

SUSTAINABLE *TRANSPORT*

Number 2

September 1993

Paving over Bangkok *p.6*

Non-motorized vehicles help
Haitian hospital save lives *p.4*

Are bikes making Japan
more competitive? *p.10*

Pedicabs are being banned
in many parts of Asia to
make room for cars.



Institute for Transportation & Development Policy

ITDP: Fighting for Sustainable Transportation

Letter from the New President and New Executive Director

Welcome to *Sustainable Transport*, the second in what we intend to be a bi-annual publication to keep our membership, colleagues, and the public informed of new projects and initiatives supporting bicycles, non-motorized vehicles (NMVs), and sustainable transport initiatives around the world.

We intend *Sustainable Transport* to serve as an organizing tool—highlighting useful information and publications which can help organizations and individuals link up with those of like mind to promote sustainable transportation practices and fight destructive transportation policies and projects, especially those financed through the multilateral development banks (MDBs).

ITDP has gone through some exciting changes of late. In late 1992, Walter Hook accepted the position of Executive Director. Walter, also an Adjunct Professor in the School of Urban Planning at Columbia University, formerly worked with ITDP as Policy Director.

Not entirely unrelated to Walter's appointment as Executive Director, ITDP moved its offices from Washington DC to New York City. We are confident that the bi-polar NYC-DC axis provides ITDP with strong access to policymakers, transportation planners, the media, academia, and other important resources, and better positions ITDP to act as a bridge between the United States and international actors in transportation policy.

This past April, ITDP elected a new and expanded Board of Directors. I look forward to working with new board officers, Vice-President Matteo Martignoni and Treasurer Charles Wright. Matteo, also affiliated with the International Human Powered Vehicle Association, recently returned from Haiti, where on behalf of ITDP he directed the set-up of a workshop

to assemble and maintain ambulatory vehicles and bicycles for the Albert Schweitzer Hospital. Charles is an Associate Professor at the University of Brasilia, transportation consultant to the Inter-American Development Bank, and author of *Fast Wheels, Slow Traffic*.

I also welcome to ITDP the following new board members: Christopher Herman (Environmental Protection Agency); Marijke Torfs (Friends of the Earth--Multilateral Development Bank Monitoring Project); Joanna Johnson, an environmental lawyer at the Petroleum Marketers Association, and Elliott Sclar, Professor of Urban Planning at Columbia University and author of *Access for All*.

I especially thank outgoing president (and former Executive Director) Lisa McGowan for her vision in guiding ITDP toward a more policy-oriented agenda, and her fortitude and commitment in pulling us through a difficult period of institutional consolidation and growth. In spite of an extremely demanding professional commitment at the Development Group for Alternative Policies in Washington DC, she has graciously agreed to continue as an active board member.

My further thanks go to outgoing board members including Roberto Chavez, a long-term supporter who has accepted a new position with the World Bank in Mozambique; Sandra Robinson of the African Development Foundation; Janet Place of the Kaiser Foundation; Michael Totten of the International Institute for Energy Conservation; and Jennifer Jones of the Defenders of Wildlife. Each has contributed in unique and important ways to the evolving work of the Institute and I express my personal thanks, along with my confidence that they will remain active with ITDP in the future.

I also welcome several new staff members: Brian Williams, Program Director, who comes to ITDP with valuable experience with the Department of Housing and Urban Development of the City of New York, with numerous community organizations in the New York area, and with the Peace Corps in the Philippines; Ney Oliveira, Administrative Director, an Associate Professor of architecture at the University of Rio de Janeiro with experience working with community organizations in the low-income neighborhoods, or favelas, of that city; and Karen Overton, ITDP's former project director in Mozambique, newly appointed as overall coordinator of ITDP demonstration projects.

With this new team in place, I am confident ITDP is in a strong position to work with our growing international network of partners—both organizations and individuals—for more sustainable transportation policies worldwide.

Finally, I would like to make special mention of those who have financially supported ITDP's work, especially the Turner Foundation and C.S. Mott Foundation, whose long-term funding has enabled ITDP to develop institutionally and programmatically. Also deserving special thanks are the New Land Foundation, the Fair Share Foundation, and our many individual contributors, who together have kept the fight for sustainable transportation alive.

THANK YOU!

Keith Oberg,
President

The Institute for Transportation and Development Policy: Goals and Recent Activities

Letter from the Executive Director

ITDP began in the mid-1980s with the "Bikes Not Bombs" (BNB) and "Bikes for Africa" (BFA) campaigns, collecting and sending donated used bikes to support low-income people in countries under eco-

continued on next page

C o n t e n t s

ITDP: Fighting for Sustainable Transportation	2
<i>Letters from the New President and New Executive Director</i>	
Mobility Haiti	4
<i>Non-Motorized Vehicles Help Hospital Save Lives</i>	
Clty Focus: Bangkok, Thailand	6
<i>Paving Over Bangkok: Development Bank-Funded Highways Will Displace Tens of Thousands</i>	
Sustainable Transportation News Briefs	8-9
Are Bicycles Making Japan More Competitive?	10
The 3% Solution: A Call for Action	11
New Titles	14
Bulletin Board	15

conomic and political siege. These efforts taught us a lot about the transportation needs of developing countries, and of poor people in particular.

However, we soon realized that as long as national governments, with the complicity of the MDBs and bilateral agencies, continued to pour their transportation dollars into highways and motorized vehicles, while effectively disenfranchising non-motorized vehicles (NMVs) and pedestrians, the transportation needs of the poor would never be met. And the society as a whole would be environmentally damaged, financially bankrupted, and physically congested.

BNB, BFA, and other demonstration projects have taught us that transportation needs in developing countries can often be best met by improving access to low-cost bicycle transportation. Bicycle transportation provides equivalent economic returns without water or air pollution. However, until recently, the attitudes, tools, and experience to measure the impact of NMV

transportation simply did not exist. Development planners typically ignored the existence of NMVs, even in countries like China where the bicycle is the predominant form of transport. Transportation planning models and models measuring the potential benefits and costs of transportation investments were not applied to NMVs.

It has been a continuing educational effort on the part of ITDP and other allies to convince the MDBs, governments, environmentalists, and non-governmental organizations to re-think their approaches to transportation policy and to incorporate NMVs into their analysis.

Much progress has been made, due in part to the growing body of sustainable transportation experience, literature, and advocates. ITDP is proud to be part of a growing international network of individuals and institutions dedicated to promoting sustainable transportation policies. For example, ITDP is presently seeking to

continued on p. 12

Sustainable **TRANSPORT**

Number 2

September 1993

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

Editors: Walter Hook, Brian Williams,
Karen Overton, Ney Oliveira

Board of Directors:

Keith Oberg, President,
Matteo Martignoni, Vice President,
Charles Wright, Treasurer,
Walter Hook, Secretary,
Michael Replogle,
Lisa McGowan,
Harriet Parcels,
Christopher Herman,
Marijke Torfs,
Joanna Johnson,
Robin Stallings,
Elliott Sclar,
Andy Clarke

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, as well as letters.

