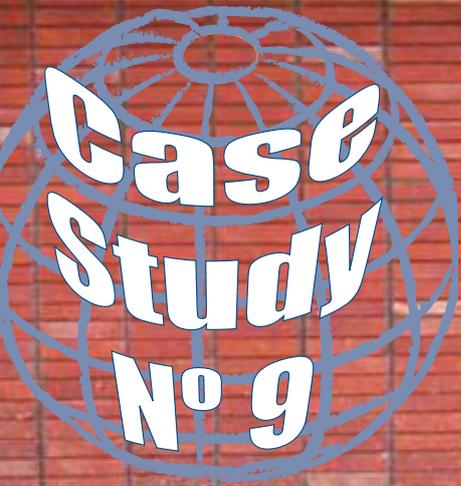




Federal Ministry
for Economic Cooperation
and Development



Fazilka Ecocabs

World's first Dial-a-Rickshaw scheme

Experiences and Lessons

Case Studies in Sustainable Urban Transport #9

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About the authors

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Vedant holds a Master of Science (Eng.) in Transport Planning and Engineering from the Institute of Transport Studies (ITS), University of Leeds, UK, and a Bachelor's degree in Civil Engineering from the Shivaji University, Maharashtra, India.

Navdeep Asija (born in Fazilka, Punjab, India) is the founder of dial-a-cycle rickshaw concept known as Ecocabs for which he won the 2011 National Award of Excellence by the Ministry of Urban Development, Government of India. Mr Asija is currently pursuing his Ph. D. on Road Safety from the Indian Institute of Technology, Delhi and works for the Government of India as a consultant.

Mr Asija's biggest accomplishment is the development of the Ecocabs concept, which is a dial-a-cycle rickshaw equivalent to normal cab services that use gasoline-powered automobiles. The recent development of advanced IT tools and the spread of cell phones have made it possible to balance the supply and demand of passengers and rickshaw taxis via a distributed fleet and automation. Mr Asija first demonstrated the concept of Ecocabs in Fazilka, the district headquarter of the Punjab State, which is located near the India-Pakistan border.

Fazilka Ecocabs

World's first Dial-a-Rickshaw scheme

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1. About Fazilka town

Fazilka is a municipal council city located in the district of Ferozpur, the State of Punjab, India. It is located only 11 km away from the India-Pakistan international border.

Demographics (as per 2011 National Census)

- **Population:** 76,492
- **Gender ratio:** male: 52%; female: 48%
- **Literacy:** 79.53% (male: 83.86%; female: 74.70%)
- **Population growth:** 2% per annum
- **Climate** (max/min): 45/2 degrees Celsius
- **Main exports:** Cotton, wheat, and rice

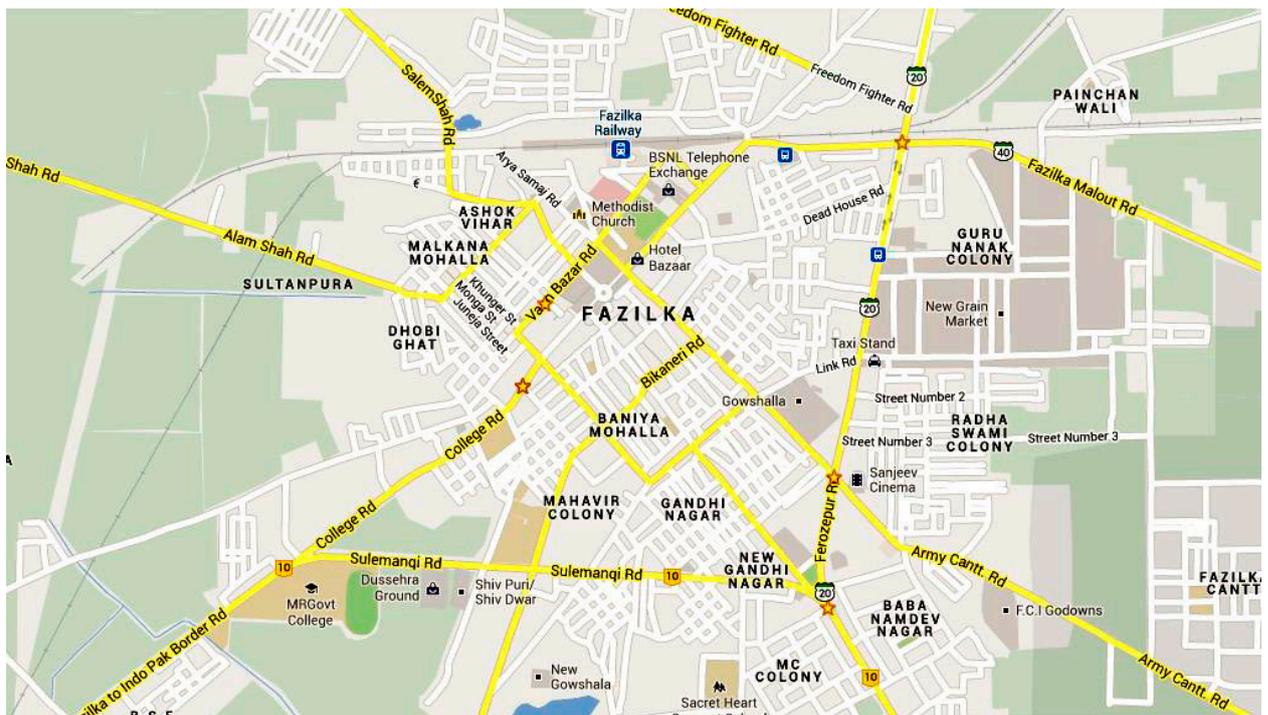


Figure 1: Fazilka city map. © Google Maps 2015

2. Problem statement

Lack of comfortable, convenient, and alternate transportation modes

The vast majority of urban India does not have any organised mass public transport. The absence or the failure of the government to provide organised mass public transport has led to a range of makeshift solutions for the provision of transport services. These may be classified as intermediate public transport (IPT) or para-transit.

