# THE CONSIDERATION FOR THE POSSIBILITY AND LIMITATION OF CLIMATE CHANGE POLICY IN JAPAN

## Chika Nagamura

Keywords: subsidy, direct subsidy, policy based finance, tax expenditure, policy mix, carbon tax

### **1. PURPOSE AND BACKGROUND**

This paper (1) argues the potentiality and limitation of subsidies as a policy instrument for Climate Change measure in Japan, and (2) explores the position of subsidies on Climate Change policy in Japan. Subsidies have been used as the countermeasure for global warming in many countries. Japan also has adopted subsidies to reduce the amount of domestic greenhouse gas emission. Despite subsidies have been widely accepted by the sectors affecting the amount of greenhouse gas emission including industrial sector, transporting sector, commercial and business sector, and residential sector, the importance of their functions and roles remains to be examined in learning including Environmental Economics.

#### 2. APPROACH

This study classifies subsidies into direct subsidies, policy- based finance, and special taxation measures according to each characteristic. For analysis, this study uses case study approach based on literature survey to learn how subsidies play a role as a environmental policy instrument. The case study shows that subsidies have the possibilities to work with other substantial policy instruments reciprocally in environmental policy. On the basis of the case study, this research proposes that subsidies in policy mix as one of the measures for Climate Change prevention.

#### **3. CONCLUSION**

While other incentive-based policy instruments including carbon taxes and marketable emission permits are yet to be introduced in Japan, environmental subsidies as the only existing economic instrument for Climate Change measure in Japan play important role to urge greenhouse gas emitters to take provisions for Climate Change. This study shows that subsidies have the limitation to exercise their primary policy effect when they are used solely because of the scarce amount of budget and the absence of the goal for global warming policy.

On the other hand, subsidies have a highly potential to overcome their political weak points when they are conducted in combination with other policy instruments. Subsidies in policy mix with other policy instruments improve the effect each policy instrument and advance the substantiality of the whole environmental policy. As the possibility of policy mix for Climate Change measures, subsidies can be combined with carbon tax and emission permits, and agreement to reduce CO2 emission. Of several patterns of policy combination with subsidies, this study shows that the set of subsidies and carbon taxes is preferable since this policy mix promote the efficient reduction of CO2 emission, and secure the source of revenue for environmental subsidies.