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.

Cover photo: *courtesy of Inter-American Development Bank*

MOBILITY HAITI

Non-Motorized Vehicles Help Hospital Save Lives

by Karen Overton

Nestled in the heart of the Arbonite Valley in Haiti, the Albert Schweitzer Hospital serves the health care needs of anyone within the 600 square miles surrounding Deschapelles.

Late last year ITDP's Matteo Martignoni sent a shipment of five tons of bicycles, spare parts, and shop tools to the hospital which had been donated by Bridgestone, California bicycle shops and individuals. These materials were sufficient to set up a bike-shop, several non-motorized ambulatory vehicles, and some 100 bicycles for Hospital health care outreach workers. By mid-April, the shipment was safely unloaded at the Hospital, and ITDP consultants Matteo Martignoni and Glen Ray had arrived.

Matteo Martignoni is ITDP's Vice President, the Vice President of the International Human Powered Vehicle Association, and a leading expert in non-motorized transportation technology. His first trip to the Albert Schweitzer Hospital was in 1990. At that time he trained two men to assemble and repair some donated all-terrain bicycles we had sent down. Hospital staff used the bikes to provide direct health care service to over 400 remote villages. He also worked with staff to assess other aspects of the Hospital's mobility needs.

Drawing upon a description of what was needed, the personal experience of travelling over rough roads to village health dispensaries, and numerous conversations with Haitians, Matteo developed two designs of non-motorized vehicles especially for the hospital. The result was the "Haitian Hauler", a human-powered ambulance, and the "Trailing Edge", a bicycle trailer that may also be converted into a hand cart. The vehicles were built mostly from local materials, and

were designed to minimize cost and maintenance.

Due to the ongoing political turmoil in Haiti, the next stage of Mobility Haiti had been delayed for nearly three years. Only this spring was Matteo able to return to Deschapelles, this time with appropriate technology expert Glen Ray. Seated with their host, Tim Dutton, the three men reflected on Mobility Haiti's progress. Tim noted that, despite a great deal of wear and tear, the original fleet of bicycles continued to serve the Hospital's needs. The bicycles allowed staff to reduce their travel time by 30%. Indeed, they had enabled the Hospital to increase its outreach to the community.

Tim also spoke favorably of the Haitian Hauler; basically a stretcher fixed upon a chassis with one wheel directly under the patient. The transport of a patient to the

Hospital once required six to eight men rotating shifts on either end of the stretcher. With roads narrow and treacherous, this was no easy task. After the Haitian Hauler became operational, only two men were necessary for the job. This made the burden easier on the villagers as well as providing a much more comfortable ride for the patient who already suffered enough without the jarring of a stretcher carried on the shoulders of men. By saving travel time, the Haitian Hauler allowed patients to receive treatment sooner, making the crucial difference in several instances.

The Trailing Edge bicycle trailer, which also converts into a handcart, does not enjoy the same level of visibility and popularity as that of the human-powered ambulance. Far from glamorous, it serves a very important yet mundane purpose. Over the years, the Trailing Edge has primarily transported pressurized propane tanks and other medical supplies between buildings located on Hospital grounds.

Another notable innovation developed by Matteo was the conversion of a bicycle pump into an emergency surgical suction pump. Surgery at the hospital is often interrupted by power failures, and hospital equipment dependent on electricity would suddenly become unusable. The failure of the suction pump was serious and could



Matteo Martignoni at the Laboratwa Esperance

lead to fatalities. Matteo converted four bicycle pumps into emergency suction pumps, which have served as an important back-up system, reducing the risks to surgery patients from power shortage.

Despite difficult conditions and with limited resources, it had been possible to improve both the quantity and quality of health care based on the introduction of intermediate forms of transport. In April, after several years delay, the most recent shipment of material is able to move service delivery to another level.

April's trip had several goals. First, it was to expand the number of intermediate vehicles available to the hospital, its staff, and community organizations in the area. Second, it was to establish a facility, the "Laboratwa Esperance", that would make intermediate transport sustainable in Deschapelles by training local people to assemble, repair, design and fabricate non-motorized vehicles. Third, it was to improve the design of the Haitian Hauler and other vehicles.

The Laboratwa Esperance is located in a large warehouse, donated by Project Help of the Borel Mission. It lies within the Mission's compound and is an addition to the numerous other industrial training programs that are offered here. Seven members of the community were selected as trainees to initiate this new endeavor.

Among the first tasks assigned to the group was to fortify the warehouse for security reasons and determine the layout of storage and workspace. Then, project trainees separated spare parts into the seemingly endless rows of jars and cans that had been collected for storage purposes. Although not an exciting task, project participants felt it was important to develop a knowledge of available inventory and a familiarity with spare parts.

With the facility set up, Matteo and Glen set to work teaching the seven Haitians technical skills necessary for assembling the donated bicycles, running a bicycle repair shop, and designing & producing non-motorized vehicles. An introduction of tools and how to utilize each one began this phase of training. Then came lessons on patching and repairing

tubes and tires; overhaul and adjustment of the bottom bracket, head set, wheel bearing, and brakes; wheel truing; chain assembly and maintenance; front and rear derailleur maintenance and adjustment; cable, brake and derailleur routing; power tool operation, welding instruction; and use of the technical library.

Despite a limited background in mechanics, the trainees picked up these tasks amazingly fast. In particular, the one female trainee, proved very adept at making repairs and the men turned to her for advice when Matteo and Glen were not available.

After mastering these basic skills, the group moved on to lessons on design and production of non-motorized vehicles. The Haitian Hauler was brought in for examination. It was determined that the original design could be modified so as to improve its performance. This exercise enabled the group to apply the knowledge they had accumulated thus far. They found they could improve the original vehicle by exchanging the hard bicycle tire with a balloon tire taken from a dune-buggy which helped to absorb painful shocks and proved more agile in turns.

At the end of the three week training program, a formal graduation ceremony was held. Completion of this program signified a big step forward for the seven individuals. On their own, they are expected to not only run a bike shop and production facility, but to also assemble bicycles for the Hospital and offer a basic repair and maintenance course for the project recipients, selected by the village economic development committees, who will be allocated the bicycles and a basic repair kit.

As the party came to an end, it was time for Matteo and Glen to say goodbye. The Haitians invited Matteo and Glen to return soon, assuring them that there would be many questions of a more advanced nature after they had the chance to apply all that they had learned.

