

Potential for a South African Aquaculture Industry on the Northern Cape's Namaqualand Coast

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Introduction

In the 1980s, aquaculture, or fish farming, was in its infancy, globally. Today, it accounts for close to 50 million tons annually, making up nearly half of all fish products consumed. Of this, Africa has a 1% market share and South Africa accounts for about 1% of the African slice.¹ China and Chile have become huge producers and exporters. Chile's aquaculture production and exports are intended to rival those of its mineral exports in years to come.

Although South Africa's high-energy coastline imposes barriers to what it can do, nevertheless, significant potential exists. Draft policy proposals by the Department of Environment and Tourism (DEAT) are welcome but cannot serve the strategic opportunity that avails itself at this point in time and which is outlined in this report.

De Beers' planned progressive de-commissioning of the coastal Northern Cape diamond areas (as a result of depletion) affords an opportunity to upscale significantly South Africa's role as a supplier of farmed marine products for domestic and export markets.

Global consumption of fish and fish products has increased greatly, mainly for health reasons, and has become a food of choice, especially in rich developed countries. South African hake (stokvis or stockfish) used to be an affordable staple food for poor people domestically, but market prices attained in Europe have resulted in huge exports of hake while, locally, the fish has become unaffordable to impoverished consumers. Global projections indicate that demand will continue to grow rapidly. In response, developed and developing nations have invested to grow this sector of their economies to meet that demand.² In Chile, aquaculture created over 40,000 new direct and indirect jobs over the past 15 years. Although Chile's conditions are not directly similar to South Africa's, their regulatory environment, together with their market, marine science (and thus sustainability) and engineering experiences hold lessons for South Africa.

The proposal in this document identifies a single, unique opportunity that can be a catalyst to spur into being a South African aquaculture industry of a notable scale. The proposal identifies the potential opportunities, including where and how obstacles toward this might be removed.

¹ See Annexure 2 for an extract of a ministerial speech on this topic.

² See Annexure 3 for an extract of a research paper commissioned by the Institute for Security Studies.

Section 1: Key factors concerning the De Beers Namaqualand diamond mine³

By 2014, there will be around 2,000 retrenchments resulting from the decommissioning of the mining operations on the Northern Cape's Namaqualand coast. A map of the coastline is available in Annexure 1. Large numbers of workers have been retrenched to date and the negative economic impact is obvious.

Mining operations took place mainly in the inter-tidal zone on a narrow strip of coastline stretching some 350 kilometres, with the Alexcor part of the coastline excluded. Deep holes, or cuttings of up to one kilometre in length, and often in excess of 10 metres deep, mark this coastline, are the result of mining operations. In terms of environmental legislation, De Beers is obliged to restore the coastline to what it was prior to the diggings; this implies re-filling those holes.

The extensive security system employed around the mining area extends into the ocean and no fishing is allowed in waters that are adjacent to the concession area. It is also the case that kelp or seaweed has not been harvested there either.

Consequently, the marine in-shore has remained pristine with the exception of some mining operations in the inter-tidal zone.

Huge pumping operations were engaged to ensure that water could be displaced during the mining process. Other infrastructure in the area includes private roads and power supply. The town of Kleinzee is in the process of being proclaimed as a municipality and was, until recently, run by the mine on a private basis.

³ See Annexure 3 for a map of the coastline of the Northern Cape

Box 1: Spatial development

The Northern Cape provincial government refers to three Special Resources Areas; one of these is for mariculture between Alexander Bay and Hondeklipbaai; Development Corridors and Special Resource Areas.

The Provincial Spatial Development Strategy will also have to take into consideration the existing network of development/transport corridors and special resource areas.

Within the province there are four discernible development/transport corridors. Firstly, the corridor from Springbok through Upington to Kimberley (and the Free State and Gauteng) links the major economic centres in the province. Secondly, the corridor linking Namibia to Upington, passing through De Aar to the Eastern Cape. Thirdly, the corridor linking Gauteng through the North West province to Kimberley and Cape Town. A fourth corridor links Cape Town through Springbok in Namaqualand to Namibia and, potentially, Angola. Not only are these corridors vital lifelines from a transport point of view but, in each case, there are areas of relatively high economic potential which if developed could benefit enormously from their proximity to established transport infrastructure.

In addition, a number of special resource areas warrant special attention in the formulation of the PSDS. Along the west coast in the area between Alexander Bay and Hondeklip Bay, there is clear and significant potential for mariculture and related industry development based on the adjacent marine resource.

