



**FRDC**

FISHERIES RESEARCH &  
DEVELOPMENT CORPORATION

**An audit of the  
Status of Australian Fish Stocks (SAFS)  
reports 2016 and beyond**



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## **An audit of the Status of Australian Fish Stocks (SAFS) reports 2016 and beyond**

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In submitting this report, the researcher has agreed to FRDC publishing this material in its edited form.

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# Executive Summary

1. The independent audit of the Status of Australian Fish Stock (SAFS) reports was commissioned by the FRDC in March 2017 to assess the adequacy and efficacy of the SAFS 2016 reports as a strategic reporting tool to satisfy the intended objectives of SAFS. The first broad objective was to establish a national common framework for stock status reporting to assist in, and report on, measuring fisheries management performance. The second objective was to deliver a reference document (the SAFS reports) to be accessed by a wide range of stakeholders across the postharvest sector and the community itself, to provide information on the state of Australia's fisheries to positively influence their opinions of the fishing industry, i.e., the "social licence". This Audit, undertaken by Mr. Peter Neville via telephone survey, focused on consultation with the respective jurisdictions (the Commonwealth, States and Territories), Sydney Fish Markets, CSIRO Oceans and Atmosphere; Oceanwatch Australia, World Wildlife Foundation, MRAG Asia Pacific, FRDC SAFS Advisory Group, Commonwealth Fisheries Association and National Seafood Industry Alliance.
2. This Audit has been undertaken four years after the release of the first SAFS reports in 2012. The consensus of this consultation is documented below.
3. During its evolution, SAFS has changed from a hard copy report, to its current interactive web based platform. The web platform is operational but is being continually improved with the additional of new functionalities and drill-down capacities, to provide greater ease of access to its end users. In this sense, the Audit is reviewing an evolving and not yet finalised product, as well as the performance of its different iterations to date, up to the December 2016 format. The new SAFS website has not yet been formally launched.
4. In terms of the first objective, SAFS represents a significant advancement in measuring the performance of fisheries management by creating the first independent and scientifically based, common national framework for stock status reporting across all fisheries jurisdictions in Australia (with inclusions of Commonwealth managed fisheries from the ABARES report).
5. The process of compiling SAFS on a co-operative basis between FRDC, Australian government agencies and all fisheries jurisdictions has led to greater joint collaboration, as well as transfers of methodologies and processes, to deliver higher quality and more credible stock status reporting which can be accessed nationally and internationally.
6. The SAFS process and outcomes have played an important role in upgrading government and public reporting, as well as assisting in policy decisions regarding changes to particular fisheries management arrangements and in research priorities.
7. The Audit has shown that, in terms of expanding the coverage of SAFS from its current 83 species (which account for 90 percent of the gross value and total production of wild caught fisheries) to a target of 200 species within the next two reports, there is significant objection to this from all jurisdictions. Apart from the unrealistic timing, it would incur significant (scarce) resources and would artificially bias the priorities of jurisdictions towards fisheries of lesser importance. A consolidation of the new format and feedback from its users should come first, with then a gradual expansion of SAFS into selected areas.
8. Similarly, the Audit has shown that attempts to turn SAFS into an "ecosystem based" report by formally including a range of other fisheries related attributes (by catch, habitat, protected species, economic and social attributes etc.) in a quantitative treatment, would put at risk the single focus of SAFS as a building block in necessary fisheries management decisions going forward. Such other attributes are important and need consideration but can be treated through appropriate discussion in text until appropriate data collections are available around these attributes (others may also treat these through an MSC approach); however, such issues do not easily lend themselves to a common national approach or methodology as has stock status reporting in SAFS.
9. In terms of the second objective, it is, by its very nature, far more diverse and complex. Currently less than 30 percent of the community have a positive perception of commercial fishing and this has not changed significantly over recent years. This puts at risk the standing of the "social licence" of the fishing industry, whereas this SAFS

objective is about improving this image through enabling the community easy access to the fisheries management story and the resulting state of the fish stocks.