IPT covers the space between private and mass public transport. IPT modes operate mainly in one of two ways. Commuters can either hire them for door-to-door trips, or they can operate as informal public transport by

carving out fixed routes and fares, e.g. share cabs or mini-buses. In India, cycle rickshaws were amongst the earliest forms of IPT.

In Fazilka, like in many small and medium Indian towns, cycle rickshaws have always been the primary mode of transport; however, their service levels were quite poor.

The cycle rickshaw drivers frequently overcharged, maintenance was variable, availability of cycle rickshaws was not uniform throughout the city, and the municipal council could not enforce service quality norms.



Figure 2: Rickshaw drivers waiting for clients. © Navdeep Asija

2.1 Lack of sufficient Cycle Rickshaw infrastructure

Infrastructure for Cycle Rickshaws

Registration of cycle rickshaws is compulsory in Fazilka. Previously, in terms of infrastructure, the Cycle Rickshaw Union had 5 permanent cycle rickshaw stands at the Bus Stand Fazilka, Sanjeev Cinema Chowk, Gowshalla Road Chowk near Clock Tower, Multani Chungi and Old Abohri Bus Adda near the Water Tank. Additionally, twenty other temporary locations were distributed throughout the city at each intersection.

However, it was observed that during peak hours of train and bus timings, availability of rickshaws went down within the city and there was always a surplus numbers of cycle rickshaws outside the railway and bus station.



Figures 3a, b, c: Temporary cycle rickshaw stands in Fazilka adding chaos to city traffic movement.
© Navdeep Asija



2.2 The state of Cycle Rickshaw pullers before the Ecocabs system was installed



Statistics

- Total number: 450
- Average trip length: <3 km
- Average daily trips: 10
- Average cost per trip: INR 10/-
- Percentage of leased rickshaws: 9%

Operational Cost

- Maintenance: INR 10/day
- Refreshment: INR 15/day
- If on leases: rent INR 20–25/day
- Rickshaw Union Fee: 0.50 paisa/day



Financing Options

- Cost of rickshaw: INR 8,500 (2008 year as a base price)
- No central/state governmental financing schemes to support small or temporary labourers
- Encourages private lending borrowing
- Often private lending rate of interest is as high as +50% per annum
- Equalling to around EMI 12 months @1,200/- month

Figures 4a, b, c: statistics.

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http://www.coresy.nl/wp-content/uploads/2012/09/vierkant_systematic_approach.jpg
http://globalfinance.zenfs.com/en_us/Finance/IN_AHTTP_BankBazaar_HOS_LIVE/personal-loan5.jpg

2.3 Challenges faced prior to the Fazilka Ecocabs program

Cycle Rickshaw Pullers	Customers	Administration
No dedicated cycle rickshaw maintenance facilities.	Cycle rickshaws are not available at the required time.	Difficult to maintain law and order in the absence of organised public transport.
The poor design of the rickshaws makes it extremely difficult to pull them thus taking a heavy toll on the health of a rickshaw puller.	Customers have to haggle for the trip.	Difficult to organise and set regulations for cycle rickshaw puller as most of them are migrants (<i>i.e.</i> seasonal and temporal workforce).
Outdated cycle rickshaw by-laws lead to harassment of the rickshaw pullers.	Exposure to foul language of the rickshaw pullers.	Disobeying traffic rules creates safety issues for both themselves and the passenger.
Arbitrary confiscation and scrapping of cycle rickshaws by police authorities.		Randomly refusing to offer services.
Exploitive owners of the cycle rickshaws as majority of the rickshaw pullers are seasonal and temporal migrants and do not own the cycles.		Charging of sometimes exorbitant prices for services.
Attitude of administrative officials towards the cycle rickshaws is socially and economically discriminating and a “cause of the problem”. Not respected as means of self-employment.		Parking of cycle rickshaws on the kerbside lane, causing obstruction to pedestrians and slowing down vehicular movements.

3. The concept of Ecocabs: Dial-a-Rickshaw scheme



About the Fazilka project Ecocabs

Ecocab is the name given to the traditional Indian rickshaw operation that offers additional features like Dial-a-Rickshaw through an organised network. Fazilka Ecocabs *Dial-a-Rickshaw* is a cycle rickshaw scheme which was first started in Fazilka, Punjab in June 2008. Navdeep Asija introduced Ecocabs as a philanthropy-driven social enterprise dedicated to improving service levels by organising rickshaw drivers in a self-regulated scheme. An additional rationale was to promote the usage of non-motorised transport and thus reduce the growth of vehicular pollution.

Mission Statement of Ecocabs – “Dial-a-Rickshaw” scheme

“... to organise and improve [...] the existing rickshaw operation using modern management tools and real time technologies for its promotion as sustainable para-transit mode [...] as an alternative to car centric development [...], for the benefit of traction men, society & environment to achieve the overall agenda of low carbon mobility.”
(*Graduates Welfare Association Fazilka, 2011*)

Objectives

- To raise the socio-economic status of rickshaw pullers and to try to eradicate hunger and homelessness.
- To encourage students, professionals, politicians, and bureaucrats to do their part in creating a better world with some value addition and design modification in the existing cycle rickshaw design in order to meet future challenges.
- To revitalise cycle rickshaws in Fazilka – where they are already supporting the livelihoods of more

than 450 poor families – as a sustainable mode of transportation.

- To reduce environmental pollution such as air and noise pollution.
- To promote sustainable transport (environmentally-friendly, inexpensive modes of transportation) in all of Fazilka and its nearby localities.

