

# Cambodia and the Problem of Pesticides

**Tasaka Koa**

In January 1993, Mr. Hajime Takahashi and his wife Kimiko, both ICU graduates, were sent to Cambodia by the Japan Overseas Christian Medical Services (JOCS). Upon their arrival at Phnom Penh, they read an article in the *Phnom Penh Post*, “Japan’s Pesticide Package May Kill More Than Bugs.” Shocked by its content, they sent me the copy by fax. (See Appendix 1). As the contents of this article were serious, I made a thorough investigation of the matter, and discovered the following. In June 1992, the Japanese government made a promise to donate a total of 500 million yen equivalent of chemical fertilizers, agricultural equipment and pesticides (30 tons, 100 million Yen) under the so-called “Second Kennedy Round” program which aimed to promote food production in developing countries. Although the package was donated to the Cambodian government, the aid materials were not distributed free to the farmers, but were sold instead. The pesticides sent “by the request of Cambodian government” included Fenitrothion (Sumithion), Diazinon and Fenvalerate (Sumicidin). The former two are organophosphate insecticides.

In Cambodia, various NGOs from all over the world, including Japanese NGOs such as the Japan International Volunteer Center (JVC), JOCS, SHARE, Sotoshu Volunteer Association (SVA) have been working for the betterment of living condition of refugees, improved medical programs, agriculture, and educational facilities. Many experts from international organization such as the Food and Agricultural Organization (FAO) or the International Rice Research Institute (IRRI) have sought to contribute to agricultural development. These people from several NGOs and international organizations working in various areas in Cambodia jointly formed an organization called the Cooperation Committee for Cambodia (CCC). This organization criticized the donation of pesticides by the Japanese government. The people who have been committed to Cambodia and know well the situation in Cambodia have pointed out the following problems:

1. The pesticides may cause health problems among the farmers.
2. They may poison and kill valuable protein sources such as fish, shrimp, shellfish and frogs.
3. They kill the predators of harmful insects as well, and thus may cause an outbreak of harmful insects resistant to the pesticides.

From the end of July to the beginning of August 1993, I visited Cambodia for the first time, invited by the JVC. The most shocking thing I observed in the rural areas

near Phnom Penh was that the farmers were using a deadly poisonous insecticide, parathion methyl, in growing watermelon. It was sold under the trade name of "Folidol" in the market, and bottles carried a short explanation in English and Thai language, but not in Khmer. It is produced by Bayer, a German pharmaceutical company, but imported through Thailand. After spraying, the farmers told me that they often get headaches but eat crude sugar from sugar palm as a cure. Also, we heard from farmers that dead fish floating in ponds after nearby crops were sprayed with pesticide were gathered by children, taken home and eaten by the family. Then, I visited Mr. Imagawa, Japanese Ambassador to Cambodia, and requested that the Japanese Government reconsider its pesticide donation program explaining the situation that I had observed. He promised to report our findings to superiors in Japan.

In Japan, several NGOs which have been involved in the reconstruction of Cambodia after the civil war jointly formed an NGO Network called the "People's Forum on Cambodia." This group was established in (September 1993). Mr. Ohtori Kurino, former Japanese Ambassador to Cambodia, kindly joined us as a representative of the Network. It was a great advantage for our group, because the Ministry of Foreign Affairs could not easily neglect us.

The mass media in Japan as well as in Cambodia reported on the pesticide issue and promoted people's concern and understanding. On July 18, 1993 a short article which I wrote, "Japan's aid to Cambodia threatens environment" appeared in the *Asahi Evening News*. (See Appendix 2). Later, NTV reported in its 11 pm news program in August, 1993 on my visit to Cambodia. They showed the dangerous situation of pesticide use there. NHK made a precise report on the problem in a Radio Japan program aired September 8, 1993 in Japanese and in English by shortwave all over the world. Then, on November 18, the Asahi TV "News Station," a popular Japanese news program, took up the issue, focusing on the danger of donating diazinon to Cambodia.