The area is also the location of the Ibhubesi natural gas field which, if exploited, could be landed on-shore in the Northern Cape either for transport by pipeline to the Western Cape and/or Gauteng as part of the development of a national gas grid.

The second special resource area is the area along the Orange River where the expansion of irrigated agricultural production based on new water allocations is possible. From a regional economic development perspective the development of this special resource area holds much promise.

A third special resource area, or group thereof, is the small number of major eco-tourism and conservation initiatives in the province such as the Kgalagadi Transfrontier Park, the Ai Ais-Richtersveld Transfrontier Park, the Bushmanland Conservation Initiative, and the expanded Namaqua National Park and adjacent Marine Protected Area.

The implication of this is that development priorities in these areas should be:

- The designation of spatial development initiatives;
- Provision of direct support to catalyse flagship economic development projects along transport/development corridors and within special resource areas; and
- Provision of necessary infrastructure and services to support economic development along transport/development corridors and special resource areas.

Small-scale diamond mining will continue to be a feature in future for those licensed to do so and who endeavour to make a living from the exhausted mining areas. Small-scale diamond mining, as much as tourism and gas field exploration, can be designed to co-exist with the aquaculture plan outlined in the document.

Once de-proclaimed, vast tracks of semi-desert land will be opened up to the provincial government and, in turn, will be released as real estate for private development.

Box 2: National policy on zonation

The national policy speaks of “land use planning”, stating that the mandate of the municipalities includes the designation of the land uses in the areas under their jurisdiction.

The national policy further states that in order to encourage investor and consumer confidence, the Department will undertake two specific interventions: zonation and long-term rights allocations.

Since aquaculture faces competition from other land and sea use activities, the national policy states that it is, therefore, a high priority to ensure that areas that are suitable for marine aquaculture development are zoned for this purpose. This is planned to be done through appropriate legislative measures. All spheres of government will play a key role in the establishment of special zones for marine aquaculture activities. Within a marine aquaculture zone all requirements with regard to land use planning and assessment of tolerable impacts arising from farming within a particular zone will be made in advance, and in doing so, reducing the entry costs for applicants and reducing environmental impacts. The NEMA EIA requirements will still be applicable within the zones. In order to avoid possible conflicting use, the establishment of aquaculture zones will take into consideration other activities, including area management initiatives such as MPAs, tourism fishing, and recreational and other activities.

The national policy also envisages that the Department, in collaboration with other government departments, provinces and municipalities, encourage the development of basic infrastructure in order to enhance the attraction of proposed marine aquaculture zones.

It is with reference to each of the above features and components of the existing mine and infrastructure that the opportunity for an aquaculture proposal of scale avails itself. Instead of letting private developers turn this release of land into coastal (exclusive) housing or otherwise agricultural or industrial land, it is suggested that a part of it be set aside as an aquaculture preference zone.

Unofficial discussions with officials from De Beers were supportive. De Beers has stated publicly that they would want to leave a legacy beyond mining after their mining operations cease. Although some provincial and mining interactions have taken place, they are piecemeal and do not address the potential for something much larger to occur.

It is suggested that if the De Beers' Board were engaged at cabinet (or presidential) level, then a significant win-win situation could result from the de-commissioning process.

In brief: the proposal suggests an intervention that elevates current local aquaculture experiments and broad discussions to form part of a strategic national initiative that has the potential to put South Africa on the global aquaculture map.

Section 2: Discussion

1. The land-use option

The question of land-use is likely to remain a stumbling block for potential fish farmers because access to coastal land will continue to pose a formidable obstacle. This is because most coastal land has been zoned, plus the land that suits aquaculture is often also desirable for high-class private dwellings. Already, plans have been refused or obstructed in a number of high profile cases in the Western Cape. The problem is not unique to South Africa. In Chile, policy allowed for a two-year consultative process before the government was able to designate suitable land for its ambitious aquaculture plans.

In the instance of the De Beers' de-proclamation of eventually 350 km of coastline, it would appear opportune to identify and designate at least part of this coastline as an aquaculture preference zone (or Special Resource Area as described in the Provincial Spatial Development Strategy), before other constraints come into being. This proposal suggests between one and three such zones would make up approximately 150km of coastline. **Planning for this resides with the provincial authority but, in the absence of a large-scale plan, land for aquaculture has to compete with industrial and residential land demands.** Given the lack of legal definition for aquaculture land-use, this obstacle should be overcome through preference zonation as proposed above.