Matteo plans to return to Haiti this summer to complete the training. With at least six months experience working in the Laboratwa Esperance, the newly established trainers will have a solid basis on

which to improve their skills. Matteo will also help ensure the shop is economically viable, and to assess the economic and social benefit of the bicycles and non-motorized stretchers on hospital operations. There are some forty dispensaries which have all expressed interest in having a 'Haitian Hauler', and other clinics around Haiti are also interested. This could create a source of ongoing business for the shop.

Organization of another container of materials for shipment sometime this year is underway, and donations are being collected from a variety of American companies and organizations wishing to support Mobility Haiti. These materials will include additional tools and supplies for the community health care workers' basic repair kits, tools and supplies supporting the Laboratwa Esperance's research activities, and an additional number of bicycles and spare parts which will act as seed capital for the shop.

The rich experience of Mobility Haiti offers many lessons that can benefit other health projects around the world. In countries with bad roads and a severe shortage of vehicles often getting patients to the doctors or doctors to the patients is a serious problem.

Conclusion

While the provision of human-powered vehicles to the Albert Schweitzer Hospital continues to improve access to health care of those living within its catchment area, there are a number of other benefits in the community. The establishment of the Laboratwa Esperance assures the sustainability of these vehicles and thus the success of the entire project. Furthermore, as a small business, the Laboratwa Esperance serves as a mechanism for economic development. Aside from the immediate seven positions created, its research and production facility have the potential for generating more jobs and higher incomes for its cooperative members.

The success of this project has been due to the commitment of Matteo Martignoni and the constant support and help of ITDP's collaborators; the Albert Schweitzer

continued on p. 13

CITY FOCUS: BANGKOK, THAILAND

Paving Over Bangkok

Development Bank-Funded Highways Will Displace Tens of Thousands

By Walter Hook

Bangkok has some of the worst traffic congestion in the world. With the number of vehicles on Bangkok's streets growing at the astounding rate of 300,000 new vehicles, traffic has slowed to less than 10 kilometers per hour. This is 2 kilometers per hour slower than the average speed of a 'samlor', the non-motorized pedicabs which used to ply Bangkok's streets but were banned in 1962, presumably for moving too slowly. Air quality in Bangkok already exceeds World Health Organization safety standards more than 200 days out of every year, and emissions are currently increasing by as much as 14% per year.

The explosion of automobile and truck traffic are the result of several factors: rapid urbanization, rapid economic growth, increasing per capita incomes, increasing domestic vehicle production, and the recent reduction of tariffs on

serious threat not only to the Thai economy but also to the global environment. The question is not so much whether something should be done, the question is what should be done.

The response of the Government of Thailand, encouraged by the International Bank of Reconstruction and Development (IBRD), the Asian Development Bank (ADB), and Japan's International Cooperation Agency (JICA), has been to simply build more highways. Yet, since Anthony Downs' seminal study in 1962, highway planners have known that traffic congestion cannot be addressed by building more highways. New highways only attract more traffic.

Nevertheless, more foreign loans for roads have been given to Thailand between 1987 and 1991 than was given during the entire period between 1963 and

being underwritten by foreign funds. Meanwhile, roughly \$3.6 billion in funds collected by the Government of Thailand from road users is not being spent by them on roads but goes into general revenues for use in other areas. This means that foreign donors are more concerned about building new highways in Thailand than the Thai government is.

Over the next five years, foreign donor agencies (again, predominantly the ADB, the IBRD, and Japan's OECF) are planning to make another \$1.635 billion in loans to Thailand for road projects. Most of these loans are on highly favorable terms. For example, the loans from Japan's OECF are at only 3% interest, repayable over 18 years with a 7 year grace period.

Given the rapid increase in the number of new vehicles on Thailand's roads every year, it is unclear why increases in gasoline taxation, vehicle registration costs, road user fees, or some form of congestion pricing could not generate sufficient revenues internally to finance additional road construction. Foreign donors such as the United States don't seem to understand that a large part of the increase in the number of private automobiles in Thailand is driven by the expansion of highway infrastructure itself. Meanwhile, the increase in automobile usage is used to further justify expanding the road infrastructure. If China were to follow this same logic and were to provide sufficient road infrastructure to accommodate as many automobile users as we have in the United States they would have to pave over 40% of their arable crop land.

In the last several years the Japan International Cooperation Agency (JICA) has been providing technical assistance to the Thai government, advising them on how to tackle their transportation problem. They have suggested building 14 new superhighways, a total of 4340 kilometers of high grade roads both in and around Bangkok and linking Thailand's major cities. By building more roads in Thailand, Japan can expand the market for its own trucks and automobiles. In 1988, of the 150,000 new motor vehicle sales in Thailand, 130,000 of them were imported from Japan.

Over 300,000 people are slated for eviction from Bangkok's Seventh Regional Development Plan from highway, skytrain, and urban renewal. Only 80,000 new units of housing will be built.

imported cars. With the dramatic reduction of tariffs from 300% of the value of the car to 20% over the last five years the number of imported cars has risen from under 5000 per year in 1987 to 65,000 in 1989. However, the unprecedented level of heavily subsidized foreign loans for highway expansion to Thailand is also clearly underwriting the enormous costs of automobile based transportation.

There is no question that the growing traffic congestion in Bangkok represents a

1986. Between 1963 and 1986 total foreign assistance for road infrastructure in Thailand totaled \$643.3 billion, of which 57% was paid for by the IBRD, 21% by the ADB, and 21% by Japan's Overseas Economic Cooperation Fund (OECF). Between 1987 and 1991 another \$675 million was given, of which 30% was given by the ADB, 28% by the IBRD, and 42% by Japan's OECF. During the same five year period the Government of Thailand spent roughly \$5.2 billion. This means that 13% of all the road infrastructure in Thailand is

Japanese foreign aid policy has been consistently criticized for 'tying' too much of its aid to contracts with Japanese companies. This practice, which occurs either implicitly or explicitly with all foreign aid agencies, seems to be on the decline in Japan. But by spending their aid funds on highway projects the OECF can rest assured that the net result will benefit Japanese automobile companies, even if the aid is untied.

While it is clear that Japan has a vested economic interest in this massive expansion of road infrastructure in Thailand, it is not clear what vested interest the U.S. has in this motorization. The U.S. exports a negligible number of automobiles to Thailand every year.

The environmental implications of this massive expansion of highway infrastructure in Thailand can be measured by the expected induced traffic and thus increase in vehicle kilometers traveled, times the amount of vehicle emissions per kilometer. Yet despite this obviously disastrous environmental impact of these road projects, each of the highway projects approved under the new five year plan was considered to have a "Minimal" environmental impact.

