Cycling & gender: stories of empowerment to (re)shape the future

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Synergos network, Senior civil society fellows

Independencia, Tirso de Molina, Pergola Santa María

World Cycling Alliance
GLOBAL COLLABORATION, BASED IN CHILE

- Sede: Depto. de Ingeniería de Transporte y Logística, Pontificia Universidad Católica de Chile
- Instituto Superior Técnico, Lisbon Technical University
- Institute of Transport and Logistics Studies, University of Sydney
- Massachusetts Institute of Technology
- World Resources Institute Centre for Sustainable Transport

ACROSS LATITUDES AND CULTURES
TRANSPORTE RÁPIDO EN BUSES
CENTRO DE EXCELENCIA BRT+
SPECIAL THANKS: INTERFACE FOR CYCLING EXPERTISE, 2000-2010

ESPECIALLY TOM GODEFROOIJ, JEROEN BUIS, ROELOF WITTINK, MARIEKE DE WILD, JAAP RIJSNBURGER & ESPECIALLY THE INTERNATIONAL NETWORK OF CIVIL SOCIETY LEADERS THEY HELPED TO BUILD
FELLOW RESEARCHERS

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Director global study Safe & Sound
Quito and Buenos Aires research teams, Ella se mueve segura

FIA Foundation
CAF, Development Bank of Latin America
LABORATORY FOR SOCIAL CHANGE: PARTICIPATORY ACTION RESEARCH

ESCUELA MARIO PEREZ DE ARCE, EL BOSQUE, CHILE
Octubre 2016
TODAY

1. Justice and transport: a very “wicked” problem
2. Ecologies of modes and actors
3. Cycling, social inclusion and gender equity
1. Justice and transport: a very “wicked” problem
INCLUSION, EQUALITY, EQUITY

“If we do the same thing for everybody, that’s equality, right?”
Change The Story!

www.communichi.org
HIGH COST OF DISCRIMINATION & EXCLUSION

Comunidad Mujer Report (2016): Gender gap over life span

<table>
<thead>
<tr>
<th>Años de vida</th>
<th>Brecha de Género (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-3.4%</td>
</tr>
<tr>
<td>15</td>
<td>1%</td>
</tr>
<tr>
<td>30</td>
<td>6%</td>
</tr>
<tr>
<td>45</td>
<td>6%</td>
</tr>
<tr>
<td>60</td>
<td>21%</td>
</tr>
<tr>
<td>66</td>
<td>29%</td>
</tr>
<tr>
<td>75</td>
<td>33%</td>
</tr>
<tr>
<td>56</td>
<td>53%</td>
</tr>
</tbody>
</table>

-6 years 12 25 35 49 60
Innovating in “safe” routes to school in low-income areas of Chile

Daniel Lanfranco y Maya Flores
DISCRIMINATION, EXCLUSION

Strategic shift: from “averages” to “outliers”: Women and girls, from eight to eighty
ECOLOGIES OF ACTORS: DIVERSITY IS KEY
RESULTS

- US$45 mn for cycling facilities
- Master plan - consensus-building
- Km of cycling facilities quadrupled (2007-2012)
- New standards (2010-2015)
- Cyclists on main routes up 25-30% per year, 2007-2014.
- Modal share doubled (2006-2012)
- Women up from under 10% to almost 1/3 cyclists
- Presidential priority, beyond elections
- 60 km+ open streets every Sunday
2. Ecologies of modes and actors
“ECOLOGY” OF MODES

Densidades medianas y altas
+ viajes cortos (0-10 km), caminata y ciclos (bicitaxis, bicicletas públicas)
+ viajes medianos (5-15 km), BRT-Metro
Densidades bajas, distancias mayores, Automóvil particular

KEY
- Walking
- Cycle
- Public transport
- Car
CYCLING DELIVERS ON THE GLOBAL GOALS