Box 3: Industrial support measures

The development of an appropriate set of industrial support measures to reinforce mariculture development is critical.

Mariculture would appear in some ways to "fall between two stools" when it comes to receiving public sector support for industry development. Until recently, there were no specific measures that explicitly recognised mariculture as a qualifying industry. Strictly speaking, in terms of the Standard Industrial Classification (SIC), mariculture is classified as an agricultural activity and, therefore, may have not been foremost in the prioritisation of the design of industrial support measures.

Nevertheless, an entrepreneur contemplating an investment in mariculture could secure access to some of the generic industrial support measures, especially those related to research and technology development and also, possibly, human resource development.

However, from a policy perspective, the Department of Trade and Industry has recently recognised mariculture as a qualifying industry for its range of industrial support measures. More specifically, inputs have been solicited from stakeholders in the mariculture industry and these have been included in the formulation of new criteria for the SMEDP programme.

What would seem to be required, though, is a more comprehensive consideration of an appropriate set of industrial support measures designed specifically to facilitate mariculture industry development. The formulation of such a portfolio of instruments of support for industry development should go beyond national instruments (such as those already referred to) and be widened to include support measures that could be provided by local and provincial government too. The specific aim should be to target the major known impediments to mariculture development and design and avail measures and support that can effectively reduce barriers to entry to this industry.

Taking such a measure pre-empts the huge planning obstacles that are otherwise likely to obstruct progress at a later stage. The withdrawal of the mine offers a once only opportunity for this sector in South Africa.

There is a significant advantage for an unfolding industry to be located in one coherent area. It will spur consistent support and secondary industries.

It should be added that the Northern Cape coast provides, in terms of temperatures and habitat, the best location for a range of aquaculture options within the South African context. Various interested parties have indicated their support for this option and have few reservations about aggregating the industry in one locality.

2. The benefits of the Northern Cape coast

Climatically, the Northern Cape coastline is suitable for farming a variety of marine fish species. It provides the coolest water along the South African coast, an important pre-requisite for fish farming. The kelp or seaweed beds along parts of the coastline afford a natural product for harvesting, not least as feed for abalone farming. Successful aquaculture experiments at Kleinzee (in abalone and oysters), at Port Nolloth (in abalone) and Hondeklipbaai (also in abalone), justify expansion of these species and experimentation with fin-fish farming.

The holes or indentations caused by the mine along the inter-tidal areas should not be closed or rehabilitated as environmental legislation demands. Instead, they should serve as suitable pools in which on-shore aquaculture can take place. Current experiments prove their suitability. Interested parties believe that these pools are suitable for finfish farming also.

In as far as the De Beers' mine relied on huge water pumping operations, and these could be retained to reticulate water as required in aquaculture. Possibly the De Beers' security arrangements should also be left in order to protect abalone production. Other De Beers' infrastructure, including power supply and roads, could serve as the building blocks for a new industry.

While aquaculture is associated with activity that takes place at low elevation and on land next to the shoreline, depending on the ready supply of seawater, the tidal waters themselves offer a further opportunity. Kelp (or seaweed) located on coastline is a suitable habitat for the seeding of abalone and, potentially, other mollusks. Experiments at Port Nolloth justify the expansion of such seeding in selected places in the inter-tidal zone. The principle of seeding has been accepted by Department of Environmental Affairs and Tourism (DEAT). It is also widely practiced in Japan, for example.

If a stretch of the Northern Cape coastline was to be declared an aquaculture preference zone, it should take place with a number of pre-requisite conditions which government would have to regulate.

The following are the regulatory interventions needed to meet governmental policy objectives:

Addressing Inequality and Economic Marginalisation

- Identifying a suitable site (or a number of suitable sites) that provide for the establishment of a large number and wide range of aquaculture farms or establishments;
- Declaring such an area an aquaculture preference area (i.e. Spatial Resource Area) and, thus, avoiding the planning consent problems that occur in other parts of South Africa;
- Undertaking an Environmental Impact Assessment for the entire area, thus, obviating the (costly) need for one on each site;
- Creating a regulatory authority that delineates the area into approximately 150 on-land and 150 inter-tidal 'parcels' that are large enough to accommodate one commercial establishment each. This authority to be further charged with the task of:
 - Inviting applications for the purchase (or rental) of 'parcels' as identified and according to a set of policy objectives;
 - Reserving at least half of the 'parcels' for small and medium enterprises with unambiguous Broad-based Black Economic Empowerment (BBBEE) credentials. Preference should be given, as per policy, to Northern Cape applicants whose livelihoods were impacted through retrenchments from the mine closure and from coastal communities of the area;
 - Allocating rights in terms of a criteria-based applications process that ensures transparency and fairness; and
 - Developing operating permit conditions that meet environmental as well as management criteria for the area.