If all the expressways currently being planned are actually constructed, Thailand will have six expressways within a kilometer of each other over 101 kilometers of a total route of 111 kilometers. To make matters worse, many of the areas which are going to have to be cleared to make way for the increased highway capacity are currently the home to Bangkok's low income population. Over 300,000 people are slated for eviction from Bangkok's Seventh Regional Development Plan from highway, elevated 'skytrain', and urban renewal efforts. As currently in the same period only 80,000 new units of housing are planned for construction for slum dwellers, it is clear that some will

have serious difficulties finding new housing.

Many of these families are being forcibly removed. Low income families first find their water and electricity supplies cut off. Often they are the victims of arson, and finally they are driven out by bulldozers. In 1991 over 200 families were evicted in order to widen roads to and from the site of the World Bank/IMF annual meeting! Community leaders from slum areas claim that many families have not been paid compensation for leaving these areas, and some slum residents claim that officials have threatened to burn down their settlements if they did not relocate.



A tuk-tuk sitting in Bangkok traffic

While some slum dwellers are being relocated at government expense, the new settlements are often very expensive, poorly equipped with facilities, and located far from their jobs. This has led to significant increases in their travel time and costs of living.

Before relocation, many of the low income residents made their living in the urban informal economy. The average family spent only \$6.25 per month and twenty minutes per day going to and from their jobs. Most of their trips were made either by walking or by bicycling. After relocating, the average family has had to spend \$46.25 per month and 90 minutes per day for commuting. More than half of them faced significant increases in their rent, and 52% lost their jobs, although 75%

of them found new jobs within 6 months. While World Bank resettlement guidelines require that these costs be included in their environmental and economic assessment procedures, since these documents are not open to public scrutiny it is impossible to know.

The vast majority of the traffic congestion problem is created by private automobile and small truck drivers. As only the wealthiest 7% of Bangkok's population has access to a motor vehicle, it is legitimate to ask whether the problem is that Bangkok doesn't have enough highways, or whether the cost of using the highways is simply too low for private automobiles.

Just like anything else, it is fair to ask those that use a particular good or service to pay their fair share of the cost, particularly if the users are higher income residents. As the road space per person consumed by a single occupancy vehicle is forty times that of a bus, it is only fair that the single occupancy vehicle user pay appropriate fees for the use of the road. Congestion is a reflection of the fact that the price of using the road is too low. If users were expected to pay fees which covered the amount of road space

that they consumed, traffic congestion would disappear. Many single occupancy vehicle owners would shift to modes which consumed less road space such as buses and bicycles. Even better, the imposition of congestion taxes would create a pool of capital paid for by the users themselves which could be used to pay for further infrastructure improvements with no need for foreign borrowing. Such funds could also be used to invest in higher density low income housing closer to the city center to minimize the need for further infrastructure expansion.

Foreign aid donors such as the Asian Development Bank, (which spends U.S. funds), the Japanese International Cooperation Agency, and the Overseas Economic

continued on p. 13

Sustainable News

LIMA, PERU

World Bank Proposes Pilot NMT Project

The World Bank is proposing a project to promote the use of bicycles for low-income residents in Lima, Peru. The project includes the provision of grade-separated cycle-ways and collaboration with major employers to implement credit schemes for bicycle purchase as well as the probable importation of low cost bicycles. The project will also include a public relations campaign promoting the use of bicycling.

BEIRA, MOZAMBIQUE

World Bank Takes Up Where "Bikes For Africa" Mozambique Left Off

With ITDP technical assistance, and based on the ITDP demonstration project, a Non-Motorized Urban Transport Pilot Project – Beira proposal was submitted by the Sofala Department of Transportation and Communications to the World Bank under the environmental component of the Local Government Reforms package. It requests finance for the purchase of 5,000 bicycles, support for an assembly and maintenance facility, establishment of a credit program working with local businesses and government agencies, construction of supportive infrastructure such as bike lanes and parking facilities, and sponsorship of an education campaign informing the public of the advantages and proper use of non-motorized transport. The proposal was approved June of this year and will allocate US \$300,000 for the project which is scheduled to begin at the end of this year.

IMBASENI, TANZANIA

NMT Collective Started

The Imbaseni Rural Transport Project, located in a small village near Arusha, has constructed a bicycle workshop on donated community land. The transport collective, organized in 1990, is now

preparing to purchase eight bicycles and four carts with ITDP funds. The bikes and carts will be rented to small entrepreneurs by the collective which will use the funds for maintenance and to expand the fleet. They will be used in their daily tasks of subsistence farming, marketing, and domestic chores. As a normal weight carried by head or on back is estimated at 50 lbs., these non-motorized vehicles will greatly alleviate the burden associated with such tasks.

ITDP associate, Rendi Flippin-Anu, continues to provide assistance to the Imbaseni Transport Collective. He will now focus on training two of the collective members in bicycle repair and maintenance. In addition, Rendi has begun to work with Tanzania's National Bicycles Company, Ltd. to help them develop a business plan to obtaining financing for producing and assembling non-motorized vehicles.

NEW YORK, NEW YORK

Fighting For More Bicycle Access to City Streets

Here in New York City, the bicycle and pedestrian advocacy group Transportation Alternatives (TA) has developed a strategy for turning up the heat on recalcitrant city officials for increasing the number of bicycle-friendly commuting routes. Several years ago, when New York City threatened to close down the bicycle path along the Queensboro Bridge (the only bicycle access between Manhattan and Queens) TA organized a demonstration. Thousands of angry bicyclists, messengers and enthusiasts converged on the bridge and walked or rode their bicycles very slowly across the bridge during rush hour, tying up traffic for hours.

Recently, TA has been using the tactic to drive cars out of Central Park and Prospect Park which are choked with

traffic during rush hour, and to 'calm' traffic on 6th Avenue where the New York City government closed down a once-vital bicycle path. At a recent rally in Prospect Park, antagonized motorists drove across the park lawn, threw bottles, and some threatened to strike bicyclists with their vehicles. The demonstration gave government officials a



wake-up call and made motorists think twice about driving through the park.

KYOTO, JAPAN

Stopping Destructive Highway Projects

In Kyoto, Japan, the government is planning to construct a major highway and two interchanges in the middle of historic downtown Kyoto. Kyoto is the ancient capital of Japan, and one of the

Transportation Briefs

few cities which escaped extensive U.S. bombing during World War II. It is one of the few Japanese cities with the flavor of old Japan, making it a favorite tourist site. The new highways will displace many traditional buildings and introduce extensive noise and air pollution into the middle of the historic city. ITDP met with local environmentalists and community



activists led by Yoji Nakagawa who have united to fight the project. By widely publicizing their resistance, and by organizing property owners in the proposed right of way and convincing them to refuse to sell their land to the Highway Authority, the group hopes to stop the project.

