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國際學碩士 學位論文

**Export Restrictions on Natural Resources:  
China's Export Restraints on Rare Earths**

천연자원에 대한 수출제한:

중국의 희토류 수출제한

2012 年 8 月

서울대학교 國際大學院

國際學 國際通商 專攻

洪 梨 境

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중국의 희토류 수출제한

A thesis presented

by

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to

Graduate Program in International Commerce  
For the degree of Master of International Studies

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**Graduate School of International Studies  
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Seoul, Korea**

# 천연자원에 대한 수출제한: 중국의 희토류 수출제한

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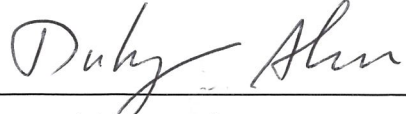
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# **Export Restrictions on Natural Resources: China's Export Restraints on Rare Earths**

## **Abstract**

Export Restrictions on natural resources have recently become an increasing source of conflicts in the international trade. In particular, the rare earth has been a matter of great concern among the world's strongest economic powers. Here, three methods to address the rare earth issue, diversification of production, development of technology for substituting rare earths and resolution through the WTO dispute settlement system, are reviewed and I chose to focus on resolution through the WTO dispute settlement system. The affected countries are exploiting all three methods simultaneously, not depending on only one method. Among three methods, diversification of production and development of technology are ways for the countries to promote independently without much need of consultations and understandings between countries. The resolution through the WTO dispute settlement, however, involves dynamics among the related countries, including all the political, economic and legal aspects. Thus, I believed that the method was worthy to analyze for the thesis of international studies, which included politics, economics and law in the course

of studies to help foster a broad understanding of the events in the international arena.

Bringing the issue before the WTO includes all the three aspects and China is thought to be pursuing policy objectives which are consistent with the WTO Rules such as protection of the environment and preservation of exhaustible natural resources and inconsistent with the WTO rules such as having pricing power and benefiting downstream industries at the same time. China should avoid unfair practices of export restrictions and be aware that it would be harmful for China to pursue some policy objectives inconsistent with the WTO rules in the long term. The United States, the European Union and Japan, for their parts, should understand environmental concerns of China regarding rare earths and they are not entitled to force China to produce rare earths at cheap prices forever.

**Keywords:** Export Restrictions, Rare Earths, WTO Dispute Settlement System

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## **I. Introduction**

### **1. Research Question**

China's export restraints on rare earths caused a spike in prices of rare earths and raised fears of unstable supply of rare earths. Accordingly, there is widespread discontents among countries which import rare earths. This year, the United States, the European Union and Japan brought the issue before the World Trade Organization. In this thesis, it will be examined whether the WTO dispute settlement system can help resolve the issue and what kind of significance the fact that the three world's strongest economic powers filed a joint complaint against China before the WTO can have.

### **2. Literature Review**

As rare earths became an important issue recently, particularly after the dispute near Senkaku Islands between China and Japan in 2010, most of related studies came out after 2010. Furong Jin·Oh JongHyuk(2011a)<sup>1</sup> review the

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<sup>1</sup> 김부용·오종혁. 2011a. 「중국 내 희토류 산업 관리 강화와 향후 전망」. 연구자료 11-10호. 대외경제정책연구원.

backgrounds that rendered China set out to enforce the management of the rare earth Industry and explain the specific contents of the management by each ministry. In addition, they go on to predict that China will further enforce the management in an attempt to protect the environment and have pricing power of rare earths. Furong Jin·Oh JongHyuk (2011b)<sup>2</sup> seek to figure out the impact of the regulations on the rare earth industry in China. For this purpose, they conducted interviews with some related Korean and Chinese corporations. Baris Karapinar(2011)<sup>3</sup> believes that the reason why export restrictions have become an increasing source of disputes is that the regulations on export restrictions in the WTO rules are not sufficient and tries to suggest a way to improve the WTO rules regarding export restrictions. Bin Gu(2011)<sup>4</sup> mentions that rare earths might test the WTO's loopholes and suggest ways to fill the loopholes. Jane Korinek and Jeonghoi Kim(2011)<sup>5</sup> deal with export restrictions on strategic raw materials and their impacts on trade in a OECD report. They express that their goals are to collect and provide information as much as they can, thus, the

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<sup>2</sup> 김부용·오종혁. 2011b. 「중국의 희토류산업 규제 강화에 따른 영향과 시사점」. 연구자료 11-23호. 대외경제정책연구원.

<sup>3</sup> Baris Karapinar. 2011. "Export Restrictions and the WTO Law: How to Reform the 'Regulatory Deficiency'". *Journal of World Trade*.

<sup>4</sup> Bin Gu. 2011. "Mineral Export Restraints and Sustainable Development-Are Rare Earths Testing the WTO's Loopholes?". *Journal of International Economics, Oxford University Press*.

