

Paratransit in less-wealthy countries

Shaping the New Future of Paratransit:
An International Conference on Demand Responsive Transit
MONTEREY, CALIFORNIA

October 30, 2014

Compiled by Tom Rickert
Access Exchange International, San Francisco



Who we are

Access Exchange International is a non-profit agency founded in 1990 and based in San Francisco. We promote universal access to help enable seniors and persons with disabilities – and *everybody else* – to use public transportation in less-wealthy countries.



This presentation describes the diverse paratransit modes in less-wealthy countries and their growing potential for providing accessible and affordable transportation.



Paratransit is a missing link to *reach the health care, schools, and jobs that create wealth* for poor people and especially the disabled poor.

We all know that global population looks like this:

Asia, Africa, & Latin America (85%)

Europe & N.
America (15%)

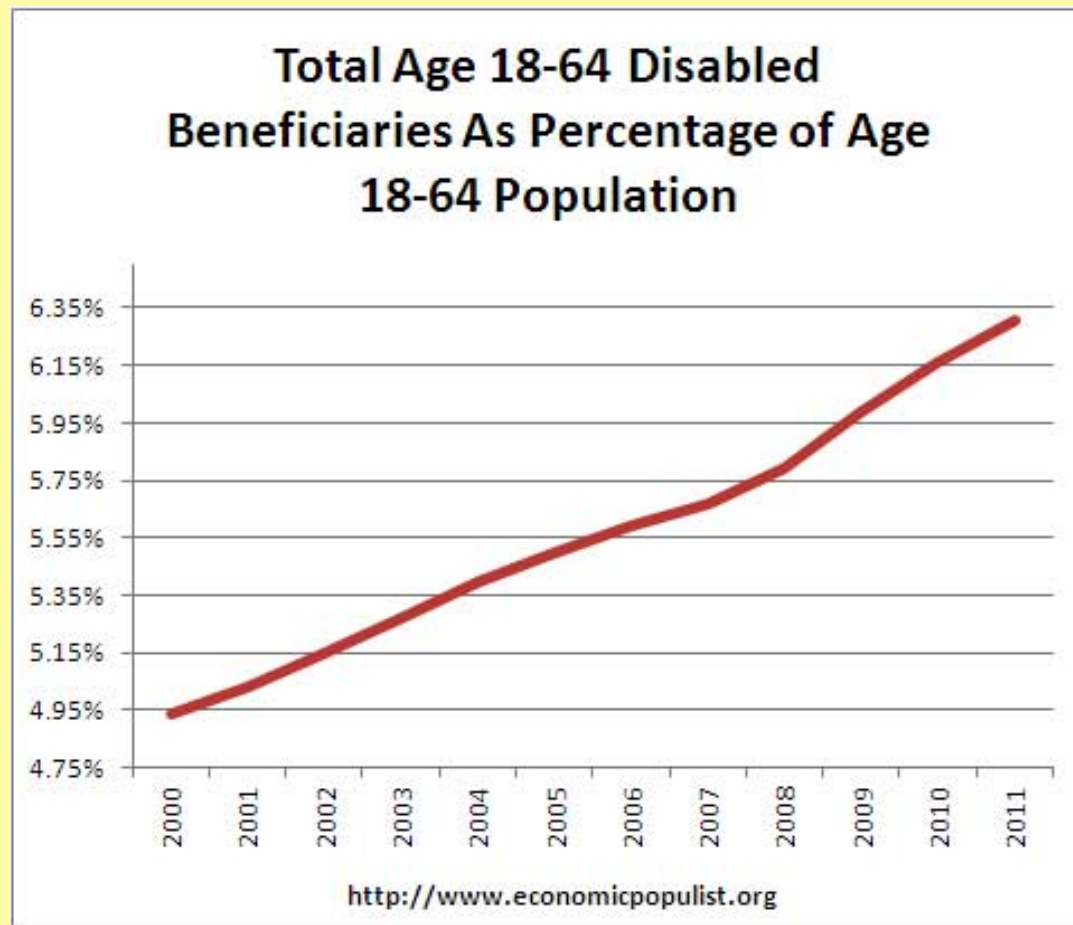
But we may not realize that *accessible* paratransit looks more like this:

