

## Team on Big Isle Examines Prospects

### **STAR BULLETIN**

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#### **Team on Big Isle Examines Prospects for Industrial Ecology**

by Kathy G. Rawle

A group of Yale scholars is studying how the Big Island can better use its resources and industrial waste.

Marian Chertow, director of Yale University's Industrial Environmental Management Program, and seven of her postgraduate students are spending a week on the Big Island gathering data about the island's energy, materials, waste and water systems.

"We've gotten pretty good at detecting where the industrial ecosystems might be," she said. "And because we see through these eyes, these lenses, we see so much opportunity here."

Oahu's Campbell Industrial Park, where a cogeneration plant shares its products and byproducts with companies like Chevron and Hawaiian Cement, is a good example of successful industrial ecology, she said.

Cogeneration uses waste heat from industry to produce electricity.

The way Big Island macadamia nut processing plants burn their own shells is another good example, she said.

Denmark, the Indian Ocean island of Trinket and the vast tundra of Iceland also boast successful models.

Island systems -- ecological and economical ones -- are essentially closed because of their geography, Chertow said.

They are facing new challenges as modern transportation has opened their boundaries. More people mean more stress on the natural resources as well as a greater need to import goods and raw materials, she said.

Chertow and her students are sponsored by the Kohala Center, a Big Island nonprofit organization dedicated to environmental and scientific study.

Matthews Hamabata, the Kohala Center's Executive Director, said the Yale study can help the Big Island better preserve its resources and develop sustainable systems.

"We are aware of the challenges to our natural resources," he said. "It's so exciting that this small nonprofit in Hawaii gets to work with the very best minds on this. It can benefit not just the Big Island, but we can actually be a model for the entire world."

Chertow praised Hawaii County and state efforts to bolster recycling in recent years, but she also noted several areas that could be improved.

"I think a lot could be done on the agricultural front. Taking it from the old plantation ways to the what's next -- which is a question mark," Chertow said. "Some organization in that sector would help."

She also identified one of the issues the county is struggling with: traffic congestion.

"The traffic I don't really have answers for," she said, "but with all the building going on ... a little mass transit wouldn't hurt here."

Chertow gave one example from Puerto Rico as a way not to conduct business.

The island imports 400 tons of recycled glass each week for manufacturing purposes. At the same time, the island dumps 1,000 tons of glass in landfills.

Diverting the discarded glass to the manufacturing plant would streamline the process and could even create jobs, she said.

She pointed to a similar situation on the Big Island, in which mulch is imported while the county struggles to dispose of tons of green waste.

Puerto Rico's rum industry, however, has mastered a new ecology model.

Local government and private-sector entities use the methane and steam produced as a byproduct of rum manufacturing.

Rum producers, meanwhile, offer oak barrels they do not need to the community for a variety of uses.