3.1 Three pillars of Fazilka Ecocabs



Figure 5: Three Pillars of Fazilka Ecocabs project.
© Vedant S. Goyal, Original Source: Navdeep Asija

In order to attract the attention of the commuters, the Ecocabs team upgraded the three basic elements of cycle rickshaw system, namely:

- cycle rickshaw themselves;
- the drivers;
- the society.

This was achieved by:

- strengthening the already existing unorganised network of cycle rickshaws;
- improving the quality of life of the working poor employed in the sector;
- promoting cycle rickshaws as a sustainable mode of transport, especially for short trips.

The upgrade resulted in better jobs for the poorer sections of the society, digital empowerment and progress towards saving the environment. Eventually, these three elements became the very pillars of the Ecocabs foundation and its success.

3.2 Principles of Fazilka Ecocabs

Step I – To provide rickshaw drivers and the coordinator with digital communication services



Figures 6a, b: Establishing low cost digital communication between Fazilka Ecocabs coordinators and Ecocabs rickshaw drivers.
© Navdeep Asija

In Step-I, the effort has been to improve accessibility by initiating a *Dial-a-Rickshaw* facility for users. A real time infrastructure was developed through handing over cheap mobile phones to the residents on a permanent basis and then creating a call centre to facilitate the process of hailing a rickshaw through a phone call.

The benefits of linking cycle rickshaw with technology are immense:

1. Any user has information on the demand of rickshaws through their phones (fixed and mobile);
2. By calling, the user can know the number of rickshaw stands and the availability of cycle rickshaws;
3. Unnecessary travel in search of parking or the search for alternate modes of transportation is reduced.

Step II – To divide Fazilka town into 9 zones/grids

To facilitate rickshaw access, Ecocabs mapped typical rickshaw routes and divided the city into nine zones, each zone comprising 1 km x 1 km. Zone-wise, all Ecocabs operators have been registered and given 3 digit

registration numbers. To further simplify this arrangement, the last three digits of each Ecocabs operator's mobile number are the same as their Ecocabs registration number.

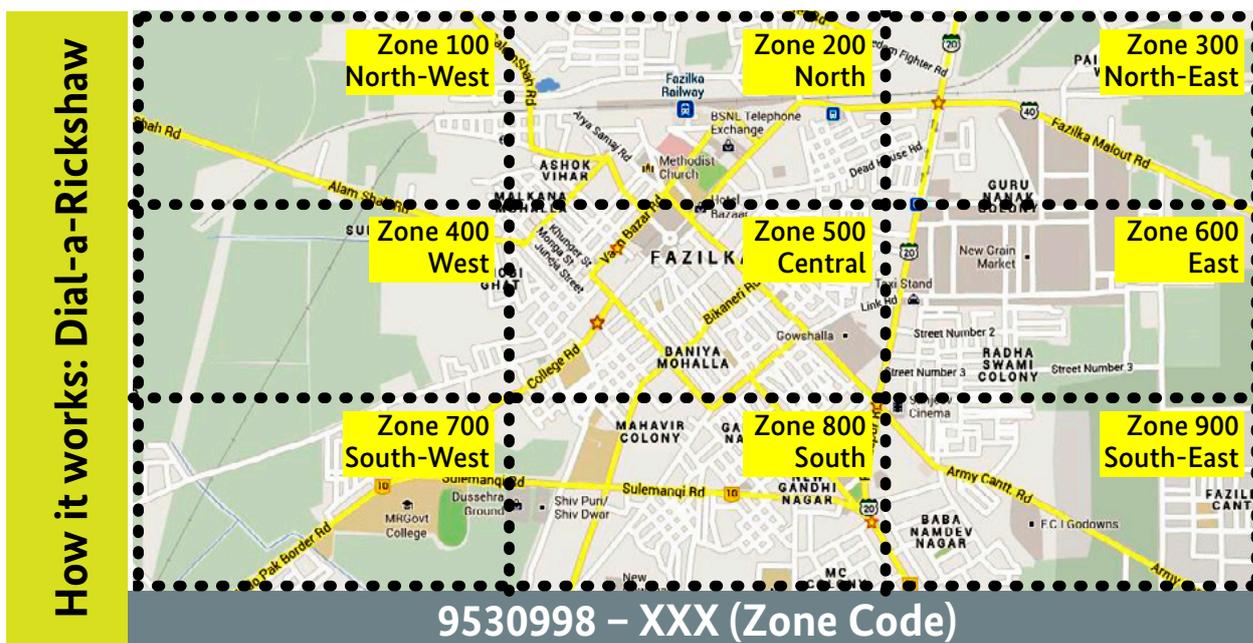


Figure 7: Zoning Plan of Ecocab Call Centres in Fazilka. © Navdeep Asija

The Municipal Council built rickshaw stands in five zones for the Fazilka Ecocabs Welfare Association (FEWA) which runs the scheme. These stands can be used by any cycle rickshaw driver, even those which are not

Step III – Fazilka Ecocabs: Dial-a-Rickshaw

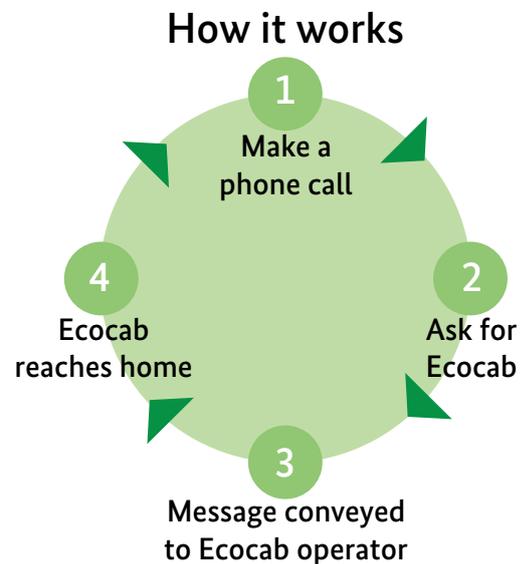
In lieu of rent-free space at the stand and a captive market of drivers, the tea vendor often acts as a coordinator, responsible for answering calls and dispatching rickshaws. A driver may also act as coordinator. Normally, the coordinator gets INR 0.50 per trip for each rickshaw operator.