Asia, Africa, &
Latin America

Europe & North America

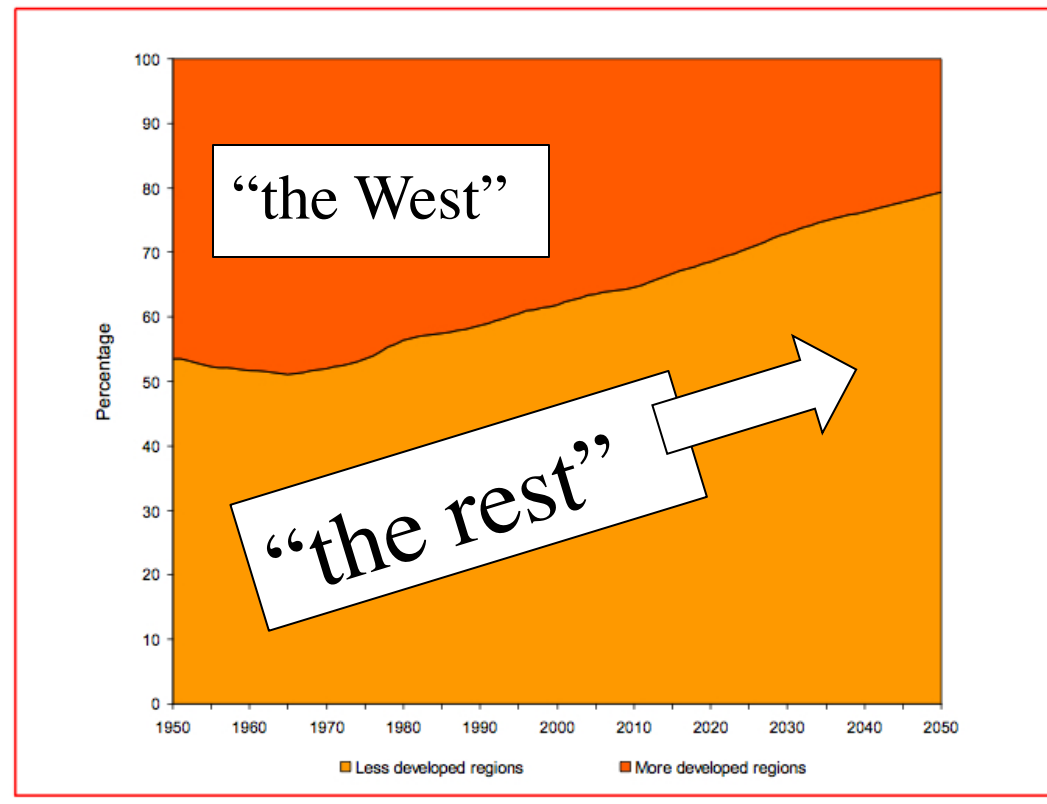
- So precisely where accessible paratransit services are most needed by low-income disabled persons and seniors in our world, it is least available.

Disability correlates with aging
in the USA & *everywhere else* . . .



