



# FISHERY ASSESSMENT REPORT

## IFFO GLOBAL STANDARD FOR RESPONSIBLE SUPPLY OF FISHMEAL AND FISH OIL



<b>FISHERY:</b>	Redeye Herring ( <i>Etrumeus whiteheadi</i> )
<b>LOCATION:</b>	South Africa
<b>DATE OF REPORT:</b>	12/7/13
<b>ASSESSOR:</b>	Sam Peacock

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

1. Application Details and Summary of the Assessment Outcome			
Name:			
Address:			
Country:		Zip:	
Tel. No.		Fax. No.	
Email address:		Applicant Code	
Key Contact:		Title:	
Certification Body Details			
Name of Certification Body:		Global Trust Certification	
Assessor Name:	Peer Reviewer:	Assessment Days:	Initial/Surveillance/Re-certification:
Sam Peacock	Mike Platt	2.5	Surveillance
Assessment Period	July 2013		
Scope Details			
1. Scope of Assessment:		IFFO Global Standard for Responsible Supply – Issue 1	
2. Fishery		Redeye round herring ( <i>Etrumeus whiteheadi</i> )	
3. Fishery Location		South Africa	
4. Fishery Method		Purse seine	
Outcome of Assessment			
5. Overall Fishery Compliance Rating		Medium/High	
6. Sub Components of Low Compliance		None	
7. Information deficiency		None	
8. Peer Review Evaluation		Agree with assessment decision	
9. Recommendation		Maintain fishery approval	

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

<b>2. Quality of Information</b>
Good, primarily government reports & websites.

<b>3. Compliance Level Achieved</b>
Medium/High
<b>Recommendation</b>
<b>Maintain fishery approval on initial assessment provision (that development of the fishery be accompanied by development of the species-specific stock assessment and management process)</b>

<b>4. Guidance for On-site Assessment</b>
<b>Based on High Compliance Findings</b>
<b>Based on Medium Compliance Findings</b>
<b>Key Stakeholders of the Fishery</b>

<b>5. Assessment Determination</b>
<p>The South African redeye round herring fishery continues to be managed largely according to the processes identified in the initial assessment. There have been no changes in section compliance scores since that time. Later in 2013 a new Operational Management Procedure (OMP-13) for the small pelagic fishery, and a fisheries act amendment Bill for South African fisheries in general, will potentially have significant effects on the management of the stock, and both should be considered in detail at the time of the next surveillance assessment. In particular, the new OMP should be examined for evidence that as the redeye fishery develops so does the management approach, potentially including the development of a TAC-based management approach and annual stock assessment activities feeding back into management measure application. At the time of this surveillance, however, the assessment team recommends maintaining the approval of the fishery.</p>
<b>HIGH COMPLIANCE</b>
A1, B1, B2, D1, D2, D3, E1, E2
<b>MEDIUM COMPLIANCE</b>
A2, A3, C1

SUMMARY OF LEVEL OF COMPLIANCE					
	The Management Framework and Procedures	Stock assessment procedures and management advice	Precautionary approach	Management measures	Implementation
legal and administrative basis	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Fisheries management should be concerned with the whole stock unit	Low Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Management actions should be scientifically based	Low Compliance	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Research in support of fisheries conservation and management should exist	Medium Compliance	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance
Best scientific evidence available should be taken into account when designing conservation and management measures	Medium Compliance	High Compliance	Medium Compliance	Medium Compliance	Medium Compliance
The precautionary approach is applied in the formulation of management plans	Medium Compliance	Medium Compliance	Low Compliance	Medium Compliance	Medium Compliance
The level of fishing permitted should be set according to management advice given by research organisations	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
Where excess fishing capacity exist, mechanisms should be in established to reduced capacity	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance	Medium Compliance
A management system for fisheries control and enforcement should be established	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance
A framework for sanctions of violation of laws and regulations should be efficiently exists	Medium Compliance	Medium Compliance	Medium Compliance	Medium Compliance	High Compliance

