

# **An evaluation of the Voluntary Action Plan on the Environment as a Means for Addressing Global Warming in the Industrial Sector**

Key Words : global warming, Netherlands, industrial sector, Federation of Economic Organizations (Keidanren), voluntary agreement, Voluntary Action Plan on the Environment

## **1. Background and Purpose**

Unlike in European countries where measures against global warming for energy and industrial sectors have been dominated by environmental (carbon) taxes or emissions trading, in Japan, the Voluntary Action Plan on the Environment of the Federation of Economic Organizations (Keidanren) (KVAP) has been the primary measure. Under the KVAP, participants (industry groups) are able to set their own goals and measures without direct influence from the government.

The purpose of this paper is to identify the problems of the KVAP and the means to solve them, by evaluating and analyzing the KVAP and other preceding studies.

## **2. Approach**

The KVAP is categorized as a Voluntary Agreement (VA), which has been in use worldwide since 1980s. The key advantages of a VA lie in its flexibility, as well as its capability to facilitate the diffusion of best practices and the promotion of environmental awareness. However, there are also shortcomings, such as allowing non-participants to become free-riders, the propensity by participants to set a low goal, and the lack of transparency and credibility. In this study, the VA in the Netherlands (Long-term Agreements: LTAs) and the KVAP are evaluated in terms of their environmental effectiveness, economic efficiency, equity, soft effect, and feasibility (transparency and credibility).

## **3. Findings and Conclusion**

It was found that rather than direct effects on the environment, the real impacts achieved through LTAs are: strengthened co-operation between the industry and the government through negotiations, and improved knowledge regarding the potential for reducing emissions in the industrial sector.

As for the KVAP, it was found that although some participants demonstrated exemplary efforts and managed to achieve positive reduction in overall emissions, on the whole the KVAP is still afflicted with problems of equity and feasibility.

Three measures undertaken to solve the problems of the KVAP are discussed. First, in order to improve the accuracy of the evaluation of measures undertaken by participants, and to reduce unnecessary burdens on the participants as is occurring in the present system, fixed CO<sub>2</sub> emission co-efficients should be used during the implementation period. Second, in order to resolve the problem of the gap in the recognition of the KVAP's impacts between Keidanren and the government, negotiations and consensus-building should be promoted. Third, in order to improve KVAP's equity and feasibility, a monitoring system which discloses the participant's emissions and measures should be implemented. It is expected that these three measures can contribute towards the further development of the KVAP as an effective instrument for combating climate change.