3. Social consequences for the Northern Cape

Unemployment and poverty has affected the Northern Cape region for many years. The withdrawal of De Beers, which is the largest employer, will impact progressively on coastal areas and beyond. Tourism may be seen as a part response to poverty and unemployment.

The establishment of aquaculture farms in the region, with all the unique advantages mentioned above, holds the promise of hundreds, and potentially thousands, of permanent jobs, the creation of small, medium and large industries and the empowerment of marginalised people and communities from the area and beyond.

4. Summary

Existing and proposed DEAT policies will allow for small steps (or a project by project approach) to be taken toward South Africa increasing its aquaculture capacity. That approach, however, will do little to remove the many regulatory hurdles that exist currently. The proposals are unlikely to create an investor-friendly environment and, equally, will deter local small-scale operators.

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If land is to be designated, a zonal EIA undertaken by government upfront and costs paid on a shared basis by the users afterwards, and if existing infrastructure could be used, and those costs shared and other land-use planning hurdles removed or simplified, then South Africa stands to gain an industry that meets food security, secures jobs, grows wealth and earns foreign exchange. In sum, an aquaculture industry of scale would be able to come into being.

The catalyst for all of the above is that such a plan be initiated and undertaken at the highest level between government (via the President's Office) and De Beers. Doing that would ensure that De Beers' desire for a lasting legacy and governments' intention to build a world class industry of scale and for economic growth would be realised through a joint plan and not simply left to chance alone.

Section 3: Conclusion

The following conclusions are drawn:

Species suitable for farming in the Northern Cape area include abalone (both farmed and seeded in the sea), oysters, mussels and finfish, such as kabeljou or cob, tilapia and others.

With regard to markets, the global demand exceeds supply by about five million tons per annum. Global and domestic demand is growing and will continue to grow. South African abalone belongs to the most desired of its kind and the growth of the Chinese middle classes suggests continuing demand beyond what South Africa is able to supply. The export market, though, has been affected by Rand-dollar variations and localised supply issues, such as cheap imports from India and South-East Asia, yet demand and the prices of the aforementioned species have long term potential for strong demand.

Both Namibia and Mozambique have chosen to invest strongly in aquaculture as per their respective habitats: the former has invested in abalone and oysters; the latter in shrimp.

With regard to obstacles, once current aquaculture regulations are in place, there remain formidable obstacles to gain approval for an aquaculture plant. These include:

- Meeting Department of Agriculture approval;
- Obtaining DEAT approval;
- Receiving EIA approval per plant;
- Securing provincial and local authority planning approval; and
- Gaining residents' associations' approval, among others.

Instead of a 'one-stop-shop', current plans for joint consultation will not remove most of the red tape involved. The Northern Cape proposal, as has been indicated in the documentation, should serve to eliminate most of these hurdles prior to applications being lodged. Thus, it will facilitate this industry to take root in South Africa. (In the absence of a suitable investor environment, South African companies are currently making arrangements to conduct their operations in neighbouring countries.)

Another obstacle is that DEAT (MCM) employs high ranking scientists who hold purist views on environmental matters; they, therefore, turn down aquaculture proposals on the basis that those will, or might, impact negatively on an environment which they prefer to keep in pristine condition. Their deep conservatism is disadvantageous to South Africa's developmental needs. Consider the difference between Chilean and South African scientists. Chilean scientists say that aquaculture will affect the environment but opt to focus on how to best mitigate its effects. Their South African counterparts say that aquaculture will affect the environment; therefore, it should be opposed or objected to as far as possible.

Large companies or investors should not be discouraged from participating in the 'parcel' allocation in the Northern Cape. Their presence should be seen as

providing critical investment in research and development, and in taking over some of the inevitable risks in the value chain.

FAMDA, or the Fishing and Mariculture Development Company, is the custodian of an aquaculture park in Port Nolloth. The concept of an extended, much larger zone (Special Resource Area), as discussed here, has been mooted with FAMDA. They indicated enthusiastic support.