**KEY:** Low Compliance [Red Box] Medium Compliance [Yellow Box] High Compliance: [Green Box]

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No: 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

**6. Rationale of the Assessment Outcome**

**a. The Management Framework and Procedure**

LEVEL OF COMPLIANCE	a.i. The management of the fishery must include a legal and administrative basis for the implementation of measures and controls to support the conservation of the fishery.	References	Rating
LOW	<p><b>Determination: <i>There have been no substantial changes to the South African fisheries management framework since the time of the initial assessment. The Marine Living Resources Amendment Bill, intended to introduce changes in the framework and associated governmental bodies, is expected to come into force later this year.</i></b></p> <p>The legal basis for the management of fisheries in South Africa, including the redeye round herring fishery, is the Marine Living Resources Act, 1998 (Act No. 18, 1998) of South Africa (MLRA). The objectives of the Act include the optimum utilisation and ecologically sustainable development of marine living resources, the application of the precautionary approach, and the preservation of the ecosystem as a whole, not just exploited species. The Marine Living Resources Amendment Bill 2013, which is currently under consultation, will introduce changes in the framework of South African fisheries management. The objectives of the Bill include the introduction of an Intergovernmental Forum on Marine Living Resources, the reduction of inequalities present in the previous system, and the provision of a legal framework for the implementation of the Small-Scale Fisheries Policy. For more detail on the objectives of the Amendment Bill, see reference 5.</p> <p>The South African fishing industry is managed and regulated by the Fisheries Management Branch (FMB) of the Department of Agriculture, Forestry and Fisheries (DAFF). The FMB is responsible for the implementation of the MLRA, and also carries out the majority of scientific research on South African fishery stocks.</p>	1, 5	HIGH
MEDIUM			
HIGH			

		For more information on the legal and administrative framework in South African fisheries, please refer to the initial fishery assessment (R1).		
		a.ii. Fisheries management should be concerned with the whole stock unit over its entire area of distribution and take into account fishery removals and the biology of the species	References	Rating
LOW		<p><b>Determination: <i>There have been no substantial changes in the stock definition since the time of the initial assessment. Exploitation rates remain low and so a medium compliance rating remains appropriate.</i></b></p> <p>The redeye round herring occurring over the continental shelf region from Walvis Bay on the west coast (Namibia) to about the Thukela River on the east coast is considered to be a single stock. Although some fishing is carried out by Namibian and international vessels, the large majority of redeye herring landings are by South African vessels. For example, in 2009 the totally global catch, according to the FAO, was around 40,000 tonnes, of which South Africa was responsible for 37,000t.</p> <p>As the targeted redeye fishery is still considered underdeveloped, and information on the species is comparatively limited, fishery removals are not currently factored in to its management. However, landings data is recorded, and total catch is monitored and used to ensure fishing does not exceed the precautionary upper catch limit. The initial assessment awarded a medium compliance rating despite fishery management not taking into account fishery removals or biomass estimates because exploitation rates have been very low for more than a decade. The PUCL is set at around 10% of estimated biomass, and so as long as landings remain below the PUCL (which they have to date), the exploitation rate will remain fairly low.</p> <p>For more information on the definition of the management unit, please refer to the initial assessment (R1).</p>	1, 6	MEDIUM
MEDIUM				
HIGH				

		a.iii .Management actions should be based on long-term conservation objectives	References	Rating
LOW		<p><b>Determination: <i>There have been no substantial changes to the management approach applied to the redeye stock, which is still to ensure annual catch remains below 100,000t.</i></b></p> <p>The long-term conservation objectives of the management of the South African small pelagic fishery are set out in the Operational Management Procedure (OMP). The only long-term aim for the current OMP (OMP-08) is to ensure that the total fishing level does not exceed 100,000 tons per year, a conservative estimate of sustainable fishing level given the limited population data available. However, the long-term aims for the primary target species in the pelagic fishery are specific and risk-based, and it is likely that as the redeye fishery develops similar aims will be developed.</p> <p>A new OMP, OMP-13, is under development and will be implemented later this year. The initial assessment determined an intention among fishery managers to develop management of the redeye fishery along the same lines as other, highly-compliant South African fisheries, and next year’s surveillance audit should examine OMP-13 for evidence of such improvement.</p>	1, 6	MEDIUM
MEDIUM				
HIGH				