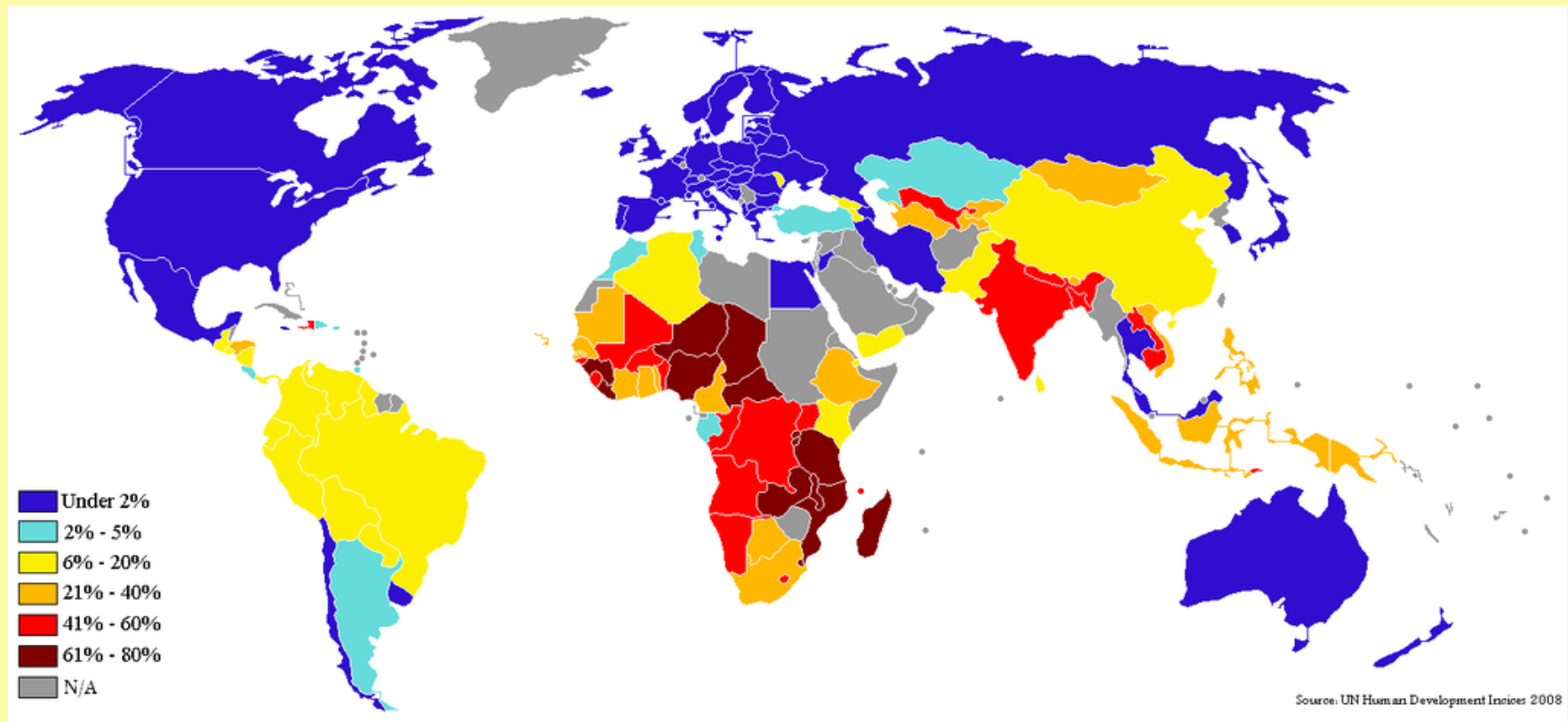
. . . and the aging population is rapidly growing, especially where accessible paratransit is *least* available (global % elderly, 1950-2050)

Figure 1.12
Distribution of world population aged 60 years or over by development region, 1950-2050



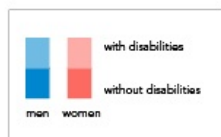
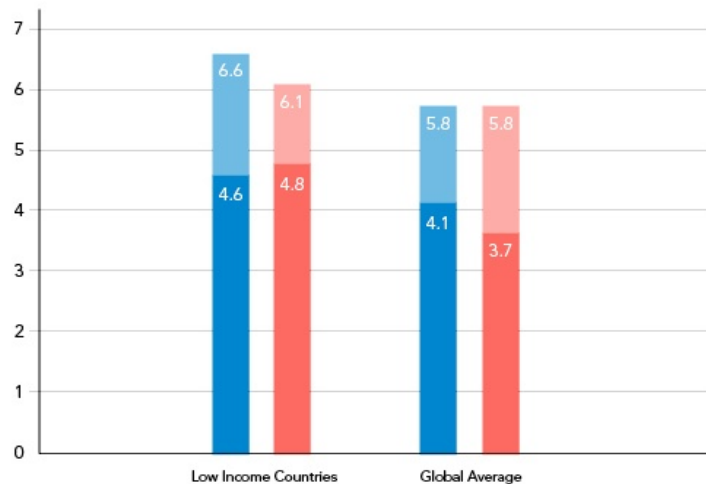
Disability also correlates with income

