Can we Double Shrimp Production in a Decade, Responsibly?

George W. Chamberlain
Global Aquaculture Alliance
georgic@gaalliance.org

Rising global demand for seafood, driven mainly by a rapidly growing middle class in China and other Asian nations, is putting new pressure on the aquaculture industry to find sustainable ways to increase productivity. The estimates of rising demand, which far exceed earlier projections based solely on population increases, indicate that seafood demand is likely to keep rising for several decades. This presentation will summarize these and other global trends that are driving seafood demand and sustainable solutions for increased aquaculture productivity as presented at the October 17-20 Global Outlook for Aquaculture Leadership (GOAL) 2010 meeting, presented by the Global Aquaculture Alliance and the Malaysia Department of Fisheries in Kuala Lumpur, Malaysia. Its momentous conclusions will help buyers and producers adjust their strategic plans to avoid potential disruptions in supply and demand.

Over three billion new consumers will join the global middle class by 2030, said keynote economist Albert Zeufack of the World Bank. Ninety percent of those citizens will live in the Asia Pacific region and account for nearly 60 percent of middle class spending, he said. With the addition of more women in the Asian workforce, greater demand for protein options and rising interest in food safety, quality and sustainability, the situation presents major opportunities for aquaculture.

China is by far the world's leading aquaculture producer, but it is increasingly importing seafood to meet domestic demand. Economist RagnarTveteras evaluated economic indicators from the International Monetary Fund and World Bank to project a startling conclusion that triangulated with feedback from previous speakers on the Chinese market: China will shift from being a net seafood exporter to a net seafood importer by 2011. The country's per-capita seafood consumption is expected to double between 2008 and 2020.

With this knowledge of rapidly increasing seafood demand, aquaculture producers are seeking improved technologies to sustainably produce more seafood with fewer resources. Robins McIntosh of the C.P. Group described advances in penaeid shrimp technology using genetically improved animals within controlled growout systems to increase productivity. Shorter cycles also drive down feed and energy costs. Although genetic improvement is the key driver, parallel improvements are also needed in hatchery and pond design as well as management capability to capture the full potential of genetic gains.