WWF

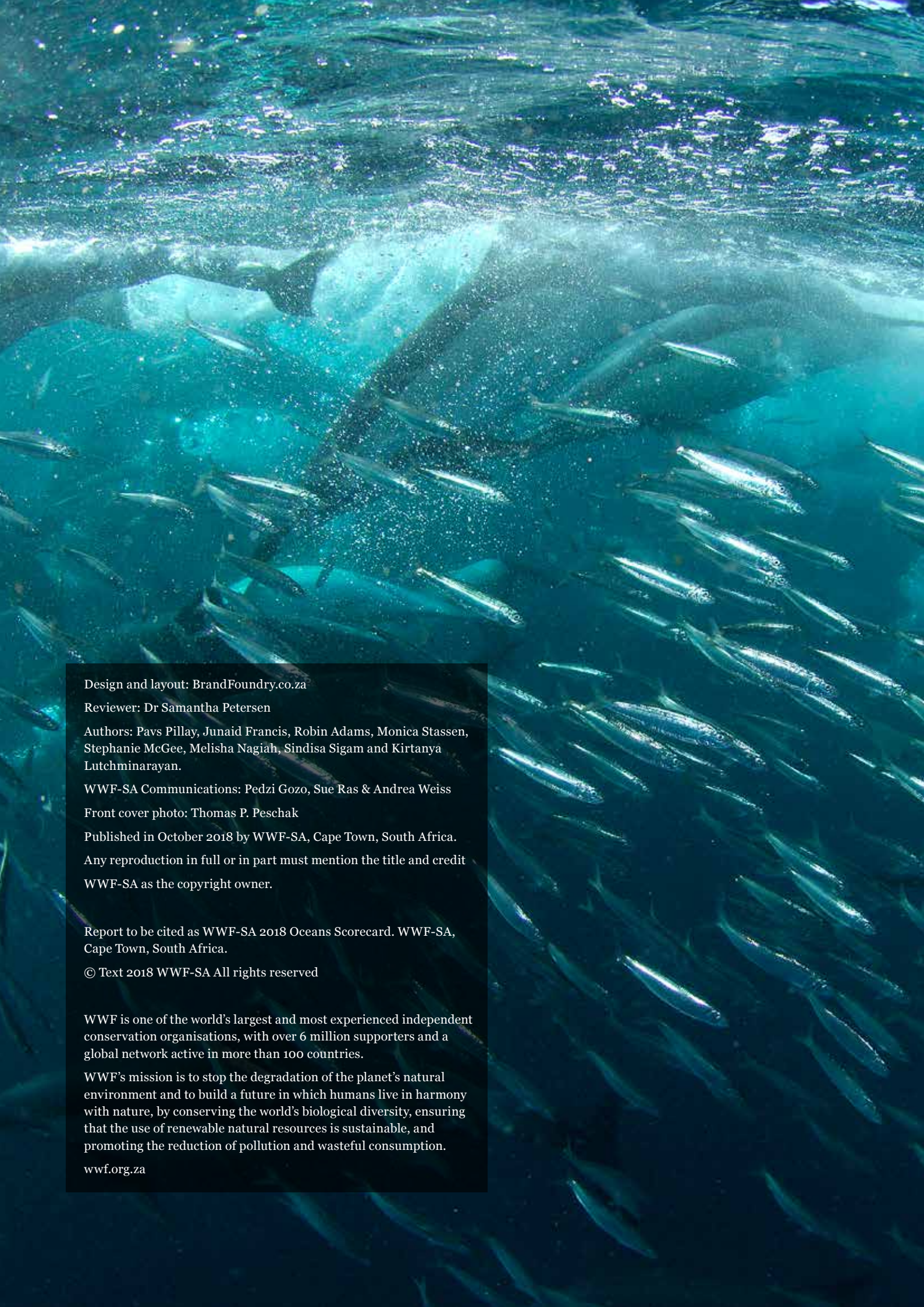
OCEAN SCORECARD

ZA

2018

Oceans facts and futures:

2018 Ocean Scorecard



Design and layout: BrandFoundry.co.za

Reviewer: Dr Samantha Petersen

Authors: Pavs Pillay, Junaid Francis, Robin Adams, Monica Stassen, Stephanie McGee, Melisha Nagiah, Sindisa Sigam and Kirtanya Lutchminarayan.

