automobile manufacturing are very capital intensive. Recent studies from Germany indicate that spending DM1 billion on highways

is likely to yield 14,000 - 19,000 jobs, while the same public investment into railroads would create 22,000 jobs, and light rail would create 23,000 jobs. Nor is promoting an automobile industry necessarily cost effective. Each job created in the auto industry cost the Hungarian Government roughly \$19,400 a year, and over \$151,500 per permanent job. This compares to a national average of only \$3,846 per job per year.

Lack of Investment into Public Transit in Eastern Hungary

With public bus, tram and trolley lines in serious disrepair, why don't Eastern Hungary's politicians push for more public transit investment in the region? The

Unemployment in Eastern Hungary makes road projects attractive, but will they bring jobs?

The Car and the City. By Alan Thein Durning. 1996. Contact Northwest Environment Watch, 1402 Third Ave. Suite 112, Seattle, WA 98101-2118.

"The Citizens' Network: Fulfilling the Potential of Public Passenger Transport in Europe." European Commission Green Paper. In the U.S., contact UNIPUB, 4611-F Assembly Drive, Lanham Md. 20706-4391, Tel: 1-800-274-4888, Fax: 301-459-0056.

Guide to the Global Environment: The Urban Environment. By the World Resources Institute. c. 1996. \$28.50. Contact WRI Tel. 1 (800) 822-0504.

Innovations in Transportation & Air Quality: Twelve Exemplary Projects. By US Department of Transportation. Publication # FHWA-PD-96-016. Contact FHWA Hotline (202) 366-2069.

Inside the Black Box: Making Transportation Models a Tool for Livable Communities. By Citizens for a Better Environment and the Environmental Defense Fund. Contact EDF Public Information at (202) 387-3500, 1875 Connecticut Ave., NW 1016 Washington DC 20009.

Internalizing the Social Costs of Transport 1994. By the ECMT/OECD. c. 1996. Order from OECD Publications & Information Center, 2001 L Street, NW Suite 650, Washington DC 20036-4910. Tel: 1-800-456-6323. Fax: (202) 785-0350.

Livable Communities and Traffic Calming. By Allan Jacobs. MIT press, Cambridge MA. c. 1995. \$30

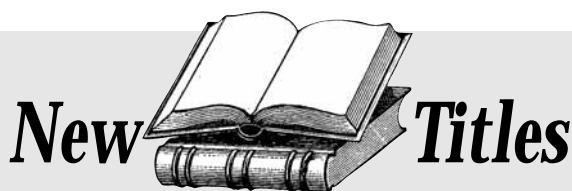
Lost in Concrete: An Activists Guide to European Transport Policy. By ASEED. pp. 64. Also *SEEDlinks: Transport Issue.* Contact A SEED Europe, PO Box 92066, 1090 AB Amsterdam, The Netherlands. Tel: 31-20-668-2236 Fax: 31-20-6650166 E-mail: aseedeur@antenna.nl.

Motorization and People-Centered Transport: A Perspective on Korea. By Samjin Lim for Networks for Green Transport. c. 1996. pp. 76. Order from Networks for Green Transport, Samyook B/D Doryum-Dong, Jongno-Gu, Seoul Korea, 110-051, Korea. Fax: 82-2-723-6287, E-mail: ngt@srilang.ksdn.or.kr.

Pro Bike/Pro Walk 96 Resource Book. By the Bicycle Federation of America. c. 1996. pp. 340. \$50. Contact BFA, 1506 21st St., Washington, DC 20036.

"Reassessing Traffic Accidents in Developing Countries" By Eduardo Vasconcellos. *Transport Policy*. Vol. 2 No. 4. pp. 263-269. c. 1996. Write to ITDP for a copy. \$3.00.

"The Road to Europe: Transport Sector Implications of



Planned Accession by Central Europe into the European Union." By Walter Hook, May, 1996. Write to ITDP. \$4.00.

Sustainable Transport: Priorities for Policy Reform. By the World Bank. c. 1996. pp.131. Order from The World Bank, 1818 H Street, NW, Washington, D.C. 20433. The new World Bank transport policy. Tel: (202) 477-1234; E-mail: books@worldbank.org.

Sustainable Transport in Central and Eastern European Cities. By the OECD. c. 1995. pp. 250. \$69.50. Order from OECD Publications & Information Center, 2001 L Street, NW Suite 650. Washington, D.C. 20036-4910. Tel: 1 (800) 456-6323. Fax: (202) 785-0350.

