

Sustainability of Seafood Systems

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Marine & Freshwater National Totals

VALUE

\$1.5
billion

21%
of U.S. seafood
production & fishery
products by value

MARINE
\$418.3
million

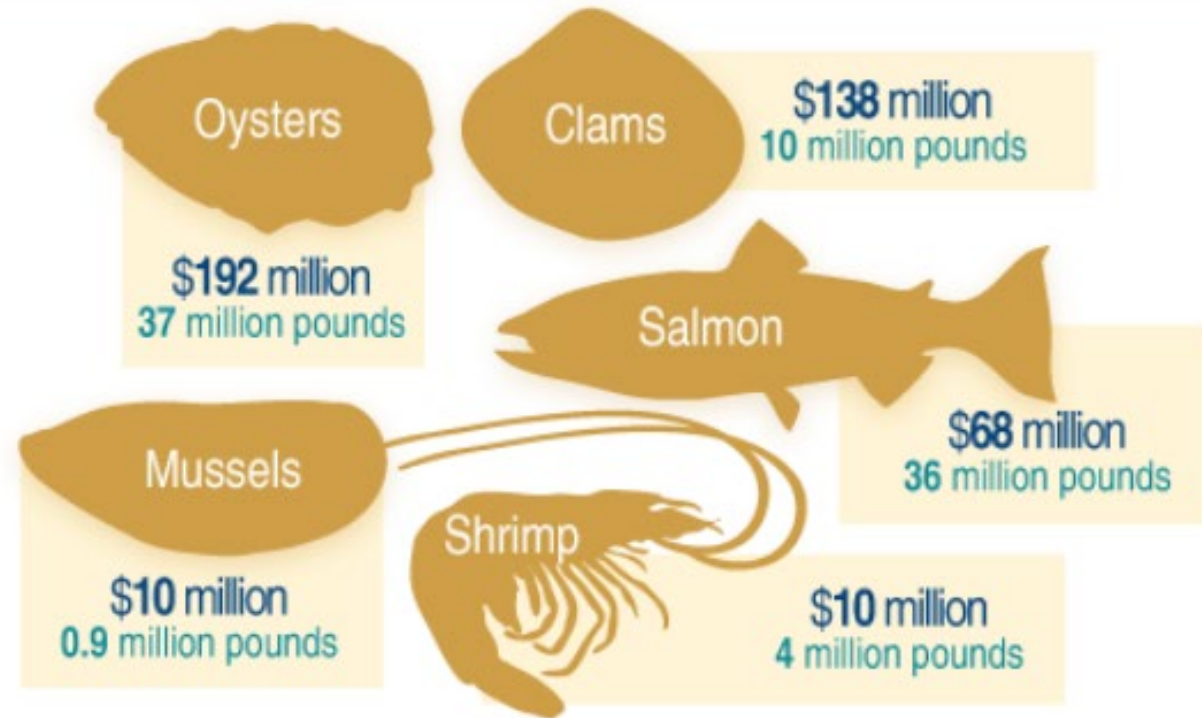
FRESHWATER
\$719.8
million

PRODUCTION

633
million
pounds

16th
in global
aquaculture
production

Marine Species Totals



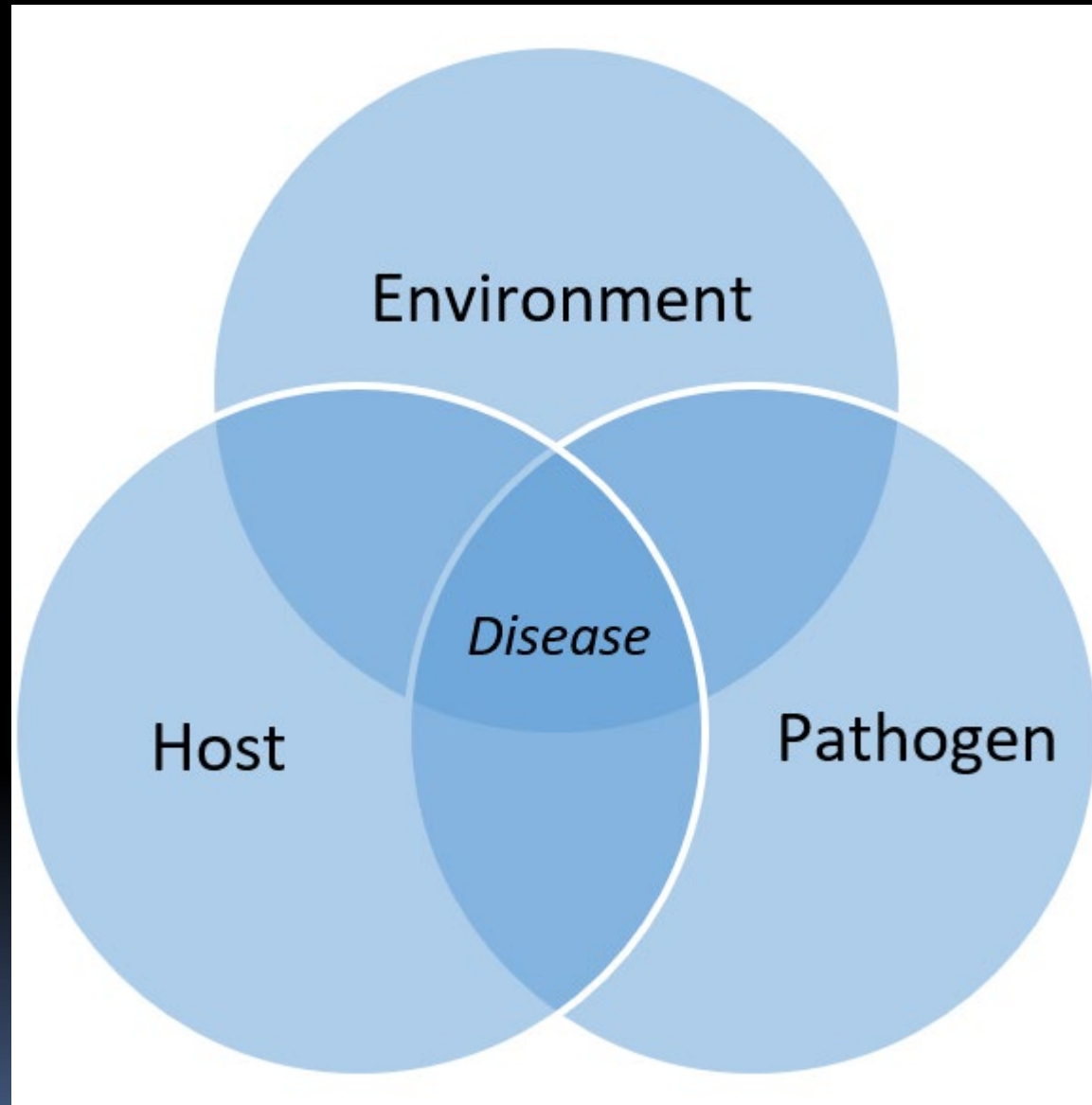
2016 Aquaculture Production Highlights



NOAA FISHERIES

Sustainability Opportunities = Antibiotic Challenges

“Water farming” traits	Sustainability Opportunity	Antibiotic Challenge
Relatively new	Design for better production	Don’t understand all disease challenges
Many species in culture 600, w/ 44 = 90% of production	Can pick less impactful species and production systems	Disease challenges in understudied species
Many systems are open or unfed	Properly sited will have few impacts Rely on natural production	Open leaks chemotherapeutants Treating is difficult in unfed systems
Small progeny 1 oyster → 2-10 million eggs	Few resources to broodstock, high production capacity	Bacterial infections occur rapidly in larvae / small animals
Globally many small farmers	Local economies and nutrition	Likely to use “growth powder” or diluted antibiotics



