aving Our Environment

By Saburo Okita



There has been a groundswell of concern with the global environment. After getting only perfunctory attention at past economic summits, the environment commanded a full third of the Arche Summit declaration issued this July 16. As the declaration states, "Decisive action is urgently needed to understand and protect the earth's ecological balance."

This realization was, of course, preceded by attention at the local level as scientists and other concerned citizens from all over the world highlighted the dangers posed by, for example, the greenhouse effect, acid rain, and the depletion of the ozone layer.

Not surprisingly, "greens" made a strong showing in the European Parliament elections this summer and a number of prominent politicians have suddenly developed a desire to be identified as environmentalists.

What of Japan? With its economic might and scientific and technological prowess, Japan is well-placed to contribute in a number of areas—environmental monitoring, pollution control, sustainable development policy and others.

The first problem in our relationship with the global environment is that all too often we do not know what is happening until it is too late. For example, we frequently do not know what pollutants are being emitted or how they impact the environment. That is why monitoring and research are so important. This is something that needs to be studied, and studied properly. Japan can play a major role in this important monitoring and collection of scientific data. Japan could help design and finance international earthwatch satellites, and could provide some of the expertise needed to interpret the results as well.

But of course, monitoring alone is not enough. There are a lot of things that must be researched. There is some very valuable research being done on the ozone layer, but a lot of work remains to be done on sulfur dioxide for example. Even once we know how much sulfur dioxide there is in the atmosphere, we need to know the mechanisms of atmospheric pollution before we can tell what this means in terms of acid rain, and in terms of dead lakes and denuded forests. There is even more uncertainty about carbon dioxide.

Japanese scientists should be doing more in these areas, and Japan should assist in training scientists and engineers from the developing countries. This does not have to mean bringing those people to Japan for training. We could just as well offer economic assistance for the developing countries to build their own research and training centers, monitoring stations and the rest. This is all very important.

Protecting forests

One of the areas that has drawn particular attention is the plight of the tropical forests. Along with the algae in the oceans, these forests are a major source of oxygen, and to allow them to be cut down would be akin to shutting the valve on someone in an oxygen tent. As a result, some people may argue for a pristine approach that would keep the forests virgin. Personally, I suspect that is untenable.

The economic and population pressures are too great. We cannot simply declare these forests off-limits. Instead, we have to find some way to build cooperation between the producing countries and the consuming countries that will benefit both sides and still be environmentally sound. One of the initiatives that has been taken here is the establishment of the International Tropical Timber Organization (ITTO), a United Nations organization devoted to the conservation and development use of tropical timber. Japan has worked hard in support of the ITTO and helped set up its headquarters in Yokohama in 1987.

It was also in 1987 that the United Nations World Commission on Environment and Development (WCED) headed by Gro Bruntdland issued its report emphasizing the concept of sustainable development. The WCED report said the environment is too important to be left only to the environmentalists. For ex-



A denuded area of the Amazonian forest. Once it was dense with tropical trees.

ample, people working on energy policy, industrial development, agriculture development and even population problems have to be aware of the environmental impact and have to plan their programs in terms of sustainability. This is the same Gro Bruntdland who later became prime minister of Norway, and I admire the way she ordered her ministers to make sure their departments' policies are compatible with sustainable development.

The bottom line is that it is wrong to leave posterity an impoverished world. If we allow our tropical forests to disappear, we lose more than just an oxygen source. The total diversity of life is diminished. There are countless life forms we have not even identified yet, much less analyzed. For all the talk of biotechnology and genetic engineering, it would be ironic if we were to snuff out significant diversity—and all diversity is significant—through sheer carelessness and thoughtlessness. We have to enable wildlife to survive in the wild—in a natural environment.

Yet there are powerful pressures working for the forests' demise. As Indonesia's Population and Environment Minister Emil Salim has pointed out, environmental conservation involves an economic burden—the burden of foregone opportunities. As it is now, the developing countries can earn money by cutting the trees but get nothing for not cutting. Thus the countries with tropical forests would like the other countries to share in the cost of preserving these forests. In other

words, they want aid to *not* cut the trees nondevelopment assistance, if you will. When you think about the fact that forest preservation helps all mankind, this is not an unreasonable demand.