Time to Tame Our Speed?: A Study of the Socio-economic Cost and Benefits of Speed Reduction of Passenger Cars. By Research Group 2000, Delft University & Free University Amsterdam. Commissioned by Research Unit for Integrated Transport Studies. c. 1996. pp. 90. Order from P-IVVS, Postadres postbus 20903, 2500 EX Den Haag. Fax: (070) 351 6558.

Tools for Life: A Start-up Guide to Youth Recycling and Bicycling Programs. By George Babiak and Karen Overton. pp. 72. c. 1996. \$3. Order from Transportation Alternatives, 92 St. Marks Place, NY, NY 10009.

Transporte No Motorizado. By Setty Pendakur (ed.) for the Inter-American Development Bank and the World Bank. c. 1996. pp. 120. [in Spanish] Order from the IDB, 1300 New York Ave., N.W., Washington DC 20577.

"Velorution: One City's Solution to the Automobile." A 28 minute video documenting Cuba's efforts to promote cycling. \$25. Contact Velocity Pictures, 33 Richdale Ave, #231 Cambridge MA 02140. Tel: (617) 876-9430.

Urban Travel and Sustainable Development. 1995. ECMT/OECD. Order from OECD Publications & Information Center, 2001 L Street, NW Suite 650. Washington DC 20036-4910. Tel: 1 (800) 456-6323 Fax: (202) 785-0350.

"Wheels Out of Balance - Suggested Guidelines for Intermodal Transport Lending at the World Bank: A Case Study of Hungary." By Walter Hook for ITDP. c. 1996. pp. 53. \$10. Order from ITDP.

World Transport & Policy Practice. By MCB University Press. Vol. 2, No. 3. c. 1996. pp. 42. Order from MCB University Press, 60/62 Toller Lane, Bradford, West Yorkshire, England BD8 9BY. Fax: 44 1274 785200. Edited by John Whitelegg.

BULLETIN BOARD

Transportation Research Board Annual Meeting, Washington D.C., January 12 - 16th, Connecticut Ave. Collection Hotels (Hilton: 1919 Connecticut Ave, N.W.). Non-Motorized Transportation Task Force Meeting: Tuesday, 2-5 pm, Global Forum on Transport: Wed, 2:30 - 5:00, Thursday, 8:00 - 12:00.

Earth Summit II - UN Commission on Sustainable Development (5 Year Review of Agenda 21; transport will be key issue to be discussed at all meetings.) Contact UN Department for Policy Co-ordination and Sustainable Transport, NY, NY 10017. Tel: 212-963-8811 Fax: 212-963-1267 E-mail: aydin@un.org.

Prep Com I. UN Headquarters @ New York. February 24 - March 7, 1997.

Prep Com II. UN Headquarters @ New York. April 7 - 25, 1997.

Earth Summit II. UN Headquarters @ New York. June 9 - 13, 1997.

American Planning Association, National Planning Conference, April 5 - 9, 1997. Bike Federation of America will present On Walkable Communities. Contact BFA at 202-463-6622, or APA, 312-431-9100.

African-American Mobility Symposium IV, Tampa, Florida, USA. April 30 - May 2, 1997. Center for Transportation Research at the University of S. Florida in Tampa.

UITP Congress and City Transport '97 Exhibition, Second Biannual Conference of the International Public Transport Association, June 1 - 6, 1997, Stuttgart, Germany. Write to UITP, Pierre Laconte, Ave. d'l'Urugua 19, B-1000, Brussels, Belgium, or email: Pierre.Laconte@infoboard.be.

Velo City '97: 10th International Bicycle Planning Conference, Barcelona, Spain. September 15-19, 1997. Contact Congreso VELO-CITY 97, Ajuntament de Barcelona Ambit de la Via Publica, Pl. Pi I Sunyer 8-10 4t, E-08002 Barcelona Spain. Tel: 34-3-402-3481 Fax: 34-3-402-3418.

East's '97 Conference, Seoul, Korea. Eastern Asian Society for Transportation Studies, October 29 - 31, 1997. For further information, write to Ms. Fujita H., c/o Prof. Dr. Hajime Inamura, Chairman of the Intl. Scientific Committee to the EASTS, Dept. of Civil Engineering, Tohoku Univ, Aodba, Aoba-ku, Sendai 980, Japan, FAX: 81-22-268-3689, email: inamura@plan1.civil.tohoku.ac.jp.