(blue is lowest poverty level)



World Report on Disabilities: Unmet Health Needs

Percentage of those who needed but did not receive care



Top 3 reasons people with disabilities did not receive care in low income countries

Women

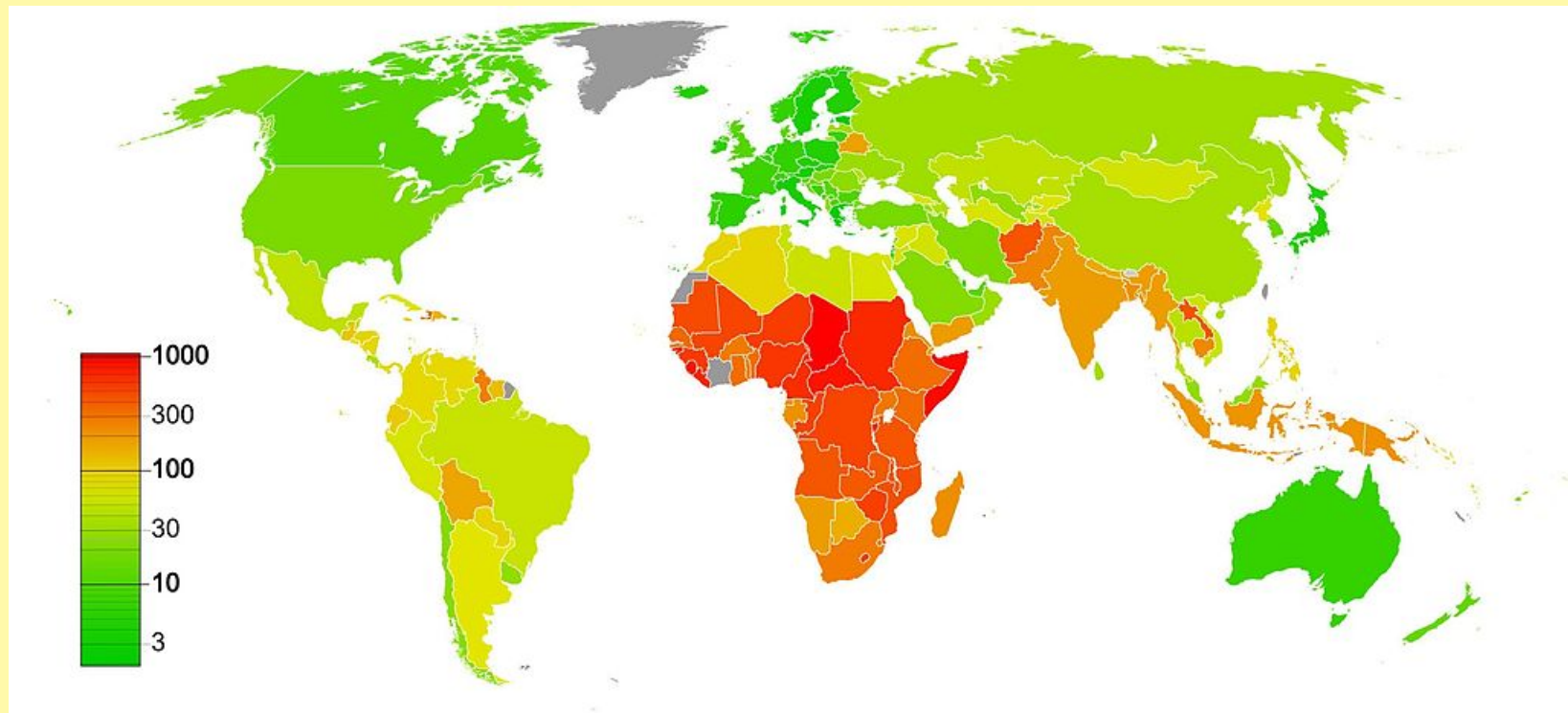
61.3% Can't afford it
29.4% Can't afford transportation
28.2% Didn't think was sick enough