WWF-SA Communications: Pedzi Gozo, Sue Ras & Andrea Weiss

Front cover photo: Thomas P. Peschak

Published in October 2018 by WWF-SA, Cape Town, South Africa.

Report to be cited as WWF-SA 2018 Oceans Scorecard. WWF-SA, Cape Town, South Africa.

WWF is one of the world's largest and most experienced independent conservation organisations, with over 6 million supporters and a global network active in more than 100 countries.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

wwf.org.za

THE CONTEXT

Overfishing and illegal fishing are among our biggest global environmental challenges along with climate change and its associated impacts, including warming oceans, acidification and sea-level rise.

Other major threats are plastic pollution and increased marine mining, including both bulk sediment mining and increased fossil fuel exploration. These impacts have far-reaching consequences for coastal communities which depend on the oceans and its resources. At the same time, stakeholders and role players in the ocean space, including civil society organisations like WWF, have been hard at work identifying and addressing these challenges.

2%
INCREASE IN OVERFISHED STOCKS GLOBALLY

In 2016, WWF first published a report on the South African ocean economy. Its objective was to provide a snapshot of the state of our oceans and to catalyse collaboration. It provided a bird's eye view of areas of concern and showcased some best practice solutions. Within the report, an Ocean Scorecard was developed to act as a marker against which progress could be measured and tracked. Two years later, this scorecard has been updated to see if there have been any significant changes.

4%
DECREASE IN UNDERFISHED STOCKS GLOBALLY

Key Updates for 2018

- Globally, there has been a 2% increase in overfished stocks and a 4% drop in underfished stocks, which indicates that more and more species are being fished to capacity (FAO 2016, 2018).
- At a local level, the number of sustainably fished species (optimally exploited) remains the same (DAFF 2014, 2016). However, of concern is that species with an unknown/uncertain status has increased, suggesting we have limited or conflicting information on 23% of all the species we extract (DAFF 2014, 2016).
- The percentage of over-exploited species in our waters has decreased by 4% driven largely by an increase the number of species being assessed (with positive outcomes) by the Department of Agriculture, Forestry and Fisheries (DAFF) through its formal stock assessments.
- WWF-SASSI species assessments have increased from 79 to 91, largely due to an increase in the number of assessments for inshore trawl caught bycatch species.
- The number of Orange listed species increased for a number of reasons with some species showing improvement moving from Red – Orange (such as Carpenter & Panga – inshore demersal trawl) and some showing a decline moving from Green – Orange (such as Sardine – purse seine; Gurnards – offshore demersal trawl).
- African penguins and West Coast rock lobster numbers continue to decline at an alarming rate. For penguins, the decline is due to food availability and the effects of climate change. The decline in rock lobster is being driven by high levels of illegal, unreported and unregulated fishing (IUU) and poor management of the fishery.
- Both species of hake continue their upward trajectory with deep water hake currently at a maximum sustainable yield.
- There have also been positive changes with regards to coastal livelihoods in that small-scale fishing communities have been identified with the first allocations in the were made in the Northern Cape.
- Similarly there has been a positive shift with regards to marine spatial planning legislation in place.

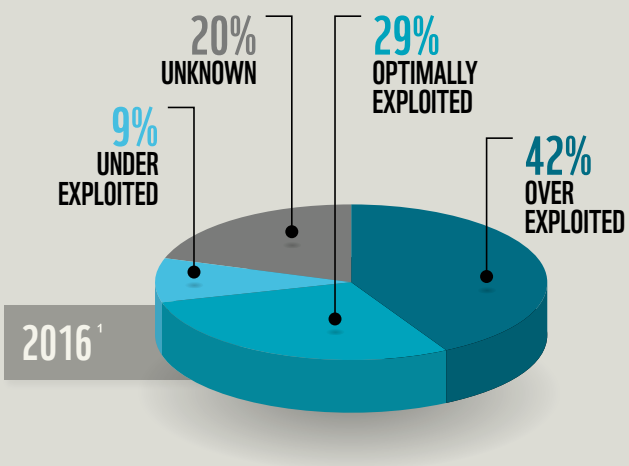
African penguins and West Coast rock lobster numbers continue to decline at an alarming rate.

