### IDE Research Bulletin

Research Summary based on papers prepared for publication in academic journals with the aim of contributing to the academia

The international policy diffusion and fragmentation of environmental regulations

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### The international policy diffusion and fragmentation of environmental regulations

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### **Background of Objectives:**

In the field of environmental regulation, regulations and rules used to deal with problems are formed in individual countries, while seeking compatibility and linkage with each other; that is, a kind of "policy diffusion" has been observed in Asia. There are four examples well address the policy diffusion. In recent years, firstly, the fact that similar policies of the RoHS Directive and REACH Directive on the regulation of chemical substances formed in each country. Secondly, policies of hazardous waste management (HWM) increased in emerging Asian countries. The third is the regional and domestic emission trading schemes (ETSs) to reduce greenhouse gases emission with expansion of carbon markets. And lastly is the enhancement of environmental provisions in regional trade agreements (RTAs). In the research project, it analyzed the dynamics, as well as the causes, the consequences of policy diffusion, which may also create "fragmentation" between environmental regulations, through RoHS/REACH, HWM, and ETS cases. The project conducted empirical study across different fields and to compare the impacts between these issue-areas. It also analyzed how environmental provisions in trade agreements contributed to the spread and division of environmental regulations.

### 1. Policy Diffusion and the Fragmentation of Environmental Regulations in Asian Countries

### Fang-Ting Cheng, Etsuyo Michida, Michikazu Kojima, David Vogel

To capture the global effect of policy diffusion, which occurs in some countries, but not others, the universe of diffusion situations needs to be addressed. This paper argues that regulatory diffusion to follower jurisdictions can be classified into three types: diffusion, non-diffusion, and partial diffusion. It examines why some environmental regulations diffused across several, but not all, Asian countries, resulting in the diffusion and non-diffusion of regulations. This paper also shows that even when countries adopt innovative regulations from other jurisdictions, original regulations are modified and different provisions are adopted. Modified provisions create the partial diffusion of regulations. Diffusion, non-diffusion, and partial diffusion of environmental regulations are analyzed using case studies of three environmental issues: the regulation of toxic chemicals in products, hazardous waste management, and emissions trading schemes for greenhouse gas emissions. These are analyzed across 13 Asian countries. Using these case studies, this paper demonstrates that the three types of regulatory diffusion occur owing to differences in the causal factors underlying adoption among countries.

# 2. Policy Diffusion of the Emission Trading Scheme in China: Progress and Prospects

### **Fang-Ting Cheng**

This study examines policy diffusion in relation to greenhouse gas (GHG) emissions trading schemes (ETSs), and particularly those for CO<sub>2</sub> emissions, including the causes, determinants, process, and impacts. It argues in a centralized political system with highly and widely differentiated local circumstances, policy diffusion is progressed through a more complicated process, presented as a three-tier process in the paper, illustrating how international arrangement, national jurisdiction and local administration interact and influence policy-making in a follower's jurisdiction.

Regarded as an efficient method to reduce GHG emissions, the first ETS was implemented by the European Union in 2005; schemes are currently in use in more than ten jurisdictions and are under consideration in many other countries and cities. China, which is now the biggest GHG emitter, is preparing to establish a national ETS in 2017. So far, seven sub-national governments have introduced ETS pilot programs to

determine best practice for the forthcoming national scheme. These seven pilots, especially the relatively successful ones, are found to be motivated by a competitive relationship that aims to stabilize its carbon market, which may eventually contribute to the progress of policy diffusion of the ETS in China.

## 3. Enactment of Industrial Hazardous Waste Management Regulations in Asian Developing Countries

### Michikazu Kojima and Fang-Ting Cheng

Hazardous waste regulations have been enacted in Asian developing countries since the latter half of the 1980s. In this paper, we summarize the process of formulating hazardous waste regulations and their implementation in twelve Asian countries: South Korea, China, Singapore, Malaysia, the Philippines, Thailand, Indonesia, Vietnam, Cambodia, Lao PDR, Myanmar, and India. We identified common factors affecting the enactment of hazardous waste regulations. Industrialization and the implementation of regulations for air and water pollution control were major factors. Improper management of hazardous waste generated from domestic industries and imports raised public concern regarding industrial hazardous waste. In the process of formulating and implementing regulations, international assistance contributed to drafting regulations, inventory studies, and feasibility studies of integrated hazardous waste treatment and disposal facilities.

# 4. Policy Diffusion and Fragmentation of Environmental Regulations through Environmental Provisions in Trade Agreements

### Akiko YANAI

With the growing interest in environmental issues in the global community, environmental provisions have been increasingly introduced into regional trade agreements (RTAs). This paper examines whether environmental provisions in RTAs function as a device to diffuse environmental regulations from developed countries to developing countries.

The ways for incorporating environmental provisions into RTAs are different in each case. The effect of the extent of environmental provisions varies as well. While environmental provisions in RTAs signed by the European Union (EU) and the United States can serve as the vehicles of environmental policy change in the developing

countries, Japanese RTAs have rarely influenced on environmental policy in partner countries. Even though US and EU RTAs affect domestic environmental policies, however, these influences are limited to the general policy reform like creation of an Environment Ministry. This is mainly because environmental provisions in RTAs stipulate rather general issues such as enforcement of environmental laws, commitments to maintain or improve environmental standards, and environmental cooperation, not specific detailed environmental regulations.

### **Overall Findings**

Through the case studies in different issue-area, it is found that whether or not to introduce environmental regulations is significantly influenced by the domestic circumstances in each country, despite policy diffusion has been argued as a kind of trend in global governance. The reasons for the phenomenon was analyzed as a result of market access, avoidance of pollution haven, harmonization of domestic standards, strengthening of environmental protection, and reduction of abatement cost.

Meanwhile, due to the various domestic circumstances of each country, among the countries who have respectively introduced regulations and rules, sometimes those regulations and rules are not compatible, or even conflicting with each other, thus caused a situation so-called "fragmentation" among regulations.

In the case where the regulations contradicting with each other, policy diffusion becomes a situation inconvenient for manufacturers and companies who are seeking convergence of rules. Therefore, new problems arose, that need to be further addressed and improved within respective jurisdictions.

On the other hand, in the case of the environmental provisions in trade agreements, despite the situation that the provisions have been widely introduced due to the influence of the European Union and the United States, the fragmentation is not noticeable. It is because the provisions are so far no more than general issues such as policy reform concerning environmental protection.