Experience Sharing
Guangdong Green Freight Demonstration Project

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Sep. 7, 2015
Outline

1. Project Overview
2. Project Implementation
3. Project Experience
1. Project Overview
Guangdong Green Freight Demonstration Project

- To improve the level of energy conservation of the freight transport sector
- To reduce GHG emissions
Project Components

Three demonstrations

- Green Truck Technology Demonstration
- Drop-and-hook Transport Demonstration
- Logistics Transaction Information Platform Demonstration

Four supports

- Guangdong Road Freight Public Information Platform
- Green Freight Policy Study
- Green Freight Training
- Dissemination and Promotion

Project Organizational Structure
Project Launching Ceremony
2. Project Implementation
Green Truck Technology Demonstration

Green Truck Technology Demonstration is divided into two phases, i.e., Phase I and Phase II.

**Phase I:**

10 logistics companies with 145 pilot trucks in Guangdong Province were involved.
Energy Efficient Technologies

- Energy efficient driving system
- Roof fairing
- Gap fairing
- Low rolling resistance tire
- Side skirt
- Light weighted semi-trailer
- Tire pressure monitor
- LNG truck
Fuel Saving Effect in Phase I Demonstration

Fuel saving ratio of large and heavy trucks based on Phase I statistics

- Low resistance tires: 3.91%
- Roof fairings: 2.86%
- Energy efficient driving system: 2.65%
Phase II

11 logistics companies with 1200 pilot trucks in Guangdong Province
Impacts of Demonstration

- Procurement in demonstration
- Procurement after demonstration

- Low resistance tires
- Energy efficient driving system
How did demonstration achieve technology transfer

- Provide subsidy at first to attract logistics companies to participate in the demonstration, then encouraged them to use energy efficient products, improve transport organization mode and informatization level.

- Publicize green freight concept and demonstration results through website, videos, posters and newspapers to expand the influence, making more people inside and outside the freight sector have a better understanding of green freight and energy conservation and emission reduction technologies.
Drop-and-hook Transport Demonstration

Pilot Company: Guangzhou City Star Transport Co., Ltd.

- In this demonstration, the pilot company's original drop-and-hook transport system is upgraded, thus improving the informationalized level and intelligence level for drop-and-hook transport, reducing the empty-load rate, and increasing the drop-and-hook transport efficiency.

Enhancing the efficiency of Drop-and-hook Transport

Informationalized management

Intelligent management
Data provided by the pilot trucks during September, 2014 to June, 2015 shows:
Road haul of pilot trucks for the three demonstration routes: 3 million km;
Freight volume: 53,000 tons; Freight turnover: 85 million ton·km;
Fuel consumption: 1.04 million L;
Average fuel consumption per hundred ton-km: 1.22 L.
Compared with the baseline period, the fuel consumption of drop-and-hook transport has been reduced by 43,700 L, with the fuel saving rate of 4.15%.
Logistics Transaction Information Platform Demonstration

Pilot Company: Guangdong Lin An Logistics Development Co., Ltd.

Guangdong Lin An Logistics Development Co., Ltd., by using mobile internet technologies, innovates its service modes, and develops systems including prepayment system, qualification and credit verification system, and credit assessment system. It also establishes the first third-party transaction and payment platform for the national logistics sector, which significantly improves the levels of information distribution service and logistics organization of the platform.
Sample data collected during September, 2014 and May, 2015 shows:
Freight volume of pilot trucks: **90,000 tons**; Freight turnover: **46.7 million ton·km**;
Fuel consumption: **702,900 L**; Fuel consumption per hundred ton·km: **1.51 L**.
Therein, through the information platform:
Freight volume: **85,200 tons**, accounting for **95%** of total freight volume of pilot trucks
Freight turnover: **42.36 million ton·km**, accounting **91%** of total freight turnover of pilot trucks
After the mobile APP put into use, the fuel consumption has been reduced by **24,400 L**, with the fuel saving rate of **3.2%**.
Interviewing truck drivers
Supporting Work

Green Freight Information Platform

Dissemination and Promotion

- Green Freight Financing
- Green Freight Training Materials
- Forums, Workshops and Expert Lectures

Training

Green Freight Policy Study
Materials for dissemination

Materials for Green Freight Training

Green Freight Policy Study
Operating Interface of Green Freight Information Platform
Left: Green Freight Forum;
Right: Guangdong Green Freight Management and Technical Training 2014
3. Project Experience
Make the demonstration based on local situation

Influencing factors for Phase I of Green Truck Technology Demonstration

1. Companies’ environmental awareness
2. Companies’ knowledge on energy efficient truck technologies
3. Relatively low subsidy
4. Accuracy of monitoring and evaluation
Number of pilot trucks in Phase I

145

- Simplify demonstration procedures
- Increase choices of truck energy efficient products
- Delete the products proved to be inapplicable in phase I demonstration
- Add the energy efficient products recommended by trucking companies and validated by market

Number of pilot trucks in Phase II

1200
Develop a long-term policy-supported system
Stakeholders

- Government departments
- Logistics companies
- Cargo owners
- Third-party companies

Knowledge involved

- Economics
- Law
- Engineering

Energy Conservation and Emission Reduction in Freight Sector
Policy study: study on energy conservation, emission reduction, transportation market restructuring, optimization of logistics organization modes, financing policy, etc.
Strengthen the publicity and dissemination on green freight concept
Project posters and exhibitions
Green Freight requires not only the joint efforts of government departments, transport associations and institutions and companies, but also the participation of the whole society. For next step, we should strengthen the dissemination of green freight concept so that the public knows more about Green Freight and realize the significance of energy conservation and emission reduction. More people participate in green freight, jointly working for a greener and cleaner earth.

Green Freight stands for the future direction of freight sector.

It's becoming the benchmark for logistics companies.
Thank you!