The government-owned telecommunications company – Bharat Sanchar Nigam Ltd. (BSNL) – sponsors all of Ecocabs’ phone connections under a closed user group (CUG) scheme meaning that all calls within the group are free. This was the first time in India that a CUG was implemented on pre-paid connections. In return, BSNL

is guaranteed minimum annual usage of INR 400 per connection. This arrangement has led towards a reduction in average trip time, essentially because of the hub-and-spoke model of Ecocabs’ operations and the way in which each of the nine call centres have been strategically spread around the town. This allows Ecocabs to reach the desired location within 10 minutes after a phone call has been made. By facilitating household trips, Ecocabs helps to reduce the need for personal motorised trips within the city.



Figures 8a, b: *Fazilka Ecocabs- Dial-a-Rickshaw: How it works.*
© Vedant S. Goyal, Original Source: Navdeep Asija



3.3 Differences between Ecocabs and standard Rickshaw Operations

Standard Rickshaw Operation in India	Ecocabs Operation in Fazilka
It is largely being operated through an unorganised sector. At certain levels, some labour unions exist.	Ecocabs is about improvement of standard rickshaw operations by improving its accessibility to users at regional levels as an organised para-transit mode of public transport.
It is environmentally friendly, but due to the unorganised structure its usage is not very attractive.	It is environmentally friendly. The ergonomic design of Ecocabs also creates a win-win scenario for the rickshaw puller, commuters and the society at large.
The fleet consists of old heavyweight un-ergonomically and uncomfortable cycle rickshaws.	The key to Ecocabs operations is the improvement of existing rickshaw design along with the improvement of the overall operational system. Ecocabs thus consists of a fleet of both traditional and improved rickshaws.
Training, monitoring, customer support, and complete service industry parameters are unmonitored and unaccounted for.	Ecocabs operations are performed under the close supervision and association of individual experts, local NGOs, administrations, the government and rickshaw unions.
Not much consideration has been given to improving the living standard, operational difficulties, and infrastructure requirement of the traction men and their relevant social economic structure.	The key focus of Ecocabs operations is to improve overall quality and health standards for Ecocabs operators and their families so that rickshaws remain attractive.
No free educational and medical services are available to cycle rickshaw pullers and their families. In certain areas philanthropist activities are undertaken, but at large this sector has remained un-noticed.	Complete private education, government and health services and schemes are being extended to Ecocabs operators through its operational & monitoring partners.
Entire rickshaw operations are unequal in terms of revenue distribution.	Clear consideration has been given to demand and supply using the latest transportation planning tools, so that each individual should get an equal distribution of revenue to support his or his family's livelihood.
No health or accident insurance cover or any external benefits.	Free or subsidised health and accidental insurance up to INR 1 lakh is being given to each traction men followed by other private and government medical facilities, subsidised medicine and laboratory facilities related to their health.
No access to governmental micro-finance schemes. Only private locals are funding the credit requirements of the traction men, sometimes charging a very high rate of interest in the order of 30 to 100%.	Nationalised banks and international NGOs offer micro-credit schemes that are made available through a differential rate of interest scheme, charging a 4% per annum interest rate.
Exploitation, sometimes from police, politicians or locals. Lack of legal support.	Administration is fully supporting and due to the organised structure, it is difficult to exploit Ecocabs operators. Furthermore, their internal grievances are addressed with help of local volunteers, e.g. free legal and medical advice for traction men and their families, so that they can work with much more dignity and respect.

3.4 Typical trip profile comparison: other PT modes vs Fazilka Ecocabs

1. *Using traditional public transport systems:* Typical trip profile when using public transport in traditional way



Figure 9: Trip profile when using PT system. © Vedant S. Goyal, Original Source: Navdeep Asija

2. *Using Fazilka Ecocabs:* Trip profile when using Fazilka Ecocabs

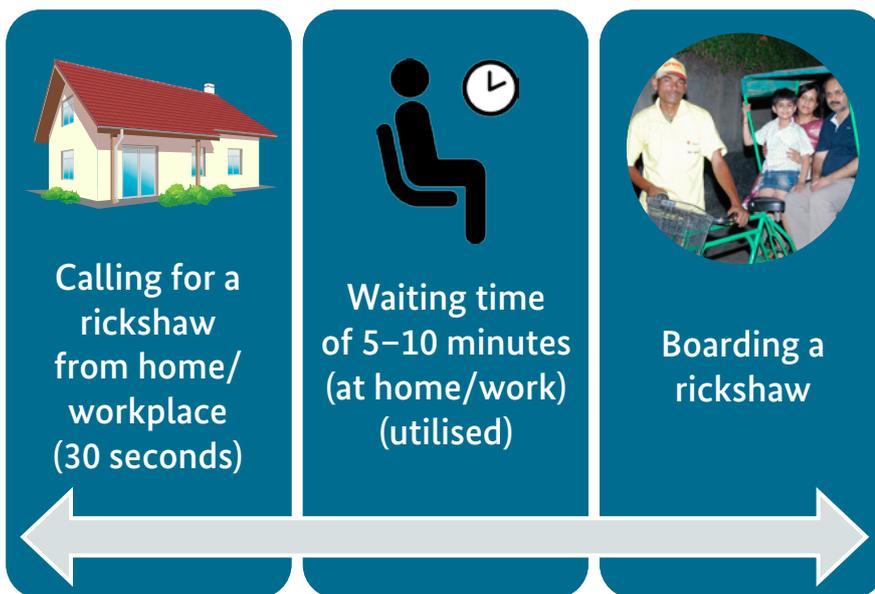


Figure 10: Trip profile when using Fazilka Ecocabs – Dial-a-Rickshaw scheme. © Vedant S. Goyal, Original Source: Navdeep Asija

Note: The comparison is specific to Fazilka. Other towns might have different scenarios.