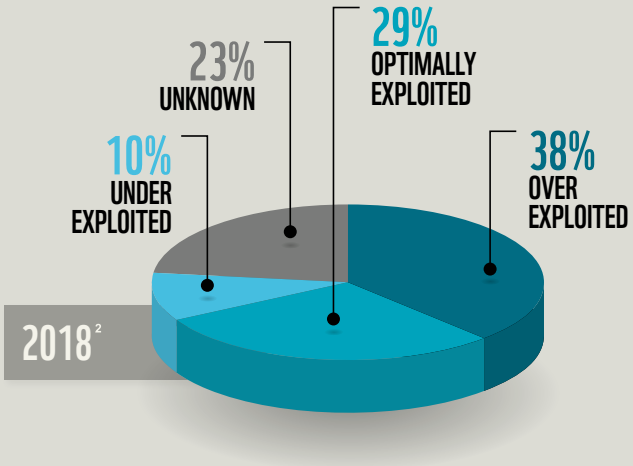
...it is encouraging that many of the key challenges and issues have not shown any major regression.

While the picture remains stark, it is encouraging that many of the key challenges and issues have not shown any major regression. Given the current state of our oceans and its resources, significant progress still needs to be made going forward if we are to safeguard our marine resources for future generations.

SOUTH AFRICA'S OCEAN ECONOMY SCORECARD

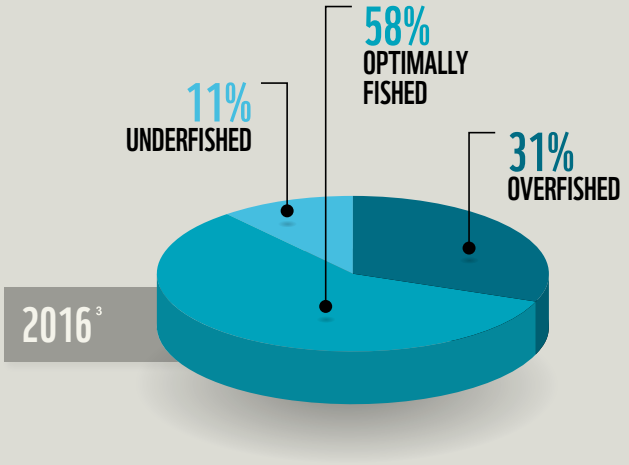
STATUS OF KEY SOUTH AFRICAN MARINE RESOURCES

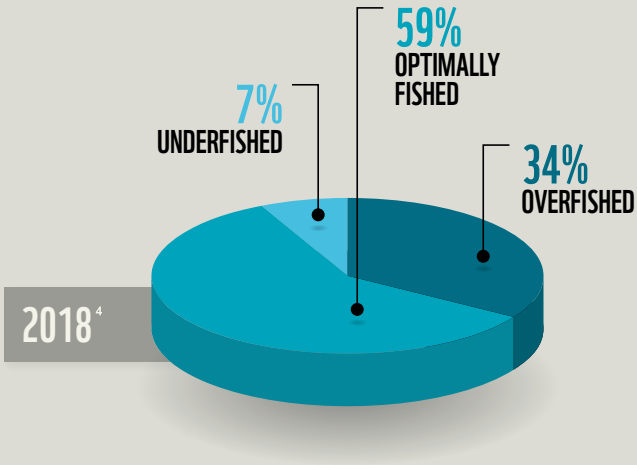




Sources: [1] DAFF 2014, ICCATT 2015 and IOTC 2015 | [2] DAFF 2016, ICCAT 2018 and IOTC 2018

