

Custom practical course 3102 Stake holders of environment and relations to economy and business

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Stake holders of environment and its relation to environmentally sustainable business

Executive Summary

We are facing serious environmental problems today. In previous report, the importance of the environmentally sustainable business in 21st century was analyzed in relation to the environmental problems we face now. As the concerns for the environmental problems increase, companies need to pay attention to stake holders of the environment more than ever. This report identifies kinds of the stakeholders of the environmental problems and analyzes the functions of the stake the holders in relation to environmentally sustainable business. Companies need to establish strategies to make good relations with the stake holders and this report tries to propose a better way to make good relations with the stake holders. This research is done as one of practical custom courses for Ph.D. program at Rushmore University.

1. The environmental problem and stake holders

Companies have many stake holders of the environment to deal with today. Stock holders, customers, governments, neighbors, political parties, NGOs and employees are examples of the stake holders. Among the stake holders, companies have been paying the most attention to the interest of the stock holders historically. The key performance index of companies is the value of the stock, the profit level and other financial ratios, which explain the economical performance of the companies. However, today the environmental concerns of the stake holders are increasing. Today, the most influential stake holders to companies are not necessarily the stock holders. The stake holders of the environmental are increasing their strength and stock holders are showing more attentions to environmental performance of the companies. We can see this trend by raising several examples. The first example is increasing numbers of the environmental report. In older days, companies used to issue annual reports referring to the financial statements only. However, today the content of the annual reports of companies changed drastically. Many companies started to issue the annual report of the environmental activities (and corporate social responsibility) to disseminate companies' environmental activities to stake holders. The existence of eco fund, which is a portfolio of investments for the environmentally friendly companies, is the second example. The stake holders are showing greater concerns to the environmental performance of companies and stock holders are now getting conscious about the environmental performance of the companies because it affects the stock price. There are many investors, who want to invest to only

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companies with good environmental policies and performances. The value of the stake holders are changing gradually from the economical performance only to the total performance of companies considering economic, social and environmental performances (i.e. so called triple bottom line¹).

1-1 The environment and the economics

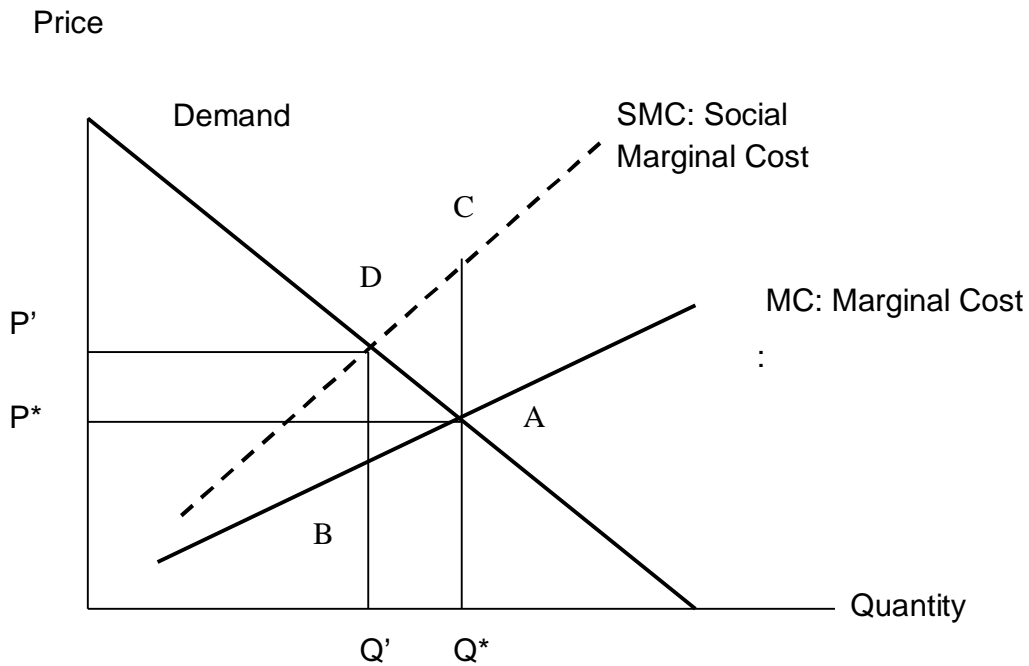
Clean air, water and the function of environment which decomposes toxic substances are the common resources to every stakeholder of the earth. Natural resources are not infinite and the capacity of absorbing and decomposing toxic substances are limited.

In previous report 3101, I explained the cause of the environmental problem is the result of the excessive stress in economical growth, which resulted in unwanted environmental damages. Historically, companies used the environment as free resources. The cost of using the environment was free and this explains the reason why the market theory of balancing the environmental burden and the economical development did not work well. In other words, our economical system did not charge expenses to the usage of the environmental resources and there was no economical force to reduce the consumption of environmental resources. This kind of the damage is called as “external diseconomy” in the terms of economics.

