



**Sustainable Human Development Program**  
**[2017] PROJECT ACCOMPLISHMENT REPORT**

**I. Project Information**

**Project Code:** HDRGP (QUARTER 2) *[Signature]*

**Project Title:** Technical Assistance in the Implementation of the Market Transformation through the Introduction of Energy Efficient Vehicles (E-Trike) Project

**Project Start:** December 1, 2015

**Project End:** June 30, 2017 (*Note: The DOE is requesting for project extension through their letter dated May 18, 2017*)

**Project Price:** P13,650,000.00

**Client Organization:** Department of Energy (DOE)

**II. Project Team**

**Project Manager:** Mary M. Sagapan

**Team Members :** RL Jerlyn Oliva, Ron Allan Entrebillo, Noel Pelle, Editha Estanislao, Jenneffer Casalan, Regina Fernandez, Bernadita Garzon, Marites Yee

**Supervising Fellow:** Dorothea Boy-Navarro

**Consultants/ Resource Persons:** Ms. Ramonesa Ricardo, Ms. Ma. Esperanza Rasco, Ms. Carla Magalona

**I. Project Details**

**Project Description**

There are approximately 3.5 million registered internal combustion engine tricycles and motorcycles operating in the Philippines, contributing millions of tons of carbon dioxide emissions to the environment every year. These vehicles have a dramatic impact on air quality, affecting the lives of the Filipino people from multi-facets exposures to health hazards and climate change risks<sup>1</sup>.

Energy use in non-Organization for Economic Cooperation and Development (OECD)-Asia is expected to increase by 118% in 2035 while GHG emissions from the transport groups are expected to increase by more than 200% worldwide in 2030. Emissions from the transport sector represent 30% of air pollution, and a significant contributor is inefficient and outdated public transportation vehicles<sup>2</sup>.

As the Philippine economy continues to grow and energy demand increases accordingly, two scenarios are likely to happen:

<sup>1</sup> E-Trike Project Brief, 2014

<sup>2</sup> ibid



**Sustainable Human Development Program**

**[2017] PROJECT ACCOMPLISHMENT REPORT**

- A growing economy will lead to higher quality of life, more cars on the road, and a higher volume of greenhouse gas emissions; and
- A rising world demand for oil will result in higher gasoline prices for consumers.

Given these two scenarios, electric vehicles potentially are valuable solutions to address the nation's energy security while curbing the demands on net imports by growing consumers.

The Philippine government hopes to transform the public transport sector by widely adopting electric vehicles, specifically electric tricycles (E-Trikes) throughout the country. Electric vehicles are considered highly efficient; using up to 75% of their energy to power the vehicle versus only 20% used in most internal combustion engines. The e-trike produces no noise and zero tailpipe emissions and can be charged at night during off-peak electricity hours<sup>3</sup>.

In light of the above premises, the Department of Energy is implementing the project entitled "Market Transformation through the Introduction of Energy Efficiency Electric Vehicles" which aims to catalyze market transformation towards cleaner energy to contribute to energy security for the country and insulate the stakeholders from price volatility of petroleum products, through the introduction of energy efficient electric vehicles.

The DOE started implementing the project in 2013. Specifically, the project aims to achieve the following objectives: (a) encourage the adoption of 100,000 electric tricycles to replace old existing gas-fueled through a "rent-to-own" scheme; (b) achieve a 2.8% annual reduction in fuel consumption by the transport sector (based on 20 million barrels per year consumption per year); and, (c) achieve 79% emission avoidance by shifting 100,000 tricycles running on electricity (instead of gasoline). Avoided carbon dioxide (CO<sub>2</sub>) emission is estimated at 259,008 tons per year.

For years 2016 and 2017, the DOE will procure and roll out 20,000 E-Trike units nationwide to qualified local government units and organizations.

**Project Objective**

The scope of the technical assistance will focus on the conduct of capacity building programs to DOE, project partners and stakeholders. It will also include the conduct of profiling of tricycle operations nationwide and consultative meetings with partner agencies and LGUs for the E-Trike market build-up. The Academy will also provide logistical support during promotional run of launching of the e-trike units. The project will take-off on the previous accomplishments and initiatives done by the DOE in selected cities and municipalities.

<sup>3</sup> [www.adb.org/E-Trike\\_projects](http://www.adb.org/E-Trike_projects)





**Sustainable Human Development Program**

**[2017] PROJECT ACCOMPLISHMENT REPORT**

	<p>Specifically, the project aims to:</p> <ol style="list-style-type: none"><li>1. Conduct profiling of tricycle operations and focus group discussions with transport cooperatives/groups in selected LGUs in Luzon, Visayas and Mindanao;</li><li>2. Identify and build partnerships with financial institutions for the E-Trike Project;</li><li>3. Capacitate key DOE personnel, project partners and key stakeholders (e.g. Strategic Planning Workshop, Product Marketing, Best Practices, Technology Transfer on how to operate, use, trouble shoot e-trike unit, Records-keepings, Accounting and Documents-safekeeping, among others); and</li><li>4. Assistance in the marketing and promotion of the initial 3,000 e-trike units.</li></ol>
<b>Focus Area</b>	Professional Education, Sustainable Human Development
<b>Project Type</b>	Technical Assistance, Training
<b>Project Beneficiary</b>	Transport sectors and general public
<b>Regional Coverage</b>	National

**II. Project Accomplishments**

**Key Activities Implemented**

The major project activities conducted were focus on the promotion and marketing of the E-Trike Project since the initial 3,000 e-tike units has been awarded to the winning bidder and 1,200 e-trike units that has been manufactured.