3.5 Benefits of using the Fazilka Ecocabs scheme



Figure 11: © Navdeep Asija

In multiple ways, the Fazilka Ecocabs scheme has not only provided greater access, accountability, comfort, safety (especially for women and children), transparency, and reliability for passengers but also improved the working conditions of cycle rickshaw pullers. Careful redesign of existing cycle rickshaw in association with rickshaw manufacturers has resulted in a production of spacious, ergonomically designed, and safer rickshaws.

This has directly and/or indirectly benefited the drivers. The scheme has also contributed towards increased road safety and traffic calming by educating and training drivers alongside an upgrade and modernisation of existing infrastructure for rickshaw pullers. It has also promoted eco-friendly modes of transport for shorter trips. The following table summarises the key benefits of the three pillars of Ecocabs.

Table 1: Benefits of using Fazilka Ecocabs scheme

Cycle rickshaw puller	Customers	City administration
Comfort		Ease of monitoring
Operational efficiency	Protection	
Relief from motor vehicle congestion		
Reduction in noise pollution		
Improvement of local air quality		
Increase of road safety for the Fazilka road network		

3.6 Interviews

Cycle Rickshaw pullers

- Operations are regulated and protected under local laws;
- Better designed cycle rickshaws reduce the effort it takes to pull and therefore increase the average distance travelled (in kilometres) daily;
- Earnings increase as more customers are willing to use Ecocabs;
- Decrease in the daily hours spend on rickshaw pulling;
- Increase in job security and welfare provisions/ schemes for families of rickshaw drivers;
- Approximately three-fourth of Ecocabs drivers now own a rickshaw, a higher rate of ownership compared to other rickshaw operations.



Figure 12: © Navdeep Asija



Figure 13: © Navdeep Asija

Customers

- Better trip planning as a result of door-to-door service offered by Ecocabs;
- Trips are safer as registration for cycle rickshaw pullers are more stringent;
- Customer complaints against cycle rickshaw pullers are instantly acted upon (max within 24 hours).



Figure 14: © Navdeep Asija

City administration

- Better observance of traffic rules and civic discipline;
- Dedicated rickshaw stands or rest shelters mean less obstruction to other road users.



Figure 15: © Navdeep Asija



Figure 16: © Navdeep Asija

3.7 Other salient features of the the Fazilka Ecocabs scheme

Online registration-QR* code technology



Figures 17a, b, c, d: Details of cab operator can be added to mobile contacts for future usage. © Navdeep Asija

Fazilka Ecocabs management has introduced certain sets of rules for the cycle rickshaw men in order to avoid any tragic incident. The rules for the cycle rickshaw pullers (traction men) incorporate 30 days of temporary membership. After 30 days, with due approval of 7 members of the Ecocabs Management Committee, rickshaw drivers can be awarded permanent membership which offers traction men different sorts of benefits. There are also fines for drinking & driving, and specific rules for the dress code, etc. that each traction man has to follow.

Such rules and regulations have increased the safety of both the passengers and the drivers. The Ecocabs scheme also uses the referral system, where the passengers/users can nominate a rickshaw man or also provide feedback for the services to the Ecocabs community centre. This ensures that the safety of the whole system is not easily compromised.

* QR code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode.

Online information and Android application

The Ecocabs *Dial-a-Rickshaw* project in Fazilka also has its own online web portal (www.ecocabs.org) and an application for Android mobile phones. It allows users to search for Ecocabs call centres nearby, based on the user's location.