In the market economy, the price and the quantity of a product will be decided by the point A, which is the crossing point of the supply and the demand curve illustrated as Q^* and P^* in figure 1-1-1.

If we consider the cost of using the environment, the expense of using the environment resources should be charged as SC (Social Expanse). In this sense, MSC (Marginal Social Cost) is defined as the sum of Social Expense and the MC (Marginal Cost) of private companies, thus MSC should be higher than the MC of private companies. When the MSC is considered, the cost for the product will be higher and thus the supply quantity of the product will be lower as expressed in the new cross point D by P' and Q' . To charge the environmental cost (Social Expense) to the production cost is called as “Internalization of the environmental cost” in the terms of economics.

Figure 1-1-1 Mechanism of economics and environmental diseconomy



Mechanism of the environmental distraction

Source:

Global environmental problem and companies², Mitsutsune Yamaguchi, 2000, Iwanami books, Japan, ISBN4-00-023804-3

If companies do not pay the social expense of using the environment, there is no optimization of the usage of the environmental resources (i.e. Pareto optimization). This is called as “The Failure of the Market Economy “in the terms of economics.

So the question is how can we attain the optimization (Pareto optimization) using MSC and Demand? Before trying to answer, let’s understand more about the external diseconomies we have now. Taking CO2 emission for example, we have two external diseconomies. The first is the diseconomy between the generations. The emission of CO2 now will affect the future generations who are not participating in the market economy today. The second is geographical problem; one country’s emission of CO2 will affect other countries’ environment. Under the current free economy, companies

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(including individuals) can discharge CO₂ freely in most of companies (later I will show some exceptions). Thus under free trade economy, companies will aim for the maximization of the profit and decide the production amount neglecting SMC. This will bring two kinds of external diseconomies to the society. There are two approaches suggested to solve global external diseconomies.

1-2 Government as a stake holder

The first approach is the government's (as the stake holder) tax on the emission of CO₂. Because companies will try to minimize the expense of the Tax (Social Marginal Cost), a new production balance point will be attained. EU is aggressive to reduce CO₂ emission and many governments have tax on CO₂ emission already. Governments as the stake holders of environment use not only a tax system but also other policies to effectively manage CO₂ emission. The assignment of CO₂ emission limits to individual facilities, the dealing systems of CO₂ emission right and the policy of alternative energy sources are typical examples. In EU, there are the assignments of annual CO₂ emission limits to twelve thousand facilities and a dealing system of emission right of CO₂ within EU. There is a penalty system to charge 100 Euros per one ton of excessive emission of CO₂³. As described, the governments as the stake holders can solve the problems of environmental diseconomies by introducing a tax system and supporting systems. However, the introduction and the management of a tax system are not easy. There should be a wide range of consensus between governmental organizations, industries, citizens and political parties. Denmark is famous for successful introduction of CO₂ tax and its policy on re-generable energy sources. In Denmark, wind power plants supply 3.5% of the total electricity demands and it plans to cover 80% of the demand by the wind power plants. Denmark government announces the total re-generable energy such as wind and sun light power plants can cover 65% of the total energy demand by the year 2020 and if energy saving proceeds as expected, re-generable energy can cover the 100% of the energy demand³. In Denmark, tax on CO₂ emission is 16 US dollars per a ton and this is high compared to the oil price of 15 dollars per a barrel. Denmark government enforces electricity company to purchase electricity generated from re-generable power plants at the price of about 0.1 US dollar per KW, which promotes the usage of re-generable energy from such power plants of wind, sun light and biomass. Not only Denmark but also governments in EU are aggressive in introducing re-generable energy sources such as wind power systems, sun light power systems and bio mass cogeneration systems and those are combined with a tax system on emission of CO₂. EU has decided to use re-generable energy source up to 22% by the year 2010. Governments in EU are leading the world to introduce the re-generable energy sources. However, rest of the world is not yet successful in making consensus on such a nationwide integrated energy and

environmental policy. In Japan for example, there is no consensus about the introduction of a tax system to CO₂ emission. The Ministry of Environment is trying to introduce a tax system by the year 2005, however industry side (Keidanren) and the Ministry of Economy, Trade and Industry are strongly opposing to the introduction and the Ministry of Finance is keeping its neutral position. Reasons for the oppositions include;

- | Sacrifice Japanese industry's international competitiveness. This will accelerate companies going out from Japan and this will sacrifice the economy of Japan.
- | There are already very complicated tax systems on fossil energy and further additions will make the total tax system very complicated.
- | There is no clear explanation for the usage of the tax.
- | The emission of CO₂ from individual and transportation sectors will not be reduced unless the tax level is significantly high. (Current proposal is to tax approximately 1.3 cents per a litre of gasoline, and 20 cents for one kW of electricity consumption).