Men

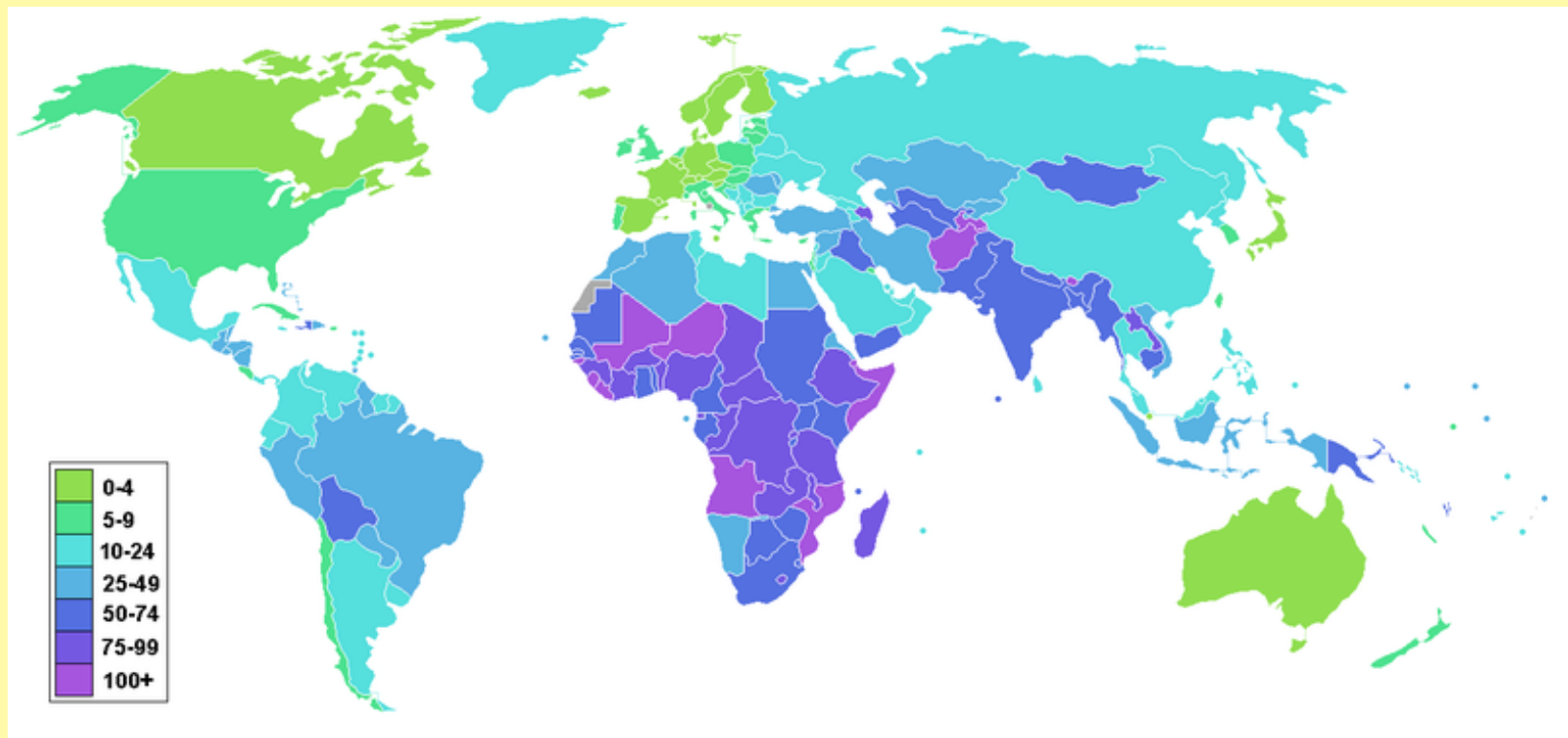
58.8% Can't afford it
32.2% Didn't think was sick enough
30.6% Can't afford transportation

For 30% of those who needed health care but could not get it, “lack of transportation” was a reason . . .