In the U.S., the most effective method of stopping highway projects is by challenging the validity of Environmental

Impact Assessments in the courts, which successfully brought down the Westway Project in New York City. In Japan, however, this tactic is less effective, while organizing

landowners is very effective. Because the right to seize land for public purposes was abused during the military period and land is considered sacred, the government is reluctant to take land against the will of the landowner for fear of antagonizing public opinion. The second runway at Narita International Airport in Tokyo has never been completed due to the recalcitrance of landowners to sell, and government attempts to seize the land were met with violent demonstrations.

SAO PAULO, BRAZIL

Fighting Highways and Displacement

Sao Paulo, with more than 12 million people, is the second most populated city in the world. Despite a serious housing shortage and a severe air and water pollution problem caused primarily by automobile exhaust, Mayor Paulo Maluf plans to expand the avenue Faria Lima, a major thoroughfare in downtown Sao Paulo. Costing an estimated U.S.\$300 million, the project will dispossess more than 2000 families, and eliminate much needed green space in the city. The project will have no effect on the severe traffic congestion in Sao Paulo, will benefit primarily the 1/7 of the city population which owns a car, and will only worsen air pollution by encouraging automobile use.

This project is particularly ill-suited to Sao Paulo, which has been the object of international criticism for its critical air pollution problem. Some 300 children die each year from air pollution, mostly from lead from automobile exhaust. Studies show that a 50% reduction of air pollution would result in a 1.2% reduction in the non-infant mortality rate. Noise pollution is also a serious problem: 51% of

the population have persistent insomnia and 74% have their sleeping disturbed by noise pollution. On the national level, transportation policies like this favoring the automobile are largely responsible for Brazil's debt crisis. Brazil is dependent on imports for 84.7% of the oil it consumes, and oil accounts for 43% of its total imports. Roughly 30% of this goes to private automobiles. In 1980, Brazil spent \$10.3 billion on imported oil.

With the help of information and some advice from ITDP, neighborhood groups and progressive politicians are fighting back. Federal representative Fabio Feldmann, who asked for ITDP's help, is working with neighborhood associations such as Associacao Vila Olimpia Viva, and the non-governmental organization Movimento Pinheiros Vivo to fight the project.

As in the U.S., federal and state law in Brazil requires an 'Environmental Impact Statement' (EIS) for all public and private development projects. This EIS has to be made public, according to the new constitution, which allows groups to comment and propose changes, and if well organized, to stop the project.

Until now, the Mayor has refused to give the public access to the project plans and the EIS. The citizens groups working with Fabio Feldmann have asked for a court order demanding the release of these documents, and have appealed to the State Government for help. It is unclear whether this approach will succeed, but a similar approach was successful in the past in delaying and making important changes in an environmentally destructive automobile tunnel under the Pinheiros River.

Photo: *Transportation Alternatives demonstration, Central Park, New York. Courtesy of Transportation Alternatives*

Are Bicycles Making Japan

by Walter Hook

Japan, one of the fastest growing and perhaps the most economically advanced country in the world, depends heavily on the bicycle for its commuting needs. Nationally, more than 15% of the population commutes entirely by bicycle, compared to only 0.4% in the U.S. More than 53% of the population in Tokyo as a whole, and 91.6% of passengers in downtown Tokyo commute to work by subway or commuter rail, and some one third of these people begin their journey with a bicycle ride to the rail station. The use of bicycles is actually increasing rapidly in Japan, faster than the increase in automobile use. This contrasts markedly with the U.S. where 86% of the population commutes by private automobile, and the domination of the automobile is increasing.

In Tokyo, with average automobile and bus travel speeds slowing to under 10 miles per hour, more and more people are choosing to bicycle. The large number of bicycles piled up around subway and train stations has prompted the construction of the most high-tech bicycle parking facilities in the world.

Meanwhile, the costs of operating an automobile in Japan are growing ever more expensive. It can cost over \$100 to park for a day in some areas in downtown Tokyo. Fuel taxes are roughly double what they are in the U.S., accounting for 47% of the price of gas. Meanwhile, a driver can pay the equivalent of \$98 in tolls to drive from Osaka to Tokyo, about as far as from New York to Washington where the tolls will cost a U.S. driver around \$12.00. The total tax levy on a car in Japan is roughly \$1285 per year, compared to \$232 per year in the U.S. Another crippling cost of driving in Japan is called the "shoken". Every two years drivers have to have their cars inspected. The cost of inspection is roughly \$900.00, and if the car does not have the inspection sticker by the end of the year the cost is doubled. Above and beyond this you have to pay mandatory replacement costs on all sorts of vehicle parts.

All of these factors would be a nightmare if it weren't for the fact that Japan has the fastest, safest, and most efficient public

transportation system in the world surrounded by bicycle-friendly streets. Furthermore, most Japanese employers pay for the entirety of their employees commuting expenses if they commute by public transportation. As a result, families tend to only have one car and treat it as a luxury, using it for weekend outings, rather than as a means of commuting.

Even at these prices the automobile is still heavily subsidized in Japan. But by encouraging the use of cheaper, more fuel efficient, and environmentally safer modes of transportation like the commuter railroads, subways, and bicycles, Japan has been able to minimize the total cost that they spend transporting their goods. While Japan spends only 9% of its GNP to take care of all its trans-



MacDonald's at Koenji Train Station, suburban Tokyo

portation needs, in the U.S. we spend 18% of our GNP; the highest in the world. This means that Japan is able to take care of all of its mobility needs for less than half of what we have to spend here in the U.S. Most of this cost is born by American families. The average American family spends from between 15.2% to 22.5% of their annual income on transportation-related expenses, whereas Japanese families spend only 9.4% of their income on transportation, despite the higher costs of operating an automobile there.

Transportation and land use policy in the U.S. has encouraged unplanned, low-density suburbanization, which has in turn trapped many Americans into a dependence on the private auto-

More Competitive?

mobile. In the U.S. we have subsidized our roads and highways to a much greater degree than other, alternative forms of transportation, and have not provided appropriate infrastructure and land use controls that would make bicycling and walking more viable options. By 1955 total subsidies to road-based modes had already risen to \$1.34 billion annually. They are currently around \$24.27 billion annually, representing around 30% of the total cost of road provision.

In the U.S. each employee must be paid more than \$4500 per year for the purchase and maintenance of their automobile. Furthermore, taxes have to be collected to pay the estimated \$2400 per passenger car of public subsidy to make automobile transportation viable. These costs are all reflected in the costs of goods produced in the U.S., albeit indirectly. In increasingly competitive markets, such inefficiencies compromise the competitiveness of U.S. products.