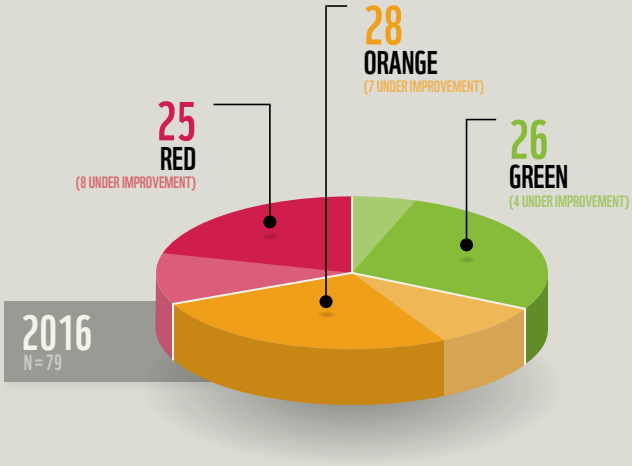
STATUS OF GLOBAL FISH STOCKS

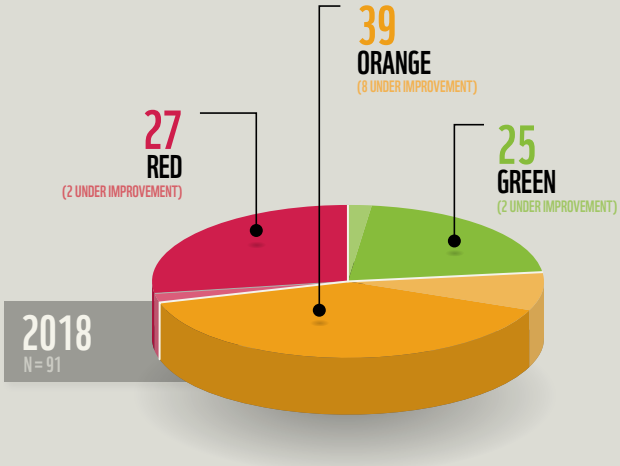




Sources: [3] FAO State of the World Fisheries and Aquaculture Report 2016 | [4] FAO State of the World Fisheries and Aquaculture Report 2018