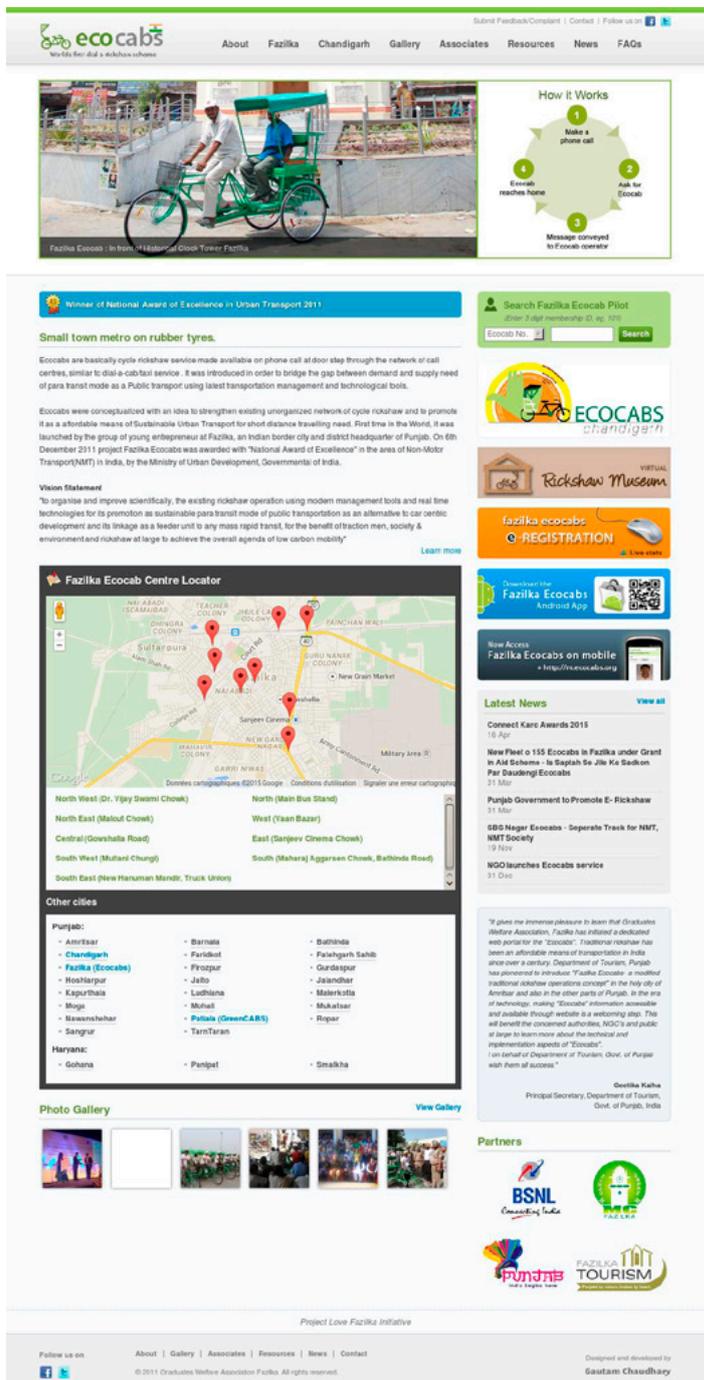


Figure 18: Dedicated Fazilka Ecocabs website for online information.

© www.ecocabs.org, screenshot captured by Vedant S. Goyal; Image Source: Navdeep Asija

The web portal is also available for free download onto Android phones. The application replicates all features of the website and lets the user look at the complete details of Ecocabs operations, contact details of pilots, directions, passenger information system. The portal and the application follow the Fazilka protocol of Ecocabs.



Figures 19a, b, c, d:
Fazilka Ecocabs on mobile.
© Navdeep Asija



4. Ecocabs leads the revolution towards promoting NMT in Indian Cities

4.1 Judicial intervention favouring the Fazilka Ecocabs scheme

With the order of honorable Punjab & Haryana High Court in 2010, the Fazilka Ecocabs concept has now been fully adopted by both Punjab and Haryana state in the north of India.

Following the Indian Express newspaper report “With Ecocab, Fazilka shows the way” (Chopra, 2010) which highlighted Fazilka’s pioneering role in promoting Ecocabs as a sustainable mode of transport, the Honourable High Court has issued notices to the Punjab government. Subsequently, the matter has been converted into a public interest litigation (PIL) by the Punjab and Haryana High Court Chief Justice Mukul Mudgal (Express News Service, 2010), asking “if such eco-friendly cycle rickshaws schemes can be implemented in Fazilka then why not in the rest of the both states”?

The recent order of the Haryana government to their department of local bodies has made this possible. Now more than 5 lakh rickshaw families are using the benefits of the Ecocabs scheme. Thus the small initiative is making big waves in the field of sustainability of urban transport in India.

4.2 Expansion of the Fazilka Ecocabs scheme

In the last few years, the popularity of Ecocabs has encouraged as many as 22 towns in Punjab to replicate the Fazilka experiment with considerable success.

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

■ Hight 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.

Figure 20: Fazilka Ecocabs gets Indian judicial systems support.
© The Indian Express newspaper, Chandigarh

Table 2: Expansion of Fazilka Ecocabs scheme in neighbouring towns

In the State of Punjab				In the State of Haryana
Amritsar	Nawashehar	Ludhiana	Gurdaspur	Gohana
Chandigarh	Sangrur	Mohali	Jalandhar	Panipat
Fazilka (Ecocabs)	Barnala	Patiala (GreenCABS)	Malerkotla	Smalkha
Hoshiarpur	Faridkot	TarnTaran	Mukatsar	
Kapurthala	Firozpur	Bathinda	Ropar	
Moga	Jaito	Fatehgarh Sahib		

Source: Navdeep Asija

The city of Chandigarh has been the latest addition, however with little modification to the original Fazilka Ecocabs concept. In Chandigarh, where the Rapid Rickshaw Transit was inaugurated on 23 August 2013, no mobile phones were handed out to the commuters. Instead, a mobile application has been developed to help them call a rickshaw. “Ninety per cent of the residents have a mobile phone in Chandigarh. Therefore, we decided not to supply handsets,” says Mr Asija.

The Android-based mobile app allows commuters to locate a rickshaw in the vicinity. The government already built 169 rickshaws stands in 47 sectors of Chandigarh, while stands in the remaining nine sectors have yet to be constructed. At present, 250 vehicles in 30 sectors serve commuters under the *Dial-a-Rickshaw* project in Chandigarh.



Figure 21: Fazilka Ecocabs scheme Ecocabs join Chandigarh’s public transport service. © Navdeep Asija

4.3 Proposed Amendments to the Punjab Cycle Rickshaw Act – 1976

Before the implementation of Ecocabs in Union Territory (U.T.) Chandigarh and other parts of Punjab, the Ecocabs team proposed few amendments to the existing “The Punjab Rickshaws (Regulation of License) Act, 1976” and other applicable Municipal Acts, so as to make rickshaw operations easy and desirable (Graduates Welfare Association Fazilka, 2011). The following table provides a brief overview of the proposed changes.

Table 3: Proposed Amendments to Punjab Cycle Rickshaw Act – 1976

Existing Cycle Rickshaw Act	Proposed amendments in Ecocabs Act
Upper age limit for traction men is 45 years	No upper age limit, such as in the Motor Vehicle Act, but instead purely based upon the physical fitness parameter of cycle rickshaw pullers.
Licensing system	One time registration instead of licensing, like with motor vehicles. Fee can be deposited on a yearly basis.
Renting of cycle rickshaw is not allowed	To encourage private investment in the cycling sector, an individual can rent out the cycle rickshaw. Earlier licenses were given only to those cycle rickshaw pullers who owned a cycle rickshaw under their name.
Outdoor publicity banned	Five square feet area on Ecocabs (sides and backs) to be allowed for advertisement to generate additional revenue for cycle rickshaw pullers.
Enforcement – confiscation/heavy fines	Ecocabs Management Committee to implement an enforcement mechanism.
Complicated registration procedure	Single permit window process that would make the registration process much simpler.

