

# Chapter 1

## Introduction

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# Chapter 1

## Introduction

### **1.1. Background and Objective**

In a series of studies since Fiscal Year (FY) 2012, the study team has conducted analyses on how to improve traffic flow for energy efficiency in the transport sector in major cities in East Asia Summit (EAS) region. Traffic problem can be categorized into two, national level and city level. The former represents issues such as rural development and high-speed or large-scale transportation among major cities. The latter represents issues such as urban design, daily commute, and traffic congestion. This study focuses on the latter aspect, city level issues.

From 2012 to 2014, we selected Jakarta in Indonesia as the subject for a case study in the first stage. One of the key findings of our 2-year study is that appropriate forward-looking investment is required in the initial stage of urban development. For instance, in Jakarta, traffic congestion has deteriorated considerably, and measures to improve the situation are limited. Improvement requires greater change in the existing system and massive short-term investment.

The EAS region has many other small- to medium-sized cities that will launch or have just launched explosive urbanization and motorization. Studies from 2015 onwards focus on these small- to medium-sized cities of the Association of Southeast Asian Nations (ASEAN). From the initial development stage of cities, appropriate measures must be implemented gradually to allow these cities to develop sound urban transport systems.

In this light, since FY 2014 we selected Da Nang City in Viet Nam as a subject of case study for the second period to address traffic problems in emerging small and medium-sized cities. From this analysis, we aim to derive policy recommendations applicable to similarly situated cities in the EAS region.

### **1.2. Rationale**

The rationale of this study is derived from the 17th Energy Cooperation Task Force (ECTF) meeting held in Phnom Penh, Cambodia on 5 July 2012. In this meeting, the Economic Research Institute for ASEAN and East Asia (ERIA) explained and proposed new ideas and initiatives for EAS energy cooperation, including strategic use of coal, optimum electric power infrastructure, nuclear power safety management, and smart urban traffic.

The participants exchanged views and agreed to commence proposed new studies. As a result, ERIA formulated a working group for the 'Study on Energy Efficiency Improvement in the Transport Sector through Transport Improvement and Smart Community Development in the Urban Area'. Members from Indonesia, Japan, the Philippines, and Viet Nam are represented in the working group, and the Institute of Energy Economics, Japan (IEEJ) acts as the group's secretariat.

### 1.3. Work Stream

In FY 2016, we undertook the following steps.

- (1) Analysis of the transport energy efficiency policy in Viet Nam at the national level (since national policies also have important implications for the development of transportation systems in domestic cities):

The study organized existing energy efficiency policy for transport sector in Viet Nam. Similar policy information was also gathered for Japan and Thailand to compare and find advantage and disadvantage of policy development in Viet Nam.

- (2) Case study of Da Nang City, evaluate the effect or impact of different future scenarios:

Da Nang City had implemented a long-term transport master plan which included the development of bypass road, and bus rapid transit (BRT) and metro system. However, we saw some delay in executing the plan as scheduled. Moreover, we observed a growing number of passenger car ownership and a slowing pace of motorcycle increase. These phenomena may have an impact on future oil demand in the city, hence we quantitatively analyzed the effects of these changes.

- (3) Development of policy recommendation:

With the results from study items (1) and (2), the study identified and proposed policy actions that could help achieve oil demand reduction and sustainable development of transport sector in Viet Nam, as well as Da Nang City.