By comparing the difference between European countries and Japan, I can say that taxing on CO₂ will not work well without:

- | a nationwide consensus of the taxing policy, reconstruction of the whole taxing systems,
- | a clear policy on the utilization of tax ;and
- | development of re-generable energy source.

As seen, governments can make environmental policies such as tax on CO₂ emission, CO₂ dealing systems and introduction of re-generable energy sources. Global competition and global free trade will give another prospect to discuss about the role of the government as stake holders and I will discuss these themes in coming paper (Unit 3104).

1-2 Self efforts of companies

The second procedure to solve the diseconomy of the environment is the self efforts of companies by technical development by saving energy and improving product yields. Companies should make efforts to minimize the external diseconomy by themselves and this effort will appeal to stake holders.

Reduction of the emission of CO₂ is becoming every stake holders' concern and the energy price is becoming higher. Success in reducing energy consumption and energy expense will give an advantage for cost competition was well. There are some arguments

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in industry that energy saving is already reached to the level close to a perfection and thus the further reduction is impossible⁴. However, I would like to argue that this kind of opinion is nothing but an excuse and such companies which will not commit on challenging to improve their energy efficiency will be extinct soon or later in 21st century. In any countries, government as the stake holders will help those who try to help themselves and stake holders will purchase products from those companies, which are better in energy efficiency and environmental conservation. Governments as the stake holders can have a big power in solving the environmental diseconomy, however, the consensus making on tax policy among the stake holders of the environment is not easy thus in many countries tax such as tax on CO₂ has not been introduced yet. Companies should not depend on the decision making of governments. Instead, companies should make every effort in reducing the environmental diseconomy by itself, the stake holders including the government will evaluate the company's effort highly and this will lead to elevated reputation and value of companies.

1-3 Consumers

1-3-1 Consumers' green purchasing

In 1988, "The green consumer guide" was written by Joel Makower⁵ and it became the world best seller. This book urged consumers to buy environmentally friendly green products by giving precise information of green products. The book explained general review of the environmental problem: such as how to select wooden products to prevent destruction of forests; names of oil companies which supply unleaded gasoline; and washing machines with high energy and water efficiency. The same author wrote "The green consumers supermarket shopping guide", which refers information of which supermarkets sell green products. Now, the consumer's power on green purchasing is getting stronger. In Japan for example, in 1996, Green Purchasing Network (GPN) was created. GPN is a network among companies, governmental organizations and NGOs regarding how to share information on green purchasing. This network is consisted of 2876 groups (2246 companies, 353 governmental organizations, 277 NGOs), and aims to accelerate the green purchasing in Japan⁶. GPN recommends green purchasing of consumers (individuals, companies and governmental organizations), educates consumers about the importance of green purchasing, creates data base of green products and conducts research works. GPN has a basic policy of purchasing green products from companies which have good environmental policies and which establish good life cycle assessments of their products. GPN hosted the first international conference on green purchasing world congress in Sendai Japan in 2005.⁷ The purposes were:

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- | Share the latest domestic and international information on the green purchasing and to discuss its future direction;
- | Announce the green purchasing Sendai Declaration to the world, which serves as the guide line for promoting green purchasing; and
- | Establish a network that promotes global collaboration on effects towards green purchasing.

1-3-2 Consumers as voters and policy makers

Consumers are voters, who can affect the governments' policy. The Green Party in Europe, for example is very strong in politics and it succeeded to make the environmental protection as the strongest policy in several countries in Europe. A cabinet in Neitherland has been dissolved in 1989, and a trigger of this dissolution was a debate over the environmental protection. In 1983, the Green Party in Germany had its first seat in the congress and it expanded seat numbers very quickly. In 1999 the Green parties in Europe had cabinet members in Germany, France, Belgium and Italy. In EU congress, the Green Parties increased their seats from 27 to 47. The green party was born in Germany in 1983, when the people's concern to the environmental protection was not as high as today. The main agenda of the Green Party at that time was to criticize the US military in Germany. In 1994, the Green Party became the third biggest party and in 1998, it formulated the coalition cabinet with the No.1 party the social democrats. It got three posts in the coalition cabinet, the minister of the environment, the minister of foreign affairs and the minister of nuclear safety. The agreements between the Green Party and the Social Democrats to form the coalition cabinet are the introduction of the environment tax and the gradual demolition of the nuclear power plants in Germany⁷. The environmental tax was introduced from 1999. The government has decided to stop the nuclear power plant's operation within coming thirty two years. Green parties in Europe are leading the national policy making and this is one of the greatest evidences of consumers' power on the environmental policies which affect companies' strategy on environment.

1-4 Neighbors

Neighbors are inhabitants who live close to facilities of companies. Neighbors thus are important stake holders of companies who have strong concerns to company's operation. In older days, companies did not pay much attention to inform neighbors of the content of the operations of their facilities. However as the number of problems and incidents of

manufacturing facilities increased, neighbors felt more necessity of knowing the contents of the operation of manufacturing facilities.