Shifting towards a better economy, society, and planet for all

The Global Goals, as enshrined in the preamble of the Sustainable Development Goals (SDGs), seek to realize the human rights of all. Cycling is clearly delivering on these goals worldwide, and this is a good reason to invest more in cycling. Making transport more sustainable is of critical importance for humanity and the planet. Moreover, active mobility is a human right on all scales, including the right to cycle. Governments at all levels should provide safe access to public space, protect those that walk and cycle, and ensure, through modality - equal participation in society. Enhanced safety conditions for cycling – including e-cycling, camps, cycling and public bicycles – will help achieve these Global Goals as cycling is directly linked to the following 5 Global Goals:

**Goal #1: End poverty in all its forms everywhere.**
Cycling is an affordable and simple mode of transport enabling access to education, jobs, markets, and community activities in both urban and rural areas. The bicycle is often the only affordable means of transport for people and goods, and this helps individuals to lower the cost of transport for their households. Cycling can also be a rewarding way for those otherwise dependent on walking or using public transport to access more job opportunities, schools, markets, and communities. In addition, the potential for economic growth through cycling-related job creation is high. Investments in cycling offer good opportunities for sound national, regional, and international poverty-reduction strategies.

**Goal #2: End hunger, achieve food security, and improved nutrition and promote sustainable agriculture.**
Cycling plays an important role for those small-scale food producers. It can provide secure and equal access to land, resources, and inputs, knowledge, income, financial services, markets, and opportunities for non-farm employment. Cycling helps to ensure access, in particular for the poor, to food stores and markets, opening up opportunities for low-income households that do not have an alternative mode of transportation. Cycling also gives better access to health facilities and communities, increasing rural live options and ensuring the sustainable transportation of food products.

**Goal #3: Ensure healthy lives and promote well-being for all at all ages.**
Cycling improves health and well-being throughout lifespans. The physical activity cycling generates reduces heart disease and other negative impacts of sedentary lifestyles. Air quality and road safety improve when individual motorized transport is replaced by cycling. Cycling also reduces emissions and conflicts for cyclists and also helps to reducing the number of global deaths and injuries from road traffic accidents.

**Goal #4: Achieve gender equality and empower all women and girls.**
Cycling provides access to women and girls to work, schools, markets, and jobs that are otherwise inaccessible through active transportation means or walking. Safe infrastructure for cycling supports gender equity and improves the number of women and girls that take advantage of cycling.

**Goal #5: Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.**
Cycling promotes sustainable tourism, economic development, and job creation. It also helps to reduce congestion and air pollution, improving the quality of life for all.
<table>
<thead>
<tr>
<th>m</th>
<th>Walk (minutes)</th>
<th>Cycle (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Easy (4.5 km/h)</td>
<td>Moderate (5 km/h)</td>
</tr>
<tr>
<td>400</td>
<td>5.3</td>
<td>4.8</td>
</tr>
<tr>
<td>800</td>
<td>11</td>
<td>9.6</td>
</tr>
<tr>
<td>1200</td>
<td>16</td>
<td>14</td>
</tr>
<tr>
<td>2000</td>
<td>27</td>
<td>24</td>
</tr>
<tr>
<td>3000</td>
<td>40</td>
<td>36</td>
</tr>
<tr>
<td>4000</td>
<td>53</td>
<td>48</td>
</tr>
<tr>
<td>5000</td>
<td>67</td>
<td>60</td>
</tr>
<tr>
<td>8000</td>
<td>107</td>
<td>96</td>
</tr>
<tr>
<td>10000</td>
<td>133</td>
<td>120</td>
</tr>
</tbody>
</table>

Note: green = reasonable time for travel to access public transport; yellow = standalone single-mode travel or cycle service trip (bike taxi, bike share, etc.); orange = best served by combination with motorized modes.
Well over half and up to 75% of car trips in the Bay area (above) and Metro Santiago (below) more suited to walking and cycling.
## TARGET MODAL SHARE - SANTIAGO

