

The Greening of Corporate Japan

By Yoshiro Yanagawa

It may have lost some of its glamour since the height of the U.N.-sponsored Rio de Janeiro Earth Summit, but "green" is still all the rage. Not a day goes by that you do not find something in the media about the "global environment" or "environmental protection."

And it is quite right that it should be an issue now that destruction of the environment has become a very real possibility. Global warming, ozone depletion, acid rain, deforestation, desertification and ocean pollution are no longer just words but palpable threats.

Obviously, government policy-makers and individual citizens will bear the brunt of conservation, but companies will also have to do their part. After all, it is corporations that, in the course of producing goods and services, use vast amounts of energy, consume natural resources, and emit pollutants into the environment.

Growing awareness

Over the last couple of years, there has been a growing awareness of green issues in corporate Japan. Slogans like "Only environment-friendly companies will survive," and "The focus of the 1990s will be on striking a balance between ecology and economics," are well on their way to becoming established ways of thinking.

What has brought about this change of heart is the realization that protection of the environment has become a major social concern and companies that are less than enthusiastic about it risk a backlash from the general public. This is something of a revolution. During Japan's high-growth period, firms had neither the time nor any interest in anything not directly related to short-term profits. Who could have imagined that they would now be leading the green movement?

Japanese industry's first brush with environmental problems actually dates back to a copper-poisoning incident at the Ashio mine during the Meiji period (1868-1912). But even after this experi-

ence, the country's priority was clearly on industrial development in its aim to catch up with the Western industrialized nations, and the environment was often sacrificed as a result. That changed during the postwar boom as four incidents turned the tide against industrial pollutants: the Minamata Disease (mercury poisoning) in Kumamoto; a replay of it in Niigata; the Yokkaichi asthma outbreak; and the Itai-itai Disease (cadmium poisoning) in Toyama. Companies dumping pollutants into the environment found themselves becoming pariahs.

But environmental destruction is different from pollution in that it is no longer clear who is the victim and who is doing the victimizing. Still, their bitter experiences with localized pollution have undoubtedly taught Japanese firms that their response to conservation issues will be a key factor in their survival.

The managers of Japan's largest companies now affirm that environmental issues are one of the major business challenges they face. Keidanren, the leading group in the business community, creat-

ed the Keidanren Global Environment Charter in April 1991 in which it states as its basic premise, "Each company must aim at being a good global corporate citizen, recognizing that grappling with environmental problems is essential to its own existence and its activities."

The document goes on to give guidelines for environmentally aware companies and those that wish to be so, including such advice as making protection of the environment and conservation of the ecology and natural resources part of all corporate activities, and ensuring that products are environmentally benign. As in-house programs, it suggests appointing an executive to be in charge of environmental issues, establishing an organization to deal with environmental problems, and drafting and following in-house environmental regulations.

The momentum has built to the point that there is almost no major Japanese company that is not doing something to deal with green issues. Indeed, they seem to be almost competing with each other to set up a "Global Environment Depart-



Plaintiffs in the Minamata Disease case demonstrate in front of the Environment Agency. Lawsuits on localized pollution cases usually take a considerable time to be completed.

Photo: Nihon Keizai Shinbun

ment," "Environmental Safety Office," "Environmental Issues Committee," "Recycling Committee" and the like.

Of course, the moves have their critics. Many complain that managements have created organizations but not told them what they are supposed to be doing. Nonetheless, there are also companies that make active use of their environmental protection groups and have empowered them to check policies for environmental soundness. Some even require environmental assessments to be done before they make new investments, just to make sure what kind of effect the project will have on wildlife, for example.

