
Sustainable Organic Aquaculture

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Sustainable organic aquaculture sounds about as awe inspiring as the words - sustainable development. But both have sincere meanings towards the future of aquatic food security and associated industries. Holistic as they may sound the implications for aquaculture over the next twenty years is hidden amongst the large amount of credible data held by the United Nations - Food and Agriculture Organization - on the 'State of the World's Fisheries' web site. This illustrates the imbalance between wild fisheries stocks and aquaculture's ability to meet the burgeoning challenge of a fast growing global population and the need to produce more and more food from our rivers, lakes and oceans.

Sustainability is a generic word based on continuous profitable production, with my definition of such profitability embracing financial, social and environmental factors. For example (one of many) the demise of the English North Sea - cod stocks were pre-warned. Advances in fishing technology coupled with un-sustainable regulation, sunk the fish population down to critical levels. Such actions coupled with short-term government strategies, lead to the north-coast fishing industry to be brought to its knees and only through necessity was a cod aquaculture industry borne, under by now, a so called favourable, 'sustainable economical' climate.

Organic to many is an innate word, conjuring up images of low stocking densities, low production and complicated standardization. Its principal benefit for industry is to work with, and not against the environment. Agriculture embraced this concept some years ago particularly in Europe, where farmers are now reaping in the benefits of added value (up +30%) products and an organic label clambered upon by a new generation of environmentally conscious consumers. Although the US 'National Organic Program' has embraced such standards, large scale industry has yet to be convinced in terms of either the economics or marketability of the concept.

Aquaculture we all know. I first began my research at the UK Millennium backed Earth Centre (now closed) in 1993 with a field based centre dedicated to promoting the topic to the general public. And here working with local universities we researched freshwater pond methodology, aquatic ecology and environmentally friendly methods of disease control.

Integrated farming is a not a new concept to Asia, it has been practiced for hundreds of years particularly in China with the 'Five carp system' a method of practical, productive polyculture producing most of the fish protein supplies of the country. The United Nations University departments- The Institute of Advanced Studies and the Zero Emissions Research Initiative are two organizations working in the organic waste utilisation research sectors.

They say the 'blue revolution' has arrived in terms of social acceptance and 'blue' (rather than green!) does describe a moderate approach to sustainability - but the revolution still waits. As fish and seafood demand accelerates especially in Asia, it is quite apt that the first conference dedicated to more environmentally friendly methods of aquaculture was held in Vietnam last year. It is in Asia where the concept of sustainable aquaculture is enjoying the greatest support and the drivers one of necessity and market forces.

Currently in terms of the Marine environment the first tentative steps are being made on an ambitious project to standardize the birth of an eco-friendly mariculture industry in the Union of Myanmar (Burma). Working with the Myanmar Department of Fisheries the aim is for Instar Myanmar to research, develop and operate several finfish hatcheries and sell organically certified fingerlings to be raised in a sustainable manner.

Aquaculture technology still has the opportunity to embrace and form symbiotic relationships with its ecosystems and assist in the global age of the 'blue revolution', but there is an immediate need to embrace sustainable organic aquaculture methodologies, so that our natural capital is not eroded any further, or until a more favourable economic climate has arrives too late.

Stephen Bedford Clark, is an aquaculture consultant who has been promoting sustainable organic aquaculture via his fishace website for the past ten years. On the site is also relative information, links, news, events and a fledgling organic directory of academic and industry persons working in this field.