<sup>5</sup> Jane Korinek and Jeonghoi Kim. 2011. "Export Restrictions on Strategic Raw Material and Their Impact on Trade and Global Supply". *Journal of World Trade*.

report is informative, not having strong arguments. Mitsuo Matsushita(2011)<sup>6</sup> conducts legal analysis on the China-Raw Materials case. Stormy-Annika Mildner and Gitta Lauster(2011)<sup>7</sup> discuss what kind of limitations that international trade law has in settling trade disputes over natural resources.

### **3. Significance of the Thesis and its Structure**

Most of the articles on rare earths focus only on either legal or economic analysis, dealing only one aspect. However, political, economic and legal issues are intertwined in the issue. Even though the relevant countries chose to deal with the issue through the WTO dispute settlement system, the political issues should not be overlooked arising from the battle among the major powers. Specifically, the rare earth issue has political, economic and legal issues such as weaponization of strategic natural resources such as rare earths, unstable prices and supplies of rare earths due to export restrictions of China and the impacts on international trade, and imperfection of international regulations on export restrictions. In this thesis, though the focus is on the dispute resolution through the WTO dispute settlement system, it will deal with economic and political

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<sup>6</sup> Mitsuo Matsushita. 2011. "Export Control of Natural Resources: WTO Panel Ruling on the Chinese Export Restrictions of Natural Resources". Trade, Law and Development.

<sup>7</sup> Stormy-Annika Mildner and Gitta Lauster. 2011. "Settling Trade Disputes over Natural Resources: Limitations of International Trade Law to Tackle Export Restrictions". Journal of International Law.

aspects surrounding the issue as well. The thesis has its significance in that it examines the WTO dispute settlement as a way to address the rare earth issue and analyze its distinctive meanings.

For this, in the introduction part, first, I will clarify my research question and review previous studies on the issue and then compare the methods for resolving the issue and find the significance of the thesis. Then, I will compare the three methods to resolve the issue and examine the content and significance of the dispute resolution through the WTO. Lastly, I will try to provide suggestions for the countries concerned and the WTO rules regarding export restrictions.

## **II. Methods to Address the rare earth issue**

There would be several ways to help resolve the rare earth issue. In this thesis, I will deal with three main methods and compare them. First, they can seek to diversify the production as over 90% of the rare earth production is conducted in China. Second, they can develop alternative substances to replace rare earths so that they do not need to rely on rare earths from China any more. Lastly, the affected countries can seek to solve the issue through the WTO dispute settlement system. The first and second methods contain relatively less political issues as they can promote them independently without much need of consultations and adjustments with China. In contrast, the dispute settlement under the WTO is a method which needs consultations and adjustments among related countries, thus having room for involving political issues as well as legal issues. Currently, major importing countries of rare earths are promoting all the three methods at the same time. Here, I will explain the characteristics of the three methods and the reason why I focus on the method which uses the WTO dispute settlement system.

## **1. Diversification of Production**

Around 97% of rare earths are being produced in China, however, approximately one-third of rare earths are buried in China. In other words, most of rare earths are produced in China, but the reserves are relatively widespread. Against this backdrop, it is said that rare earths are in fact not so rare.

Up until the 1990s, the United States produced rare earths in its territory and it covered 100% for its domestic use. However, severe environmental pollutions took place in the course of production and they could not compete with cheap rare earths from China. For these reasons, they brought the production to a halt. As China imposes export restrictions on rare earths and the prices soar, they are trying to reopen the mines, which stopped mining rare earths. The United States reopened the Mountain Pass in 13 years, the world's largest rare earth mine in the past, which shut down due to cheap rare earths from China and environmental pollutions caused by polluted water.<sup>8</sup>

However, it should be noted that these mines closed as they had no competitiveness in price. Thus, if China suddenly withdraws export restrictions on rare earths and the prices drop accordingly, then they will not be able to

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<sup>8</sup> 한국경제. 2011. “세계는 지금 희토류 자원 경쟁중”, 2011년 12월 4일.  
<http://www.hankyung.com> (Access Date: April 18, 2012)

enjoy profits from producing rare earths. On the contrary, if China keeps putting export restrictions on rare earths as now or further reduces export quotas on rare earths and promotes stricter export restrictions on rare earths, then, they will gain profits. However, it is still possible that china eliminates export restrictions on rare earths when other countries start to produce rare earths and, for this risk, other countries might have some hesitations to resume the production. In addition, even if they decide to resume mining rare earths, it will take some time to supply rare earths in the market.