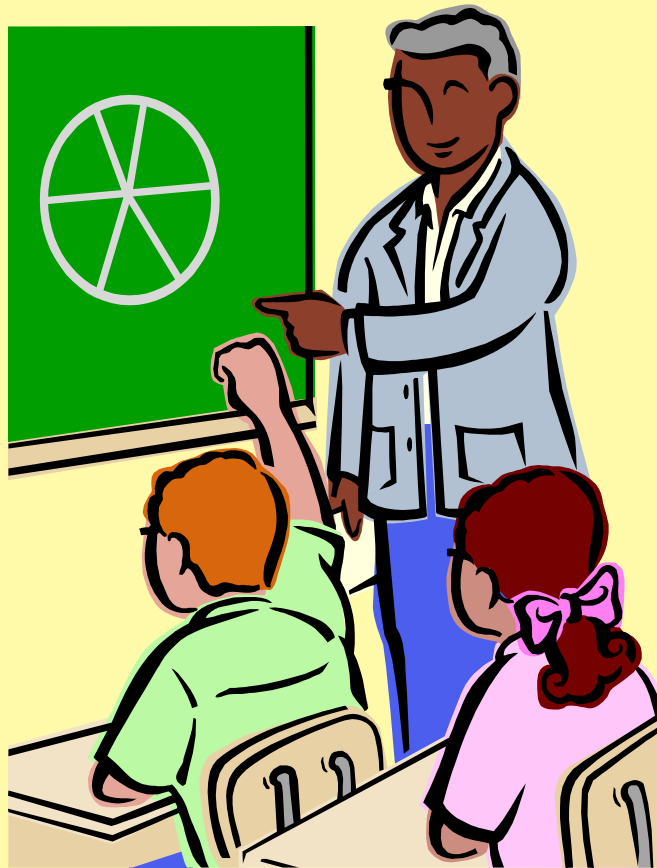
. . . This is one reason women die in childbirth in less-wealthy countries (maternal mortality rates: green is lowest)



. . . and this is one reason children die in less-wealthy countries (infant mortality rates: green is lowest)



Disabled persons also need
to get to school



90% of children with disabilities
in developing countries do not
attend school (UNESCO)

Accessible paratransit services
are part of the solution.

Getting to work matters: 80-90% of disabled persons of working age are unemployed in developing countries



Paratransit is a big part of the answer to the need for health care, education, and jobs for the 80% of the world's persons with disabilities who live Asia, Latin America, and Africa.

Paratransit practitioners need to learn from each other. Our guide includes case studies from around the world.

**PARATRANSIT FOR
MOBILITY-IMPAIRED PERSONS
IN DEVELOPING REGIONS:
STARTING UP AND SCALING UP**

Prepared by:
Access Exchange International
San Francisco



Introduced at TRANSED 2012 in New Delhi

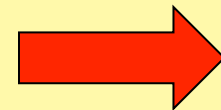


Spanish version published in 2013



Fortunately, several cities have pioneered paratransit in less-wealthy regions. *A start has been made and lessons have been learned.*

- Some modes are well known to us, such as vans, mini-buses, and taxis.
- Other modes are less common, such as motorized “three-wheelers” and cycle rickshaws.



