

The status and outlook of marine aquaculture development in South Africa

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Marine aquaculture was initiated in the 1990s with the onset of oyster (Pacific Oyster, *Crassostrea gigas*), mussel (European mussels, *Mytilus edulis*) and abalone farming (*Haliotis midae*), followed by the introduction of finfish culture (Dusky kob, *Argyrosomus japonicus*; Yellow Tail, *Seriola lalandi*) since 2010 (SA 2007; SA 2012). The industry was pioneered by the private sector therefore the focus on high value species. Marine aquaculture development in South Africa is facing particular challenges in terms of:

- a high energy coastline with limited sheltered bays to accommodate offshore aquaculture;
- long distances from world markets, increased cost of logistics;
- escalating cost of energy and labour;
- the cost of capital and high internal rate of inflation (>6 percent per annum).

The negative impact of the decline in fisheries resources on socio economic conditions of coastal communities has led to government initiatives to stimulate aquaculture development in order to provide for alternative livelihoods. These initiatives are directed mainly as large commercial development through capital investment and export market incentives, in an effort to stimulate economic growth and job creation (DTI 2012).

Abalone farming has become the most important sector on the back of successful export markets, contributing over 90 percent of income (USD 1,000 million) derived from the mariculture sector. Subsequent to the collapse of the wild abalone fisheries due to overfishing and illegal harvest, farmed production has increased from 20 tonnes in 1998 to over 2,400 tonnes in 2013, elevating South Africa to become the largest producer outside of China. The industry is well supported by advanced production technology (husbandry, nutrition, genetics, breeding, biosecurity, processing and marketing) which ensure global competitiveness. Production is predominantly based on pump ashore land based systems, with the first generation of ranching projects being introduced in 2013. Growth and marketing prospects are positive, with rapid expansion within the industry, mainly through increased production from existing operators.

Mussel production, as a lower value high volume product, is directed at the local market and has registered continuous growth over the last two decades to current levels of 22,000 tonnes. The sector is experiencing competition from imports, mainly from New Zealand and Chile. Production systems are conventional in nature and significant emphasis is placed on value addition through processing and product development. The oyster sector, also directed at the local market, seems to have reached market capacity at production levels around 4,800 tonnes per annum, with limited outlook for future growth.

Finfish production, in particular that of indigenous species, is currently attracting particular interest from both the market as well as investors. The first pioneering projects are currently established based on both offshore cage culture as well as land based recirculation systems. The outlook in terms of financial viability is still inconclusive, particularly in view of high capital cost and volatile market conditions.

The marine aquaculture sector in South Africa has made good progress over the past decade and is well positioned for future growth, supported competitive technologies and market demand.

References

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