## **2. Development of Alternatives**

Once it was believed that it was hard to replace rare earths, however, as the prices of rare earths skyrocket and there are even dangers that they fail to be supplied with enough rare earths for their industries, countries have sought to develop alternatives of rare earth materials. Japan, the largest consumer of rare earths, has been at the forefront in such efforts. Japan is actively supporting those efforts at the governmental level, promising to inject 12 billion yen for the development of alternative technologies and also provide 46 billion yen for the development of minerals. Japan already succeeded to come up with an electric car that does not need rare earth materials. In addition, Honda, the Japanese car



manufacturer, developed recycling technologies of rare earths and started to utilize recycled rare earths.

Up to date, it is impossible that alternative materials replace rare earths in all fields, and recycling has certain limitations, thus, development of technologies that helps reduce the dependence on rare earths is not a solution that can address the rare earth issue in the short term. However, it is still noteworthy that people found out that rare earth materials once believed to be irreplaceable can be replaced by alternative technologies. In September 2010, during the incident which took place near Senkaku islands, Japan realized the power of rare earths. In the incident, as Japan detained the Chinese captain when the Chinese vessel intruded the territorial waters of Japan, China, in response, suddenly completely prohibited the exportation of rare earths to Japan and Japan had to release the captain immediately with outcries of Japanese companies. This kind of action made Japan spur the development of alternative technologies.

As such technologies can make the countries no more depend on rare earths, it would be the ultimate solution for the rare earth issue. However, it might be impossible to replace all kinds of rare earths, and even if it is possible, it can take a long period of time, thus, it would be wiser to utilize other solutions at the same time.

### **3. Resolution through the WTO Dispute Settlement System**

As another way to resolve the rare earth issue, the affected countries can seek to deal the problem through the WTO dispute settlement system. The United States, the European Union and Mexico won the case regarding the exportation of certain raw materials filed in 2009 against China. China appealed and the Appellate Body report came out this year. The Appellate Body upheld most of decisions made by the panel. The Appellate Body ruled that China was entitled to invoke the general exceptions under GATT XX regardless of its commitments made in China's WTO Accession Protocol. However, even so, China's export restrictions on certain raw materials violated the WTO law as the measures taken discriminated against foreign consumers.

In this year, the United States, the European Union and Japan together filed a complaint against China regarding export restrictions on rare earths. Though, in China-Raw Materials case in 2009, the raw materials in question did not include rare earth materials, it is expected that similar decision will come out as basic legal issues and measures taken are almost the same. Thus, many anticipate that China is likely to lose this case as well. The fact that the three major economies filed a complaint against China before the WTO has economic and political implications as well as legal ones. This is the first time that the three major economies filed a complaint together at the WTO and the fact that

the three economies acted together against China itself can serve as a threat to China.

Though China is alleging that its measures already comply with the WTO law, it is encouraging that China is reiterating its will to abide by the WTO law. This makes the WTO dispute settlement system appear as a feasible way to deal with the rare earth issue. The decisions made through the WTO dispute settlement system are legally binding and in the case that the country defeated does not bring its actions according to the decisions, the other parties can retaliate for urging the country to act in accordance with the decisions. Hence, it is noteworthy that it can open the way for the three economies to lawfully retaliate China. Even if the three economies use cross-retaliation, the countries will still need rare earth metals for their industries, however, political pressures from those countries along with retaliation will put a burden on China.

Dispute settlement through the WTO is also not a way that can settle the dispute in a short period of time. In the previous China-Raw Materials case, the case was filed in 2009 and concluded this year with the decisions of the Appellate Body, thus, it took two to three years. This China-Rare Earths case also can take a certain period of time, but it has its distinctive significance that the three political and economic powers cooperate and seek a solution together to fight against China in the rare earth dispute.

### **III. Rare Earths and the WTO Dispute Settlement**

#### **1. The Characteristics of Rare Earths**

Before analyzing the rare earth dispute, it is needed to know what rare earths are and what kind of characteristics they have. Rare earths are a group of seventeen chemical elements that occur together in the periodic table. The group consists of yttrium and the 15 lanthanide elements (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, and lutetium). Scandium is found in most rare earth element deposits and is sometimes classified as a rare earth element. Rare earth metals and alloys that contain them are used in many devices that people use every day such as: computer memory, DVD's, rechargeable batteries, cell phones, car catalytic converters, magnets, fluorescent lighting and much more.<sup>9</sup> According to the State Council's white paper on rare earth, China's reserves account for some 23 percent of the world's total, but the country supplies more than 90 percent of the rare earth products on the global market.

As such, since rare earths are used in manufacturing high-tech products,

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<sup>9</sup> From <http://geology.com/articles/rare-earth-elements/>

developed countries are main consumers of rare earths, and Japan is importing approximately 60% of the total amount that China is exporting. Against this backdrop, Japan could not help but showing a very sensitive reaction when China suspended the exportation of rare earths to Japan during the dispute near Senkaku islands. On the other hand, due to these circumstances, it is Japan which is taking the lead in developing technologies for substituting rare earths. In China-Raw Materials case in 2009, the United States, the European Union and Mexico filed a complaint against China and Japan later joined the consultation as a third party. In this China-Rare Earths case, however, it appears that the United States, the European Union and Japan consulted together even before filing the case at the WTO.

