

The role of subnational governments in addressing ocean health and diversity in a time of global change

Anna M. Zivian, Ph.D., Ocean Conservancy, Santa Cruz, California, USA

Email: [azivian@oceanconservancy.org](mailto:azivian@oceanconservancy.org)

Threats to marine biodiversity are increasing, from overfishing to seismic activity to nutrient pollution. The ocean is warming and acidifying, dissolved oxygen is decreasing, and global mean sea level is rising as sea ice melts. Even with a new global focus on the ocean and a goal of reducing emissions faster and sooner, there will be centuries of lag time in the ocean's response to greenhouse gases. We are already seeing the effects of individual climate stressors, including accelerated loss of sea ice, changes in ocean currents, coral bleaching, and coastal erosion. We are thus faced with dual problems of mitigating and adapting to climate change, but political action remains difficult due to ongoing uncertainty and partisan conflict. As governance issues become more complex and more difficult, local government is proving to be a place where people are actively implementing solutions, and a place where citizens can make their voices heard and effect change. Growing examples of this in the ocean realm include subnational creation of Marine Protected Areas, local policies to reduce marine debris, and leadership in climate fora from the International Alliance to Combat Ocean Acidification to C40 Cities. This presentation reviews subnational engagement and suggests paths forward for improved ocean governance.