Being able to own a car is a luxury that anyone in an affluent society should be able to enjoy. However, being dependent on the automobile to take care of basic commuting needs is not liberating. It means that families have no other option than to sit in traffic jams. This imposes significant costs on the American family, which, if bicycling, walking, and public transportation alternatives were more viable, could be avoided. If families with two working adults only needed one car for their leisure activities, while they

differences which are undermining the competitiveness of U.S. products in international markets.

Our dependence on the automobile is also exacerbating the trade deficit. In 1989, Japan produced 9,052,000 passenger cars while only consuming 4,404,000 cars. In the same year, the U.S. only produced 6,823,000 passenger cars, while consuming 9,853,000 cars. If each one of these imported cars cost \$10,000 then \$30 billion of our annual trade deficit at 1990 levels, or roughly 15%, can be directly attributed to our deficit in automobiles. If oil imports are added to auto imports, 45% of our trade deficit can be accounted for. While many scholars have asked why we have lost the competitive edge in the production of autos, fewer have asked why we consume so many.

The growing traffic congestion associated with this development pattern is also imposing severe costs on the economy. According to a recent study, every time a firm relocates from an urban to a suburban location the number of automobile trips made by the firm's employees during the day increases by twelve times. Thus, a large part of the growth in vehicle miles traveled by U.S. citizens and traffic congestion is being driven by the relocation of firms from urban to suburban areas.

Traffic congestion has worsened considerably in the U.S. in the last 10 years. According to Downs' recent study *Stuck in Traffic*, since 1975 the number of miles people have to travel in congested conditions during rush hour has increased from 42% to 63%, with levels expected to increase dramatically. At the current growth of automobile traffic, many regions could find their average travel speeds cut in half within the decade. The current costs of this congestion nationally are estimated to be \$168 billion annually.

Congestion increases the costs of shipping goods, the costs of commuting, and takes away from time we could be spending more productively. Yet the cost of building more highways to overcome increasing traffic congestion is far beyond our means. According to the Federal Highway Administration, our current annual expenditures on highways of \$14.6 billion annually would have to be increased by 35% just to bring the existing physical

continued on p. 15



In the U.S. we spend 18% of our GNP on transportation. In Japan they spend only 9%.

were able to commute by comfortable and safe public transportation, each American family would be able to save around \$3000.00 per year, according to a recent study.

In Japan, high urban density and a network of safe and efficient bicycle and pedestrian paths make it possible for all of an employee's commuting needs to be met at minimal cost. A one-time purchase of a \$100.00 bicycle and \$500.00 per year can take care of all of a person's annual commuting costs. A Japanese worker therefore only needs to be paid around \$600.00 a year to cover their commuting costs, while a U.S. worker has to be paid around \$7000.00 per year to cover the automobile costs and taxes to pay for the associated infrastructure. These are significant cost

Letter

continued from p. 3

influence the way the MDBs lend for transportation projects. ITDP has convinced the US Treasury Department, which represents the United States on the board of directors of the MDBs, to convene a public-private task force to undertake a fundamental policy review of World Bank transportation lending. ITDP is supporting this re-assessment in at least two ways, through providing information and administrative support directly to the Task Force, and through direct work with World Bank staff to construct new cost-benefit and environmental impact assess-



ITDP staff: Robert Hambrecht, Brian Williams, Karen Overton, Ney Oliveira, Walter Hook

ment methodologies which would create a "level playing field" for evaluating alternative transportation modes and solutions. The new models and procedures would, before approving a highway investment, require consideration of alternative ways of meeting transportation needs, as well as a more realistic assessment of the environmental costs of increased motorization. Recently, for example, a mass transit project in Eastern Europe was in jeopardy of not receiving funding because the 'economic benefit' was supposedly not as high as for highway projects. ITDP's critique of their methodology was successfully used to ensure the transit project survived.

ITDP's dialogue with World Bank staff has found much individual support and has resulted in increased attention to use of non-motorized vehicles in Bank-funded

projects. Bank staff have cited the economic benefits of ITDP's demonstration projects in presenting new NMV projects for Lima, Peru; Maputo and Beira, Mozambique; Ghana; Mongolia; Albania; and Kenya. The Bank has now designated one staff member to be responsible for NMV and transportation safety projects.

ITDP has also participated in the Climate Action Network (CAN) to ensure that the transportation provisions of the Global Climate Convention (GCN) and the Agenda 21, signed at the Environmental Earth Summit in Rio de Janeiro in June 1992, are fully implemented. The GCN requires all nations to produce "national action plans" which outline how they plan to reduce greenhouse gas emissions. The original U.S. plan, particularly its transportation section, was very weak and raised the concern among members of the CAN that it would give license to other governments to produce similarly weak documents. The CAN critiqued the US plan and suggested an alternative draft, with ITDP writing most of the transportation section.

Gratifyingly, the Clinton administration has announced its intention to scrap the original plan and produce a new and more comprehensive one, utilizing many of the suggestions of the alternative draft produced by the CAN.

Following up on this experience, ITDP is producing a brochure for distribution to non-governmental organizations and government planners in developing countries to help ensure that the transportation provisions of their countries' own action plans are in full compliance with the GCN and Agenda 21.

ITDP views with concern the growing number of destructive highway projects in

the Third World, where elites seem determined to copy the motorization policies of the industrialized countries no matter what the financial, environmental, and human costs. In Bangkok, a planned massive expansion of highway infrastructure funded by the World Bank, the Asian Development Bank, and the Japanese Government, threatens to lock Thailand into dependency on the automobile and displace nearly 100,000 low-income people with relocation. ITDP has been working with Japanese and Thai NGOs to fight these projects, arguing that foreign loans could be better applied in upgrading the mass transit system, building bicycle lanes and parking, and implementing other measures with lesser financial, environmental, and human costs.

ITDP is also working with Brazilian NGOs and a legislator in the Brazilian House of Deputies to provide information to stop a highway project in Sao Paolo which will displace more than 400 low-income families. ITDP's customized policy-brief highlighting how new highway projects in Brazil would worsen already disastrous air quality and oil-import dependence, (a critical factor in Brazil's debt crises) has been circulated in the House of Deputies and was also passed on to the Brazilian Workers' Party, Luiz Ignacio "Lula" da Silva, while he was visiting Washington DC, to seek to increase his awareness of the environmental and economic consequences of over-motorization.

In essence, ITDP is putting in place a two-prong strategy—a "rapid-response" capacity to assist organizations and communities to meet immediate motorization threats, and a longer-term capacity consisting of *Sustainable Transport*, research, and dissemination activities to build public awareness, influence the policy debate, and move transportation investment towards a more sustainable modal mix and away from a dependence on individual private motorized vehicles.

