

## Challenges and Way Forward for Malaysian Aquaculture Industry

Wen Chiat Lee

Universiti Teknologi Mara Sarawak, Malaysia

**A**quaculture is important in Malaysia as it can complement with marine fisheries to provide source of fish to Malaysian consumers. Malaysia is one of the largest fish consumers in the world, at 57 kg per person. Aquaculture also provides employment opportunities, income to people and is also profitable to the country. Aquaculture provides RM3.04 billion a year to the Malaysia and standing 15th in world and 6th in Southeast Asia. Malaysian aquaculture industry is divided into pond aquaculture, freshwater aquaculture, and brackish water aquaculture. This paper presents the challenges of aquaculture in Malaysia and suggests solutions to the aquaculture industry in Malaysia. The key problems in aquaculture are diseases in shrimp industry, over dependent on imported feed, pond management and getting proper water supply for aquaculture. The solutions suggested are better pond management, adopting best practices and allocate certain regimes for proper harvesting techniques. It is important also for universities in Malaysia to produce fish feed and reduce dependent on imported fish feed to ensure sustainability in aquaculture industry.

### **Aquaculture:**

Aquaculture (less generally spelled aquiculture), otherwise called aquafarming, is the cultivating of fish, shellfish, mollusks, oceanic plants, green growth, and different life forms. Aquaculture includes developing freshwater and saltwater populaces under controlled conditions and can be appeared differently in relation to business angling, which is the collecting of wild fish. Mariculture alludes to aquaculture rehearsed in marine conditions and in submerged natural surroundings. aquaculture “is comprehended to mean the cultivating of amphibian living beings including fish, molluscs, shellfish and sea-going plants. Cultivating suggests some type of intercession in the raising procedure to improve creation, for example, customary stocking, taking care of, security from predators,

and so forth. Cultivating likewise suggests individual or corporate responsibility for stock being cultivated.”The detailed yield from worldwide aquaculture activities in 2014 provided more than one portion of the fish and shellfish that is straightforwardly devoured by people; notwithstanding, there are issues about the unwavering quality of the revealed figures Further, in current aquaculture practice, items from a few pounds of wild fish are utilized to deliver one pound of a piscivorous fish like salmon. Specific sorts of aquaculture incorporate fish cultivating, shrimp cultivating, clam cultivating, mariculture, algaculture, (for example, ocean growth cultivating), and the development of fancy fish. Specific techniques incorporate aquaponics and coordinated multi-trophic aquaculture, the two of which coordinate fish cultivating and sea-going plant cultivating.

### **Marine fisheries:**

Marine fisheries provide food directly from ecosystems and are sensitive to climate change. Most human food production comes from heavily modified agricultural ecosystems. But fisheries are not generally manipulated and supplemented (e.g., with fertilizer) but rather produce food from ecosystems that are minimally managed. The direct link from ecosystem to human food is especially strong in marine fisheries and the impact of climate on that production is clear. Fluctuations in marine fisheries catch is correlated with water temperature for many species. Sardine, salmon, mackerel, and other species show catch numbers that fluctuate closely with indices of atmospheric circulation and water temperature. Species comprising more than half the catch in the Atlantic and Pacific oceans are influenced by such climate indices. Because climate change is expected to influence global atmospheric circulation patterns, these catches will respond strongly to climate change.