Table 1. Rare Earth Elements (Lanthanides): Selected End Uses

Light Rare Earths (more abundant)	Major End Use	Heavy Rare Earth (less abundant)	Major End Use
Lanthanum	Hybrid engine, metal alloys	Terbium	Phosphors, permanent magnets
Cerium	Auto catalyst, petroleum refining, metal alloys	Dysprosium	Permanent magnets, hybrid engines
Praseodymium	Magnets	Erbium	Phosphors
Neodymium	Auto catalyst, petroleum refining, hard drives in laptops, headphones, hybrid engines	Yttrium	Red color, fluorescent lamps, ceramics, metal alloy agent
Samarium	Magnets	Holmium	Glass coloring, lasers, Medical x-ray units
Europium	Red color for television and computer screens	Thulium	Catalysts in petroleum refining
		Lutetium	Lasers, steel alloys
		Ytterbium	Magnets
		Gadolinium	

Source: DOI, US Geological Survey, Circular 930-N

## 2. Policy Objectives of China's Export Restrictions on Rare Earths

What are the policy objectives of China's export restrictions on rare earths?

Are the policy objectives that China is pursuing consistent with the WTO rules?

It is not so simple to determine whether they are consistent with the WTO rules,

because it appears that China is pursuing several policy objectives at the same time. Among the policy objectives, some appear consistent with the WTO rules, while others inconsistent with the WTO rules. First, it will be examined what kind of policy objectives that China is pursuing and then see if China is actually pursuing some objectives which are inconsistent with the WTO rules. In order to figure that out, I am going to compare export quotas and domestic production caps.

#### 1) Policy Objectives Consistent with the WTO Rules

China maintains that its policy objectives are to protect the environment and to conserve exhaustible natural resources, therefore, its measures are justified under Articles (b) and (g) of GATT XX.<sup>10</sup> Quantitative restrictions are banned

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<sup>10</sup> **Article XX: General Exceptions**

Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures.

(b) necessary to protect human, animal or plant life or health;

(g) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption

under GATT XI.<sup>11</sup>

China made WTO-plus commitments in its WTO Accession Protocol, and it made commitments regarding export restrictions along with other commitments. Other newly joined members such as Vietnam, Mongolia and Bulgaria also made commitments regarding export restrictions, but China made the most extensive commitments. According to Article 11.3 of China's WTO Accession Protocol<sup>12</sup>, China is committed to eliminate all taxes and charges applied to exports except for 84 commodities, specifically provided for in Annex 6 of this Protocol and the specified commodities consist mostly of metals and minerals. As China made such commitments, China is not allowed to use export taxes to achieve its goal. It will be discussed later what are the consequences of these

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<sup>11</sup> Article XI\*: General Elimination of Quantitative Restrictions

1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.

<sup>12</sup> Article 11.3 of China's WTO Accession Protocol

11. Taxes and Charges Levied on Imports and Exports

3. China shall eliminate all taxes and charges applied to exports unless specifically provided for in Annex 6 of this Protocol or applied in conformity with the provisions of Article VIII of the GATT 1994.



commitments.

Those countries which oppose China's export restrictions on rare earths are arguing that China imposes export restraints on rare earths to control the prices of rare earths and to benefit domestic industries, however, it is true that the production of rare earths causes serious environmental pollutions such as radiation leak. Thus, it is hard to deny that China is not pursuing the goal of environmental protection. China is reiterating that it imposes export restrictions on rare earths in an attempt to protect the environment and preserve exhaustible resources. These are well expressed in China's official documents regarding rare earths.

In the case of rare earths, in some places in China, it is illegally mined, and it is hard to crack down as members of those towns are systemically engaged in illegal mining. During illegal mining, they tend to more seriously damage the environment in the production of rare earths than in the case of mining under permission. Against this backdrop, China is paying much attention to the regulation of the production of rare earths. In addition, if they do not regulate the production of rare earths, some kind of rare earths will be exhausted within 15 to 20 years. Therefore, China has incentives to regulate the production in a bid to protect the environment and preserve the resources and these objectives are definitely consistent with the WTO rules.

## 2) Policy Objectives Inconsistent with the WTO Rules

The countries which criticize China for export restrictions on rare earths argue that China imposes such restrictions to have pricing power of rare earths. They also allege that with export quotas for rare earths, the produced rare earths are diverted to domestic use, thus domestic supply increases, while international supply decreases. This, as a result, widens the gap between domestic and international prices of rare earths. Those opposing countries maintain that China is seeking to attract foreign companies which need rare earths into its territory, luring with cheap rare earths in the domestic market.

