

Economy of scale and the danger of fragmentation to the South African deep-sea trawling industry

The rights holders in the South African deep-sea trawl fishery supply hake and cheaper bycatch species, like maasbanker, angelfish and panga, to every corner of South Africa – and value-added hake products to markets as geographically distinct as Zimbabwe, Sweden, the United States and Australia. Yet, in spite of the fishery's global competitiveness and its status as the only fishery in Africa to be certified by the Marine Stewardship Council (MSC), there continue to be strident calls for its fragmentation – dividing the annual total allowable catch (TAC) among a larger number of participants. This position paper briefly describes the market forces that shape the industry's success, examines some of the reasons for the calls for fragmentation, and proposes that further fragmentation will lead to economic inefficiency and job losses.

South African hake producers compete successfully in the global market for groundfish (fish that live on or close to the seabed). The annual global catch of ground fish is in the region of 13 million tonnes and includes fish that are farmed on a massive scale like salmon and catfish. The fact that South African hake producers compete successfully in this industry is remarkable because they (and their counterparts in Namibia) produce only 2.2 percent of the global catch. How has such a small fishery, situated so far from the world's major markets for such species, carved a niche for itself in the demanding and sophisticated international market for seafood? While there is no short answer to this question, three factors are unquestionably at play. Firstly, South African hake producers have succeeded in positioning Cape hake as a premium groundfish species. The trawl fishery's status as MSC-certified has lent local producers further credibility and access to first world retail markets – since 2004 when the fishery was first certified, South African producers have expanded traditional markets for Cape hake, opening up new opportunities in the seafood markets of Northern Europe.

Secondly, ever since the declaration of South Africa's exclusive economic zone in 1979, when a period of rapacious fishing by foreign fleets was brought to an abrupt halt, South African producers have worked with government scientists and fisheries managers to rebuild stocks of Cape hake and construct a fisheries management regime that safeguards their sustainability. Their efforts have born fruit; in 2015 the MSC certified the South African trawl fishery for hake for a third time¹.

Thirdly, in spite of substantial changes in the structure of the fishery, hake producers have secured sufficiently large volumes of hake to profit and diversify. Volume is critically important because it allows hake producers to exploit economies of scale and secure valuable supply contracts with wholesalers and retailers around the world.

Economy of scale

Deep-sea trawling requires massive capital investment. Vessels are large and built to withstand the extreme weather encountered on the fishing grounds – the newest freezer factory trawler in the South African fleet was purchased for R255 million in 2015. Similarly, the processing of hake is capital intensive. Industrial-scale fresh fish processing factories have an asset value of approximately R1 billion each, with annual capex costs of approximately R6 million and similar levels of annual maintenance costs. In addition, both the fishing and processing operations are labour intensive and have a high fixed cost base. To make these investments worthwhile, the volume of hake that is caught, processed and marketed needs to be sufficiently large so that the overheads (fixed costs) are spread as thinly as possible. With large-scale operations, average costs are lower and able to sustain sophisticated catching and processing techniques.

From a purely marketing perspective, South African producers have penetrated and expanded their reach in the international marketplace because they have been able to secure fixed contracts with international wholesalers and retailers. They could not have done this without the ability to catch and process large volumes of hake. Economy of scale explains the tendency of trawl operators to consolidate into "clusters" – groups of right-holders that utilise the same fishing vessel or fleet of vessels.

With large volumes acknowledged to be a critical element in the success of the deep-sea trawl fishery, why are there repeated calls to fragment the industry and effectively work against its consolidation?

¹ Andrews, J., Groeneveld, J. & Pawson, M. 2015. South African trawl fishery: public certification report. Intertek Fisheries Certification. 335 pp. Available at: <http://www.sadstia.co.za/assets/uploads/Intertek-report-28-April-2015.pdf>

Three arguments generally support calls for fragmentation. First, there is a common but erroneous, perception that the deep-sea trawling industry is untransformed. A report produced by independent economists, Genesis Analytics, in 2018 found that historically disadvantaged persons (HDPs) currently hold approximately 66% of the shares in the firms that harvest 90% of the HDST catch, and most likely the same or higher amongst the remaining smaller firms. Shareholding by HDPs has more than doubled since 2005². Therefore, this argument is easily disposed of.

The second argument is based on an innate fear of monopoly power and unjust pricing. But this fear is not relevant to an industry that exports 67% of its catch, which amounts to less than 2 percent of the world supply. Internationally, South African producers are “price takers” not “price makers”. On the local market there are numerous close protein substitutes for hake and associated products.

The third reason is the most difficult to overcome because it is based on the notion that giving more companies and individuals access to the deep-sea trawl fishery will create opportunities for small- and medium-sized, black-owned and managed entities, and that this will translate into long-term benefits. In fact, the opposite is true: precisely because of the capital-intensive nature of the industry and its dependence on economy of scale, large operators are able to add more value to raw material, employ more people, make more profit and pay more taxes. The cluster concept has enabled the industry to achieve the requisite economy of scale even though rights are held by 33 separate entities. Clustering has seen smaller operators band together to achieve the volumes required to supply a demanding international market. Reversing this trend, by introducing ever more small operators, would result in the export of more commodity hake products, less beneficiation and therefore less employment and lower returns. The result would be a lowering of corporate tax and inflows of foreign exchange. In short, it is very difficult, if not impossible, for small operators to survive, much less thrive, in a highly complex, capital and labour intensive global industry.

Other position papers and factsheets in the SADSTIA series:

SADSTIA. 2017. Fragmentation of the deep-sea trawling industry will come at the expense of beneficiation and jobs. SADSTIA Position Paper No. 2. Available at www.sadstia.co.za/publications-and-media/

SADSTIA. 2016. Employment in the South African deep-sea trawling industry. Available at www.sadstia.co.za/publications-and-media/

Further reading

Cooper, R., Leiman, A. & Jarre, A. 2014. An analysis of the structural changes in the offshore demersal hake (*Merluccius capensis* and *M. paradoxus*) trawl fishery in South Africa. *Marine Policy*, 30 (1): 3–17.

Ferrandi, D.C. 2015. Industrial organisation in the South African deep-sea hake trawl sector: a taxonomy. Paper submitted in partial fulfilment of the requirements for the Degree Economics Honours. School of Economics, University of Cape Town. 21 pp. Available at: <http://www.sadstia.co.za/publication/industrial-organisation-in-the-south-african-deep-sea-hake-trawl-sector-a-taxonomy/>

Leiman, A. 2015. Conservation, competition and industrial organisation in the South African fishing industry. *Focus. The Journal of the Helen Suzman Foundation*, 75: 69–74.

² Hodge, J., Ntanzu, A., van der Hoven, Z., Moses, P.J. & Msimango, N. 2018. Economic study of the hake deep-sea trawl fishery and the implications for future fishing rights allocation policy. Johannesburg, South Africa, Genesis Analytics. 107 pp.



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Unlocking the value of the Cape hake resource