10. The most common response to the Audit is that SAFS, to date, has not made any noticeable impact on perceptions through its broader uptake and use throughout the community. There have been some exceptions where uptake has occurred and has assisted in the case of some seafood wholesalers, some consultants who undertake “interpretations” of SAFS for large seafood retailers and/or industry clients, and some environmental NGOs and industry associations.
11. The consensus is that it is unrealistic to expect SAFS, in the one form, to satisfy both objectives and that a different approach/product is needed to satisfy this second objective, i.e., a “reference tool” is a necessary, but not sufficient product to engage with the community in terms of impacting on their perceptions and/or their information needs about fish stocks, management and a range of other issues of interest around fisheries. This applies also to seafood wholesalers and retailers.
12. Opinions seem to be that while SAFS will be very interactive and accessible, individuals, consumers, retailers and even large wholesalers are either “too busy”, find accessing it difficult, are not familiar with the language and aren’t able to “join all the dots” to interpret what they are seeing into a decision making tool for themselves. This is why “third parties” with a knowledge of fisheries are creating commercial businesses out of undertaking these roles and providing services required by the market.
13. In part, the FRDC are recognising this in funding the Risk Assessment for Sourcing Seafood (RASS) project which seeks to target the seafood businesses by supplying critical information which draws on SAFS but “joins the dots” in arriving at risk based assessments on which species should be sold and which shouldn’t, i.e., about sustainability. However, while this “third party” will go some way to transferring information about the fishing industry to business, consumers and the community, it is not sufficient, by itself, to penetrate significantly into the community at large to positively influence perceptions. For many in the community, issues around provenance of the product, safety, traceability etc., rate above sustainability in their concerns.
14. A more targeted communication and extension strategy needs to be developed along with the new format of SAFS. This should involve a wider group of end users in a governance sense and be designed, particularly, for getting a simpler and appropriate message across to a more diversified range of users in the community on an on-going basis.
15. Thus critical questions need to be worked through concerning the communication and extension strategies to facilitate the flow of information about our fisheries management performance, the state of our stocks and the related social licence and perceptions of the fishing industry to the wider community.

## **Keywords**

**Fisheries, Status of Australian Fish Stocks, SAFS, stock status reporting, stock assessments, audit**

# Introduction

The Status of Australian Fish Stocks (SAFS) reports are relatively new reports which, for the first time in Australian fisheries management, brings together the best available biological, catch and effort information to determine the status of Australia's wild catch fish stocks against a nationally agreed reporting framework. Furthermore, it is presented in a standard national format with common terminology and categories to describe the various fish stocks so that the information can be easily interpreted by a wide range of stakeholders from researchers and managers and ultimately to the community and consuming public. It has been compiled and made available in its various forms for three editions, namely 2012, 2014 and (December) 2016. Originally it was prepared by ABARES as a project sponsored and funded by the FRDC and supported by all the fisheries jurisdictions in Australia. The first two editions through ABARES were available in hard copy forms and in limited web based formats and circulated to key stakeholders. However, the FRDC decided to internalise the preparation of these reports for the 2016 version within FRDC while, at the same time, transforming its presentation to an online approach which is a much more flexible and interactive web based reporting tool.

This transformation of SAFS is still underway with the development of a dynamic web platform with interactive features designed to increase its utility to end users still under some refinement. In many ways, this development will be an on-going process and guided from feedback by users and the views of the SAFS Advisory Group which is currently overseeing its progress. However, its fundamental purpose of presenting, on the available data, a rigorous classification of the state of fish stocks across Australia will remain unchanged.

SAFS seeks to become the most widely recognised and respected source of information on the status of Australia's fish stocks. It currently covers 83 fish species and 294 stocks which constitute 90 percent of the value and production of Australia's wild catch. In compiling the reports across all jurisdictions, approximately 100 scientists have contributed to the work, while a further 50 scientists have been involved in an independent reviewing capacity to ensure the robustness of the analysis. A number of issues have arisen which relate to its future web based format and content, as well as the co-operative nature of compiling the data sets and processing the analysis contained in the reports. Therefore this Audit was commissioned to review the development of SAFS to date and to contribute to its further development by discussing issues related to its future progress, particularly with respect to its stated objectives and its utility to expected end users.

## Objectives

Objectives of the project were:

1. Conduct an Audit of the SAFS Report according to the Terms of Reference outlined in the Project Agreement.
2. Submit a final report to the FRDC 30 April 2017.

## Method

The FRDC decided to undertake an independent Audit of SAFS to determine if it was meeting its original objectives, including, critically, the needs of all the various fisheries jurisdictions across Australia, without which SAFS would be unable to continue. For this purpose Mr. Peter Neville, of P. J. Neville and Associates, was requested to undertake a review under the following terms of reference:

Assess the adequacy and efficacy of the SAFS 2016 reports as a strategic reporting tool to satisfy the intended objectives of SAFS, specifically:

- Clarification of the objectives of SAFS.
- Identification of the intended audience.
- Description of how the report is being/will be utilised and by whom.
- The adequacy of the current content in meeting users' needs and what users may wish to see in the future.
- The utility of the current reporting formats in facilitating access to, and use of, SAFS content.

- The record to date of SAFS as a communication tool.

The terms of reference are accompanied by the qualification that “the SAFS 2016 has not been launched or publicised at this point in time – PDF functionality and referencing etc. is still being addressed (phase one of build).It is therefore premature to expect the broader community to be familiar with the new interactive website at this point in time”.

The review was conducted by focussing on the high level, strategic issues around SAFS and primarily dealing with the CEOs of the fisheries jurisdictions around Australia. It did not deal with the technical or process issues involved in compiling the SAFS report itself. It was conducted primarily by personal communication with the CEOs and others, followed up by further communication with senior managers/researchers, including members of the SAFS Advisory Group. In addition, a range of “end users” relevant to its objectives were consulted which consisted of consultants, seafood wholesalers, industry bodies, environmental NGOs etc. A listing of those consulted is contained in Appendix 1.