In an attempt to figure out if China is pursuing policy objectives which are inconsistent with the WTO rules, I will compare the changes in export quotas and domestic production caps in years between 2006 and 2011.

Table.2. China's Rare Earth Production and Exports, 2006-2011

	2006	2007	2008	2009	2010	2011
Official Chinese production quota	86,520	87,020	87,620	82,320	89,200	93,800
USGS reported production	119,000	120,000	120,000	129,000	130,000	112,500
Chinese export quota	61,560	60,173	47,449	50,145	30,259	30,246

Source: China Ministry of Land and Resources, US Geological Survey, Ministry of Commerce of China

If China only imposes export restrictions, not restricting domestic production, then China cannot achieve the goals that it is proclaiming. In fact, protection of the environment and preservation of natural resources are affected by production rather than exportation. China is arguing that it is regulating domestic production as well as exportation.

However, from the table above, we can find out that the amount of export

quota is decreasing while the amount of production cap is maintaining almost the same level through the years. As seen in the table, there is a gap between official Chinese production quota and USGS reported production. As stated above, illegal mining is prevailing in China and the gap is due to such illegal mining. China dramatically reduced the export quota for 2010 and this caused fears of unstable supply of rare earths, leading to a spike in prices of rare earths

From this, we can know that China is regulating the level of production as well, by setting official production quotas. However, it would be hard for China to achieve those goals, reducing the amount of export quotas only, while maintaining the same level of production quota. This renders other countries doubt that China is pursuing some goals which are non-consistent with the WTO rules such as attaining pricing power, benefiting domestic downstream industries and luring foreign companies to shift to China.

Table 3. Exporting Prices of Rare Earths

Rare Earth Oxide	2009	2010	2011	Q4 2011	Q1 2012	30/07/1 2
Lanthanum Oxide	4.88	22.40	104.10	66.46	42.31	20.00
Cerium Oxide	3.88	21.60	102.00	59.31	37.92	21.00
Neodymium Oxide	19.12	49.50	234.40	244.23	177.31	105.00
Praseodymium Oxide	18.03	48.00	197.30	209.62	163.08	110.00
Samarium Oxide	3.40	14.40	103.40	95.31	73.85	70.00
Dysprosium Oxide	115.67	231.60	1449.80	2032.31	1366.15	1000.00
Europium Oxide	492.92	559.80	2842.90	3800.00	3623.08	2020.00
Terbium Oxide	361.67	557.80	2334.20	2973.85	2658.46	2000.00

Source: Metal Pages

Table 4. China's Domestic Prices of Rare Earths

Rare Earth Oxide	2009	2010	2011	Q4 2011	Q1 2012	30/07/1 2
Lanthanum Oxide	3.06	4.23	16.26	18.28	15.13	11.29
Cerium Oxide	2.13	3.55	19.58	20.65	15.99	11.29
Neodymium Oxide	11.66	29.28	132.06	122.77	90.80	67.40
Praseodymium Oxide	11.38	27.60	104.60	106.95	79.33	65.83
Samarium Oxide	2.05	2.47	11.85	14.49	12.69	9.87
Dysprosium Oxide	80.24	166.48	994.33	1085.35	776.79	595.61
Europium Oxide	351.75	410.42	2025.00	2228.39	1598.80	1018.81
Terbium Oxide	253.60	388.80	1596.82	1765.10	1257.07	862.07

Source: Metal Page

### 3. Legal, Political and Economic Implications of the Dispute Settlement at the WTO

Filing a complaint at the WTO regarding rare earths has legal issues such as export restrictions and discrimination against foreign consumers, but it is also a battle of the United States, the European Union and Japan against China, which involves political and economic issues as well. China is arguing that the reason why the United States decides to file a complaint regarding rare earths is that it will hold a presidential election this year in the United States. China believes that the US government is trying to show a hard stance toward China, considering the upcoming presidential election. China believes that the United States brought the issue before the WTO this year with political and economic considerations as they have to hold a presidential election amid its sluggish economy. These allegations of China sound somewhat reasonable. U.S. Congressman Mike Coffman said that the Obama administration was cautious about filing a complaint at the WTO against China with a presidential election ahead.

According to Reuters, President Barack Obama said at the White House, "We want our companies building those products right here in America. But to do that, American manufacturers need to have access to rare earth materials which

China supplies." Obama, who has faced criticism from Republican rivals for not being tough enough with Beijing, has hardened his stance on Chinese trade practices as he gears up for a re-election battle, according to Reuters.<sup>13</sup> From these statements, it appears that the United States is trying to indirectly blame China for its stagnant economy, hinting that China is partially responsible for such economic conditions.