In 1984, at the Bhopal in India, a toxic gas has leaked which killed approximately three thousand people in India. Since the company which leaked a toxic gas was a subsidiary of US company Union Carbide⁸, the incident naturally drew attentions of the US citizens. Following by several similar incidents of chemical leaks awaken the neighbors' concern for operations of manufacturing facilities. Under such circumstances, "the right to know act"⁹ was promulgated in 1986 in the USA. This law enforces manufacturing facilities to report EPA its reserved chemicals and annual release to the environment and the data is accessible by anybody. European countries quickly followed this movement and promulgated similar EU directive. In Japan, PRTR (Pollutant Release and Transfer Register) law¹⁰ was promulgated as the result of the recommendation of OECD in 1999.

Unfortunately, the right to know about the operation of manufacturing facilities are not popular yet in developing countries. In Asian countries, there are many countries where liberty of the speech is not guaranteed. Naturally in these countries neighbor's right to know is extremely limited. For example, in China there are still big pollution problems and neighbors right of know is not given. The Chinese government is trying very hard to reduce the environmental problems; however the government strictly prohibits news related with environmental problems leaking out from the country.

No matter how countries policies are, excellent global companies should open its operational data of manufacturing facilities as much as they can to neighbors and should appeal its environmental excellence to neighbors. If neighbors understand the function of facilities well, they can be very friendly and positive about the companies' operations. Many world excellent companies aggressively invite customers and neighbors to inside of their manufacturing facilities and invitations work as a good communication tool with neighbors.

1-5 Environmental protectionists , NGOs

The environmental protectionists are active in developing countries such as Thai and India, however the most active environmental protectionists are those in developed countries. Among these groups, WWF (World Wildlife Fund¹¹), Green Peace¹² and Friends of the Earth¹³ are globally formulated and have great effects to the policy making of environment preservation. For example, Green Peace was established in Canada in 1971 and active in many developed countries, WWF and the Friends of the Earth are globally active as well. Among the developed countries, the USA is leading country for hosting the most active NGOs. Typical NGOs in the USA have a top management who has a degree of lawyer and underneath there are many Ph. D holders².

They move among the positions between NGOs, universities and governments. A typical example of this is Dr. William Riley, who served as the secretary general of EPA. He used to be the chancellor of WWF University. Other example is that the top manager Jonathan Rush at WRI (World Resources Institute)'s former position was also a chancellor of a University.

There are many professors of economy in NGOs such as RFF (Resources For the Future¹³) and ED (Environmental Defence¹⁴; former Environmental Defense Fund) and they are proposing policies of the environment to the government. Among the famous proposals made for the government, there is one proposal related with the emission dealing of Sulfate –Dioxide(EPA's Acid Rain Program¹⁵). There are NGOs in different nature. There are moderate, aggressive, confrontational NGOs. WWF is an example of moderate NGO and Green Peace is an example of an aggressive NGO. There was a big dispute over the policy of NAFTA related with free trade among NGOs at the First American Symposium on "Understanding the Linkages between Trade and Environment¹⁶". The NGOs are divided into two big groups and made argument from different perspectives. Sierra Club¹⁷ and The Friends of the Earth¹⁸ are negative about the free trade and WWF and EDF are positive about the free trade².

Sierra club insisted that as free trade expands between Mexico and the USA, US companies will relocate production sites to Mexico, where the regulations are looser and this movement will expand the polluted zone¹⁹. On the other, WWF insisted that as the results of free trade, the improvement in economy will enable Mexican companies to spend more money to improve their process to reduce environmental burden. Free trade and the environmental protections are of great concern at many global conferences and forums such as WTO, OECD, and ISO.

NGOs are sending representatives and making strong arguments in these conferences. As a matter of fact, NGOs are getting stronger in political power. One example to show the political power of NGOs is MAI (the draft Multilateral Agreement on Investment). MAI has been cancelled by the opinion of NGOs at OECD²⁰.

MAI negotiations began in the OECD in the spring of 1995, more than two years ago, and are claimed to be substantially complete by the OECD. Such negotiations have been conducted without the benefit of participation from non-OECD countries and civil society, including non-governmental organizations representing the interests of workers, consumers, farmers or organizations concerned with the environment, development and human rights. As a result, the draft MAI is completely unbalanced. It elevates the rights of investors far above those of governments, local communities, citizens, workers and

the environment. The MAI will severely undermine even the progress made towards sustainable development since the Rio Earth Summit in 1992.