**b. Stock Assessment Procedures and Management Advice**

LEVEL OF COMPLIANCE	bi. Research in support of fisheries conservation and management should exist.	References	Rating
LOW	<p><b>Determination: <i>Management of the South African small pelagic fishery continues to be supported by fishery dependent and fishery independent research efforts.</i></b></p> <p>Fishery-dependent data are collected from the small pelagic fishery at landing, including catch species composition, weight, and location. Observers have been deployed on vessels in the pelagic fishery since 1999, to provide data relating to catch weight and locality, catch composition, and length frequencies of important species, in addition to collecting some biological data. Observer data has been used to validate catch data (primarily catch weight and species composition) recorded by fisheries inspectors at landing sites, and to compare the fishing behaviour of observed versus unobserved vessels. Fishery-independent data are primarily sourced from hydro-acoustic surveys.</p> <p>For more details on the research efforts applied to the South African small pelagic fishery, and on redeye herring specifically, refer to the initial assessment (R1).</p>	1, 2, 6	HIGH
MEDIUM			HIGH
HIGH			HIGH

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

	<p>Redeye round herring biomass and recruitment estimates, 1984 – 2011. From the DAFF fishery status report, 2012 (R6).</p>		
LEVEL OF COMPLIANCE	b.ii Best scientific evidence available should be taken into account when designing conservation and management measures	References	Rating
LOW	<p><b>Determination: <i>Scientific Working Groups (SWGs) continue to be involved throughout the management process. There have been no substantial changes to the implementation of scientific advice in the management of the stock since the initial assessment.</i></b></p> <p>By constituting various scientific working groups, such as the Ecosystems Effects of Fishing Working Group and the Small Pelagic Scientific Working Group, the Fisheries Management Branch ensures that the best available scientific evidence is taken into account when designing conservation and management measures. The scientific working group for the sustainable management of small pelagic resources produces recommendations, including seasonal and sub-seasonal TACs and TABs, and other management measures where relevant. For example, the marine areas around the largest penguin</p>	1, 6	HIGH
MEDIUM			
HIGH			

	<p>breeding colony in the Eastern Cape (St Croix Island off Port Elizabeth) have been closed to pelagic fishing for several years as a result of scientific advice. These closures are codified in the pelagic fishing permits.</p> <p>Although the quantity of information available for redeye appears to be limited, what information is available is utilised in management decisions, and scientific understanding appears to be fully utilised in the management of the primary target species of the small pelagic fishery.</p>	
--	--	--

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

**c. The Precautionary Approach**

LEVEL OF COMPLIANCE	c.i The precautionary approach is applied in the formulation of management plans.	References	Rating
LOW	<p><b>Determination: <i>There have been no significant changes to the management of the redeye herring since the initial assessment, which identified a highly conservative management approach reflective of the limited scientific understanding of the stock. The detailed risk-based assessment identified as lacking at that time is still yet to be developed, and a medium compliance rating remains appropriate.</i></b></p> <p>The Marine Living Resources Act, 1998 includes as one of its recognised principals “the need to apply precautionary approaches in respect of the management and development of marine living resources”.</p> <p>The small pelagic fishery is managed by OMP-08, which performs a risk analysis, which allows results to be expressed as the probability that a defined event will occur (e.g. the biomass falling below a specified threshold level or the fishery collapsing) within a fixed period for the two main target species, sardine and anchovy. The lack of information, plus the comparatively small commercial interest in the species, has meant that no such analysis is carried out for redeye herring. However, A 2006 study stated that ‘The present stock control method of setting a Precautionary Upper Catch Limit (PUCL) seems to be a conservative way of protecting a stock that is not very well researched and that forms a portion (up to 30%) of the catch of a large pelagic fishery.’</p> <p>The surveillance audit conducted next year should look specifically at OMP-13, an updated management procedure expected to come into force later this year and which could substantially update the extent to which the precautionary approach is applied in the management of the fishery.</p>	1, 6	MEDIUM
MEDIUM			
HIGH			

