Aquaculture diversification: a Chilean program for the future

In the productive agenda of Chile, the aquaculture industry represents one of the strategic areas for growth of national economy, which searches for production diversification as a mechanism to reduce the impact of fluctuations on the economic and market environment. The growing global demand of food generates multiple opportunities. The UN estimate that the world population will exceed 9,000 million people in 2050. Current sources of food (agriculture, livestock and fisheries) will be insufficient to meet global food demand. While food production through agriculture and livestock is growing at a rate of 2% per year, fishery production is not, and food production through marine aquaculture has grown over 7% per year (FAO 2013). In the scenario of global aquaculture, our country has achieved a leading position among supplier and producers, thanks to sustained growth of salmon farming, and more recently of mussels. This development has required an investment in training the necessary human capital, technological capabilities and generate own experience; process in which universities and institutions of technical and higher education play a key role in training professionals, technicians and skilled manpower to meet the needs of the industry in areas such as production, processing, marketing etc., as well as service areas. All this has allowed to achieve an increase in productivity and exportation of products to international markets.

Chile is also favorably positioned to face these challenges, given its extensive coastline dominated by cold-water currents from subantarctic water masses, and has a growing reputation as a food supplier in world markets, driven by economic policies that promote competitiveness, innovation and product quality. Is thus evident the need to concentrate efforts and resources on concretize this mission, for which it is necessary to articulate a set of technological applied research, whose results lead to maximize the chances of generating a productive impact on a country level. The efforts invested in developing the culturing of various species have so far achieved limited results, and production impacts of hard quantification. This fragility of the environment and markets, puts in evidence the urgent need to increase the productive matrix of the industry with other species of high commercial value, such as those prioritized by the Chilean Program of diversification of aquaculture, especially the toothfish (*Dissostichus eleginoides*) in the south, corvina drum (*Cilus gilberti*) and Yellowtail amberjack (*Seriola lalandi*) in the north and red cusk-eel (*Genypterus chilensis*) in the center of Chile, which are the target species of this Program.

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