Source: Navdeep Asija

4.4 Reduction of the Carbon Footprint by using Ecocabs

- Average distance covered per day: 45 km;
- Monthly travel: 900 km (including off days);
- Total annual tonnes of CO₂ saved: 2.07 tonnes;
- For 450 Ecocabs: 1,035 tonnes of CO₂/annum (credited);
- Total earning @ EUR 13 per carbon credit: EUR 13,455;
- Indian Rupees earnings: INR 8.75 lakh (per annum);*
- Number of trees necessary to offset 2.07 tonnes of carbon emission: 5,200 units;
- A tree planted in the humid tropics absorbing on average 50 pounds (22 kg) of carbon dioxide annually over 40 years;
(Calculation Source: Trees, Water & People, 2015)
- EUR 1 = INR 65.

* Calculation of modal shift from motorised mode trips to cycle rickshaw trips are not taken into consideration for calculations.

5. Fazilka Ecocabs - a social enterprise



Figure 22: © Navdeep Asija

5.1 Financing schemes – Financial inclusion

“Swavalamban Benefit”: Each year the Fazilka Ecocabs Welfare Society (FEWS) motivates cycle rickshaw men to enrol in the Government of India’s National Pension Schemes (NPS). The nationalised (government sector) bank in turn provides them with all necessary services at their doorstep or via a single door clearance system.

Furthermore, banks also facilitate FEWS with following services:

- Opening up no-frills accounts with the bank;
- Arranging loans for rickshaw men under Differential Rate of Interest (DRI) schemes, Joint Liability Groups (JLGs) or any other scheme notified by the Bank or



Figure 23: © www.india.gov.in/spotlight/20national-pension-system-retirement-plan-all

Reserve Bank of India as a part of financial inclusion mission under priority sector;

- Time-to-time awareness camps regarding financial management and other government's welfare schemes;
- The financial Internal Rate of Return for the project has been estimated at 8% whereas the Economic Internal Rate of Return of the project is around 12%; indicating that the initiative is viable both with respect to financial and economic parameters within 2 years of operations (National Institute of Urban Affairs – PEARL, 2015).

5.2 The Fazilka Ecocabs financing model

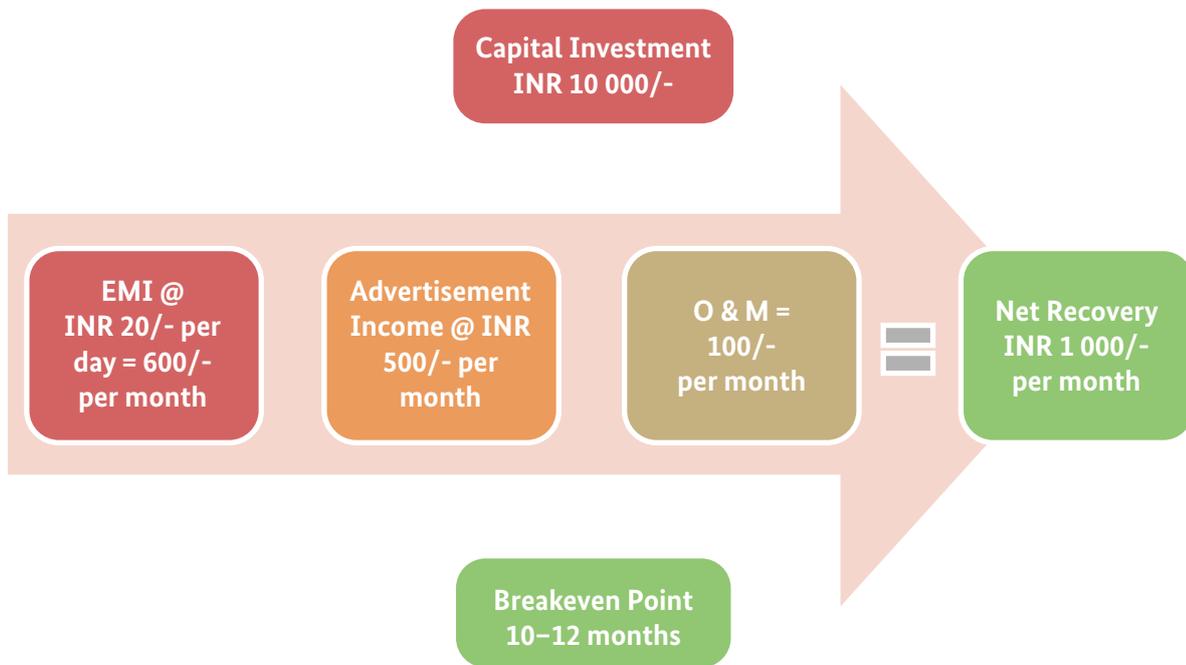


Figure 24: Financial model of Fazilka Ecocabs scheme. © Vedant S. Goyal, Original Source: Navdeep Asija

One Ecocab costs about INR 10,000 and financing is being organised through nationalised banks under the Reserve Bank of India’s (RBI) Differential Rate of Interest Scheme (DRI) at a 4% annual rate of interest. The bank levies a fixed 36 monthly installment of INR 300 per month from all cycle rickshaw pullers in order to recover its loans given to each purchaser of the Ecocabs. Overall organisation and registration of Ecocabs is being taken care of by the local representation of the state authority/department in association with local NGOs/partners.