These reports pressured the Japanese government to reconsider its pesticide aid to developing countries such as Cambodia. On July 28, 1994, the *Mainichi Daily News* reported that "JICA admits sending agro-chemicals to Cambodia was mistake"!! And then, on August 4, the same newspaper reported "Cambodian farm aid cut," indicating that the Japanese Ministry of Foreign Affairs had decided to halt its shipments of pesticides to Cambodia. We couldn't believe it!

It was a victory of a grassroots movement over the Japan Official Development Assistance (ODA) program. According to a report "Bilateral Donor Agency and the Environment — Pest and Pesticide Management" written by Richard Tobin for U.S. AID in December 1996, the Cambodian case was exceptional. According to Tobin, the Japanese government rarely reconsiders its ODA program once it has been decided. Although pesticide aid to Cambodia was stopped, the Japanese government is still sending pesticides to many African countries through ODA. Therefore, we must continue our activities on this issue, but we know now that our efforts will not always be in vain!

## Appendix 1

### “Japan’s Pesticide Package May Kill More than Bugs”

By James Fahn and Sara Colm

(*Phnom Penh Post* January 15–28 1993, Vol. 21, Number 2)

Unlike Thailand, many of Cambodia’s paddy fields are lush with wild flowers because pesticides are not widely used here.

But if Japan comes through with an agricultural aid package that includes 30 tonnes of agro-chemicals, those wildflowers — as well as Cambodia’s rivers and fish — could wither and die.

In Thailand, critics have blamed the lavish use of pesticides for damaging the health of farmers and consumers, killing fish in the rice paddies and rivers, polluting the country’s waterways, and pushing Thai farmers into debt.

With a little prodding from Japanese chemical companies and the Japan International Cooperation Agency (JICA), Cambodia may soon face a similar dilemma.

Alarm bells are starting to go off with the news that JICA is planning to provide the State of Cambodia’s Ministry of Agriculture with a U.S. \$3.78 million assistance package. The aid will consist of fertilizer, agricultural tools, and 30 tonnes (or 30,000 liters) of insecticides worth about 100 million yen (U.S. \$800,000).

According to the Japan Tropical Forest Action Network (JATAN), the agricultural chemicals will be provided by Sumitomo Chemical Co. with Nippon Kayaku Co. — a trading company — handling the transactions.

Agricultural experts in Cambodia are concerned that the country cannot afford to sanction the wanton use of pesticides without first studying their potential long-term impact. Many of these experts, however, are afraid to speak out publicly lest they be accused of interference.

State of Cambodia (SOC) officials say they are caught between a rock and a hard place in trying to meet their agricultural needs. According to Chan Tong Yves, an agronomist with SOC’s Ministry of Agriculture, Cambodia requested that Japan send the pesticides.

“We know the use of pesticides may affect the ecological or biological balance of the environment,” he said. “Theoretically, we know there’s some impact, but there’s been no research or monitoring of the impact — there’s no institution here to test the pesticides.

“We have to worry [about environmental consequences] but if we do not have pest control, we cannot deal with shortages of rice and crops,” Yves added. “According to the government policy we have to meet self-sufficiency in agriculture”

Cambodia’s agricultural output and the cash-strapped Phnom Penh regime have suffered from years of warfare, economic isolation, and dwindling foreign aid — coupled with devastating floods and droughts that periodically hit the countryside.

“The government wants to achieve self-sufficiency in rice and then move to export because they don’t have many sources of revenue.” explained one source in Cambo-

dia, who asked not to be named.

“There’s an unfortunate misperception that you need pesticides to increase production here,” said the source, who works for one of the largest agricultural NGOs in Cambodia. “A large number of people, including farmers, think they need pesticides for dry season rice production.

“But once you start using pesticides, you kill off the pests’ natural predators. Then you need more. The Japanese should know that.”

