**World Resources Institute**

***Sustainable Enterprise Program***
A program of the World Resources Institute

# Epson (China) Co., Ltd.
## *Adoption of Environmental Management Practices*
## TEACHING NOTE

*For more than a decade, WRI's Sustainable Enterprise Program (SEP) has harnessed the power of business to create profitable solutions to environment and development challenges. BELL, a project of SEP, is focused on working with managers and academics to make companies more competitive by approaching social and environmental challenges as unmet market needs that provide business growth opportunities through entrepreneurship, innovation, and organizational change.*



Epson (China), like its Japanese parent corporation Seiko-Epson, adopted a wide range of environmental management activities. For example, it achieved ISO 14001 certification at its office locations in China. In 2002, Vincent Leung, the manager of the legal and environmental planning department of Epson (China), was considering how best to design and implement a cartridge take-back system in China. He was worried about the low rate of participation in the program.

## Teaching Objectives

- To introduce students to an example of Japanese corporate commitment to environmental management and ISO 14001, at office as well as production locations
- To introduce students to environmental management and ISO 14001 activities as they apply to office environments
- To indicate methods of building employee involvement and consensus about program implementation
- To analyze and recommend improvements to attract more participation in a new cartridge take-back program
- To introduce students to environmental management in the fields of Logistics and Organizational Behavior, and the intricacies of transferring environmental values between countries

## The Company

Seiko Epson Corporation is a private corporation headquartered in Japan. It develops, manufactures, and markets information equipment, electronic devices, and precision products. The company had annual sales of $11 billion in 2001.

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This teaching note was written by Betty Diener, Visiting Fulbright Professor at Tsinghua University, in Beijing, P.R.C., with the assistance of her research assistant, Cheng Ming. It is intended to be applied as a basis for class discussions rather than to illustrate either effective or ineffective handling of a business situation. 

Epson (China) Co., Ltd. is the China-area headquarters of Seiko Epson. Epson had a $5 billion investment in China, operating 4 business centers, 10 production design facilities, and 12 sales and marketing offices. Each company in China developed its own environmental programs in line with Seiko Epson's environmental policies.

## Use of the Case

This case can be used in a variety of management courses at both the graduate and undergraduate levels. It includes a number of implementation issues, largely with Leung's efforts to successfully implement an ISO 14001 program into an office environment. Operations courses dealing with ISO standards (9000 for quality, and 14000 for environment) can use this case to introduce the concept of ISO 14001 in an office environment. Courses in environmental management can use the case with regard to product take-back programs and ISO 14001. Finally, international management courses might use this case as part of discussions on the transference of values, in this case environmental values, between countries.

## Discussion Questions

***What were the elements and objectives of the Seiko Epson environmental management program? Did the program meet its objectives?***

Seiko Epson had a very broad program of environmental management activities. They were specific in their goals and measurements, and were open with information about achievements and shortcomings.

At the time the case was written in China, Japanese corporations were among the world leaders in adoption of ISO 14001, particularly in China, which was just beginning to engage in pollution prevention efforts. Japan had long had a strong system of environmental laws, regulations, and enforcement. It was not clear which of the following Seiko Epson activities were mandated by law in Japan; it was clear, however, that many of the activities went beyond mere compliance and reflected Seiko Epson's desire not just to be a market leader in Japan, but also a leader in managing its environmental impacts in that country. They were, for example, one of the first Japanese companies to eliminate the use of CFCs in their products.

The environmental objectives of the parent corporation included:

- Creating and providing earth-friendly products and processes, including reduction of energy usage, promoting green purchasing, and establishing lead-free production
- Transforming processes to reduce the impact on the environment, including reducing emissions of global warming substances, reducing and/or recycling waste, reducing use of harmful chemicals, and reducing total energy usage
- Recovering and recycling used products
- Sharing environmental information and contributing to regional and international conservation, including welcome tours, planting trees, and supporting conservation programs
- Continually improving environmental management systems, including seeking ISO 14001 certification at all facilities

As indicated on p. 3 of the case ("Environmental Progress"), Seiko Epson was able to document success in most of these areas, including energy savings, eliminating the use of lead, green purchasing, green supplier management, and reduction of waste. The company still needed to further reduce total energy consumption and fully develop an environmental auditing system.

***What were the elements and objectives of Epson (China)'s environmental management office program? Did the program meet its objectives?***

Epson (China), like its parent, had implemented a broad range of environmental management programs for its office locations. They included reducing the usage of energy and paper, recycling solid waste, and replacing CFC-based fire extinguishers. They had achieved ISO 14001 certification. They had not yet, however, done much with product take-back, green purchasing, or environmental labeling, all areas favored by their parent, Seiko Epson. In each program area there were clear, measurable goals, and results were openly reported in each program area even if unsatisfactory.

Perhaps because of Leung's background in human resources, a great deal of attention was given to implementing the program. The business environment in China was only beginning to recognize the association between business activities and pollution. Mr. Leung therefore made sure that top management supported the program; teams were established to design and implement the programs, and there were a number of employee training and communications programs.

***Why did Epson (China) adopt their Environmental Management program? What do you believe was the most important motivation?***

Leung gave several reasons for his company's motivation. The clear sense was that they were practicing environmental management because Seiko Epson wanted them to do so; it was only after repeated questioning that strategic or risk issues were raised. This was probably true of many companies in China, who have only begun focusing on their environmental impacts in recent years. Students may sharply question why Seiko Epson and Epson (China) went beyond compliance with the laws.

***Describe and evaluate the design for the new cartridge take-back program. How would you describe an effective take-back program? What elements/outcomes are necessary for success?***

Epson (China) appeared to be setting up a program in China that duplicated the one in Japan, and also duplicated the unsuccessful test program that had been tried earlier. Additionally, the program had very low goals for success—for example, taking back only one percent of the cartridges sold. It was also peculiar that Leung, who would be in charge of designing the program, didn't know which competitors already had take-back systems in place.

Thus, it is easy for students to be critical of the program design; they can criticize the goals, logistics, consumer promotion, etc.

It is more instructive, however, to have the students conceptualize the ideal take-back system and to list the elements necessary for success. They might include:

- Knowledge of competitive activities
- Forecast of likely governmental activities in the area
- Goals that would insure effectiveness regarding environmental impact
- Effective infrastructure/collection system
- Ease of action for consumers
- Good input and outcome measures of effectiveness could include the degree of participation by retailers, level of returns, effective disposal of materials, etc.

***Do you believe the new take-back program will be successful? Why? Why not? What, if anything, needs to be added to make the program successful?***

One need only review the list in the previous question to answer this question. Leung did not have competitive information, he did not know whether any government actions were likely with regard to product take-back, the goal of one percent return would not have an effective impact on the problems caused by throwing away cartridges, and consumers had virtually no way of easily getting information about the program. To improve the program design, each of these areas would need to be addressed. In addition, it doesn't really help the environment to collect the cartridges, only to subsequently bury them rather than recycling. Clearly it is too early in China to have the waste volumes to create effective recycling systems, but with a stronger effort Epson could be one of the leaders in this area.

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