Mini-bus & taxi



Hong Kong: 120+ vehicles



India: KickStart in Bangalore



Malaysia: Kuala Lumpur



Russia: Moscow's “social taxi” 300 vehicles



Singapore



Turkey: Istanbul's 60 vehicles



South Africa: Cape Town

30 vehicles



Brazil: “Atende” in São Paulo 372 lift-equipped vehicles



Brazil: “Ligado” in the *state* of São Paulo: 106 vehicles



Peru: Lima



Colombia: Medellín



Costa Rica: 10% of a national
fleet of approx. 1,000 taxis is
ramp-equipped



Mexico: Villahermosa



Mexico City:
(the *only*
accessible van
that we have
identified so far: 9
million persons
live in the federal
district)





Good news! 120 ramped taxis just put in service in Mexico City, and hundreds more on the way!



Could TNCs (transportation network companies such as San Francisco startups Uber, Lyft, and Sidecar) have a role to play in providing *accessible* paratransit in less-wealthy countries? Not so far, even though Uber is growing around the world.



Serving a wealthier clientele, the TNCs tend to leave out persons with disabilities in the USA

RIDE SERVICES

Disabled cope with scarcity of ramp taxis

By Carolyn Said

Peggy Costa, 64, relies on wheelchair-accessible taxicabs to travel to doctors' appointments and friends' houses from her apartment near San Francisco's Pier 39.

"The ramp taxis are totally critical to my life," she said. "During tourist season, no one can get on the Muni buses in

FROM THE COVER

Disabled people's concerns grow on ride services

Wheelchair from page A1

system — now sit idle because there aren't enough drivers.

But the TNCs have no clear-cut ideas on how to offer this lifeline, according to documents they filed with state regulators. In one document,

wheelchair-accessible vehicles. Such a declaration is meaningless because the TNCs lack wheelchair-accessible cars and properly trained drivers, said Kate Toran, MTA paratransit manager.

San Francisco's medallion taxi system includes 100

★★★★★

TAXICAB

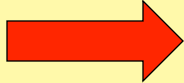


But similar technologies may yet prove relevant, and help make paratransit more affordable to the disabled poor.

One approach is to build GPS, mapping, and fare handling technologies into paratransit startups in Asia, Latin America, and Africa.

For example, Singapore

“These high-tech tuk-tuks are going places Uber won’t touch,” headlines an article about an auto-rickshaw startup in Singapore using GPS and other tech features.

This brings us to the role of vehicles *smaller* than vans and taxis 

* article about Terra Tech in www.techinasia.com (Nov. 27, 2013)

Motorized auto-rickshaws and other small vehicles consistently average 40-50% lower fares than regular taxis around the world (e.g., in India, Mexico, Peru, and Tanzania). This matters, because . . .

. . . for many disabled persons and other poor persons, the biggest barrier to transportation is affordability.

For example, the 10% of Mexicans living in the most extreme poverty have an average public transportation budget of US\$8.33/month

Consider this moto-taxi in Mexico



That US\$8.33 (in Mexican pesos)
pays for

- 8 short (1 km) one-way trips by regular taxi *or*
- 13 short (1 km) one-way trips in the moto-taxi.

These and other small vehicles come
in a variety of models.

They charge less because they
cost less to buy and operate.

Auto-rickshaws & moto-taxis

(photos from Asia and Africa)



Nigeria



Tanzania



India: New Delhi motorized auto-rickshaw



80,000 in New Delhi



India: no room to stow a folded wheelchair in this model



But many auto-rickshaws do have room



And 90% of persons with disabilities
do not use wheelchairs



Test session in New Delhi in 2011





Vietnam: In Ho Chi Minh City, a fleet of “three wheelers” assists wheelchair users who can fold their chairs



It *is* possible to design “three wheelers” where a rider can remain in a wheelchair: We fund-raised for this prototype in Nairobi. The viability of such vehicles in regular service is not yet established.