Box 4: FAMDA

According to the Fishing and Mariculture Development Agency (FAMDA), which is guided by the Northern Cape Province's Fishing and Mariculture Sector Development Strategy, the economy of the Namaqualand is dominated by a declining mining industry, and fishing and mariculture offer a substantial opportunity to promote sustainable economic development in the Namaqualand region. FAMDA also recognises that interventions are needed to empower coastal communities and facilitate access to marine resources, technology and investment.

FAMDA has proven to be a highly successful means to the identification and facilitation of mariculture projects in the coastal areas of Namaqualand. The deployment of a dedicated capacity in support of identified project potential has already led to the creation of a significant number of sustainable livelihoods.

However, FAMDA is severely limited in its effectiveness by human resource and financial constraints, and the organisation is in clear need of strengthening so as to be able to reinforce its ability to provide the institutional development and other support required by developing mariculture ventures in the area.

In the past year or so, FAMDA has undergone something of an institutional reform having been transformed from a member-based voluntary association with a constitution into a company registered in terms of Section 21 of the Companies Act. This change in legal status was necessitated by a shift in the role and function of FAMDA from a body that was focused predominantly on facilitating access among members to rights allocations and high level advocacy issues related to fishing and mariculture development to an organisation much more clearly focused on business development in fishing and mariculture, albeit that it still also functions as an advocacy body for the promotion of specific fishing and mariculture project developments in the Namaqualand coastal zone.

It is anticipated that the role and function of FAMDA will continue to evolve as mariculture development gains pace in the area. Indeed, FAMDA has already identified specific areas in which it needs organisational strengthening through the acquisition of additional financial and human resource capacity so as to be able to perform its expanding role. As a matter of priority, it will, therefore, be necessary to secure additional support from national, provincial and local government as well as from FAMDA members in order to strengthen the organisation.

Universities with experience in aquaculture, particularly the universities of Rhodes and Stellenbosch, would be keen to assist in serving the proposed zone on an outreach basis.

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Google Earth: <http://www.earth.google.com>

Annexures

Annexure 1: Map

Figure 1: Northern Cape coast map



Source: Google Earth (2005)

Annexure 2: Extract from the Environmental Affairs and Tourism Minister's speech

“Chairperson, 8 June is an auspicious date for this policy debate - falling as it does in the middle of the Year of Deserts and Desertification, at the start of Antarctica Month, at the end of National Environment Week, and on World Ocean's Day.

There is a proverb which our colleagues from KwaZulu-Natal will know that says 'Akusagaywa ngoludala, kugaywa ngolusha'. Literally translated it means that we no longer grind with old stones - that things have changed. Ours is a country renewed. Ours is a people emboldened and energised both by the fires of our shared past and by the hope and promise of future prosperity.

When the President stood before Parliament, at the start of the year, he captured this spirit in his challenge to us all to build the Age of Hope. This shared national endeavour asks much, but promises more - especially in this portfolio. As we celebrate ten years of Constitutional protections, it is the environment and tourism that increasingly takes centre-stage in our efforts to ensure that hope is grounded in lasting improvements, sustained growth, and a better life for all South Africans.

Oceans of Hope: Mariculture and Regional Partnerships to Boost Food Security

Chairperson, since this is World Oceans Day let us reflect for a moment on the importance of our marine and coastal resources in sustaining hope. The Honourable Members will no doubt be aware of our process to allocate long-term commercial fishing rights - which thus far has achieved much in transformation and empowerment, but the reality is that the fish stocks of Africa and South Africa are at all-time lows.

Take for example the spawning biomass of deepwater hake - which dropped from 1050 000 tons in 1917 to less than 200 000 tons in 2004. Catches of West Coast Rock Lobster have declined from 10 000 tons in 1970 to less than 2000 tons today. Yet the 2005 World Fish Report reveals that just to maintain our current per capita fish supply of almost 7kg/year will require a 20% increase in production by 2015, and a 32% increase by 2020. Simply put - our oceans alone cannot meet these needs, there is simply not enough fish, and in the medium to long-term widespread food insecurity threatens the hopes of our people.

To meet the shortfall South Africa must move swiftly to develop and expand our marine aquaculture industry - one of the issues that the Chairperson of our Select Committee, Rev. Peter Moatshe, has staunchly advocated for some time. Worldwide this sector represents more the R650 billion in global value, yet South African mariculture accounts for only about R3 million and about 2500 jobs. Our Department is committed to develop the necessary legal framework, aggressively build the needed capacity and skills, and to help drive sustainable growth of the industry ensuring both competitiveness and significant SMME participation.

