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Sustainable Agriculture with Aquatic biodiversity conservation

Saleem Mustafa

Faculty Professor, University of Malaysia Sabah, Malaysia

Aquaculture 2021 is a multi-aquaculture initiative. Aquaculture, or fish growing, has gained popularity as a feasible technique of producing seafood, as demand for fresh fish has put pressure on natural populations. The goal of this conference is to bring together a unique and world-class group of scholars, scientists, experts, and practitioners from academia and industry to exchange their knowledge and accomplishments in aquaculture research and related fields of fisheries. The Conference also promotes aquaculture job options, with most, but not all, requiring some level of education. Aquaculturists can work on fish farms, in academia, and for state and federal government agencies, among other places.

Aquaculture is currently the world's fastest-growing food-producing business, according to estimates. Aquaculture is defined as the regulated production of aquatic organisms such as fish, mollusks, crustaceans, and aquatic plants. Over the last decade, aquaculture and fisheries have gained popularity as viable techniques for producing seafood all over the world. According to some experts, the rising demand for fresh fish has put a strain on natural ecosystems. As a result, the industry is gaining traction in the aquaculture meeting.

Scope and importance of Aquaculture and Marine Biotechnology

Few basic industries in contemporary times have consistently shown strong annual growth over a two-decade period. Aquaculture has maintained global expansion and is predicted to continue to thrive well into 2025, with a gap in aquatic food items due to stagnating or falling catch fisheries and population expansion. Fundamental paradigm adjustments will occur as a result of the change from increasing output at practically any cost to sustainable production growth with little environmental impact. Aquaculture should contribute Fish has been playing a vital role in providing much needed animal protein to vast global population contributing some 20% of animal protein intake for over 3 billion people. In fact, dependence on fish as a source of cheap animal protein is much higher in developing world. With increasing population estimated to cross 9 billion by 2050, various agencies have estimated demand for fish leading to mind boggling figures. With global catch of wild fish supply stagnant as most of the stocks have either reached their maximum sustainable yields or over-exploited, the bonus of meeting the demand is on or through aquaculture. One study indicates that to meet the demand for fish BY 2050, aquaculture production need to increase by 133% as compared to 2010 levels of production.

Impact of the environment on aquaculture

- Harmful Algal Blooms: detection, forecasting, and influences
- Capacity modelling
- Jellyfish Monitoring
- Impacts of invasive species

Impact of aquaculture on the environment

- Predictive modelling of benthic effects of aquaculture: Auto DEPOMOD/MERAMOD
- The fate of medicines in the environment
- Environmental impact assessment methodology
- Benthic recovery and sediment sulphides
- Hydrodynamical modelling: FV-COM: from bay to shelf
- Modelling lice transmission and connectivity
- Regulation of aquaculture

Diversification of aquaculture practices

- Research and development of Integrated Multi-Trophic Aquaculture (IMTA)
- Seaweed culture
- Invertebrate culture