WWF-SASSI ASSESSMENTS



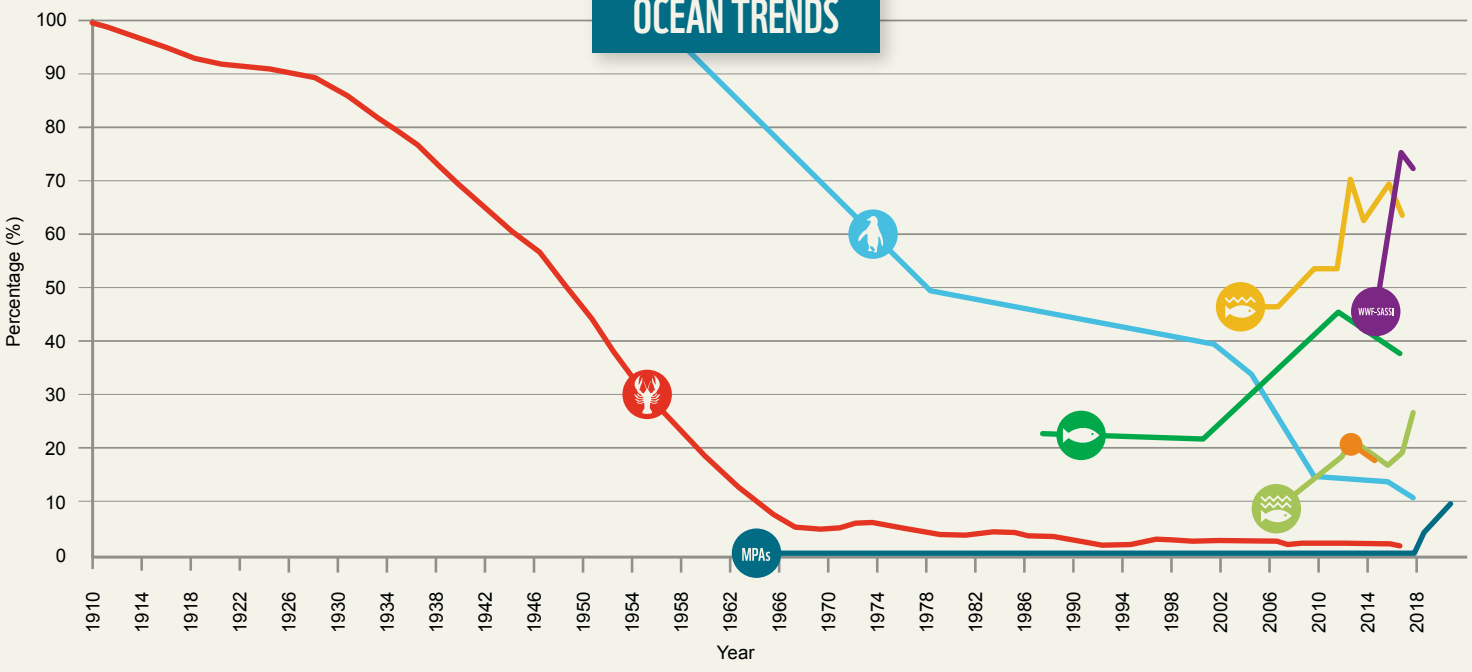


KEY CHALLENGES

ISSUE	2016 STATUS	2018 STATUS
COASTAL LIVELIHOODS		
SUSTAINABLE SEAFOOD		
IMPLEMENTATION OF AN ECOSYSTEMS APPROACH TO FISHERIES		
MARINE SPATIAL PLANNING		
MARINE PROTECTED AREAS & BIODIVERSITY		
ILLEGAL, UNREPORTED & UNREGULATED FISHING		

*Footnote: The indicators have been updated and 2016 key issues have been reassessed accordingly. The updated indicators will be used going forward.

OCEAN TRENDS



GRAPH KEY

WWF-SASSI — % WWF-SASSI Participants seafood products meeting commitments

MPAs — % of mainland EEZ formally protected in Marine Protected Areas

African penguin population size (relative to 1956)

% mislabelled seafood products on the SA market

West Coast rock lobster stock (relative to 1910)

Deep-water hake (measured from early 2000s when assessed as separate species)

Shallow-water hake (measured from early 2000s when assessed as separate species)

Carpenter (measured from early 1987 when data collection for the fishery officially began)

SCORECARD CRITERIA & DATA SOURCES

SCORECARD CRITERIA

Coastal livelihoods

- **Red** – Small-scale fishing communities have not been allocated formal rights under the small-scale fisheries policy
- **Light red** – A list of officially recognised small-scale fishing communities and individual small-scale fishers has been published and a process of allocating fishing rights has been identified and drafted according to the small-scale fisheries policy
- **Orange** – Small-scale fishing communities have been identified and allocated fishing rights according to the small-scale fisheries policy
- **Light orange** – Small-scale fishing communities identified and allocated rights according to the small-scale fisheries policy, functional cooperatives are established
- **Green** – Small-scale fishing communities identified and allocated rights according to the small-scale fisheries policy, functional cooperatives are established, have received the necessary training and are participating in local fisheries management decisions

Sustainable seafood

- **Red** – All major retailers and suppliers have no sustainable seafood policies in place
- **Light red** – Less than 50% of all major retailers and suppliers have sustainable seafood policies in place
- **Orange** – More than 50% of all major retailers and suppliers have sustainable seafood policies in place
- **Light orange** – Major retailers and suppliers have sustainable seafood policies in place and are on track towards meeting commitments
- **Green** – All major retailers and suppliers have sustainable seafood policies in place and have met their commitments and are working towards establishing a formalised structure that will co-invest in fishery level improvements

Ecosystem Approach to Fisheries implementation

- **Red** –Independent fisheries data is not being collected annually for all key commercial fisheries and/ or management structures are not participatory and/or Total Allowable Catch (TAC) are not set within ecologically sustainable limits
- **Light red** – Independent fisheries data is being collected annually for >60% of the key commercial fisheries, majority of management structures are not participatory and/or TACs is not set within ecological sustainable limits
- **Orange** – Independent commercial fisheries data collection is occurring annually for 80% of the key commercial fisheries, participatory fisheries management structures in place which include government, industry and civil society, TACs are set in line with ecologically sustainable limits
- **Light orange** – Independent commercial fisheries data collection is occurring annually for >80% of the key commercial fisheries, participatory fisheries management structures in place which include government, industry and civil society, TACs are set in a transparent manner and are in line with ecologically sustainable limits
- **Green** – Independent commercial fisheries data collection is occurring annually for all key fisheries, participatory fisheries are effectively managed to ecologically sustainable limits, ecosystem impacts of fishing are minimised and participatory fisheries management structures are in place which include government, industry and civil society

