

# Resource Protection and Environmental Justice in the Era of Coastal Climate Change

TUESDAY PRESENTATION GIVEN BY HEIDI S. WEISKEL

By Connie Johnson

**ON TUESDAY MORNING** the IA audience was treated to an excellent presentation by Dr. Heidi Weiskel. She started by describing the many near-shore habitats that make up the coast, including sea grass beds, coral reefs, mangroves, oyster beds, salt marshes, and inter-tidal zones. Why do we care about the coastal environment? There are many reasons, including that about 75% of commercially caught fish are from those regions and the use of beaches for recreation and the tourism industry. The near-shore environment can also protect us against the effects of sea level rising. About 1 billion people live within 20 meters of mean sea level. Any changes in the coastal environment will have a huge impact on them.

**The ocean absorbs 93% of the effects of rising temperatures from climate change, plus 26% of CO2 emissions. 100% of the rise in sea level is from glacier melts.**

**KIRABATI** is an entire nation now seeking refuge in Australia due to the rise in sea level. Dr. Weiskel pointed out that moving to a new location will mean a total change of way of life for those people and mentioned the stress felt by all living near the coasts around the world.

**THERE ARE THREE ISSUES** now impacting the coastal areas: increased average temperatures (the world is trying to keep the increase to less than 2 degrees); acidification of the oceans (which creates conditions in which sea creatures that normally have shells can not easily form shells); and sea level rising.

**ONE RESULT** of these problems is an increase in “dead zones”—areas of ocean near shores that should have many living creatures but become inhospitable due to lower levels of oxygen, following the increase in nutrients and temperatures. Some species move to cooler areas as a result of the stress of the warming environment. Another result is that sharks and other predatory fish can't as easily find their prey through smell when the water is more acidic. Mercury concentrates more in fish at higher temperatures, and the mortality rate of snails, barnacles, crabs, and other hard-shell creatures increases.

**PEOPLE ARE STILL PROPOSING** large projects in coastal regions that can have a deleterious impact: coal power plants, desalination projects, oil and gas operations, ports, aquaculture, nuclear power plants, tidal, wave, and wind power installations, and LNG facilities. These have the potential to threaten the environment of the coasts where a significant number of people live. Asia

has the greatest percentage of people in flood zones, and Africa has the greatest level of migration toward the coasts. Even

in the U.S., despite stronger storms and nuisance flooding, people are still moving to coastal areas.

One barrier to countering this migration pattern is that so much inland territory is degraded by urbanization and increased development. War also has a big impact—making it impossible for some to move freely due to ongoing conflict and to unexploded ordinance that may be in the land.



**Heidi Weiskel**

**ON THE WHOLE**, people have put development too close to the shores and we are demanding more of our oceans, which are vulnerable. We have no exit strategy in place.

**WHAT CAN WE DO ABOUT THIS ISSUE?** Dr. Weiskel recommended three things: learning about what you care about and becoming advocates of

change, altering our diet to eat locally produced foods (don't order shrimp in Portsmouth!), and developing mechanisms for local engagement.

**Working with local experts and stakeholders is the approach taken by ELAW, the NGO for which Dr. Weiskel works. She shared several stories from work ELAW is doing with local advocates around the world:**

- Bangladesh was experiencing environmental degradation due to the shrimp farming industry, which among other issues was causing problems by adding antibiotics and feed to the environment. The net result was a decrease in protein available to the inhabitants of the area. A local attorney filed suit against the government of the country accusing it of not properly managing the industry, resulting in harm to the environment that impacted the local population. The judgment was a great one—the government was ordered to control saline waters that had been flooding the land and to protect the environment.
- An ultra-large coal power plant was proposed for an area on the East Coast of India. Those proposing the project claimed few people lived in the region so the human impact would be minimal. But there was no infrastructure in place, so they would have to build a jetty, a railroad, and places for waste to be disposed, and would have emissions into the air, which would have an impact. Furthermore, people were living and fishing there. Brave local farmers decided not to give up their land, and kept fighting the plant even though they were threatened. Now it seems there may be in indirect victory, as it appears the plant would not be economically viable, so it won't be built. India has very recently begun to work on relying more on renewable sources of energy.
- In Mexico, in the Baja California region, there is a proposal by a small, inexperienced company to mine phosphate from sand. No similar project has happened (proposals in Namibia and New Zealand met with too much opposition). The area in Mexico has great bio-diversity, lots of whales and sea turtles. The company claims it would operate only away from fishing areas and thus would have no impact on the environment. As in the Indian case, they would have to build infrastructure, which in itself would have a negative impact. In addition, a review of the areas in which they proposed to operate shows that they are much closer to the shore than was claimed and that the sand plume and noise impact would be even closer to the fishing areas. ELAW worked with a local lawyer and with the fishing community and got enough community push-back so that the Mexican government denied the company a permit. A twist in the story is that the company is now suing the government to try and force a permit.
- In Morocco, there is a big push, with royal leadership, to promote aquaculture, largely for export, with foreign investment. This would put pressure on coastal regions. ELAW met with local experts (with government officials observing) and developed principles of sustainability for aquaculture, including: raise native species; reduce the capture of juveniles; don't add hormones, dyes, or antibiotics to the environment; use renewable sources of energy to run the project, don't degrade the natural habitat, etc.

**At the end of this interesting and inspiring talk, Dr. Weiskel repeated that we can take action to help the coastal environment through education, changing what we eat, and supporting community efforts.**

We all certainly felt well-informed and inspired by the presentation.