As aforementioned, Japan joined the China-Raw Materials case whose legal issues are basically the same with the China-Rare Earths case this time, as a third party, not a complainant. According to Asia Times, the reason why Japan did not join the China-Raw materials case as a complainant is that it wanted to take a step back and wait for the result of the case, before directly challenging China at the WTO.<sup>14</sup>

In fact, Japan filed a joint complaint along with the United States and the European Union after the Appellate Body report of the China-Raw Materials case was distributed. As China lost in this case, the chances for China's winning the China-Rare Earths would be slim. It is believed that Japan consulted with the United States and the European Union and waited for the

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<sup>13</sup> Reuters. 2012. "U.S., EU, Japan take on China at WTO over rare earths", 2012. 3.13. <http://www.reuters.com> (access date: May 3, 2012)

<sup>14</sup> Asia Times. 2012. "The China-US rare earth games", 2012. 3. 24. [www.atimes.com](http://www.atimes.com) (access date: April 25, 2012)

Appellate Body report of the China-Raw Materials case to come out and finally filed a complaint after all results came out. The Japanese government has great interests in the rare earth issue, however, it tends to take a back seat, while letting Obama and the European Union fight at the forefront. It is thought that Japan is seeking to enjoy actual profits from filing a complaint regarding rare earths, while minimizing the possible conflicts with China by sitting in the back.

The European Union reveals less political intentions, when compared with the United State and Japan in this issue. The European Union argues that China's unfair export restraints on rare earths distort international trade and cause economic damage to other countries. The concerns of the European Union regarding rare earths are relatively focused on economic aspects. The reason is believed to be the characteristic of the European Union that it should represent the whole union, rather than a member. Though the European Union joined in both cases related to China's export restraints, these disputes are widely seen as battles between the United States and China and the participation of the European Union less stands out. What is interesting is that this allows the European Union to be in a better position to make remarks on China's export restraints on rare earths, as it show less political intentions. In fact, when the United States raises this issue, China harshly condemns the United States, saying that domestic politics of the United States is affecting its



stance toward China and the rare earth issue. In contrast, when the European Union makes remarks on the issue, China tends to be relatively quiet, not mentioning political intentions of the European Union. Thus, it is believed that the European Union is in a good position to take the lead in expressing opinions on rare earths, serving as a spokesperson for the countries in the issue.

#### **4. Suggestions regarding Export Restraints on Rare Earths**

##### **1) Policy Suggestions for the Related Countries**

When the United States, the European Union and Japan filed a joint complaint regarding rare earths against China, China expressed its disappointment. Chinese Minister of the Ministry of Industry and Information Technology said that he felt sorry that the three countries brought the issue before the WTO, although the related countries had consistently consulted about the matter.

China has made efforts to help other countries better understand their regulations on rare earths. On June 20, China released the White Paper on Rare

Earth entitled *Situation and Policies of China's Rare Earth Industry*.<sup>15</sup> Su Bo, Vice Minister of the Ministry of Industry and Information Technology of China made remarks at the press conference of the State Council Information Office. In his remarks, he explained that the White Paper mainly illustrated the objective conditions of the Rare Earth industry development in China, the Chinese government's effort devoted to enhance the RE management and its major policies and measures that aimed to promote sustained and sound development of the industry. The statement further mentioned that by releasing the White Paper, China hoped to further promote the international society's understanding of China's policies on RE, and facilitate international cooperation and communication.<sup>16</sup> As such, China has actively made efforts to persuade other countries that its objectives are the protection of the environment and exhaustible resources. Even though these efforts were not enough to eliminate all the suspicions of other countries, it is believed that China is going in the right direction in that it tries to communicate with those countries.

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<sup>15</sup> 中国新闻网. 2012. 「工信部谈美欧日稀土诉讼:中国措施符合世贸规则」. 2012年 6月 20日. [www.chinanews.com](http://www.chinanews.com) (Access Date: June 20, 2012)

<sup>16</sup> Remark of Su Bo, Vice Minister of the Ministry of Industry and Information Technology of the People's Republic of China at the Press Conference of the State Council Information Office (June 20, 2012) [www.china.com.cn](http://www.china.com.cn)

Despite these efforts to make other nations believe that China's intentions are to protect the environment and preserve the exhaustible resources, the reactions that China showed during the territorial dispute near the Senkaku Islands in 2010, left other countries with indelible suspicions. As mentioned briefly earlier, a Chinese trawler operating in Japanese-controlled waters collided with two vessels of Japan's Coast Guard. As Japan detained the captain of the trawler, China reacted by halting its exportation of rare earths to Japan. In 2010, during the dispute, it appeared that China won a lopsided victory as Japan quickly released the Chinese captain after China temporarily suspended the exportation of rare earths to Japan, however, this made those countries confident that China tried to weaponize its natural resources and the countries started to more seriously consider the issue. I believe that the impact of this incident was quite immense, and in part encouraged the countries to bring the case before the WTO and cooperate to deal with the issue together in an attempt to better react in the issue against China. After the incident took place, Paul Krugman condemned the U.S. government that policy makers simply stood by as the U.S. rare earth industry shut down. According to Krugman, in at least one case, in 2003 — a time when, if you believed the Bush administration, considerations of national security governed every aspect of U.S. policy — the Chinese literally packed up all the equipment in a U.S. production facility and shipped it to