NGOs and companies had conflicts in the past and still have conflicts today. However, there are some movements to try to understand and solve the conflicts. For example, Mitsubishi and NGO; RAN²¹ (Rainforest Action Network) had a long disputes over the policy of Mitsubishi's development of wood resources in the rainforest of Indonesia. RAN criticized Mitsubishi and it promoted consumers' boycott on Mitsubishi's products in the USA. Mitsubishi took the problem seriously. After a few years, at the joint press conference with RAN, Mitsubishi announced that Mitsubishi is undertaking in conjunction with RAN and other environmental specialists an unprecedented top-to-bottom environmental review of their business activities. In particular, both companies pledged to end use of old-growth forest products and phase out the use of tree-based paper and packaging products by the year 2002, in favor of alternative fibers. Mitsubishi also announced the creation of a "Forest Community Support Program," to provide funding to actively restore and preserve the world's remaining ancient forests and support the indigenous cultures. Mitsubishi also agreed to set up a joint system of "ecological accounting" to track improved environmental performance in manufacturing, distribution and sales. The new accounting system will measure resource productivity, pollution and waste intensity, energy use, product sustainability and overall environmental progress²². At the presidential campaign in 1996, Ralph Nader, Consumer Rights Advocate and 1996 Presidential Candidate referred this as "an unprecedented success in consumer activism". However, I think this is not only a victory to consumers but also for companies, which are eager to pursue their social responsibilities and seek the way to be good environment companies.

NGO started evaluation of environmental performance of the companies and the effect of this is not negligible to the reputation of companies. In Japan, Japan Business Federation (The Nippon Keidanren) issued voluntary action plan on the environment²³ in June 1997, which is consisted of the prevention of global warming, industrial wastes, environmental management and the environmental preservation at overseas operation. A NGO in Japan called Research Group of Sustainable Development (Japanese; Jizokukanou Syakai Kenkyukai²⁴) showed a lot of interest to this program and issued an evaluation report of performances of the companies which voluntarily participated in action plan on the environment. They explain that the purpose of the report is to evaluate the effort of the companies which made significant progress of the reduction of CO₂ emission and urge efforts of companies which could not make significant improvement. NGOs' evaluation of the environmental performance of companies is becoming a world wide trend. Companies should welcome such a trend and should think it as a good opportunity to have better evaluations from NGOs. NGOs tend to challenge companies for requesting better

environmental performances and companies should respond with good environmental policies and performances.

2 Communications with stake holders

I explained kinds and natures of stake holders of the environment and their recent movement. Stake holders of the environment are strongly requesting companies to give information of environmental performance recently. Companies also stated to think that communication with stake holders are extremely important to get fair evaluation of their environmental performances from stake holders. I think direct communications with stake holders are most favorable way to get better understanding, however the direct communication has capacity limitation. In the era of global communication, how to communicate with global stake holders effectively by providing information which is easy to understand and easy to access, should be of special concern to companies today. I will discuss requirements of companies to be effective in environmental communication with stake holders.

2-1 History of the environment reporting

Companies did not issue separate environmental reports until late 1980s. After the 1989 Exxon Valdez oil spill, a group of social investors, environmental groups, religious organizations and pension trustees formed the Coalition for Environmentally Responsible Economies (CERES²⁷). They then drafted the ten CERES Principles, (which were originally called the "Valdez Principles," but were later renamed) to link corporate environmental responsibility with the bottom line²⁸. Participants to CERES must issue the environmental report called CERES report and this is said as the first issue of the environmental report of companies²⁹.

In Europe, aggressive companies started formulating guide lines for writing the environmental report in 1992. PERI³⁰ (Public Environmental Reporting Initiative) made a guide line, which IBM and other global companies use as the prototype of their environmental reports. Japanese companies started making environmental reports from 1990s. The Ministry of International Trade and Industry (current The Ministry of Economy, Trade and Industry) issued voluntarily reporting of companies planning of the environmental preservation plan and it took no long time companies voluntarily report the results of the environmental preservation plans. What peculiar with Japanese companies

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is its abundance with ISO14000 certification. There are more than ten thousands companies certified and this is the world No.1. ISO 14000 is becoming the de-fact standard of the EMS (Environmental Management System) in Japan. When ISO management system is applied, necessary information to write the environmental report is automatically accumulated in companies, whereas ISO 14000 does not require companies to issue the environmental reporting.

2-2 Environmental reporting and companies

Today many companies issue official environmental reports. In Japan, the government surveyed that the companies which issued the environmental report was 40.9 %(big companies) and 25.8% (small companies)²⁵. The reason behind the increased number of the environmental report is that companies are becoming more conscious about their reputation on the environmental performance. Companies used to afraid that opening of the internal environmental information to the public might hurt the reputation of the companies, however recently the understanding is reversed. Openness of the environmental information is evaluated highly from stake holders and the secrecy of the environmental information is looked as bad as hiding facts or neglecting the right to know of the stake holders. The openness of the environmental data and information sharing are becoming a consensus between the stake holders and the companies. Governments are encouraging companies to issue good environmental reports. For example, Japanese Ministry of Environment²⁶ is stressing on a positive effect of the environmental reporting:

- | The environment report functions as a communication tool to the society which can function as a window ;
- | Responsibility of explanation of the environmental information;
- | It can be used as the tool for companies' environmental management; and
- | It can be used as the information media and tool to construct an environmentally sustainable society.