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

**d. Management Measures**

LEVEL OF COMPLIANCE	d.i The level of fishing permitted should be set according to management advice given by research organisations.	References	Rating
LOW	<p><b>Determination:</b> <i>The initial assessment determined that the annual Precautionary Upper Catch Limit of 100,000t had never been breached and that fishing effort was largely self-regulating. There have been no changes in the PUCL and it has not been exceeded since the initial assessment. Future surveillance audits should continue to closely examine the response of managers if the PUCL is exceeded.</i></p> <p>Redeye round herring is not allocated a Total Allowable Catch (TAC), but rather a Precautionary Upper Catch Limit (PUCL). The PUCL is set at 100,000t per annum, which is 10% of the conservative estimate of stock size and has never been exceeded since the inception of the fishery in 1958. The PUCL is not allocated to individual vessels, which therefore have no specific catch limit. Small pelagic vessel preferentially fish for anchovy and sardine, and the total redeye fishing effort is largely self-limiting.</p> <p>Totals of 88,000t and 65,000t of round herring were landed in 2010 and 2011 respectively, being the second- and fifth-highest annual landings in the history of the fishery and continuing an increasing trend in recent years of catch levels approaching the PUCL. This is likely in response to the low sardine TACs in the past few years and the recent initiation of processing of round herring for human consumption. On-site assessment conducted as part of the initial assessment of the fishery confirmed that the entire small pelagic fishery would be closed if the PUCL were exceeded at any point; however future assessments of the fishery should ensure this is implemented should the PUCL be exceeded.</p> <p>The PUCL will remain 100,000t for the 2013 season.</p>	1, 3, 4, 6	HIGH
MEDIUM			HIGH
HIGH			HIGH

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

		<p>(d) <b>Round herring PUCL</b> <b>Round herring catch</b></p> <table border="1"> <caption>Estimated data from the chart</caption> <thead> <tr> <th>Year</th> <th>Round herring PUCL ('000 t)</th> <th>Round herring catch ('000 t)</th> </tr> </thead> <tbody> <tr><td>2000</td><td>100</td><td>38</td></tr> <tr><td>2001</td><td>100</td><td>55</td></tr> <tr><td>2002</td><td>100</td><td>55</td></tr> <tr><td>2003</td><td>100</td><td>45</td></tr> <tr><td>2004</td><td>100</td><td>48</td></tr> <tr><td>2005</td><td>100</td><td>30</td></tr> <tr><td>2006</td><td>100</td><td>42</td></tr> <tr><td>2007</td><td>100</td><td>45</td></tr> <tr><td>2008</td><td>100</td><td>65</td></tr> <tr><td>2009</td><td>100</td><td>42</td></tr> <tr><td>2010</td><td>100</td><td>88</td></tr> <tr><td>2011</td><td>100</td><td>65</td></tr> </tbody> </table> <p>Precautionary Upper Catch Limit (bars) and annual landings (circles) for redeye round herring, 2000 – 2011. From the DAFF fishery status report, 2012 (R6).</p>	Year	Round herring PUCL ('000 t)	Round herring catch ('000 t)	2000	100	38	2001	100	55	2002	100	55	2003	100	45	2004	100	48	2005	100	30	2006	100	42	2007	100	45	2008	100	65	2009	100	42	2010	100	88	2011	100	65		
Year	Round herring PUCL ('000 t)	Round herring catch ('000 t)																																									
2000	100	38																																									
2001	100	55																																									
2002	100	55																																									
2003	100	45																																									
2004	100	48																																									
2005	100	30																																									
2006	100	42																																									
2007	100	45																																									
2008	100	65																																									
2009	100	42																																									
2010	100	88																																									
2011	100	65																																									
LEVEL OF COMPLIANCE	d.ii Where excess fishing capacity exist, mechanisms should be in established to reduced capacity to allow for the recovery of the stock to sustainable levels.	References	Rating																																								
LOW	<p><b>Determination: <i>There have been no substantial changes to the capacity management systems in place for South African fisheries, which remain quotas, vessel registration and commercial fishing licences. There is currently not considered to be excess fishing capacity in the small pelagic fishery.</i></b></p> <p>Any commercial fishing in South Africa requires an annually-renewed license. Commercial fishers are considered to be exercising a fishing right. The right must first be applied for and granted, to exploit, harvest fish or engage in a fishing related activity for trade purposes. It also includes engagement in fishing related and non-consumptive activities. Commercial fishing permits are granted by the Minister of Department of Agriculture, Forestry and Fisheries (or the delegated authority). Fishing is</p>	1, 6	HIGH																																								
MEDIUM																																											
HIGH																																											