Some Japanese do know it. “This [aid package] may trigger massive future imports of agrochemicals from Japan, which will lead to a repetition of the tragedies of other Asian nations heavily burdened by debts stemming from agricultural chemicals”, said a bulletin put out by three Japanese NGOs: the Consumers Union of Japan, JATAN, and Friends of the Earth Japan.

It’s not just NGOs who are anxious. Organizations like the Food and Agriculture Organization (FAO) and the International Rice Research Institute (IRRI) — often considered more “mainstream” — are also quietly urging SOC officials to consider more modern and environmentally-friendly techniques such as Integrated Pest Management (IPM) and Biological Control, which employ natural predators to kill insects, rather than chemicals.

But funding for such programs and trained personnel to implement them are hard to find, especially in Cambodia, which has suffered a brain drain over the last several decades.

No one at the FAO wanted to speak out publicly on the issue. But in specific reference to the JICA aid package, a memo dated Sept. 30, 1992 written by N.A. Van der Graff — chief of FAO’s Plant Protection Unit stated, “It was concluded that presently an emergency supply of pesticides for Cambodia would do more harm than good.”

IRRI, meanwhile, is testing out different strains of rice that are naturally resistant to pests found in Cambodia. The organization has come up with several effective new strains, including one — labelled IR72 — shown to be 100 percent resistant to the brown plant hopper, the scourge of both Thai and Cambodian paddy.

Although 30 tonnes of pesticide is not a lot by global standards, the amount of pesticides Japan is sending Cambodia is a cause for worry, according to the NGO source. “It’s a large amount for a country that doesn’t have much knowledge,” he said.

[Pesticides are sold by] merchants to farmers at market prices. This allows government officials and businessmen to reap profits, despite the fact that farmers might then apply the chemicals without knowing how to use them properly.

Once farmers have destroyed natural predators by using chemicals, they can get hooked on using pesticides, often ending up in debt because of the high cost.

Besides the potential for damaging farmers’ health, decreasing agricultural yields, and inducing farmers into debt, pesticide run-off can also poison freshwater fish populations. As in Thailand’s Northeast, fish is the main source of protein for most Cambodians.

FAO studies show that fish provide about 70 percent of the protein in the Cambodian diet. Most of this is freshwater fish, half of which comes from the Tonle Sap. "As yields for the Tonle Sap decrease," said Imre Csavas of the FAO "paddy fish will become more important."

## **Appendix 2**

### **"Japan's Aid to Cambodia Threatens Environment"**

By Koa Tasaka

*(Asahi Evening News, July 18, 1993)*

While wishing like anyone else for peace to prevail under the new government in Cambodia, whose history is nothing but an accumulation of hardships, we, as supporters of nongovernmental organizations (NGOs) actively working there, have closely followed a particular aspect of the Japan-Cambodia relationship as seen through the eyes of volunteer workers affiliated to such NGOs.

This issue concerns the grant aid for increased food production being provided by the Japanese government to Cambodia as part of its official development assistance (ODA), referred to by the government as the Second Kennedy Round (KR2). The aid package was put together at about the same time that the nation decided to dispatch Self-Defense Forces (SDF) troops to Cambodia as United Nations peacekeepers.

Already, a total Y500 million worth of chemical fertilizers, agricultural chemicals and farming equipment have reached Cambodia. People may think that aid for enhancing food production must be a good move, but serious problems have surfaced as the nongovernmental volunteer organizations started revealing the realities of the aid program.

The following are the main problems with the program.

First, all the agricultural chemicals provided in the aid package — diazinon, fenitrothion and fenvalerate — indiscriminately kill insects, including the natural enemies of the insects the chemicals are intended to eliminate, and as a consequence, are liable to cause plagues of the undesired insects.