Walter Hook,
Executive Director ◆



Bangkok

continued from p. 7

Cooperation Fund are underwriting the costs of this wrong-headed policy by providing heavily subsidized loans. They are in effect subsidizing the transportation needs of the top 7% of the population, while ignoring the mobility and housing needs of the vast majority of the population.

It is not clear how massive highway construction projects are going to lead to economic development in Thailand. Thailand is currently 87% dependent on imports for foreign automobiles and trucks. It is also more than 62% dependent on imported fossil fuels, costing Thailand \$5.156 billion in foreign exchange annually. Over 56% of total energy consumption comes from the transportation sector, and of this 56%, 85% is from road-based modes, the rest being from airplanes and ships. The expansion of the highway infrastructure is only likely to increase Thailand's dependence on imported vehicles and fuels. On top of this, Thailand is planning to spend \$2.87 billion of its own money in the next 7 years to finance highway expansion. None of it is likely to reduce the level of traffic congestion in Bangkok.

While JICA and OECF are encouraging highway development for Bangkok and Thailand, the Japanese government's own development policy was to constrain domestic consumption of automobiles by high taxes on automobile use, by minimizing investment into roads, and by imposing high tariffs on imported vehicles. Only once Japan's own domestic automobile industry was strong enough to capture a majority of the domestic market for automobiles did domestic policy begin to encourage the construction of new highways. Even today, despite being the world's number one producer of automobiles, only 16% of Tokyo's population commutes by automobile, while in Bangkok the automobile already accounts for 33% of commuting trips.

Meanwhile, the mobility needs of the 14% of Bangkok's population who are commuting by bicycle or foot, utilizing one twelfth of the road space, and the 39% who

THE 3% SOLUTION BILL: A CALL FOR ACTION

Rep. Joe Kennedy (D-MA) has re-introduced his "Bicycle and Pedestrian Transportation Act," (H.R. 1824) that would require at least three percent of federal transportation funds be dedicated to bicycle and pedestrian facilities. The ITDP joins other national organizations advocating alternative modes of transportation by urging bicyclists across the country to show their support for the bill, dubbed the 3 Percent Solution, by signing petitions in bike shops and writing to their member of Congress throughout the summer cycling season.

According to Bill Wilkerson of the Bicycle Institute of America, the 3 Percent Solution will "send a clear message to transportation agencies that they can and should do more to accommodate bicyclists and walkers in the transportation system. This bill is "part of the solution for the transportation system as a whole as it struggles to meet the challenges of greater mobility, cleaner air and higher efficiency."

The 3 Percent Solution is based on the fact that currently, federal transportation funds are spent almost entirely on roads and highways benefiting only motorized users. While bicycling and walking account for between 6 and 8 percent of journeys to work in the U.S., less than 1 percent is spent by state and local agencies on supportive infrastructure for these modes. One exception is Oregon, which spends a minimum of one percent of

transportation funds on bicycling facilities and now has three of the top ten communities for bicycling in the U.S. The 3 percent figure is derived from this successful experience, while allowing for a compromise on the equity issue by asking less than the 6 to 8 percent which could justifiably be requested, based on the number of bicyclists and pedestrians.

If this legislation is passed, it would mean that \$1.35 billion over a six year period would be spent on bicycling and walking facilities. These funds would be spent by state and local transportation agencies on projects and programs developed under the regular planning process. Facilities can include restriping and retrofitting streets with bike lanes, shoulders, wide lanes for shared use by cars and bikes, sidewalks and new trails.

By calling attention to the need for a more equitable and sustainable transportation system, the 3 Percent Solution is important legislation that will lead to necessary improvements for cyclists and pedestrians. At this stage in the political process, your participation is crucial. Please give your support to this initiative.

For more information, contact: Jonathan Miller, Rep. Kennedy's Office (202) 225-5111 or Andy Clarke, Bicycle Institute of America (202) 332-6986.

-Karen Overton



commute by bus, utilizing one fortieth of the road space, are only being made worse off, as travel times for all modes slow down and air pollution worsens. Low income families forced to relocate to peripheral areas who used to only walk a few hundred meters to their jobs are now going to have to commute long distances, only worsening the transportation problem. ♦

Haiti

continued from p. 5

Hospital and Project Help, and to the support and enthusiasm of the people in Deschapelles. We hope that larger donors will come to realize through the success of projects like this one that directly meeting the mobility needs of people is critical to real development. ♦

NEW TITLES

Bicycles First: The Bicycle Master Plan. pp. 30. A booklet that describes the Netherlands Bicycle Master Plan. To order, write to the Information Department, PO Box 20901, 2500 EX Den Haag, The Netherlands.

Car Trouble By Steve Nadis and James MacKenzie. 1993. World Resources Institute. 300 Pages. \$12.00 WRI Publications, P.O.Box 4852, Hampden Station, Baltimore, MD 21211, Telephone 1-900-822-0504.

Community-Based Transportation Planning Under ISTEA. By the Bicycle Federation of America, 1993, pp. 70. \$20.00. Bicycle Federation of America, 1818 R Street NW, Washington, D.C. 20009. Telephone 202-332-6986.

"Critique of the World Bank's Highway Design Standards Model" By Walter Hook, 1993, ITDP, pp. 13. A critique of the World Bank cost benefit techniques and suggested alternatives. \$2.50 from ITDP, 611 Broadway, Rm 616, NY, NY 10012. Telephone (212) 260-8144.

Driving Forces: Motor Vehicle Trends and Their Implications for Global Warming, Energy Strategies, and Transportation Planning By James MacKenzie & Michael Walsh, World Resources Institute, 1993. 50 Pages, \$14.95. WRI Publications, P.O.Box 4852, Hampden Station, Baltimore, MD 21211, Telephone 1-900-822-0504.

"Economic Benefits of Non-Motorized Transportation" By Walter Hook and Robert Hambrecht. Brief summary of existing data supporting the economic importance of non-motorized transportation in various countries. p.4. \$2.00 from ITDP.

Environmental Benefits of Bicycling and Walking in the United States - A Report to the Federal Highway Administration. By Charles Komanoff, Cora Roelofs, Jon Orcutt, & Brian Ketcham 1993, Transportation Alternatives, pp. 75. Transportation Alternatives, 92 St. Marks St. NY, NY 10009.

Environmental Limits to Motorization: The Role of the Bicycle in Developed and Developing Countries. By Urs Heierli. 1993, SKAT, 200 pp. SKAT-Bookshop, Vadianstrasse 42, CH-9000 St. Gallen, Switzerland. Fax 41-71-23-75-45.

The Going Rate: What It Really Costs to Drive, By James MacKenzie, Roger Dower, and Don Chen. World Resources Institute. 32 pages. \$12.95. WRI Publications, P.O.Box 4852, Hampden Station, Baltimore, MD 21211, Telephone 1-900-

822-0504.