China. The result was a monopoly position exceeding the wildest dreams of Middle Eastern oil-fueled tyrants. Even before the trawler incident, China showed itself willing to exploit that monopoly to the fullest.<sup>17</sup>

In 1992, Deng Xiaoping, the architect of China's economic transformation declared, "There is oil in the Middle East, there is rare earth in China." Such remark means an opportunity for China, however, to the ears of other countries, it sounds like a threat. This kind of remarks and the response that China showed during the dispute in part contributed to the suspicions of other countries relating to rare earths. These can drag China in persuading other countries and bring about fierce reactions from the affected countries. Hence, it would be wiser for China to try to avoid to such actions in order not to further spark the conflict.

The United States, the European Union and Japan are currently utilizing the WTO dispute settlement system along with the aforementioned diversification of production and development of technology to lessen the dependence on rare earths. Although it is believed that the development of technology would be the ultimate way to resolve the rare earth issue, not depending on rare earths anymore. This method, however, can take a long period of time and they cannot

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<sup>17</sup> Paul Krugman, "Rare and Foolish", *The New York Times*, October 17, 2010.  
www.nytimes.com  
(Access Date: May 13, 2012)

hold the production of those high-tech commodities that need rare earths, thus, the countries are using other ways simultaneously.

However, it is noteworthy that those countries have benefited from cheap rare earths from China and they ceased to produce rare earths as it could not compete with China's cheap rare earths and there were outcries from the public due to environmental pollution. One thing that China stresses is that China has been seriously damaged by reckless production of rare earths and it cannot be compensated by cheap rare earths. The United States, the European Union and Japan are putting emphasis only on distortion in the international trade, however, they also need to understand China's interests in the environmental protection. In particular, the protection of the environment and preservation of exhaustible natural resources are the policy objectives for which the WTO allows export restrictions as exceptions. Thus, they should not keep China from pursuing those policy objectives.

Chinese experts say China has the right to regulate exports of exhaustible materials in line with WTO rules, so long as the same restrictions apply to domestic companies.<sup>18</sup> The reason why the WTO determined that China's measures at issue were inconsistent with the WTO rules is that they found discriminations against foreign consumers, compared with domestic ones. It

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<sup>18</sup> CCTV, "WTO Meeting on China Rare Earth Restrictions", July 25, 2012.

would not be easy for China to treat domestic and foreign consumers evenhandedly for economic and political reasons, however, it is worthy to think about how they would response after China eliminates all discriminations against foreign consumers, regulating domestic production as much as export restrictions. Then, the measures of China can be consistent with the WTO rules. Even in this case, the United States, the European Union and Japan still will need rare earths, but will not be able to resort to the WTO dispute settlement for bring about a result on their side. Accordingly, it would be wiser for those countries to continuously consult with China on this matter, rather than driving China into a corner.

## 2) Suggestions for the WTO Regulations on Export Restrictions

There is one another important issue to point out regarding rare earth issue, which is the under-regulation problem regarding export restriction in the world trade, This is related to export restrictions on other natural resources as well. Countries have focused on regulating import restrictions rather than export restrictions, as they believed that countries had more incentives to curb imports than exports. Therefore, in the Uruguay Round, countries succeeded in coming up with an agreement on the regulation of import restrictions, substantially

lowering import taxes and eliminating non-tariff barriers. In contrast, export restrictions remained under-regulated. In the Doha round, they negotiated with the issue regarding export restrictions on food and natural resources, however, they failed to narrow down the differences between exporting and importing countries. As they are wrapping up with the Doha Round, it would be almost impossible to come to a conclusion concerning export restrictions, but it is expected to reach some agreements in the next round of multilateral trade negotiations.

As stated above, multilateral regulations on export restrictions are very limited and most of the WTO members are allowed to freely impose export duties as much as they want. On the other hand, some new members of the WTO made WTO-plus commitments regarding export restrictions and China cannot impose any export duties except on the 84 commodities, specified in Annex 6, as mentioned before. This leads to disproportionate regulations between existing members and some new members of the WTO. In addition, revising the terms of accession is practically impossible. In theory, the WTO can also adopt a separate procedure for the amendment of accession protocols, but in practice it is doubtful that any acceding country would be willing and able to engage the WTO membership in the negotiation of this issue. As a result,

the terms of accession are fixed without a realistic chance for revision.<sup>19</sup> Paradoxically, this rendered China resort more frequently on export quotas, whose effects are more distortive in the international trade than export duties, invoking general exceptions under Article XX of GATT. Under these circumstances, it would be helpful for countries to hammer out multilateral regulations regarding export restrictions and consider allowing revisions of the WTO accession protocols to relieve the disproportionate regulations on export restrictions.