Marine spatial planning

- **Red** – No formal marine spatial planning legislation in place
- **Light red** – Marine spatial plan is drafted with input from all key marine users
- **Orange** – Marine spatial planning legislation in place recognising all key marine users
- **Light orange** – Marine spatial planning legislation in place recognising all key marine users and management decisions are being made based on the marine spatial plan
- **Green** – Marine spatial planning legislation in place recognising all key marine sectors. Rights granted in accordance with spatial plan. Management decisions are based on the plan lead to improvements in the health of the system and increased efficiency in decision making

Marine spatial planning

- **Red** – No new MPAs are declared or proclaimed, status of 0,5% remains
- **Light red** – New MPAs are proposed but not proclaimed
- **Orange** – New MPAs are proposed and proclaimed and does not meet the 5% recommendation
- **Light orange** – New MPAs are proposed and proclaimed and meets the 5% recommendation. MPA's are co-managed with MPA managers and adjacent communities
- **Green** – A network of MPAs covering 10% of SA coast has been proclaimed resulting in the protection of our oceans. MPAs are effectively co-managed with MPA managers and adjacent communities appropriately capacitated and resourced to do so

Illegal, unreported and unregulated fishing

- **Red** – Illegal fishing activities are not measured or monitored
- **Light red** - Reliable and verified data is being gathered on the scale of illegal, unregulated and unreported (IUU) fishing for all species of concern
- **Orange** – Illegal fishing activities are measured and a strategy to address IUU is drafted with input from key stakeholders and local communities
- **Light orange** – Illegal fishing activities are measured and an agreed upon strategy to address IUU is implemented and enforced resulting in a reduction in illegal fishing
- **Green** – Illegal fishing activities are measured and an agreed upon strategy to address IUU is implemented and enforced resulting in IUU being brought into acceptable limits

OCEAN TRENDS DATA SOURCES

African penguins:

- Crawford, R. J. M., Williams, A. J., Hofmeyr, J. H., Klages, N. T. W., Randall, R. M., Cooper, J., B.M. Dyer & Chesselet, Y. (1995). Trends of African Penguin Spheniscus demersus populations in the 20th century. *South African Journal of Marine Science*, 16(1), 101-118.
- Kemper, J., Underhill, L. G., Crawford, R. J., & Kirkman, S. P. (2007). Revision of the conservation status of seabirds and seals breeding in the Benguela Ecosystem. *Final report of the BCLME (Benguela Current Large Marine Ecosystem) project on top predators as biological indicators of ecosystem change in the BCLME*. Avian Demography Unit, Cape Town, 697-704.
- Crawford, R.J.M., Altwegg, R., Barham, B.J., Barham, P.J., Durant, J.M., Dyer, B.M., Geldenhuys, D., Makhado, A.B., Pichegru, L., Ryan, P.G. and Underhill, L.G., (2011). Collapse of South Africa's penguins in the early 21st century. *African Journal of Marine Science*, 33(1), 139-156.

West Coast rock lobster:

- CL de Moor, SJ Johnston, A Brandão, RA Rademeyer, JP Glazer, LB Furman & DS Butterworth (2015) A review of the assessments of the major fisheries resources in South Africa, African Journal of Marine Science, 37:3, 285-311, DOI: 10.2989/1814232X.2015.1070201
- Target of 35% stock recovery from 2006 levels

Seafood mislabelling:

- Cawthorn D., Steinman H.A. & Witthuhn R.C. (2012). DNA barcoding reveals a high incidence of fish species misrepresentation and substitution on the South African market. Food Research International, 46, 30-40.
- Cawthorn D., Duncan J., Kastern C., Francis J. & Hoffman LC. (2015). Fish species substitution and misnaming in South Africa: An economic, safety and sustainability conundrum revisited. Food chemistry, 185, 165-181.