Reclaiming Our Streets. By the Portland Department of Transportation, 1993, pp. 50. Description of Portland's community action plan for innovative city-wide transportation program. Bureau of Traffic management, 1120 SW 5th Avenue, Suite 730, Portland, Oregon 97204.

"Slum Relocation and Non-Motorized Transportation in Bangkok" By Ben Immers and Joan Biji, 1993, Transportation Research Board, No. 93 CF105, 24 pp. Analysis of costs faced by slum dwellers from being relocated by highway construction in Bangkok. Order from ITDP (\$3.00), or TRB Library, 2101 Constitution Ave, NW, Washington, D.C. 20418. Telephone (202) 334-2990.

The Bicycle Blue Print - A Plan to Make Bicycling A Mainstream Transportation Option In New York City. By Michele Herman, 1993, Transportation Alternatives, 200 pp. \$15.00. Transportation Alternatives, 92 St. Marks St., NY, NY 10009. Telephone (212) 475-4600.

The Rickshaws of Bangladesh. By Rob Gallagher, 1992, Bangladesh Institute of Development Studies, 683 pp. A comprehensive study about the pedicab industry in India and other Asian cities. The University Press Limited, Red Crescent Building, 114 Motijheel C/A, PO Box 2611, Daka 1000 - Bangladesh.

Win-Win Transportation - A No Losers Approach to Financing Transport in New York City and the Region. By Brian Ketcham and Charlie Komanoff, Transportation Alternatives, 120 pp. Quantification of advantages to increasing costs of driving to subsidize more efficient and sustainable modes like bicycles. Transportation Alternatives, 92 St. Marks St., NY, NY 10009. Telephone (212) 475-4600.

"Women, Transport, and Poverty: The Role of Non-Motorized Transport" By Julia Philpott, 1992, ITDP, 8 pp. Outlines the obstacles to economic development that the lack of mobility creates for women in Africa, and assesses the impact of non-motorized transportation. \$2.50. ITDP.

"Improving Access for the Poor in Urban Areas", by Walter Hook and Michael Replogle, from Appropriate Technology, June, 1993. For a copy, send \$2.00 to ITDP.

"Citizen's Guide to ISTEA: Transit and Rail Funding and Public Participation Requirements," Campaign for New Transportation Priorities, 900 2nd St. NE, Suite 308, Washington, D.C. 20002.

BULLETIN BOARD

VIIth International Velo-City Conference – “The Civilized City: Responses to New Transport Priorities City” September 6 – 10, 1993, Nottingham, UK. Contact Ian Chatfield, Nottinghamshire County Council, Construction and Design Dept., Trent Bridge House, Fox Road, West Bridgeford, Nottingham NG2 6BJ UK. Telephone (0602) 774223.

14th International Pedestrian Conference. September 15 – 17, 1993, Boulder, Colorado. Contact GO Boulder, (301) 441-4260.

International Public Transit Expo '93. Hosted by the American Public Transit Association. October 4 – 6, 1993, New Orleans, Louisiana. Contact Ingrid Tomasek, APTA, 1201 New York Ave., NW Washington, D.C. 20005. Fax (202) 898-4070.

Transportation 2000 – “What Can We Learn From Abroad?” October 17 -20, 1993, Washington, DC. Contact Elizabeth Kingman, Transportation 2000, PO Box 22899, Denver, CO

80222. Telephone (303) 759-8027.

City '93: Urban Environment, Social Issues and Health in Cities. October 25 – 30, 1993, Antwerp, Belgium. Contact Society for Research on Environment and Health, Community Health Services. Uitbreidingsstraat 506, 2600 Antwerp – Belgium, Telephone (323) 230-9332.

Pro Bike Conference. September 6-10, 1994, Portland, Oregon. Contact: Bicycle Federation of America, 1818 R St., NW, Washington D.C. 20009.

1994 International Symposium on Non-motorized Transportation – Beijing, China. May 23 – 25, 1994. Contact L. David Shen, Florida International University, Dept. of Civil & Environmental Engineering, College of Engineering and Design, University Park Campus, Miami, Florida 33199. Telephone (305) 348-2824.

Japan

continued from p. 11

infrastructure back up to its physical condition in 1983. In order to maintain average user costs (which includes the costs of congestion) at current levels, (\$400 billion per year) current expenditures would have to be increased by 113%. A much more cost effective way of resolving our congestion problems is to encourage re-urbanization and higher density living and working patterns. This would reduce the need for travel and make mass transit options more viable.

Our highly dispersed pattern of development is also contributing to environmental degradation. Currently 29% of energy consumption and a quarter of toxic emissions which are causing global warming are coming from the transportation sector. While more fuel efficient vehicles and alternative fuels may offer some hope, the current explosion of vehicle miles traveled is undermining the progress on air and water pollution that these innovations could have made.

Our automobile-dependent suburban development patterns are also highly

wasteful of land. Because of automobile dependence, many U.S. cities have to dedicate over half of their available land to road infrastructure, compared to less than 25% in Japanese cities. If mainland China were to have as many automobile commuters per capita as the U.S. they would have to pave over 40% of their arable farmland in order to provide sufficient road infrastructure.

These inefficiencies caused by decentralization will manifest themselves in the higher relative costs of other forms of infrastructure as well, such as telecommunications, electricity, water, sewerage, and drainage. Supporting the same level of economic activity in suburban and rural areas requires that transportation, water, sewer and power lines also be extended and maintained over far longer distances. The HUD study *The Costs of Sprawl* indicated that the cost of providing housing in low density unplanned suburban areas was 60% higher than providing the same number of units in planned, high density urban areas. More than half of these costs are underwritten by the tax payers.

The new Intermodal Surface Transportation Efficiency Act and the Clean Air Act Amendments have created an historic opportunity to reorient our transporta-

tion policy towards giving more Americans alternatives to costly automobile commuting. The policy options being proposed by the Campaign for New Transportation Priorities would reorient U.S. transportation policy not only in a more environmentally sustainable direction, but also in a direction which will be increasingly critical to the competitiveness of the U.S. economy into the next Century. ♦



Bicycle parking garage, suburban Tokyo

Sustainable Transport

We need your financial support! Help us get the word out. It's time for a change in the environmentally and socially destructive transportation policies of the past! There are many people, organizations, and policy makers both here and in developing countries to whom we would like to send Sustainable Transport. Your tax deductible charitable contribution will help convince people all around the world that what is best for our future is not the automobile.

Sustainable Transport welcomes the reaction of readers and information and articles, about non-motorized and sustainable transportation initiatives from around the world.



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



611 Broadway, Room 616
New York, NY 10012

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