



Seafood, both farmed and wild, is among the most widely traded commodity on a global scale, surpassing CDN\$400 billion. It is one of the healthiest proteins for consumption containing essential minerals, vitamins, oils and proteins needed for human growth and development. It has the lowest impacts and carbon footprints of any agrifoods. It compares very favourably in terms of lowest in carbon footprint, lowest in freshwater consumption, and lowest in physical footprint on the planet per kilogram of protein.

The socioeconomic benefits of seafood, aquaculture in particular, are tremendous. They include employment or income to feed families in the world's most impoverished regions, as well as in the richest regions. Aquaculture provides food security in many parts of the world, allowing families and community structure to remain intact. In both the developed and developing world today, aquaculture is practiced at the community level in rural regions of the world, allowing members of the community to provide supplies, services and even jobs on the farms in their communities. The indirect contributions of such services to communities makes the economy of those communities much more viable, not to mention they increase tax revenues to meet the public service needs of the community. We actually see less outmigration from rural to urban areas in regions with sustainable aquaculture in their

midst, notwithstanding the demographic challenges faced by some communities.

Seafood production is also one of the most technologically challenging food production activities on the planet, operating in natural but changing aquatic environments where, in general, we have a fairly cursory understanding of the dynamics of aquatic ecosystems compared with terrestrial systems. Great strides have been made on the innovation, science and technology side of seafood farming (aquaculture) to enable farmers to not only enhance their production, but to increase outputs more sustainably.

On the capture side, harvesters must contend with fluctuating abundances, quota allocations subject to semi-discretionary allocations, ancient regulatory frameworks, and recognition of traditional rights to access. And, some would say, a lack of supportive science to really understand stock dynamics that allow for better predictive models of abundance for harvesting. Bringing the socioeconomic impacts of capture fisheries to coastal beneficiaries is difficult where there is a general lack of enforcement ability for fisheries beyond the exclusive economic zones recognized by most sovereign nations. Yes, there are increasing efforts to manage fisheries, to contribute to our scientific understanding of fisheries stock dynamics in the face of a changing ecosystem fueled by climate change,



Socioeconomic Aspects of Seafood and Aquaculture

and to enhance enforcement of international treaties and laws about fisheries, but the wild seafood production sector has not really grown on a global scale since the 1980s, almost 40 years. The prospects for increasing fisheries output globally are not promising for the next several generations. At least on a global scale.

For aquaculture, the leading aquaculture countries in the world (China, Indonesia, Norway, India, Thailand and some European nations) recognize and encourage aquatic farming. It is built into their socioeconomic and cultural fabric. They have developed modern regulatory and policy frameworks, along with science and innovation support for growing this important socioeconomic sector of food production. Other jurisdictions that have access to abundant natural resources for aquatic farming, such as Canada and the USA, are falling behind in terms of regulatory frameworks and science support for this important socioeconomic driver. The United Nations recognizes sustainable seafood farming as an important social and economic activity to meet the growing need for access to healthy and nutritious food. It is also one of the mitigation measures to reduce agrifood production impacts and carbon footprints responsible for climate change, ocean acidification, and other global ecosystem concerns. If you want to produce climate-smart agrifoods, look no further than farmed seafood. Quoting a famous oceans explorer: We must

plant the sea and herd its animals using the sea as farmers instead of hunters. That is what civilization is all about – farming replacing hunting (Jacques Cousteau, 1971).

I do not portend to be a social economist by any means, but I have had considerable experience in rural economic development for the betterment of rural economies, particularly in fisheries and aquaculture. We all need to eat healthy foods and improve our livelihoods, and become much more sustainable on this planet. The use of aquatic farming technologies and innovations will allow us to do so in a much more rapid fashion than most other agrifoods endeavours, in my view. As a Nobel-worthy management guru once quipped: Aquaculture, not the Internet, represents the most promising investment opportunity for the 21st century (Peter Drucker, 1999). Perhaps he realized that food production technology in the form of aquaculture was indeed part of the solution for the growing resource demand by humans on our collective home, Earth? In any event, it is not only a good investment opportunity from the financial sense, but from a social, environmental and food security sense, so the future does indeed look bright for those “investing” in aquatic farming.

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