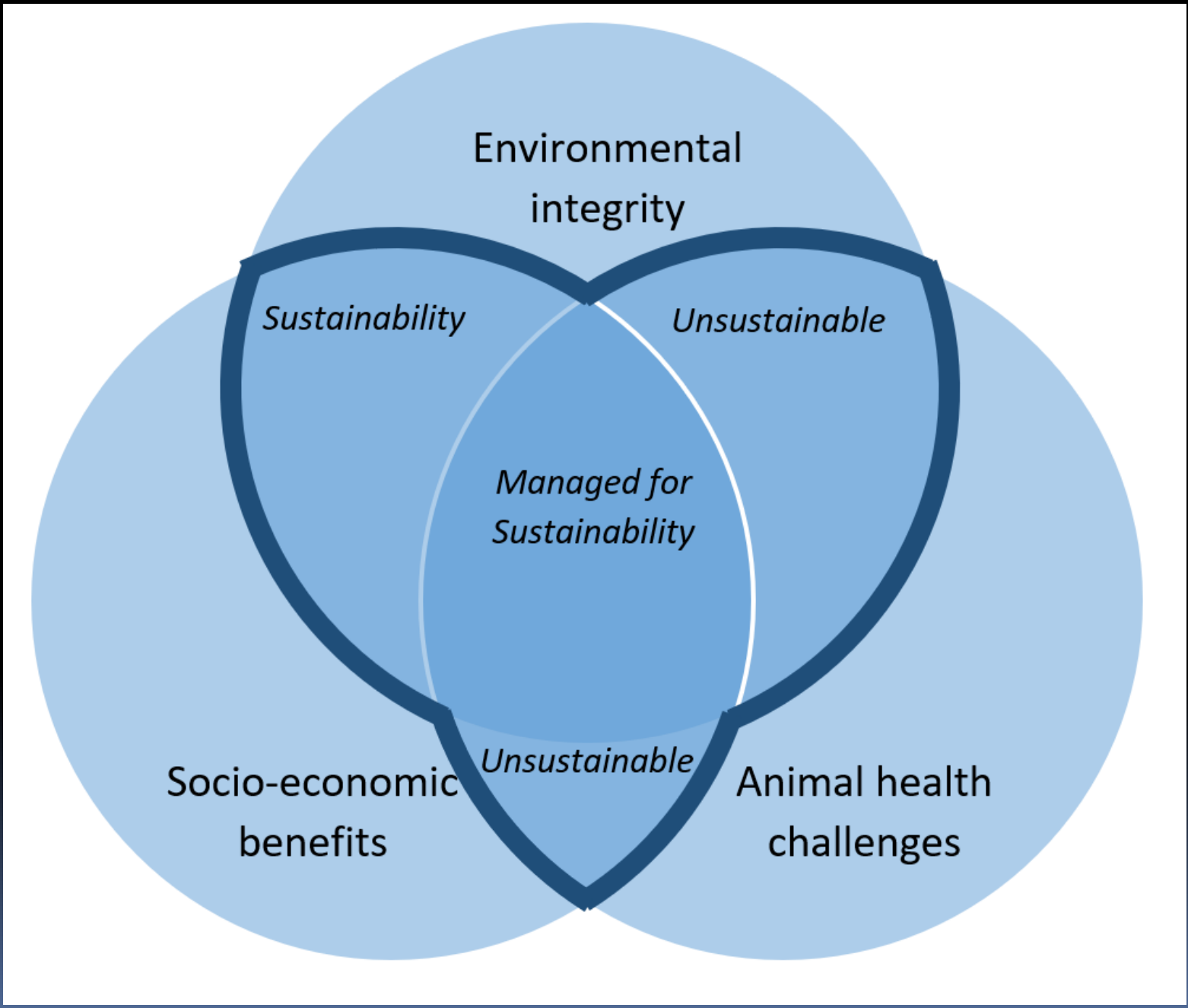


A Venn diagram consisting of two overlapping light blue circles on a white background. The left circle is labeled 'Socio-economic' and the right circle is labeled 'Environment'. The overlapping area in the center is labeled 'Sustainability'.

Socio-economic

Sustainability

Environment



"With Earth's burgeoning populations to feed, we must turn to the sea with new understanding and new technology. We must learn to farm the sea as we have farmed the land"

--Capt. Jacques Cousteau



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