Another point that should be made in regard to protecting forests, coral reefs and the rest is that this is not simply a matter of foregone opportunities. Preserving natural beauty can also create new opportunities. There is increasing demand for recreational uses-taking walks in the forest, for example. So at the same time as they are preventing erosion and freshening the air, forests can also satisfy the modern urbanites' recreational needs. The environment is very much related to the quality of life, and rather than simply leaving nature alone we should make sure we are able to take long-term advantage of the natural bounty. A lot remains to be done in making sure that recreational uses do not overwhelm the environment, but this is one way that some areas might mitigate the loss from foregone industrialization.

Knowledge transfer

At the same time, reforestation offers a way to cut trees without destroying the forests. As the world's largest importer of lumber, Japan has a major stake in this. We need to think in terms of sustainable development concerning the tropical timber we are importing. Even looked at from industry's perspective, if the trees are cut down faster than they should be,

then the resource is eventually going to dry up, and so is the industry.

In such Northern countries as the United States, Canada, Japan and the Soviet Union, trees are being used but not depleted, because they are replanted as fast as they are cut down. But in the South they have not yet developed the ability to manage their forestry resources well. The developing countries have yet to do much in the way of forestry management, and the transfer of that technology and systemic knowledge from the North is critical to alleviating this problem.

In global terms, the loss of the tropical forests has a disastrous impact in, for example, accelerating the greenhouse effect. So the sustainable development of forests is critical from an economic perspective as well as an environmental point of view. But since we cannot just put the tropical forests off-limits, we need some type of zoning. Some areas might be set aside as completely protected, other areas earmarked for fast-growing species to take care of the people's fuel needs, and still other areas zoned as agricultural areas to provide food. Remember, though, that the thin topsoil layer in some of these forests rules out slash-andburn agriculture.

Japan and the other industrial countries have a lot to contribute because they have learned the lesson of sustainable development. We know that pell-mell development can wreak environmental havoc—witness Minamata in Japan, Love Canal in the United States and Knapsack in West Germany—and we have developed the technology needed to reconcile development with environmental concerns.

Member nations of the International Tropical Timber Organization attend a Council meeting in Yokohama.



Indeed, this is what sustainable development is all about. If people wantonly take advantage of the environment for themselves today, this can pose a direct threat to the survival of future generations. If we use it all up now, there will not be anything left for the next person. So we have to think in terms of sustainability—of not exhausting the supply and leaving our descendants holding an empty bag.

Although the Japanese contribution has to be more than money, money is also important. We are planning to double our official development assistance (ODA) to at least \$50 billion over a five-year period. A good portion of this money has to go to environmental problems. Much of the attention recently has been focused on global issues, but Japan has a lot of experience in dealing with environmental problems such as contamination and other kinds of pollution. These are problems that the developing countries will have to deal with sooner or later and Japan can do a lot to help in this area. There is still a lot of pollution in Japan, but the situation is much better than it used to be.

Know-how needed

For example, we reduced the sulfur dioxide in the air by two-thirds over a 10-year period. Electric power companies have started using more natural gas and better smoke-desulfurization techniques. So Japan is definitely an advanced country when it comes to antipollution measures. Japan has an abundance of experience with the machinery and knowhow needed to deal with pollution and contamination, and it can do a lot by transferring this technology to the developing countries and providing economic aid for their antipollution projects.

There is some resistance to strong antipollution measures in the developing countries because these measures increase the costs of building factories. However, Japanese assistance could offset much of that incremental cost—and this economic assistance is warranted since the pollution affects us and everybody else as well. In addition, the developing countries need a range of laws and administrative regulations to prevent pollution. This is another area where Japan is quite experienced and should be able to help the developing countries with the managerial and other intangible aspects.

I would hate, of course, to give the impression that we know it all and that we have nothing more to learn. Japan has done a pretty good job in making the air clean, but still has quite a way to go with the water. So we are still developing the expertise, but I hope Japan will share its experience and expertise so everybody does not have to spend a lot of time reinventing the wheel-or paying heavy licensing fees for Japanese wheels. Chlorofluorocarbon (CFC) technology is an excellent example here. Japan, because it is such a major player in semiconductors and electronics, has also been a major user of CFCs. Now we are working on developing alternatives, and I would like to see any advances shared with the rest of the world as well. The depletion of the ozone layer is very much to Japan's detriment no matter who does it.