WWF-SASSI participants:

- Procurement data provided by SASSI Participant retailers, suppliers and restaurants (Breco Seafoods, Fruit & Veg City/ Food Lovers Market, I & J, John Dory's, Ocean Basket, Pick n Pay, SPAR Group Ltd, Sun International and Woolworths)

MPA coverage:

- National Protected Area Expansion Strategy for South Africa (2008). Department of Environmental Affairs
- 10% coverage target taken from Convention on Biological Diversity Conference Of the Parties 10, Aichi Targets: Decision X/2 Strategic Plan for Biodiversity 2011-2020

Deep-water hake & Shallow-water hake

- Rademeyer, R.A, Butterworth, D.S., & Plagányi, ÈE. 2008. Assessment of the South African hake resource taking its two-species nature into account. African Journal of Marine Science 30(2): 263-290.
- Rademeyer, R.A. , Butterworth, D.S., Cooper, R., Durholtz, M.D. , Fairweather, T.P. , Glazer, J.P., Leslie, R.W., Singh, L. & Somhlaba, S. 2014. The 2014 Operational Management Procedure for the South African *Merluccius paradoxus and M. capensis* Resources. Scientific Working Group Document for Hake - FISHERIES/2014/OCT/SWG-DEM/64. Department of Agriculture, Forestry and Fisheries. Cape Town.
- Rademeyer, R.A and Butterworth, D.S. 2017. Specifications of the South African Hake 2017 Reference Case Assessment - FISHERIES/2017/NOV/SWG-DEM/56. Department of Agriculture, Forestry and Fisheries. Cape Town.
- Durholtz. 2016. Recommendations of the Demersal Scientific Working Group for the Sustainable Management of Hake Resources for the 2016 Season. Scientific Working Group Document for Hake - for Hake. Department of Agriculture, Forestry and Fisheries. Cape Town.
- Andrews J. & Scarcella, G. 2018. MSC Sustainable Fisheries Certification - On-Site Surveillance Visit - Report for South Africa Hake Trawl Fishery 3rd Surveillance Audit. Acoura. Edinburgh.

Carpenter

- Kerwath, S.E and Winker, H. 2013. "Carpenter (*Argyrozona argyrozona*)" in B.Q. Mann editor. South African Marine Linefish Species Profiles, Special Publication N-9: 208-209. Oceanographic Research Institute. Durban.
- Winker, H., Kerwath, S. and Attwood, C.G. 2013. Report on age-structured stock assessments and the simulation of the impact of various fisheries management options for the South African linefishery. LSWG Report N-17: 36-51. Department of Agriculture, Forestry and Fisheries; Branch: Fisheries, Cape Town
- Winker, H., Kerwath, S. Attwood, C.G., da Silva, C., Maggs, J. & Parker, D. The 2017 Assessment Of Carpenter (*Argyrosomus Argyrozona*) For The South African Linefishery. Department of Agriculture, Forestry and Fisheries, Branch: Fisheries. Cape Town.

General

- DAFF 2014 Status of the South African Marine Fisheries Resources 2014. Department of Agriculture, Forestry and Fisheries; Branch: Fisheries. Cape Town.
- ICCAT 2015. Stock assessments and Executive Summaries. International Commission for the Conservation of Atlantic Tunas. Downloaded from <https://old.iccat.int/en/ assess.htm>
- IOTC 2015. Status Summary for Species of Tuna and Tuna Like Species Under the IOTC mandate as well as other species impacted by IOTC Fisheries. Indian Ocean Tuna Commission. Downloaded from <http://www.iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>
- DAFF 2016 Status of the South African Marine Fisheries Resources 2016. Department of Agriculture, Forestry and Fisheries; Branch: Fisheries. Cape Town.
- ICCAT 2018. Stock assessments and Executive Summaries. International Commission for the Conservation of Atlantic Tunas. Downloaded from <https://old.iccat.int/en /assess.htm>
- IOTC 2018. Status Summary for Species of Tuna and Tuna Like Species Under the IOTC mandate as well as other species impacted by IOTC Fisheries. Indian Ocean Tuna Commission. Downloaded from <http://www.iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>

South Africa's oceans by numbers

<0.5%

of South Africa's mainland ocean ecosystems are formally protected by area

38%

of South Africa's key marine fisheries resources are overexploited

91

number of key South Africa species assessed by WWF-SASSI, that are sold on our local market

R327.6 trillion

total monetary value that the global oceans have been estimated to contribute to human welfare per year

Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

wwf.org.za