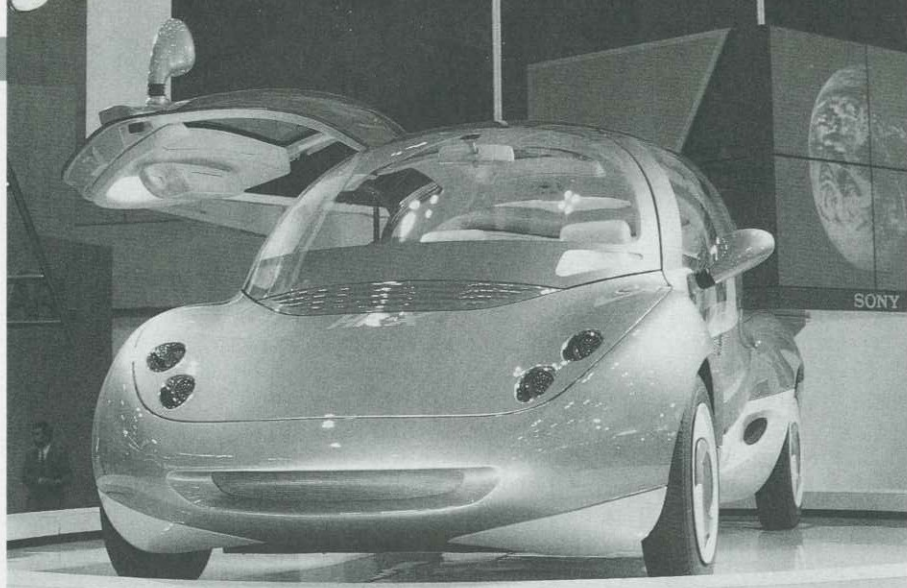
Corporate efforts

Many companies are also pushing more down-to-earth activities like recycling computer paper, copier paper, name cards and envelopes. And *waribashi*, the disposable wooden chopsticks that have been standard in public eateries since the samurai days, are fast disappearing from company cafeterias in the name of conservation. Some may doubt just how effective the switch from wooden chopsticks to reusable plastic ones will be in protecting forest resources, but at the very least, their replacement will make employees more aware of the need to save the environment.

Some trading companies and breweries have also started sending their employees out to pick up discarded cans along beaches and riverbanks. In some cases, trading companies, banks and supermarkets have developed a deal with aluminum manufacturers to come around and haul away as scrap the cans their employees bring in.

In general, there are three kinds of corporate attitude toward green activities. The first is evinced by firms which, by the nature of their business, have to be involved in environmental protection. These are the "orthodox mainstream," the companies for whom cleaning up the environment is a matter of defending their livelihood.

A good example comes from the electric power industry. Thermoelectric plants account for an estimated 27% of



A hydrogen-powered, rotary engine car displayed at the 29th Tokyo Motor Show in October 1991, demonstrating the industry's commitment toward environmental concerns.

Japan's output of carbon dioxide, the substance that has been fingered as the main culprit in global warming. It is no surprise, therefore, that electric power companies were among the first to jump onto the green bandwagon. The industry now has three basic carbon dioxide goals: to build plants that will either "not emit CO₂ into the environment," or will "emit less CO₂," or "will recover any CO₂ they emit."

The first goal, however, is not very realistic. The only electric power plants that do not emit CO₂ are nuclear or solar. Public opposition and siting difficulties mean that more nuclear plants are not an option. And neither is photovoltaic power generation, given the huge running costs associated with solar cells.

This has focused attention on the second goal of plants that "emit less CO₂." This has more potential. Power companies are planning to build integrated power plants combining thermal power using gas turbines with utilization of the waste heat from the gas turbine thermal processes. They are also switching to natural gas, which emits less CO₂ than coal or oil.

The third goal of "recovering any CO₂ emitted" is more long-range. Tohoku Electric Power, Tokyo Electric Power, Chubu Electric Power and Kansai Electric Power are collaborating on the development of new carbon dioxide recovery technology, but it is too early to say when it will be available for commercial use. Still, the technology does have potential.

Japanese steelmakers were also quick to clean up their act. Ever since the 1970s the industry has been making a concerted effort to reduce its emissions of compounds containing oxides of sulfur and nitrogen. Today it boasts the most ad-

vanced technology in this area of any industrialized country, and its researchers are now investigating new steelmaking processes that will require even less energy and produce even less carbon dioxide. Still, the room for improvement is limited. If it takes Japanese steelmakers 100 units of energy to produce a ton of steel, it takes their American competitors a bit over 130 and their counterparts in the former Soviet Union over 150.

The automobile industry also feels green issues keenly and is trying to deflect criticism that it is "the industry that is ruining the environment" or "the source of all environmental evils." Automakers are working fast and furiously to reduce their use of ozone-destroying chlorofluorocarbons (CFCs) by switching to alternative gases to puff up the urethane in seat cushions or serve as cooling media for air conditioners. Another challenge for them is to find ways to recycle plastic parts. Both Toyota and Nissan have set up "Recycling Committees" to search for solutions. But the most important way to halt global warming will be to boost fuel efficiency, so automakers are now actively developing lighter-weight vehicles and more fuel-efficient engines.