Under the PPP model, corporate and FMCG companies are contacted for advertisements on Ecocabs. The additional revenue that gets generated through advertisements on Ecocabs is then given back to the traction men for the repayment of EMI on Ecocabs and for the smooth operation and management of Ecocabs.

Cities like Fatehgarh Sahib, Patiala, Fazilka, Moga and few other districts in the state of Punjab, have been able to attract more locals to adopt Ecocabs than other rickshaws (Graduates Welfare Association Fazilka, 2011).

5.3 Digital empowerment – Bridging the gap

The Fazilka *Dial-a-Rickshaw* concept is the best example of how modern intelligent systems can be a retrofit on the existing para-transit mode of transportation modes, such as rickshaws, which exist in every corner of the country.

Under an agreement with GWAF, Bharat Sanchar Nigam Ltd. (BSNL) provides free pre-paid mobile connections to the Ecocabs operators in Fazilka. These enable Ecocabs operators to talk to each other on their Ecocabs mobile numbers free of cost. Nine hundred prepaid mobile

connections had been provided under the Closed User Group (CUG). Under the CUG plan, a free SIM with life-time validity is given to each of the Ecocabs operators and they are provided with a special tariff under the “*Saral Anant*” plan that includes a 1 paisa per second (1 Indian Rupees = 100 paisa) calling rate to any landline/mobile phone across the country. Apart from that, all Ecocabs operators enjoy free calling amongst the network of 900 Ecocabs operators registered in the CUG. BSNL also waived off a INR 60 monthly tariff on CUG, along with providing them with a free SIM.



Figure 25: Mobile distribution to Ecocabs cycle rickshaw pullers.
© Navdeep Asija

Specifications for Mobile Phone

Dual SIM

LED Torch

Music Player

Audio/Video

Camera

GPRS

5.4 Annual Ecocabs trips

Family Trips



Figures 26a, b, c: Annual Fazilka Ecocabs family trips. © Navdeep Asija

5.5 Other benefits offered by the Fazilka Ecocabs scheme



Figure 27: Other benefits offered to Ecocabs members and their families. © Vedant S. Goyal, Original Source: Navdeep Asija

5.6 Fazilka Ecocabs statistics

Since June 2008, around 1,500 rickshaw men have benefited from the Ecocabs scheme in one way or another. At any moment, approximately 300–450 cycle rickshaws in Fazilka are members of the scheme. Those not participating are either seasonal drivers who also work as agricultural labourers, or drivers expelled due to disciplinary issues.

Moreover, the project has helped to increase the latent demand for cycle rickshaws and has contributed towards the improved well-being of rickshaw pullers and their families. Additionally, the Ecocabs services are operationally efficient and include benefits for the rickshaw pullers, users and society at large.

Table 4: Registered and beneficiaries of Fazilka Ecocabs scheme

Fazilka Ecocabs Stats	
Rickshaw Operators in Fazilka	450
Registered with Project Ecocabs	300–450 (approx.)
Beneficiaries of Project Ecocabs	1,500

Source: www.ecocabs.org

6. Awards and recognition

6.1 Recognition

CERTIFICATE OF REGISTRATION OF SOCIETIES
(ACT XXI of 1860)
No: 50 of 2012

I hereby certify that The Fazilka Ecocabs Welfare Society (FEWS)
Opp. Main Bus Stand, Fazilka, Tehsil & Distt- Fazilka

has this day been registered under the Societies Registration Act (XXI of 1860) and as amended by Punjab Amendment Act, 1957.

Given under my hand at FAZILKA this 16th
Day of August  two thousand and Twelve only.

Fee Rs. 500/-

Addl Registrar of Societies-
Cum-General Manager,
Distt. Industries Centre,
Fazilka *16/8/12*

Figure 28: Fazilka Ecocabs identified as Special Purpose Vehicle (SPV) under the Societies Registration Act (XXI of 1860) and as amended by Punjab Amendment Act, 1957, India.

© www.ecocabs.org

6.2 Fazilka Ecocabs recognised by Government of India – National Award 2011 for best NMT project

In 2011, Fazilka Ecocabs won the National Award for Excellence in non-motorised transport from the Ministry of Urban Development, Government of India (Nagpal, 2011). The project also received international attention as one of the 15 finalists for the SMART Mobility Enterprise (Nagpal, 2012).



Figures 29a, b: Fazilka team receiving the National Award 2011 for Excellence in NMT from the MoUD, GoI. © www.ecocabs.org



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

6.3 Fazilka Ecocabs project receives the Volvo Sustainable Mobility Award, 2013



Figure 30: Fazilka Ecocabs adjudged Runner-Up in 'The Volvo Sustainable Mobility Award – 2013'. © Navdeep Asija

Ecocabs was declared runner up for a unique initiative that combined sustainable mobility and social empowerment.

7. Key lessons, continuity and transferability

- The organisation of the NMT sector can supplement the transport demand in the city in a sustainable manner and also improve the financial status of the NMT operators.
- The success of this initiative lies in community participation and effective coordination between various departments of the government.



Figure 31: © Gagan, Gagan Photostudio, Fazilka

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List of Abbreviations

CUG	Closed User Group
DRI	Differential Rate of Interest
EMI	Early Monthly Installment
EUR	Euro
FEWA	Fazilka Ecocabs Welfare Association
FEWS	Fazilka Ecocabs Welfare Society
GWAF	Graduate Welfare Association Fazilka
INR	Indian Rupee (Rs)
IPT	Intermediate Public Transport
JLG	Joint Liability Groups
lakh	equal to 100,000 units
NMT	Non-motorised transport
NPS	National Pension Schemes
Paisa	100 Paisa = 1 INR
PPP	Public Private Partnership
QR	Quick Response Code
RBI	Reserve Bank of India



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