Replicating Fazilka initiative on eco-cab in other Punjab cities

Workshop on Our Right of Way: Walk and cycle

22nd March 2012

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Graduates Welfare Association Fazilka (GWAF)
Problems with the present rickshaw operations

• Not accessible to near residential areas compared with market areas
• Unorganized network of rickshaws
• Unregulated Tariff structure
• Maintenance and quality of rickshaw
• Taboo of being as inhuman
• Health and financial conditions of traction men
• High Rate of interest financing facilities through locals
• Policy level interventions, government role
Ecocabs-Vision Statement

"to organise and improve scientifically, the existing rickshaw operation using modern management tools and real time technologies for its promotion as sustainable para transit mode of public transportation as an alternative to car centric development and its linkage as a feeder unit to any mass rapid transit, for the benefit of traction men, society & environment and rickshaw at large to achieve the overall agenda of low carbon mobility"
Mobile phone-driven intelligence infrastructure way ahead of transportation infrastructure in most developing Asian cities

Ref: Albert Ching, MIT
Fazilka Ecocabs Dial-a Rickshaw- Accessibility Phase-I
Concept Ecocabs

Accessibility (Phase-I) + Quality of Service/Rickshaw (Phase-II) → Ecocabs
ITS Applications – HOW IT WORKS

INTELLIGENT TRANSPORT -DIGITAL EMPOWERMENT
Information to Public- Zoning

1. Fazilka Welfare Zone (Zone 1) - 95309-98100

2. Fazilka Welfare Zone (Zone 2) - 95309-98200

3. Fazilka Welfare Zone (Zone 3) - 95309-98300

4. Fazilka Welfare Zone (Zone 4) - 95309-98400

5. Fazilka Welfare Zone (Zone 5) - 95309-98500

6. Fazilka Welfare Zone (Zone 6) - 95309-98600

7. Fazilka Welfare Zone (Zone 7) - 95309-98700

8. Fazilka Welfare Zone (Zone 8) - 95309-98800

9. Fazilka Welfare Zone (Zone 9) - 95309-98900
Trip Profile: Other PT modes vs. Dial-a Rickshaw (VoT)

Start of Journey

Walking to Bus Stop/Auto Stand or Taking Rickshaw (Unutilized)

Wait at Stop/Station (Unutilized)

Boarding at Bus/Metro or other PT Mode

Vehicle Out Time

Utilized Waiting Time vs. Unutilized Waiting Time

Calling for Rickshaw from Home/Work Place (30 seconds)

Waiting Time of 5-10 minutes (At Home) (Utilized)

Boarding at Rickshaw

Vehicle Out Time
WEB PORTAL

www.ecocabs.org

- Database Management
- Mobile Site
- Ecocab centre Locator
- Resources and Literature
- Online Registration
Android App

- World’s first mobile based application for rickshaw services.
- Makes use of cutting edge technologies like Google Maps on Android to display Ecocab Center for easier searching.
- QR based Digital Identity cards for Cab operators.

Locate nearest Eco Cab

Call center using the inbuilt GPS of phone

Call rickshaw with single tap on Call button.
Online Registration-QR code technology

Details of Cab operator can be added to mobile contacts for future usage
World’s first Dial-a-Rickshaw Service

FAZILKA ECOCABS- SOCIAL ENTERPRISE
Stakeholders- Ecocabs

- Traction men
- Society and Environment
- Rickshaw
Benefits to Ecocab Pilots

Health Care
- Free OPD/Consultation from Leading 8 Private Nursing Homes
- Discounted Medicine from 3 Medical Stores
- Free/Discounted Pathology Laboratory Testing

Legal Help
- 5 Lawyer to Provide them Free Legal Aid
- Police Assistance and Training

Education
- Free School Bags for School going Children of Ecocab Operators
- Annual Scholarship of 1100/- to 5 Girl Child Studying in 10+1 & 2
- Free Computer Literacy by Two Computer Institutes

Lifestyle
- Free 1 Set of Woolen for Senior Rickshaw Pilots Annually
- Availability of easy loan at 4% under DRI from Nationalized Bank
Benefits of Ecocabs to Society and Environment

- Comfort
- Monitoring and Protection
- Road Safety
- Noise Reduction and Air Quality Enhancement
- Operational Efficiency
- Congestion Relief

Ecocabs
### Other Benefits to Residents

- Organized Intermediate Public Transport System at affordable price
- Saving of daily 900 litre of fuel from burning along saving of 14500kg fresh air required to burn that fuel-Environment
- Better law and order in the city- Dignified employment
- Quality Ecocab service with modern ergonomically designed Ecocabs.
- Another better option for residents as emergency healthcare facility like ambulance
- Facilitation for visitors and tourists of the city
- Reliable and Comfortable Facility for Senior Citizen and Ladies- Better accessibility
Proud to be the Part of

FAZILKA ECOCABS

Family

A Graduates Welfare Association Fazilka Initiative
Rickshaw improvements- Phase-II