The environmental report is spreading among the environmentally conscious companies even though there are no legal constraints. The environmental reports are becoming a part of social infrastructure, which delivers information of companies' environmental activities. Eco-funding invests for environmentally excellent companies and credibility in the environment management is becoming critically important to get high evaluation in stock markets. In this sense, the environmental report is becoming as important as the financial report.

2-3 Standardization

The contents of the environmental report differ from a company to another. This makes stake holders extremely difficult to make a fair comparison between companies. The financial report has a standard format thus stake holders can easily compare the financial performances companies. In Denmark, environmental report is legally enforced as same as financial report. Germany is preparing standardization of the environmental report. Sweden, Norway and Australia, are preparing for legal enforcement of the environmental report³¹. There is no legal requirement for the environmental reporting in Japan yet but, I think that the requirement to have regulations on the environmental report may come soon. If governments decide to introduce tax on the emission of CO₂, accurate reporting of companies' emission of CO₂ is required and this will lead to the standardization of environmental reporting. Recently there is a movement of reporting the environmental aspect of the business with social aspect and economical aspect of business. CSR (Corporate Social Responsibility) reports covers environmental protection and the wellbeing of employees, the community and civil society in general, both now and in the future. 'Sustainability report' covers triple bottom line: social; environmental and economical aspect of business. There is a movement of the standardization for CSR report by ISO. And the standardization of Sustainability report by GRI³³.

The Global Reporting Initiative (GRI) was established in 1997 with the mission of developing globally applicable guidelines for reporting on the economic, environmental, and social performance of corporations, governments and non-governmental organizations (NGOs). GRI incorporates the active participation of corporations, NGOs, accountancy organizations, business associations and other stakeholders from around the world. The GRI's Sustainability Reporting Guidelines first released in draft form in 1999, represent the first global framework for comprehensive sustainability reporting, encompassing the "triple bottom line" of economic, environmental and social issues.

2-4 How effective the environmental report can be

2-4-1 Companies' attention and intention to issue environmental reports

The Kansai IGRS center of Japan made a survey on companies' intentions for issuing the environmental report²⁵.

The result (Table 2-3-1-1)) shows that companies are paying the most attention how to attract the stock holders and investors' attention. In other words, companies are now thinking that the environmental reporting will give information to decide the value of

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companies to investors. The second most attention is to give information to business customers and the third is to give information to their individual consumers. The fourth and the fifth are neighbors and the employees.

Table 2-4-1-1)

Survey results of the targeted stake holders of the environmental report

| | Stake holders | Numbers | % |
|----|-------------------------------|---------|-------|
| 1 | Stock holders, Investors | 95 | 29.3% |
| 2 | Business Customers(Companies) | 85 | 26.2 |
| 3 | Consumers(Individuals) | 59 | 18.2 |
| 4 | Neighbors | 27 | 8.3 |
| 5 | Employees | 21 | 6.5 |
| 6 | Government | 11 | 3.4 |
| 7 | Analyst, Certification body | 5 | 1.5 |
| 8 | Citizens, Students | 3 | 0.9 |
| 9 | Mass media | 3 | 0.9 |
| 10 | Industry | 2 | 0.6 |
| 11 | Eco-fund | 2 | 0.6 |
| 12 | Others | 1 | 0.3 |

Kansai IGRS also surveyed companies' intentions for issuing the environmental report.

The first most popular answer is to fulfill the responsibility of the disclosure of the environmental information. The second is to elevate the image of the company and the third is to motivate employees. These two surveys show companies' hope to gain reputation from outside (customers) and inside stake holders (employees) about their good environmental activities. Because there are no legal constraints yet in Japan, the reason of issuing the environmental report is mostly explained as voluntary movement of companies trying to elevate the images and value of the companies by appealing to the stake holders.

Table 2-4-1 -2)

| | | Companies | % |
|----|---|-----------|------|
| 1 | Responsibility of disclosure of environmental information | 197 | 95.6 |
| 2 | Elevate the company value and image | 177 | 85.9 |
| 3 | Motivate employees | 177 | 85.9 |
| 4 | Correspond to the requirement of stake holders | 159 | 77.2 |
| 5 | As a part of the efficient environment management system | 125 | 60.7 |
| 6 | Strengthen competitiveness | 86 | 41.7 |
| 7 | De facto standard | 66 | 32.0 |
| 8 | Comply with the guide line of government | 44 | 21.5 |
| 9 | Recommendation from the industry association | 12 | 5.8 |
| 10 | Others | 2 | 1.0 |