<table>
<thead>
<tr>
<th>Mode</th>
<th>Current share</th>
<th>Target modal share</th>
</tr>
</thead>
<tbody>
<tr>
<td>WALK</td>
<td>34</td>
<td>47</td>
</tr>
<tr>
<td>BIKE</td>
<td>4</td>
<td>27</td>
</tr>
<tr>
<td>BUS</td>
<td>29</td>
<td>13</td>
</tr>
<tr>
<td>CAR</td>
<td>26</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>Trip length</td>
<td>Space allocation</td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>WALK</td>
<td>0-2km</td>
<td>First rate pedestrian network</td>
</tr>
<tr>
<td>BIKE</td>
<td>2-8 km</td>
<td>Intermodal bike-bus network</td>
</tr>
<tr>
<td>BUS</td>
<td>5+</td>
<td>Priority bus and bike lanes network</td>
</tr>
<tr>
<td>CAR</td>
<td>5 k+ low density (rural, suburbs)</td>
<td>Intercity buses, cars, trucks</td>
</tr>
</tbody>
</table>
3. Cycling, social inclusion and gender equity
VIOLENCE AGAINST WOMEN DOESN’T JUST STOP AT THE DOOR...

Domestic-family-household

Public space

Political and economic autonomy = DECENT WORK

Work for women, planning and operating transport systems

Access to work, education, culture, social networks
How do we change this? What are the key interactions that can move the system toward greater participation from women?

Factors that interact and influence women’s participation in diverse aspects of social life.
Las BARRERAs:
DISCRIMINACIÓN: SOCIAL & INSTITUCIONAL
Falta de educación
Costeabilidad
Falta de trabajo
Condiciones de trabajo
Cultura: Valores negatives, y los actores que los imponen.
Geografía: Distancia, seguridad vial y social
FACILITATORS:

- Pares y familia - peers and family
- Transporte de bajo costo o gratis - flexible, affordable transport
- Calles seguras - safe streets
- Rutas seguras - safe routes
- Lugares seguros - safe places
- Escuelas cercanas
- Salud y otros servicios cercanos
- Ferias callejeras cercanas
- Mecanismos de control y de quejas
- Reglas y procedimientos especiales - special rules and procedures
- Instituciones que incluyen a las mujeres en toda fase de toma de decisión - women among decision-makers
CYCLING: MISSING LINK

1. Cycle parking at public transport nodes
   - Bogotá, Munich, Amsterdam, Santiago (La Cisterna)

2. Bike racks on buses
   - Most systems in Canada and US

3. Bikes on trains
   - Europe, non-peak Can & US

4. Bike rentals
   - Netherlands, tourism

5. Bike share
   - Residential, commercial, transport nodes
   - New York, Barcelona, México

6. Bike share - integrated fares
   - Sevilla, China, otros.

7. Bike routes connecting stations, residences, commercial, job centres
   - Holanda, Denmark, Germany

8. Shared bike, bus, tram, lanes
   - France, Belgium, Germany

9. Bicitaxis
   - India, New York, London
CYCLE-“INCLUSION”, THE NETHERLANDS

…the full integration of cycling considerations into the city and planning systems, through diverse measures developed over the past 40 years by cyclists and planners, particularly in The Netherlands (original definition, Interface for Cycling Expertise, 2007-2009)
CYCLO-“INCLUSION” DEVELOPING WORLD