M3

continued from p. 21

CAAG and ITDP, hoping to unify Hungary's local public transit authorities and local governments to strengthen their influence over the national transport budget, met with planners and public transit officials in Debreen, the largest city in Eastern Hungary. They told us national funds for public transit were limited to 'environment funds', financed out of gas tax revenues, and they had to compete against all other environmental projects for funding each year. Nearly bankrupt cities,

then, have to provide 40% matching funds.

Debreen received national funds to buy new tram cars and tracks. They planned to buy excellent, low cost trams from the Czech Republic for immediate delivery. Then the national government, trying to develop the Hungarian tram industry, pressured them to buy expensive, newly designed Hungarian trams. After upgrading 1/5 of the tram network, the new trams were delivered a year late, and not in proper working order. So, they continued running the old trams on the new tracks, badly damaging the new tracks. Meanwhile, the City Government's finances have deteriorated. The national

government decentralized financial responsibility for many social services without decentralizing the necessary tax authority to finance them. As a result, Debreen can't cover the 40% matching funds, and is now ineligible for further national grants.

The buses, meanwhile, are controlled by Volanbus, the national intercity bus service, which is in the process of privatization. The government is reluctant to invest in a company about to be privatized. Once Volanbus is privatized, it is unclear whether the local bus services will also be privatized, or whether taken over by the municipalities. ♦

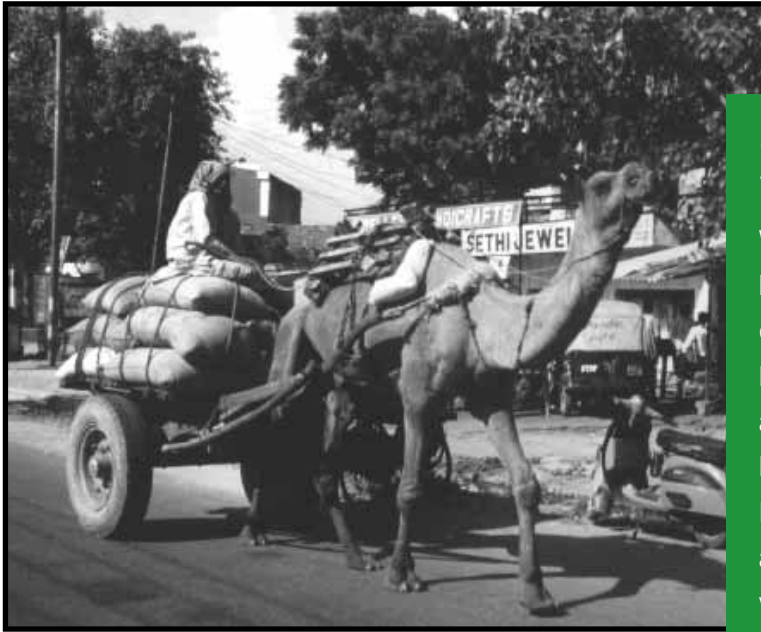
For Sale: Bicycle Cargo Trailers

Haul groceries, furniture, lumber (even 4' x 8' plywood!) and more with your bike. 280 pound capacity. Handles L-O-N-G loads with ease. Works great on narrow paths & roadways. Converts from box to flatbed in seconds.

Brochure 50¢
Fresh Aire Deliv.



Printed on
recycled
paper



Sustainable *Transport*

We need your support! Your tax-deductible donations have not only helped to send several containers of donated bicycles to newly democratic Haiti and Mozambique and train mechanics there, but they have also convinced larger donors to do the same. Meanwhile, our work with NGOs in Asia and Eastern Europe has empowered them to join us in the fight against automobile-dependence. Help keep the wheels of the 'velo'-lution turning with your contribution and help!

Yes, I support ITDP's efforts! Here is my donation of:

\$20 \$35 \$50 \$100 \$250 Other

From:

Send your tax deductible contribution to:



611 Broadway, Rm 616
New York, NY 10012



*Institute for Transportation
& Development Policy*

611 Broadway, Room 616
New York, NY 10012

Non-Profit Org.
U.S. Postage
Paid
New York, NY
Permit No. 6323