	<p>also restricted by the application of TACs and Total Allowable Effort (TAE), although the redeye stock is managed by PUCL (see section D1).</p> <p>For more information on South African capacity management systems, please refer to the initial assessment (R1).</p>		
LEVEL OF COMPLIANCE	d.iii Management measures should ensure that fishing gear and fishing practices do not have a significant impact on non-target species and the physical environment.	References	Rating
LOW	<p><b>Determination: <i>There have been no substantial changes in the approaches utilised by fishery managers to minimise the impacts of the fishery on non-target species and the physical environment.</i></b></p> <p>Bycatch in the small pelagic fishery is less than 10% due to the schooling nature of the target species. The major bycatch species are subject to annual quotas, and small pelagic fishing permits set out a detailed plan for regional closures should bycatch exceed pre-defined levels. DAFF scientists have stated that there is no PET bycatch in the fishery. Small pelagic species such as redeye are recognised as an important part of the food chain in the Benguela Current, and the ecosystem in general. Specific measures have been implemented to minimise the effects of the fishery on the African Penguin, an endangered species reliant upon pelagic fish for food. Purse-seine nets are not considered to have a substantial negative effect on the physical environment.</p> <p>For more details on the management measures utilised to minimise the effects of the fishery on non-target species, please refer to the initial assessment report (R1).</p>	1, 6	HIGH
MEDIUM			
HIGH			

**e. Implementation**

LEVEL OF COMPLIANCE	e.i There should be a framework for sanctions of violation of Laws and regulations.	References	Rating
LOW	<b>Determination: <i>There have been no substantial changes to the framework of sanctions since the initial assessment.</i></b>	1	HIGH
MEDIUM	A framework of sanctions for violations of laws and regulations is established by the Marine Living Resources Act, 1998 (Act No. 18, 1998) of South Africa, with jurisdiction throughout the South-African EEZ. There are numerous other Acts that add to the marine legislative framework that work in conjunction with the MLRA. These include the National Environmental Management: Protected Areas Act (No. 57 of 2003), the National Environmental Management: Biodiversity Act (No. 10 of 2004), the Maritime Zones Act (No. 15 of 1994), Sea Birds and Seals Protection Act (No. 46 of 1973), Sea Shore Act (No. 21 of 1935) and the Nature and Environmental Conservation Ordinance, (Ordinance 19 of 1974).		
HIGH	<p>Sanctions include the suspension or removal of fishing rights, the seizure of gear or vessels, fines of up to 5 million rand (approx. US\$500,000), or imprisonment for up to five years. A detailed list of sanctions is presented in Chapter 7 of the Marine Living Resources Act.</p> <p>The conditions for small pelagic fishing permits include a section detailing the process of sanctions for violations.</p>		

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No: 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