- 0.25 Horse Power/ Light Weight
- With FM/Music and News Paper facility
- Rickshaw on Demand
- Ergonomically Designed Models like Femto and Nano
- Low Floor
- More Luggage Space
- Aerodynamically Designed, More Stabile and Safe.
- More advertisement Space
Research and Development

Model Femto- 2011

Model Nano 2009
Launch of New Ecocabs - Nano and Femto

Second Fleet of Ecocabs - Launch

Model Nano

Model Femto

Chief Secretary Punjab
Inaugurating Fazilka Femto
New Ecocab Stands at Fazilka
Ecocabs Stands

By Municipal Council Fazilka
Digital Empowerment

Specifications for Mobile Phone

- Dual SIM
- LED Torch
- Music Player
- Audio/Video
- Camera
- GPRS

Distribution of Mobiles at Subsidized Rates
Annual Ecocabs Family Trips

A Trip to Shri Amritsar Sahib
December 2011
Milestones- Ecocabs

- On 20th June 2008 by organizing group of 500 rickshaw operators in Fazilka, first time dial-a-rickshaw service was launched through five call centers.
- Different schemes are being taken up for the benefits of traction men.
- On 28th April 2010, honorable Punjab and Haryana High Court took suo-motu action on one of the news item published in Indian Express about Fazilka Ecocabs and ordered to introduce concept Ecocabs in each city of Both Punjab, Haryana State and UT Chandigarh.
- Concept Ecocab is now successfully working in 22 cities of Punjab.
- New Ecocab sheds were inaugurated in the Month of April 2011 at Fazilka.
- In June 201, Collaboration with BSNL for giving 900 dedicated GSM numbers in CUG and new fleet of Ecocabs Launched.
- On 29th October 2011 GSM based dial-a-rickshaw service launched with extended 9 call centers across the city along with dedicated website for Ecocab operations/ implementation www.ecocabs.org and Android Smart Phone Application for Fazilka Ecocabs.
- 6th December 2011 – National Award of Excellence for NMT Category- Urban Mobility 2011
Ecocabs

FINANCIAL MODEL
Financial Model
Each Traction men is a Stakeholder

Capital Cost 10,000/

@Rs 20/- per Day= 600/- Per Month
Advertisement Rs 500/- per Month
Operation and Maintenance = 100/- per Month

Breakeven Point 10-12 Months

Net Recovery Rs 1000/- Per Month

Quality Life of one New Rickshaw = 30=36 months
Carbon Credit Earning no Included
Financing Schemes—Financial Inclusion

• Reserve Bank of India’s Differential Rate of Interest Scheme under which loan is available at 4% annual rate of interest without any guarantee from any Nationalized Bank under Financial Inclusion.

• Joint Liability Groups (JLGs) as Priority Sector

• District Innovation Funds by Ministry of Finance

• **Additional Revenue through Advertisement**
Carbon Footprints

- Average Per Day Travel of Rickshaw: 45km
- Monthly Travel : 900km | (including off days)
- Total Annual of CO₂ Saved : 2.07 tones
- For 500 Ecocabs : 1035 tones of CO₂/annum (credit)
- Total Earning @ 13 Euro Per Carbon Credit : 13,455
- Indian Rupees Earnings : Rs 8.75 Lakh (Per Annum)*

- No of Tree Required 10.4 to offset 2.07 tones of Carbon emission: **5200 Trees** required to be planted. A tree planted in the humid tropics absorbing on average 50 pounds (22 kg) of carbon dioxide annually over 40 years

*Calculation of Modal shift from Motorized mode Trips to Rickshaw based trips are not taken into consideration for Calculations

Source: http://www.treeswaterpeople.org/support/support_carbon_personalcalc.htm

* 1 Euro = 65 Rs
## Environment and Social Benefits

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Fazilka Ecocab (Daily)</th>
<th>Punjab Ecocabs (Daily)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Availability</strong></td>
<td>500 Ecocabs</td>
<td>3 Lakhs (6 million)</td>
</tr>
<tr>
<td><strong>Ridership</strong></td>
<td>10,000 Passengers</td>
<td>60 Lakhs (6 million)</td>
</tr>
<tr>
<td><strong>Total Fuel Savings</strong></td>
<td>1500 Liters (Appox)</td>
<td>3 Lakh Litre (Approx)</td>
</tr>
<tr>
<td><strong>Total Fresh Air Saving</strong></td>
<td>15.2 kg required to burn 1 litre of fuel</td>
<td>1368 Ton</td>
</tr>
<tr>
<td><strong>Emissions/Exhaust</strong></td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td>550 (Direct n Indirect)</td>
<td>3.5 Lakhs</td>
</tr>
<tr>
<td><strong>Road Safety</strong></td>
<td>Zero Fatality</td>
<td>2 deaths in the year 2009 reported</td>
</tr>
</tbody>
</table>
Social and Environmental

WAY AHEAD – SCALE OF THE PROJECT
## Estimated Rickshaw/Ecocab Demand

<table>
<thead>
<tr>
<th>Type of City</th>
<th>Estimated Cycle Rickshaw Demand per Lakh Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier I</td>
<td>About 1000 Rickshaw</td>
</tr>
<tr>
<td>Tier II</td>
<td>About 750 Rickshaw</td>
</tr>
<tr>
<td>Tier III</td>
<td>About 500 Rickshaw</td>
</tr>
</tbody>
</table>
Indicators

• About 500 rickshaw families are getting benefits, free medical and educational facilities

• Affordable, accessible and comfortable means of Public Transport in small town and reduction in vehicle out time (VoT).

