Feasibility Studies with the Aim of Developing Joint Crediting Mechanism FY2014

Project For Facilitating Streamlining of Waste Transport In Vietnam

New Energy and Industrial Technology Development Organization (NEDO)
Hitachi Transport System, Ltd., K.K.Satisfactory International
This project aims to reduce fuel consumption and GHG emission through ‘fuel optimization of transport vehicles’ and ‘reduction of transport vehicles’. Our target is transport companies which are responsible for municipal waste in HCMC, Vietnam.

**Study Overview**

This project aims to reduce fuel consumption and GHG emission through ‘fuel optimization of transport vehicles’ and ‘reduction of transport vehicles’. Our target is transport companies which are responsible for municipal waste in HCMC, Vietnam.

**Study Items**

1. Understanding the current situations of HCM municipal waste transport and infrastructure
2. Considering possible TMS (Transportation Management System) measures for waste transport in Vietnam
3. Considering equipment to use and theft prevention measures
4. Considering methods to understand reliable loading amount of waste transporting vehicles
5. Considering methods of system maintenance
6. Developing MRV methodology proposal
7. Calculating GHG emission reduction potential
8. Researching policies related to GHG emission reduction from transport sector in Vietnam
9. Considering and planning applicable finance scheme and assessment of feasibility

**Presumed reduction amount & Measuring method**

Reference emission amount is the amount emitted unless TMS is applied.

**Current situation & Reference**

Calculating GHG reduction amount based on fuel consumption such as diesel, gasoline, etc. as a result of applying TMS (optimizing waste transport vehicles, reducing the number of transport vehicles)

**Local partner companies & implementation location**

- HCMC Urban Environment Co., Ltd (CITENCO)
- Ho Chi Minh city, Vietnam

**Waste transport sector is an industry that releases a huge amount of CO2 emission. While transport amount is expected to increase in developing countries, potential CO2 emission reductions can be turned into reality through our plan in disseminating Japanese technology for optimizing waste transport.**
TMS (Transport Management System) to be applied in this project is the software that can receive distribution instruction data by interactive form, display the map, and then immediately allocate transport vehicles with loading capacity and possible routes.

Figure 1: TMS outline
By applying TMS which is widely used in Japan’s transport industry to Vietnam for waste transport sector, we could allocate trucks effectively and reduce the number of transport trucks (=transporting the same amount of freight by fewer trucks).

Figure 2 : Project outline figure

Current Situation
- Inefficient transport route
- Low loading rate

⇒ GHG emission is high

Project Benefits
- Reduce the number of trucks (20%) by allocating properly
  ⇒ Reduce GHG emission
- Monitor reduction amount properly by acquiring operation information
  ⇒ Establish a methodology (formula)