2-4-2 Readers' attention to the environmental report

The Japan Institute for Social and Economic Affairs³³ made a survey how well environmental reports of companies are read. The results are rather discouraging to companies. About ninety percent of citizens have never read environmental reports and about fifty percent of citizens did not know the existence of environmental reports. In reality, environmental reports are not well read by citizens. The reason why environmental reports were not well read is that citizens don't know the existence of environmental reports. In most companies, environmental reports are written by professionals of environmental regulations and technologies. Thus, most of the writers of the environmental report recognize the environmental reports as official record of their professional activities. This lacks marketing minds to disseminate easy to understand information to citizens as a part of companies' services to customers. In this sense, companies should consider the marketing of environmental reports to meet with the stake holders' needs. Ministry of Economy, Trade and Industry Japan issued a report titled "A guideline of environmental reports valuing the needs of stake holders (Table 2-3-2)." It is

obvious that each stake holder has different concerns so companies should prepare environmental report which meets each stake holders' attention and needs.

Table 2-4-2 A guideline of environmental reports valuing the needs of stake holders

| Category of stake holders | Characteristics, Concerns |
|---------------------------|--|
| Banks, Banking facilities | Analyses the environmental report for decision making of investments. |
| Customers(Companies) | Information of Green products, green purchasing and to estimate environmental impacts. |
| Governments | Compliances to regulations. |
| Neighbors | Local information related with company's operation, environmental burden and emission. |
| NGO | Concerns about the environmental impacts companies' activity to the environmental preservation |
| Citizens | General information related with the company's general environmental activities and products' burden on the environments. Looking forward to have information easy to read and understand. |
| Employees | Have great concerns over the entire operation and its the environmental impacts. |

Companies should plan how to distribute environmental reports effectively to stake holders as well. Internet is convenient to most of the citizens, thus many companies prepare environmental reports in standardized Internet forms such as HTML or PDF. It is costly for both stake holders and companies to prepare and send printed booklets of the environmental reports (also it is bad for environments).

2-5 Credibility of the environmental report.

Credibility in the environment reports is of greatest concerns to stake holders. A survey result in Japan shows that most credible information sources of the environmental reports are: NGO source; National television; and public newspapers³¹.

One major factor, which sacrifices the credibility of company's environmental report, is that the environmental report is not answering to questions which stake holders are

interested in. A survey was made to know how effectively environmental reports are answering interested questions of stake holders³⁴.

The top ten questions which are not answered by the environmental report are:

- | Contamination of water and soil;
- | Emission of acidic gases (acid rain);
- | Emission of CFCs;
- | Emission of Dioxins and CO₂; and
- | Land fills

Most of items are related with contamination and the emission of toxic substances. Companies may be afraid that their reputations might be hurt, if companies open the environmental data on toxic substances. However, companies should think that honest and accurate declaration will not hurt the reputation. The efforts of reducing unwanted toxic substances to the environment will create a favorable impression of companies. People trust NGOs and National television, because people believe these parties will not pursue economical merit so that these parties can report the truth. Companies should report their environmental report honestly and should not omit the information which stakeholders want to have. Utilization of the third parties, which can certify the accuracy of the environmental reports and introduction of environmental management systems, can be also effective to raise the credibility.

2-6 How to answer stake holders questions effectively

Better environmental reports should answer to the question which stakeholders really want to know. Companies should try to gain credibility of environmental reports by improving the contents of the environmental reports.

Horikoshi³⁴ is proposing an interesting behavioral model of stakeholders of the environment (Figure 2-5). There are four steps in the process identifying the environmental problems and making decisions and counter measures.