Interior view



Auto-rickshaws & moto-taxis

(Photos from the Americas)



Ecuador: Guayaquil



Peru: outskirts of Lima



Peru reports 335,000 moto-taxis



Colombia: Nearly 7,000 moto-taxis in thirteen cities



Mexico: Moto-taxi service



Most of Latin America's moto-taxis
have room for a folded wheelchair



Smaller vehicles can play a major role, but only where appropriate

- Non-polluting vehicles should be used (with 4-stroke engines using compressed natural gas, where possible)
- With drivers trained to drive safely and provide courteous service to disabled passengers
- Under safe conditions (not on main roads where high-speed traffic predominates)

Smaller vehicles can play a major role, but only where appropriate

- With safety belts available for disabled passengers who may request them
- With an appropriate level of regulation to assure they do not “crowd out” larger-capacity public transport vehicles

Mini-buses, vans, taxis, and “three-wheelers:”

Each mode has important roles.

Pedicabs & ciclo-taxis





Non-motorized vehicles
also have a role in
addressing the need for
accessible paratransit.

Pedicabs are now appearing in Latin America (Ciclo-taxi service in Mexico)



Nicaragua



India: EcoCabs is a new startup



EcoCabs' new pedicab fleet





Dial a rickshaw service is
heaven for elders and ladies...

See, we are just not saving
our money and environment but
also not causing any congestion
with our cars on city roads.

Wow grand mom !!,
I am loving this car
free mobility and
this joy ride.

Summing up

**smaller
vehicles =
lower fares**

**& cheaper cell phones
and Smartphones
call vehicle to door**



**seat belt needed to
provide a safer ride**

**driver training needed to
promote courtesy & safety**

You can help.

Consider your support of actions to start up and scale up improved paratransit for disabled and elderly passengers in less-wealthy countries.

For example . . .

Stakeholders can collaborate to

- 1 **Promote new thinking** about paratransit on the part of colleagues in the development community and international disability agencies.

Stakeholders can collaborate to

2 Support specialized paratransit mobility management to create economies of scale for paratransit providers needing driver training, insurance, pooled vehicle maintenance, or pooled purchase or lease of vehicle fleets.

Stakeholders can collaborate to

3 Develop a specialized “neighborhood app” to promote ride-sharing in slums as well as wealthier districts.

Stakeholders can collaborate to

4 Promote municipal and national paratransit workshops in cities and countries in less-wealthy regions.

Stakeholders can collaborate to

5 Prepare guides for practitioners of specialized types of paratransit,
documenting case studies of agencies in
less-wealthy countries that have
provided efficient reliable transport to
special education, jobs, and health care.

We hope to prepare such as guide, with case studies such as this program in Curitiba, Brazil. Accessible buses pick up disabled students in different neighborhoods, who then transfer to buses serving specific schools.



But this is only one of many solutions.
Let's make it happen!



For further information, contact

Tom Rickert

Executive Director

Access Exchange International

112 San Pablo Avenue

San Francisco, CA 94127, USA

email: tom@globalride-sf.org

web: www.globalride-sf.org

telephone: 1-415-661-6355

Credits

- Line drawing of school children developed by Ralph Guggenheim and Eli Noyes of Alligator Planet LLC, San Francisco, www.alligatorplanet.com, in collaboration with Access Exchange International.
- Photos courtesy of Access Exchange International, Janett Jiménez, Ana Bravo (IFRTD), Paolo Sbalzer (Qstraint, Brazil), Richard Schultze, Juan Carlos Pineda (Medellín)/SITES (Curitiba), South African Dept. of Transport, Kepha Motorbikes, Atende, Ligado, Dr. CGB Mitchell, HWA Rehab Bus (Singapore), Persatuan Mobiliti, ISOM (Istanbul), Rehabus (Hong Kong), EcoCabs (Chandigarh, India), Marco Colindres, The World Bank, David Koffman, Peter Straus, Svayam (New Delhi), Ike Nnaji, Christa Williams, Aparna Kota, Tuoi Tre News (Vietnam), Municipality of San Borja (Lima), Istanbul Ozürlüler Merkezi (Turkey), All Russian Society of the Disabled, Vidhya Ramasubban (Kickstart, Bangalore, India), Dwrcan (Wikimedia Commons), *El Tiempo* (Colombia), and TRL & DFID (United Kingdom).