The second problem is that there is a danger of agricultural chemicals contaminating fish, frogs, pond snails and freshwater shrimps that farmers, who make up the majority of the Cambodian population, consume on a daily basis as an important source of protein.

The third problem is that, in the tropical heat, it is unbearable and next to impossible for farmers to wear protective gear when spraying their crops with toxic agricultural chemicals, as their counterparts routinely do in Japan. Therefore, there is no guarantee that safety measures routinely followed in Japan when using the agricultural chemicals would be observed in Cambodia.

Another issue stems from the fact that the aid chemicals are not distributed to farmers free of charge. Instead, they are sold to them through public corporations affiliated

to the Cambodian government, leading to possible corruption on the part of the government officials. This would also help to expand the gap among the farmers, some of whom would be able to buy the chemicals and others of whom would not be able to afford it.

Anxieties over these issues have been raised by a variety of organizations and people involved in food aid to Cambodia, including rice experts in the Food and Agriculture Organization of the United Nations and the International Rice Research Institute, and volunteers of NGOs like the Japan Volunteer Center working in Cambodia.

A symposium on issues related to overseas aid in the form of agriculture and agricultural chemicals was held in Tokyo early this year by the Non-governmental organizations involved in aiding Cambodia and civic groups concerned with the environment and Japan's ODA. As a guest at the symposium, an official of the Foreign Ministry in charge of giving free grants made it clear during the debate that Cambodian farmers would be given thorough instructions and training on safety measures in using the agricultural chemicals that have already reached Cambodia as part of Japan's aid.

Moreover, the media reported later in March, that the Foreign Ministry had finally decided to stop sending agricultural chemicals to aid Cambodian farmers effective in fiscal 1994, having taken into account the concerns of the nongovernmental organizations.

I was happy to read the report and believed that the issue was solved. But it was not the end of the problems.

I learned later that what the Foreign Ministry official terms thorough training turns out to be as follows.

This past spring three agricultural officials from the Pnom Penh government were invited to Japan and given the training on agricultural chemicals. I had a chance to see them and to hear about the contents of the training sessions.

The Training program seemed to have been put together by the Japan International Cooperation Agency (JICA) and included lectures given by officials of the Ministry of Agriculture, Forestry and Fisheries and a lecture by the division head of the Foreign Ministry's Aid Grant Division on the aid program itself.

The lectures were, the Cambodian officials said, followed by other lectures by an executive of Japan's agricultural chemicals industry on safety measures in using the chemicals and later included a visit to the companies manufacturing agricultural chemicals and talks by researchers in the industry on environment and agricultural chemicals.

The Cambodian participants in the training session told me that they were relieved to hear the chemicals they received as aid from Japan were safe.

But as far as I know, they were not provided with sufficient information on the toxicity of these particular agricultural chemicals. Such information includes, for example, an alleged connection between the chemicals and incidents of extraordinarily deformed spines in fish — which appeared in the February 1976 issue of the mag-

azine *Kagaku* (Science). The Cambodian officials were also not given sufficient information on the possible environmental effects the chemicals may have in Cambodia.

I also learned that facilities and medical care for possible cases of poisoning from agricultural chemicals were far from sufficient in Cambodia.

In short, I was quite disappointed to discover that the training that the Cambodian agricultural officials received was far from what the Foreign Ministry had led the public to believe it would be, as reflected in the speech at the symposium and in the media report: that Japan decides its aid to Cambodia after paying regard to the opinions of the nongovernmental organizations, which are well-versed in the local situation.

I would sincerely like to urge the Foreign Ministry and JICA to listen more carefully to what is maintained by the nongovernmental groups, which, through daily contact, are striving to help the local farmers become self-reliant.

I would ask the ministry and JICA to withdraw their present aid policy which places too much emphasis in giving agricultural chemicals and, instead, to shift to providing technological assistance that is more friendly to the local ecosystem.

It is these very farmers who will play the major role in the development of sustainable agriculture in Cambodia after peace returns to the land.