The following were the project activities conducted for 2016:

1. Conduct of E-Trike Project Planning Workshop on April 4 to 8, 2016 in Baguio City.  
It was participated by 40 DOE Officers and staff headed by Usec. Donato Marcos of EUMB, three Project Implementation Consultants (PIC), and six DAP Project team members. The participants were able to:
  - a) Identified challenges to project implementation and mechanisms that will address these challenges;
  - b) Agreed on project results—outputs and outcomes—and specific roles in their accomplishment;
  - c) Identified strategies that would achieve desired results within the agreed time frames;
  - d) Designed a shared implementation framework that will define structures, stakeholder functions, roles and responsibilities, and operating systems; and
  - e) Documented these agreements in an operational plan for implementation by respective stakeholders after the workshop.
2. Conduct of E-Trike Project promotional activities with 19 LGUs, 30 transport



**Sustainable Human Development Program**

**[2017] PROJECT ACCOMPLISHMENT REPORT**

	<p>cooperatives, Cooperative Development Authority, two State Universities and other stakeholders.</p> <p>3. Conduct of 15 meetings with the DOE and other partners, one meeting and planning with the DOE Field Coordinating Units from Luzon, Visayas and Mindanao on March 4, 2016 in Davao City, and one Special Project Administration Mission (SPAM) with the ADB, NEDA, DOF, PIC, and DOE on September 6, 2016 held in the ADB Building.</p> <p>4. Conduct of Training/Workshop on the Harmonization of Republic Act (RA) 9184 Implementing Rules and Regulations (IRR) with the E-Trike Project Implementation on February 15 to 17, 2017.</p> <p>5. Conduct of Survey, research, and evaluation of solar charging stations and e-trike operation in Boracay Island, Malay, Aklan as input for the Policy Framework on E-Vehicles on May 24 to 26, 2017.</p>
Major Outputs	<p>The following were the major outputs of the activities conducted:</p> <ul style="list-style-type: none"><li>a. Profiling Reports;</li><li>b. Documentation Reports of activities conducted;</li><li>c. Planning workshop outputs;</li><li>d. Progress Report; and</li><li>e. Minutes of Meetings</li></ul>
Project Outcome/Impact	<p>The initial project impact is the increasing awareness of the LGUs, tricycle operators, drivers and other stakeholders on the importance of shifting from the traditional use of fossil fuels to alternative fuels such as e-vehicles e.g. e-trike. The use of e-trike vehicles will lessen carbon dioxide emission from the use of old tricycles. The DOE and DAP and other project partners continuously advocates the need to use alternative fuels e.g. e-vehicles to contribute to energy security.</p>
Lessons Learned	<ul style="list-style-type: none"><li>a) Regular meeting with the client is necessary to immediately address project concerns.</li><li>b) Managing the client, especially the former designated local counterpart who has strong personality, from the Office of the former EUMB Undersecretary is a challenging task. The project team members need to balance everything and handle discussions professionally.</li><li>c) The project budget is a fund transfer and requires submission of audited financial report. The Project Manager should ensure judicious use of the project fund to avoid disallowances.</li></ul>
Planned Activities for the	<p>The following are the planned activities for 2017:</p> <ul style="list-style-type: none"><li>a) Continuously assist the DOE on the promotion of the E-Trike Project with</li></ul>





**Sustainable Human Development Program**

**[2017] PROJECT ACCOMPLISHMENT REPORT**

Year (2017)

- LGUs and other possible takers;
- b) Profiling of tricycle operations;
  - c) Preparation and submission of project terminal and audited financial reports.

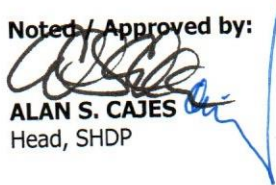
**III. Attachments**

- Summary of Evaluation for Course and Resource Person (for training program) – please see attached
- Certificate of Project Closure (for all completed projects) – **Note:** *The client requested for the project extension until May 2018 (since the MOA is still effective until May 2018). The DAP Project Team members is negotiating for the increase of PSF and CSF from the OPC to cover the personnel who will implement the project activities for the requested extension. The revise SO is not yet process.*

Prepared by:

  
**MARY M. SAGAPAN**  
Project Manager

Noted / Approved by:

  
**ALAN S. CAJES**  
Head, SHDP

**Notes:**

1. Project details on Section I-III can be generated thru PMIS based on PMs Inputs.
2. Project Managers are required to accomplish Section IV & provide Section V to reflect results of project implementation
3. Project Managers can update/adjust the pre-filled sections(I-III) based on actual data