## V. Conclusion

Three methods to address the rare earth issue, diversification of production, development of technology for substituting rare earths and resolution through the WTO dispute settlement system, are reviewed here and I chose to focus on resolution through the WTO dispute settlement system. The affected countries are exploiting all three methods simultaneously, not depending only on one method. Among three methods, diversification of production and development of technology are ways for the countries to promote independently. The

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<sup>19</sup> Julia Ya Qin, 2012, "Reforming WTO Discipline in Export Duties: Sovereignty over Natural Resources, Economic Development and Environmental Protection", *Journal of World Trade*, Vol 46, Issue 5, p.12.



resolution through the WTO dispute settlement, however, involves dynamics among the related countries, including all the political, economic and legal aspects. Thus, I believed that the method was worthy to analyze for the thesis of international studies, which included politics, economics and law in the course of studies to help foster a broad understanding of the events in the international arena.

Bringing the issue at the WTO includes all the three aspects and China is thought to be pursuing policy objectives which are consistent and inconsistent with the WTO rules at the same time. China should avoid unfair practices of export restrictions and be aware that it would be harmful for China to pursue some policy objectives inconsistent with the WTO rules in the long term. The United States, the European Union and Japan, for their parts, should understand environmental concerns of China regarding rare earths and they are not entitled to force China to produce rare earths at cheap prices forever.

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### 4. Internet Resources

Organization for Economic Cooperation and Development website, [www.oecd.org](http://www.oecd.org)

The Chinese Ministry of Commerce website, [www.mofcom.gov.cn](http://www.mofcom.gov.cn)

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News and Information about Geology, [www.geology.com](http://www.geology.com)

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## 국문초록

최근 들어, 천연자원에 대한 수출제한이 국제무역에서 분쟁의 소지가 되는 일이 증가하였다. 그 중에서도, 희토류 문제는 미국, 중국, 유럽연합, 일본 등 세계 최강대국이 첨예하게 대립하는 문제가 되었다.

희토류 문제를 살펴보면, 희토류 문제 해결 방안에는 생산의 다변화, 대체물질의 개발, WTO 분쟁해결절차를 통한 해결 등 세 가지 정도의 방법이 있다고 파악하였다. 관련국들은 현재 하나의 방안에 의존하지 않고 세 가지 방법을 모두 추구하고 있다. 세 가지 방법 중에 생산의 다변화나 대체물질의 개발은 개별 국가들이 독립적인 방법으로 시도할 수 있는 것임에 반해, WTO 분쟁해결절차를 통한 해결 방안은 관련국들의 역학 관계가 들어가 있고, 정치·경제·법적인 측면이 모두 포함되어 있다. 이 때문에 WTO 분쟁해결절차를 통한 문제해결방식은 국제사회에서 일어나는 사건들을 더 넓은 시각으로 볼 수 있도록 교육과정에서 정치학, 경제학, 법을 모두 가르치는 국제학의 좋은 논문 주제가 될 수 있을 것으로 판단하고 이 해결방식에 주목하여 논문을 썼다.

중국의 희토류 수출제한 조치에 있어서, 그것이 WTO 법에 부합하는 지를 보기 위해서는, 조치의 목적과 방법을 살펴보아야 한다. 먼저 추구하는 정책 목적이 WTO 가 허용하는 것이어야 하는데, 중국은 환경보호와 자원고갈 방지와 같은 WTO 가 허용하는 정책 목표와 가격결정력 획득과 국내산업에 혜택 부여와 같은 WTO 가 허용하지 않는 정책 목표를 동시에 추구하고 있는 것으로 보인다. 중국은 WTO 가 허용하지 않는 목표들을 추구하는 것을 지양해야 하고, 희토류 자원을 전략화한다는 인상을 주는 것은 장기적으로 볼 때 자국에게 위협이 될 수 있음을 인지해야 한다. 조치의 방법에 있어서도, 목적이 정당하다 해도 그것이 국내 소비자에 비해 외국 소비자를 차별하게 된다면 GATT XX 하에서 정당화될 수 없기 때문에, 외국 소비자를 차별하지 않는 방법으로 조치를 취해 나가야 한다.

미국, 유럽연합, 일본 등도 자신들의 이익을 위해서 위 세 가지 해결 방안을 동시에 추구하고 해결을 도모해야겠지만, 중국에게 환경보호라는 정책적 목적도 있음을 존중해야 하고, 중국이 환경을 심각하게 파괴하면서까지 계속 값싼 희토류를 제공하도록 강요할 수 없음을 깨달아야 한다.

**핵심어:** 수출제한, 희토류, WTO 분쟁해결절차

**학번:** 2010-22388