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# New policies, initiatives could advance U.S. aquaculture

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## Increased production can create jobs and improve availability of safe, sustainable food



Thanks to new initiatives, U.S. producers of crops like clams and pompano should see improvements in the policies that direct their aquaculture activities. Photo courtesy of Dr. Charles Weirich.

The United States Department of Commerce (DOC) and National Oceanic and Atmospheric Administration (NOAA) have recently released long-awaited policies intended to facilitate the development of sustainable marine aquaculture in the United States, restore natural resources, and enhance commercial and recreational fisheries. Following on these policies, NOAA announced three new initiatives to support increased shellfish production, coordinated management of fisheries and aquaculture in the Gulf of Mexico and improved transfer of aquaculture technology.

At the outset, NOAA Administrator Dr. Jane Lubchenco said, “We will develop a national policy that focuses on the protection of ocean resources and marine ecosystems, addresses the fisheries management issues posed by aquaculture and allows American aquaculture to proceed in a sustainable way.”

Increased domestic aquaculture production will result in much-needed locally produced seafood, jobs in coastal communities and support for a range of seafood-related businesses. Equally important, aquaculture increases the opportunity for people to realize seafood’s health benefits, as recommended in the 2010 Dietary Guidelines issued by the U.S. Departments of Health and Human Services and Agriculture, which suggest that Americans should eat seafood twice a week.

## Aquaculture policies not new

The creation of aquaculture policies is nothing new. The U.S. Congress, through the Aquaculture Act of 1980 and its subsequent reauthorization, asserted that aquaculture is in the national interest and directed federal agencies to work together to develop U.S. aquaculture.

To improve the regulatory climate and foster industry growth, national aquaculture policies were adopted by both NOAA and the Department of Commerce in 1998 and 1999, respectively. At that time, primary goals were set to increase production 10 percent/year, reduce the seafood trade deficit and increase production value from U.S. \$1 billion to \$5 billion by 2025.

## Slow growth

Unfortunately, the annual growth rate of the U.S. aquaculture industry has lagged behind this projection. In the 10 years since the policies were adopted, the average annual growth rate of domestic aquaculture was 1.9 percent. The seafood trade deficit has risen to U.S. \$10 billion, while production value still hovers around \$1 billion/year.

There are a number of reasons for this relatively slow growth in aquaculture. They include a complicated and uncertain regulatory process that leads to difficulties in obtaining permits, competing uses for coastal and marine waters (especially real estate development), perceived environmental impacts and resulting public opposition, multiple layers of government oversight, lower-priced products from overseas and the economic risks associated with starting new business.



New policies should help the further establishment of new species like coibia. Photo courtesy of Dr. Daniel Benetti.

## Moving agenda forward

Working closely with the National Sea Grant Program and many partners both within and outside government, the NOAA Aquaculture Office has taken significant steps to move forward an aquaculture agenda. Over the years, the agency has provided science information on environmental effects for use in permit decisions, grant support for innovative approaches to marine aquaculture and spatial planning that includes aquaculture as an ocean-dependent use.

The office also worked with other federal agencies on a National Aquatic Animal Health Plan and an NOAA-USDA Alternative Feeds Initiative that evaluates potential replacements for fishmeal in aquaculture diets. Areas of research supported by grants include environmental impacts and monitoring, recirculating aquaculture systems, shellfish-rearing techniques, alternative feeds, new species research and offshore aquaculture.

## New policies

The NOAA aquaculture team has provided needed momentum to the program and contributed to the creation of the new aquaculture initiatives released by the DOC and NOAA in June. The DOC policy acknowledged the potential for U.S. aquaculture to “make major contributions to the local, regional and national economies by providing employment and diverse business opportunities from coastal communities to the agricultural heartland.”

NOAA’s policy reflected its broad oceans mandate by reaffirming that “aquaculture is an important component of NOAA’s efforts to maintain healthy and productive marine and coastal ecosystems, protect special marine areas, rebuild overfished wild stocks, restore populations of endangered species, restore and conserve marine and coastal habitat, balance competing uses of the marine environment, create employment and business opportunities in coastal communities, and enable the production of safe and sustainable seafood.”

## New initiatives

One of the initiatives announced with the release of the new aquaculture policies is a National Shellfish Initiative designed to increase shellfish aquaculture for commercial production and ecosystem restoration. This initiative is a collaboration among NOAA and shellfish industry associations, restoration NGOs, state and federal agencies, and scientists.

It is focused on five areas: enhancing shellfish restoration and farming opportunities, looking at interactions between shellfish and the environment, engaging in marine spatial planning to support project siting, improving coordination to facilitate timely permitting and seeking innovative financing and value for ecosystem services.

NOAA also announced that the agency would implement the Gulf of Mexico Fishery Management Plan for Aquaculture. When fully implemented, this initiative will enable the National Marine Fisheries Service to issue permits for the culture of certain finfish in federal waters in the Gulf of Mexico.

The plan includes application and operational requirements that ensure aquaculture in the gulf will be compatible with ecosystem health and other uses of the marine environment. Permit applicants will still need requisite federal permits, such as those from the U.S. Army Corps of Engineers for a structure and from the Environmental Protection Agency for waste discharge.

Most recently, Lubchenco announced the Aquaculture Technology Transfer Initiative, which focuses on public-private partnerships that will engage in regional pilot projects that show a credible potential to create “blue green” jobs, include environmental monitoring and rely on the best available science.

## Outlook

Collectively, the aquaculture policies and initiatives bring renewed federal attention to the effort to expand domestic aquaculture for food production, habitat restoration and support of commercial fisheries. Through broad collaboration among federal agencies and other stakeholders, increased aquaculture can serve many needs for the United States, including creating jobs and economic opportunities, as well as increasing the availability of safe and sustainable seafood.

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