Potential eco-businesses

In conjunction with this, auto industry R&D departments are also hard at work on the development of environment-friendly cars. There are already about a thousand electric cars on the road, and methanol-powered vehicles are due on the market soon. Research is also moving forward on solar cars, which are powered

with solar cells, and hydrogen cars.

The second kind of green company can best be described as those in the "eco-business"—the companies which see green issues as potential moneymakers. This group includes producers of water treatment facilities, flue gas scrubbers and recycling plants. For these industries, spring has finally come—and they know it.

House builders are getting into the act too. Some are trying to commercialize "solar-powered" homes, and one even plans to have an "eco-energy home" on the market before the year is out. Though it costs several million yen to add solar power facilities to a home, builders are selling it as an alternative to conventional electricity that will pay for itself in 10 years.

The gas companies, meanwhile, are pushing the idea of automobiles powered by natural gas, which they claim emit less than half the nitrogen oxide compounds and carbon monoxide of conventional gasoline cars while generating greater horse power than electric cars. Tokyo Gas and Osaka Gas lead the development and see buses and trucks as an attractive way to market their environment-friendly vehicles.

Green is also good for advertising, as can be seen from the number of corporate ad campaigns with an environmental twist. "Eco-marketing"—the strategy of giving products environment-related names—has also proved an effective way to use the conservation boom to attract new customers. Consumers have, however, begun to shun those products where the commercial intent is too obvious.

The third group of green firms are those that see protecting the environment as a good way to boost their image. Some of the big construction companies—a group often labeled "destroyers of the environment" by conservationists—have taken this route. They hope to change their image by announcing grandiose plans for desert foliation projects or "artificial coral reefs" that will suck up excess carbon dioxide.

Meanwhile, cosmetics companies, whose business is, after all, images, are trying to impress consumers with their

concern for the environment by actively (and vocally) using recycled paper in their packaging or selling their products in recyclable containers.

Not even finance is immune. Enterprising stockbrokers have put together baskets of green companies that they are marketing in the form of "Eco Stock Funds" (investment trusts). Credit card companies, meanwhile, are donating part of customer payments or their investment profits to the conservation movement.

Obviously, no company fits neatly into one of these three pigeonholes. Firms have complex motivations and aims for what they do and it would be wrong to give the impression they are as simple as we have painted them here. Corporate interest in the environment spans the entire range from those who view conservation activities as part and parcel of risk management and are quietly and sincerely doing their part even at the expense of profits to those who have jumped on the green bandwagon purely for commercial purposes.

Since the early 1970s, Japanese firms have invested large amounts of money in pollution prevention. Some estimate the total accumulation during the last two decades as coming to as much as ¥9.7 trillion. Their motivation for doing so was twofold: they needed to respond to the growing strength of the antipollution movement that began in the late 1960s and they needed to adapt to the post-oil-crisis world.

Technology transfer

These investments have had very visible returns, one of which is car exhaust cleaners, which Japanese companies came to in a process of trial and error after stiff regulations on exhaust gas forced them to do something they had once considered impossible. Another is smokestack scrubbers. Japan has 1,800 of the estimated 2,360 flue gas desulfurization plants in operation throughout the world, and when it comes to combating air pollution, this country's technology is second to none.

Japan is also the leader in energy con-

Fig. 1 Energy Used to Produce \$1 Million in GDP
(tons in oil equivalent)

Japan	254
U.S.	416
France	366
Italy	314
Britain	394
Former West Germany	386
OECD average	386

Source: an OECD report on energy balance

servation. As Fig. 1 shows, it uses far less energy to produce \$1 million in GDP than any other industrialized country. The common wisdom among companies here says that Japanese firms have been so thorough in conserving energy and preventing pollution that there is little room for them to trim off any more.

Instead, what Japan needs to do is to export the technology it has developed. Given the global nature of today's environmental problems, Japan should transfer its technology to countries where there is more progress to be made, particularly developing countries. Most business leaders agree with that conclusion, though no one is quite sure how to go about exporting antipollution technology to countries where economic growth is given far more priority than conservation.

Unlike the localized pollution problems that Japanese companies have by and large solved, the environmental issues now confronting them are global in nature. Solutions will only come after a long process of trial and error.

And Japanese firms have been lucky. Interest in the environment picked up right as Japan was reaching the peak of its business cycle, so companies had the cash and manpower to make a strong showing. But the picture is not so bright now. The bursting of the speculative bubble has caused the economy to slide closer and closer to recession. It is anyone's guess whether firms will continue to be as enthusiastic about protecting the environment when their profits are in decline. ■

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