SEVILLA
CICLO-INCLUSION

SANTIAGO

TAIPEI
CICLO-INCLUSION: WORK
PRADIP KUMAR: RICKSHAW BANK

Uses of a rickshaw

INDIA
PRADIP KUMAR: RICKSHAW BANK

CREATE NEW BUSINESS MODELS THAT EMPLOY & BETTER SERVE WOMEN

Changes to rickshaws (shown on left):
- Aero-dynamically designed, thus lighter
- More spacious
- More attractive to clients
- Comfortable for all age groups
- Longer life
- Rickshaw designed by IIT, Guwahati
3. Examples of what CYCLE INCLUSION could mean to women (and other excluded groups)
<table>
<thead>
<tr>
<th>Trip purpose, work day</th>
<th>% of trips</th>
<th>Sex</th>
<th>Total, purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work</td>
<td>38%</td>
<td>Man</td>
<td>24.56%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>13.14%</td>
</tr>
<tr>
<td>Shopping</td>
<td>17%</td>
<td>Man</td>
<td>4.93%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>12.40%</td>
</tr>
<tr>
<td>Other (health, red tape, other)</td>
<td>16%</td>
<td>Man</td>
<td>6.57%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>9.88%</td>
</tr>
<tr>
<td>Visit, pick up or drop someone off</td>
<td>13%</td>
<td>Man</td>
<td>4.46%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>8.30%</td>
</tr>
<tr>
<td>Studies</td>
<td>10%</td>
<td>Man</td>
<td>5.27%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>4.93%</td>
</tr>
<tr>
<td>Recreation, eat or drink something</td>
<td>6%</td>
<td>Man</td>
<td>3.00%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Woman</td>
<td>2.55%</td>
</tr>
</tbody>
</table>

Source: Prepared by Ignacio Tiznado, based on EOD 2012.
<table>
<thead>
<tr>
<th>Trip Purpose</th>
<th>% of trips</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care</td>
<td>55%</td>
<td><em>Produce most neighbourhoods with basic amenities: schools, shops, primary health care, etc. Reverse direction of key services on temporary or permanent basis.</em></td>
</tr>
<tr>
<td>Work</td>
<td>38%</td>
<td>Primarily walk-bike-bus and other motorized transport, preferably buses, car share, collective taxis, etc.</td>
</tr>
<tr>
<td>Studies</td>
<td>10%</td>
<td>Highschools and universities within cycling distance, including bike-bus combinations and e-assisted pedaling for hilly terrain</td>
</tr>
<tr>
<td>Recreation</td>
<td>6%</td>
<td>Basic entertainment (café, music, place to meet) within walk, cycle, bike-bus-metro distances locations.</td>
</tr>
</tbody>
</table>
# IMPLICATIONS FOR WOMEN

How bike-bus intermodal service could affect life

<table>
<thead>
<tr>
<th>Travel options</th>
<th>% income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Option 1: Only public transport</strong></td>
<td>32%</td>
</tr>
<tr>
<td><strong>Opción 2: Current conditions, intermodal own bicycle, Metro, feeder and shared bike at end</strong></td>
<td>26%</td>
</tr>
<tr>
<td><strong>Opción 3: Own bicycle, Metro or express bus, shared e-bike at the end</strong></td>
<td>22%</td>
</tr>
</tbody>
</table>

Monthly cost, basic food basket, two people

Source: Sagaris, Tiznado & Steiniger 2017
WHY SHOULD THIS MATTER?
EXAMPLE 2: NURSE ON NIGHT SHIFT

- Eliminates long wait at bus stop
- Eliminates dangerous crossings of bridges, pedestrian walk-overs, etc.
- Gets her home more quickly and safely
- Makes her healthier and happier!
WHY SHOULD THIS MATTER?
EXAMPLE 3: DIGNITY

- Eliminates long wait at bus stop
- Eliminates dangerous crossings of bridges, pedestrian walk-overs, etc.
- Gets her home more quickly and safely
- Makes her healthier and happier!

Equality of access to the city and its benefits
Investigación-participación-acción

Laboratorio de Cambio Social

Un espacio de investigación de Ingeniería de Transporte (PUC) y Ciudad Viva, que convoca a otros socios líderes del “Laboratorio Vivo” de la ciudad. Apoyado por el Centro de Desarrollo Urbano Sustentable (Cedeus) y el Centro Transporte Rápido en buses.

www.cambiarnos.cl

Gracias - obrigada - thanks

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