Regionally our Department has also been working closely with our neighbours on the West Coast to improve the management of the Benguela Current Large Marine Ecosystem (BCLME). Together with compliance and enforcement initiatives like our joint SADC marine patrols, these programmes are helping us to protect fish stocks across national borders, for all the people of Southern Africa. I am pleased

today to announce that we will, before the end of this year, be signing an agreement with Namibia and Angola to establish an Interim Benguela Commission - to advise on transboundary fish management, as well as the impacts of human activities, like fishing and mining, on our marine environment.

International Partnerships for Hope

Chairperson, through the growing success of our role in regional programmes like the Benguela initiative, South Africa is earning a reputation for excellence in environmental leadership. This is one reason why we have been chosen by the Global Environment Facility (GEF) to host the International Waters Conference in 2007.

The news of our having secured the hosting of this conference builds on the excitement and value to South Africa of our hosting later this year of the GEF Annual Assembly - one of the most important global forums for deciding on allocations of environmental financial assistance. I can confirm today that South Africa has officially decided to become a donor to the GEF - allocating R38,4 million over the next five years. This will provide us with a formal voice in the negotiations to replenish the GEF - which we will use to advance a more equitable and even-handed approach to resource allocation for African countries.

South Africa has taken on ever-growing international commitments in tourism and the environment. Our Department is now either the lead Department, or one of the major drivers, in 33 separate international Agreements, Conventions and Protocols. To ensure success in these global partnerships we have created a specialised new unit within the Department - International Cooperation & Resources - to drive and coordinate our participation. In the past year alone we have already seen the fruits of this investment with South Africa making major international contributions and advancing the shared interests of Africa - like our assistance in unblocking the climate change negotiations in Montreal; the facilitation of a compromise deal on the handling of Genetically Modified Organisms at the meeting of the Convention on Biodiversity in Brazil; and the negotiation of common African policy positions on water and sanitation within the Millennium Development Goals +5 Summit in New York."

Annexure 3: Extract from a research paper by Feike for the Institute for Security Studies

“In 2000, some 96.9 million tons of seafood was consumed by the world’s population of 6.1 billion people. This equated to a per capita consumption of 16kg of seafood. By 2005, the world consumed 107.2 million tons of seafood – a 10.6% increase in consumption, while the global population grew by 6.5% to 6.5 billion people. Per capita consumption of seafood in 2005 is highest in recorded history at 16.6kg.

Between 2000 and 2005 total wild fish production declined from 95.6 million tons (101.35% of global seafood consumption) to 93.8 million tons (114.28%). In the same period, we are advised that aquaculture production increased from 35.5 million tons (36.6% of global seafood consumption) to 47.8 million tons (44.5% of global seafood consumption).

This increase in global seafood consumption is largely attributed to the positive image seafood receives in the media and among health care professionals because of the beneficial powers of omega-3 fatty acids and it being a low-fat and traditionally affordable source of protein. Per capita trends regarding the consumption of fish indicates that regions that have overfished their stocks – predominantly the wealthy industrialized regions, such as the European Union, North America and Oceania – continue to access the bulk of the world’s fish. Per capita consumption in the industrialized nations stood at 29.7kg in 2003 while in Africa the comparative figure was 8.2kg. per capita seafood consumption is approximately 26kg across Europe. This is well above the global average of 16kg. Americans consume 21.3kg per capita and the Japanese, with a diet that includes fish for breakfast, lunch and dinner, consume 65.6kg per capita per year!

The trade in global seafood and fish products is worth more than R480 billion annually according to the Food and Agriculture Organisation of the United Nations. In South Africa, wild commercial fisheries had a landed value of approximately R4,4 billion in 2006. Commercial fishing vessels landed a reported catch of 636 600 tons of fish across 22 commercial fisheries. This compares with reported landed catches of 835 000 tons of fish in 2005 with an estimated value of R5,1 billion. In 2006, South Africa exported approximately 18% of its fish or fish products worth an estimated R787 million while it imported fish to the value of R54 million. The remaining 82% of seafood is either consumed domestically or processed into fishmeal and fish oil.

The South African commercial fisheries employ approximately 43 000 people directly. Investments in fixed assets have an insured value of approximately R12 billion. More than 2990 commercial fishing right holders deploy some 1400 fishing boats each year in South Africa’s exclusive economic zone (EEZ).”