• Organized Network of Rickshaw operation, passenger information system, dial-a-rickshaw. IT Tools

• Global Recognition

• Each centre is getting about 30-40 calls for rickshaw. It is primarily a latent demand. (mainly car owners)

• Amendments in Punjab Cycle Rickshaw Act-1976, Licensing has been changed to Registration
Punjab and Haryana High Court on Ecocabs

‘Ecocab can become viable and eco-friendly means of transport’

High Court makes IE report on Ecocab a PIL, sends notices to Punjab govt

EXPRESS NEWS SERVICE
CHANDIGARH, APRIL 28

Taking cognisance of a news item, “With Ecocab, Fazilka shows the way”, which appeared in The Indian Express on April 26, Punjab and Haryana High Court Chief Justice Mukul Mudgal has converted it into a public interest litigation (PIL).

Taking suo motu notice of the news item, the chief justice held: “If the facts appearing in the report are correct, the matter deserves to be looked into in this court’s PIL jurisdiction.”

The order said: “With its (cycle-rickshaws’) transformation into Ecocab, it is on the way to become a viable and eco-friendly means of transport for all. It will be available on a phone call, to be made to Ecocab booths. The initiative is praiseworthy. Various organisations are said to be taking interest in the project. Ecocab has the potential to replace carbon dioxide emitting cars and other motor vehicles.”

A division bench comprising the chief justice and Justice Jasbir Singh has issued notices to the Punjab government.

The news item highlighted the role of School of Planning and Architecture (SPA), New Delhi, at the asking of Graduates’ Welfare Association of Fazilka (GWAF) in designing a lighter cycle-rickshaw named as Ecocab. The Fazilka Nano, as the model is named by a member of the GWAF, was launched on April 4 on the occasion of Fazilka Heritage Festival. Not only lighter in weight than the traditional rickshaw, it has been designed to give a comfortable ride to people travelling short distances in towns and cities, the report had noted.
Punjab Ecocabs-Network
Urban Mobility 2011 National Award of Excellence
NMT Category

Ministry of Urban Development
Government of India

in recognition of initiatives and exemplary efforts made by

Graduates Welfare Association, Fazilka
In category of Best NMT Project

Towards improvement in Urban Mobility in the City of Fazilka through promotion of cycle-rickshaw as a para-transit means of transport

By promoting and developing a dial-a-rickshaw project for cycle-rickshaws in the city of Fazilka, the Graduates Welfare Association has revolutionized the image of cycle-rickshaw and its pullers. The system not only provides a cycle-rickshaw at the commuter’s door step just by dialing a number, but also takes care of the families which are associated with this system. This successful branding and repositioning of green mode of transport needs to be commended.

Conferred this

Award for Excellence

on 6th December, 2011
in the 4th Urban Mobility India - Conference cum Expo
New Delhi

(Sudhir Krishna)
Secretary, Govt. of India
Ministry of Urban Development
Carbon Footprints, Financing and Rickshaw Acts

POLICY LEVEL INTERVENTIONS
# Policy Level Interventions - The Punjab Cycle Rickshaw Act -1976

<table>
<thead>
<tr>
<th>Existing Cycle Rickshaw Act</th>
<th>Proposed Amendments in Ecocabs Act</th>
</tr>
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<tbody>
<tr>
<td>Upper Age Limit for Traction Man 45 Years</td>
<td>No Upper Age Limit, Like Motor Vehicle Act, Purely based upon the Physical Fitness Parameter of Traction Man</td>
</tr>
<tr>
<td>Licensing System</td>
<td>One Time Registration instead of Licensing, Like Motor Vehicles- Fee Can be deposited for Yearly basis.</td>
</tr>
<tr>
<td>Renting of Rickshaw is Not Allowed</td>
<td>Renting is allowed with upper ceiling limits for fleet. This will encourage investment in this sector.</td>
</tr>
<tr>
<td>Outdoor Publicity Banned</td>
<td>5 Sqft Area on Ecocabs (Sides and Backs) is allowed /created for Advertisement to Generate More Revenue for Traction</td>
</tr>
<tr>
<td>Enforcement – Confiscation/Heavy Fines</td>
<td>Ecocabs Management Committees to Implement Enforcement Mechanism.</td>
</tr>
<tr>
<td>Complicated Registration Procedure</td>
<td>Single Door Clearance System/Outsourcing</td>
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Thank you