LEVEL OF COMPLIANCE	e.ii A management system for fisheries control and enforcement should be established.	References	Rating
LOW	<b>Determination: <i>There have been no substantial changes in fisheries control and enforcement since the initial assessment.</i></b>	1	HIGH
MEDIUM	Enforcement is the responsibility of the Fisheries Management Branch of the Department of Agriculture, Forestry and Fisheries. Compliance is maintained through a comprehensive monitoring, control and surveillance strategy, 4 fishery patrol vessel warships and one chase vessel (used for all South African fisheries), officers and vessel monitoring systems. Vessel monitoring systems are presently on board every pelagic vessel and provide data on location (with a temporal resolution of six hours), and are used for compliance purposes to ensure that vessels do not fish in restricted areas. Both the skipper and holder of fishing rights of vessels detected fishing in closed or restricted areas are subject to fines. Fish must be landed in the presence of a Fishery Control Officer, who completes a pelagic landing report for each vessel. Skippers also complete a report, which must match the monitor's figures to within 10%. Samples are taken of landings every 30 minutes to check bycatch composition. Excessive bycatch of certain species leads to area closures, as described above. Fishing permits also contain restrictions on where fish can be landed.		
HIGH	Catch data (detailed in section B1 above) is recorded at landing, and observers are present on approximately 8% of fishing trips. All commercial fishing vessels are required by law to have a license and fishing permit, and all licensed vessels are required to permit observers and fishery control officers on board when requested. Full details of the powers of fishery control officers are set out in Chapter 6 of the Marine Living Resources Act, 1998.		

Global Trust Certification Ltd, Quayside Business Centre, Dundalk, Co. Louth, Ireland Tel: 042 932 0912 Fax 042 938 6864

Issue No; 2; Issue Date; Nov 09

Report Ref: 2013 Sur

CCM Code:

**This report shall not be reproduced in full or in part without the permission of Global Trust Certification Ltd.**

## References

1 – IFFO RS initial assessment, South Africa Redeye herring:

<http://www.iffo.net/downloads/IFFO%20RS/Whole%20Fish/Red%20Eye%20Herring%20-%20South%20Africa.pdf>

2 – Oceana ‘Status and Management of the South African Small Pelagic Fishery’:

[http://www.oceana.co.za/sites/default/files/OceanaAR\\_6994\\_Scientific%20reports\\_pelagic%20fishery\\_20Dec\\_WEB.pdf](http://www.oceana.co.za/sites/default/files/OceanaAR_6994_Scientific%20reports_pelagic%20fishery_20Dec_WEB.pdf)

3 – Total Allowable Catches for 2012 fishing seasons:

[http://www.nda.agric.za/doaDev/sideMenu/fisheries/21\\_HotIssues/April2010/FishingPermitsConditions2012/2012%20TACs%20and%20or%20TAEs.pdf](http://www.nda.agric.za/doaDev/sideMenu/fisheries/21_HotIssues/April2010/FishingPermitsConditions2012/2012%20TACs%20and%20or%20TAEs.pdf)

4 – Total Allowable Catches for 2013 fishing seasons:

[http://www.nda.agric.za/doaDev/sideMenu/fisheries/21\\_HotIssues/April2010/FishingPermitsConditions2012/2013-2014%20TACs%20and%20TAEs.pdf](http://www.nda.agric.za/doaDev/sideMenu/fisheries/21_HotIssues/April2010/FishingPermitsConditions2012/2013-2014%20TACs%20and%20TAEs.pdf)

5 – Objectives of the Marine Living Resources Bill 2013:

[http://www.nda.agric.za/doaDev/sideMenu/fisheries/21\\_HotIssues/April2010/Maricultureactivities/The%20Objectives%20of%20the%20Marine%20Living%20Resources%20Amendment%20Bill,%202013.pdf](http://www.nda.agric.za/doaDev/sideMenu/fisheries/21_HotIssues/April2010/Maricultureactivities/The%20Objectives%20of%20the%20Marine%20Living%20Resources%20Amendment%20Bill,%202013.pdf)

6 – Status of the South Africa Marine Fishery Resources 2012:

[http://www.nda.agric.za/doaDev/sideMenu/fisheries/indexpage\\_DOCS/STATUS%20REPORT%202012FINAL%20DRAFT.pdf](http://www.nda.agric.za/doaDev/sideMenu/fisheries/indexpage_DOCS/STATUS%20REPORT%202012FINAL%20DRAFT.pdf)