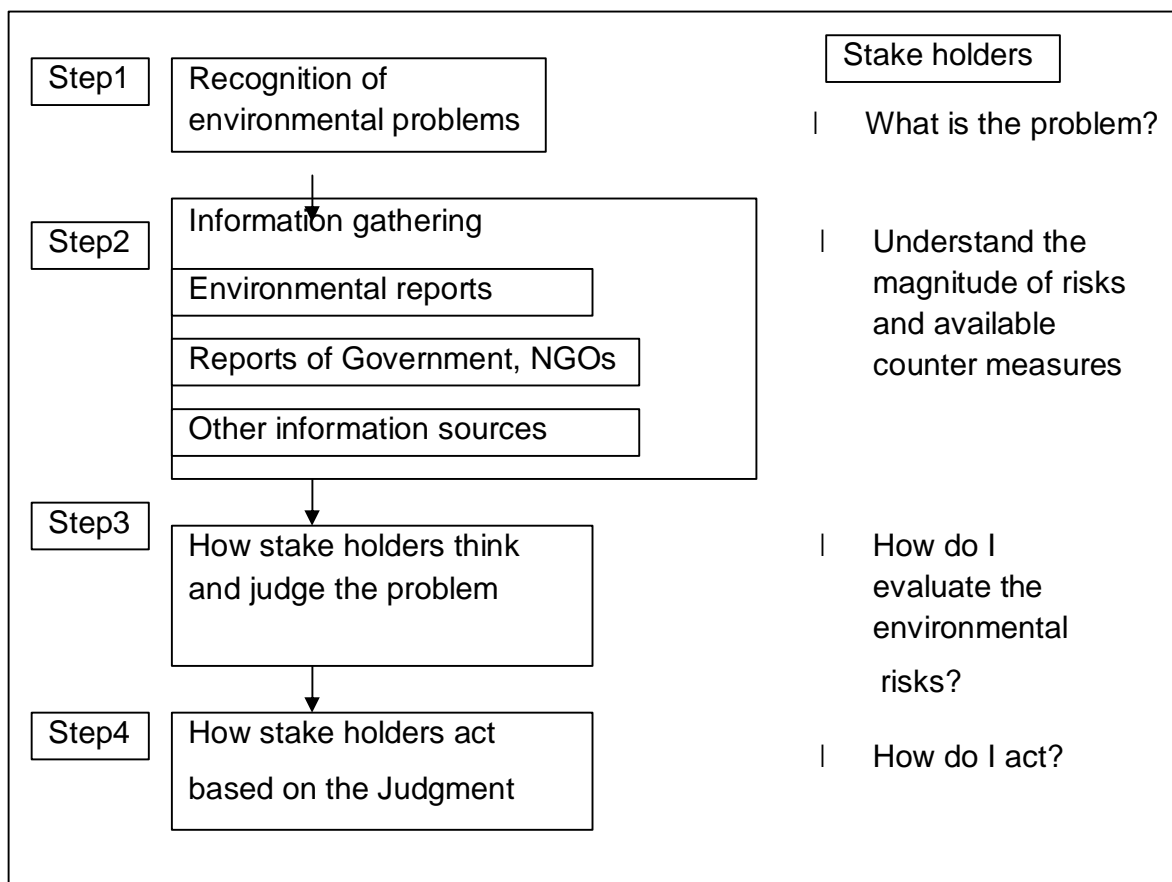
- | The first step is the recognition of the problems. Stake holders need to understand what environmental problems are and what kind of problems stake holders may have. Scientific data of safeness or dangerousness of chemical substances are required information required at this step.

- | The second step is a process of gathering information related with environmental problems. Information related with the risk analysis and countermeasures to risks are concerns of the stake holders. The stake holders want to know official data for safety test of the substances, statistical data to judge the magnitude of the problem, and opinions of people who received damages at this stage.

- | The third step is the decision making step. Stake holders judge the magnitude of the risks and make their own stances of how to deal with the environmental problem.

- | The final step is the action step. Stake holders will act to reduce the environmental risks if necessary. Stake holders need to have information of how they can help to reduce or eliminate risks.

Figure 2-6 A behavioral model of the environmental stake holders



According to a survey³⁴, stake holders show the most interest to know the scientific data of the safety or dangerousness of the chemical substances of the environmental concern.

Reasons and mechanisms of how those chemical substances affect the health of people and the environment is of a special concern. Considering these interests and concerns of the stake holders, the environmental report needs to have explanations of not only the environmental data itself but also the basic explanations of how environmental problems happen and how it affects to human health and the environment. If these explanations are provided with companies' countermeasures to reduce risks and damages, stake holders will understand and evaluate the companies' efforts better. Stake holders are also interested in how they can help to reduce or eliminate the environmental risks and damages. Information on how to select products with less environmental burden, right methods to use product with less environmental impacts, matches with needs of the stake holders. Companies should provide right information in the environmental report to meet with the needs of the stake holders as a key business strategy in 21st century.

3. Conclusions

The nature and the function of the environmental stake holders of companies have been studied in the light of the environmental sustainable business. The stake holders of the environment are paying more attentions to companies' activities recently and to get better understanding from the stake holders is becoming critical to successful business. In many European countries, governments have tax systems to correct external diseconomy of the environment and many other countries of the world may follow the tax systems in the future. NGOs have great power on making governmental policies of the environmental preservation. They can have great effect on the reputations of companies by issuing the evaluation reports on environmental performance of companies and by carrying out negative campaigns. Companies should understand the existence of NGOs positively and should try to make good relations with NGOs by challenging to be environmentally excellent company. Consumers' green purchasing trend is getting stronger and companies are following this trend. All in all, the stake holders can be negative about the companies if company' performance is low. On the contrary, if companies' environmental performance is high, companies can get good reputation and the value of the stock of may increase. In his sense, the communication with the stake holders is becoming more important. The environmental report delivers important environmental information to the stake holders, who judges the value of the company, thus the content must be trustworthy and informative. Companies should understand what kind of questions the stake holders have and how to effectively answer to those questions. Good reporting and good communication with the stake holders give the right to carry out successful business, and this is what companies should position as the key business strategy in 21st century.

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