Our experience in dealing with pollution showed us it can be avoided with a little additional investment, and we need to pass this knowledge on. The Japanese government already has a number of specific plans, including building environmental research and training stations in Thailand and China. We also need to improve the capabilities of the local people, and this could be done at research centers, training institutes and the like. In the past, Japanese assistance programs have been very project-oriented. We would build a hospital for a country but not provide sufficient doctors or medical training. Our assistance has been lacking in the educational and experience aspects. This has to change. We need to train the local people. Help in the intangible aspects is extremely important, not just in environmental fields but in many others as well.

I serve as chairman of the government's Economic Cooperation Council, and many of the participants have pointed out that Japan has been slow to offer assistance in the intangible aspects and needs to put more emphasis on this area. By this I mean sharing our experi-



Developing countries earn money by cutting down trees but get nothing for not cutting them. Some countries now have a policy of asking developed nations to share the cost of preservation of forests.

ence and know-how, and this includes research, in addition to economic and technological cooperation. We have to gradually enable them to do their own research, on, for example, the development of forestry resources. If we do not do this, our assistance may well end up being counterproductive.

For years, Japanese prime ministers have been promising more in the way of cooperation in training and research for developing these countries' human resources. A doubling of our ODA is all well and fine, but we also need to up the number of people we have administering this aid to make sure it serves its purposes. If you are just throwing money at the problem, the money is liable to be wasted. Japanese aid must be improved qualitatively, and the first step has to be accumulating the appropriate scientific knowledge and experts in Japan.

We must change the present system of assistance on request—which means that no assistance is provided until there is a request for it—and take the initiative in studying conditions in the recipient countries and providing the assistance that they really need long-term. What the people think they need short-term is not necessarily what the global environment needs long-term, and our assistance must be geared to benefiting the whole world. This makes it very important that we give our assistance policies an environmental orientation.

Of course, I would not want to imply that it is only the developing countries that have to do something on the global environment. This is, obviously, a global issue, and the industrial countries have at least as great a responsibility in this area. It has become clear to everyone that it could be disastrous for the future if we do not take care of Spaceship *Earth*—home

not only to the whole human race but to all living things.

So far, people have been primarily concerned about the East-West conflict and the threat of nuclear extinction, but the thaw in U.S.-Soviet relations makes it look like we might be able to avoid a nuclear war. And if so, we have the latitude to address the other threats to mankind that exist-with the destruction of the global environment looming large. This is a problem that goes beyond the East-West conflict or the North-South conflict It is an issue for the whole human race. If we are going to have international competition. I would far rather it were in environmental protection than a nuclear arms race.

Reaching the limit

Since the advanced countries have the technology and the money, they must not only deal with their own environmental problems but must think about the whole world's environment. One of the most difficult problems here is the increasing amount of carbon dioxide in the atmosphere, caused primarily by the industrial countries. The amount of carbon dioxide in the world's atmosphere is on the increase, and we need to arrest and reverse this trend. It is the industrial nations that must contribute the biggest reductions, since we are responsible for generating most of the problem. We cannot just tell the developing countries that the limits have been reached so tough luck.

The developing countries have the right to develop a better standard of living for their people, and this means energy-use. They are not about to accept deprivation for themselves to atone for past environmentally unsound practices in the industrial countries. This is the

type of problem that is coming out in international conferences. The industrial countries must cut back on their own carbon dioxide emissions, and they have to take more responsibility and bear more of the burden for global environmental issues. Doing this will require some basic changes in their industrial structures and personal lifestyles, but international cooperation is going to be very difficult otherwise.

The enormous populations in the developing countries and the population explosion are also contributing factors here. The world population in 1955 was 2.5 billion, and it surpassed 5 billion two years ago. In the year 2000 this will be over 6 billion, and by 2025 over 8 billion. I would not be surprised if the population eventually increased to about 10 billion. which is probably the saturation point. For the world to not only take care of 10 billion people but to attempt to raise their standard of living is a formidable task. And this brings us back to the question of how to achieve sustainable development. We must assemble the best minds from around the world and make the most of our scientific knowledge, working together for the protection of the global ecosystem.

Japan, with its money and technological know-how, is in a very good position to assume a leadership role in global environmental protection. I do not think the other countries can complain about Japan taking the lead in this area. Japan has run up a considerable foreign reserve balance, and it would be good to see this used for the global good. Of course, this would also help Japan by earning it a more respected position in the international community and alleviating some of the friction, but more important is that it is essential for the global future. This much at least we owe to posterity.

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