## Results/Discussion

### *OBJECTIVES OF SAFS*

Given that responsibility for the management of Australia’s fish stocks is divided among the States, Northern Territory and the Australian Governments, it is a requirement of the respective legislation that reporting on fisheries management and the status of the fisheries be undertaken at the jurisdictional level. However, such reporting has involved different processes, formats, content, language and even different names for the same species of fish, such that it was impossible to aggregate these separate reports to get a sense of the state of fisheries or fish stocks on an Australian-wide basis.

A number of key reports to the Australian Government commented on the urgent need for a more integrated national approach to such reporting in order to assess the effectiveness of the use of marine resources (“State of the Environment Report 2011”, an independent report to the Minister for the Environment; “Netting the Benefits Report 2012” a House of Representatives Inquiry into the role of science for Fisheries and Aquaculture).

Also, over recent times, there has been a growing interest and concern among the community over the sustainability of the marine environment generally and the sustainability of our fisheries in particular. This has been reflected by increasing activity and comment by conservation and environment groups along with consumers and the community wanting more reliable information on the seafood they wish to purchase and the fisheries management arrangements. Finally, fishermen themselves – commercial, recreational and indigenous – wanted more rigorous and transparent information on the status of fish stocks in order to inform the community on the true state of our fisheries in the face of numerous different assertions by various groups relating to their sustainability. Furthermore, various “safe seafood guides” by a range of different organisations have appeared providing conflicting advice on seafood purchasing practices and the efficacy of our fisheries management practices.

To deal with these various issues, SAFS was created with the following objectives, namely:

- (i) Provide a single, national source of reliable information on the status of Australia’s fisheries and fish stocks;
- (ii) Provide a single, national source of information on the fisheries management arrangements in place to inform and improve community awareness;
- (iii) To ensure that the national framework is consistent across jurisdictions and the classification status of fish stocks is independent and scientifically robust;
- (iv) To present the information in a format that is easily understood and easily accessible by a wide range of users to inform the community and provide a reliable reference source.

These objectives were confirmed through the Australian Fisheries Management Forum (AFMF) which has a focus on promoting community awareness and understanding of fisheries and aquaculture management and the ecological status of Australia’s fish resources. The FRDC has also confirmed them in its RD&E Plan 2015-20 which has a National priority 1 which focuses on “ensuring that Australian fishing and aquaculture products are sustainable and acknowledged to be so.” The aim is to ensure that the community has effective access to, and understanding of, RD&E that supports fishing and aquaculture sustainability and improved perceptions of Australian seafood.

From this we can see that the target audience for SAFS is quite broad and falls essentially into two broad groupings – those engaged directly in fisheries management and policy making (Government, researchers, managers, commercial, recreational and indigenous fishers) and those in the wider community with an active/commercial interest in the use of

fisheries resources (wholesalers, retailers, consumers, environmental NGOs and the general public). It is extremely difficult to design a single report to meet the needs of such diverse stakeholders and that is why the FRDC have opted, not for a hard copy report, but an easily accessible and interactive web based format with “drill down” capacities.

This approach makes the information more easily accessible in “real time” to businesses, as well as the domestic and international community.

It is important to appreciate that, from the above discussion, SAFS needs to be fundamentally a communication report and not purely a scientific report or reference source. If it becomes the latter, it will fail in its central purpose of communicating information to the broad range of users described above. It needs independence and scientific rigor in its construction, but needs a simple communicating capacity in order to attract the users and to spread the message of the state of Australia’s fish stocks and management; thus consolidating the “social licence” of the fishing industry.

## **GOVERNANCE OF SAFS**

SAFS has been created as a co-operative arrangement led by the FRDC and supported by all of Australia’s fisheries jurisdictions, CSIRO and ABARES. It is funded by FRDC in both cash (currently approximately \$700,000p.a. but projected to increase over time) and “in kind” staff commitments, while all other jurisdictions provide some cash and significant “in kind” staff support. Although difficult to determine with precision the overall investment would be of the order of \$2m annually, so collectively it needs to demonstrate valuable outcomes for the fishing industry.

The FRDC uses an annual contract with each of the jurisdictions to provide funding to assist with the overall cost of servicing SAFS. These funds do not meet the jurisdiction’s full costs of compiling SAFS material, but do assist in facilitating the co-operative arrangements necessary to complete SAFS requirements. Funding varies depending on the number of species/stocks for which each jurisdiction is responsible and ranges from \$50,000 to \$70,000 via an annual contract covering the two year period between each report.

The FRDC uses a multi-jurisdictional SAFS Advisory Group comprising principally key research personnel from all jurisdictions, CSIRO and FRDC, as well as particular independent consultants with experience in science and fisheries management. Further the Fisheries Statistical working group of AFMF is used in considering data collection and management matters. Advice from these groups on the development of SAFS includes technical and process issues (reporting framework, terminology, status determination process and species or stocks to be included) as well as policy issues (handling straddling stocks, “equivalence” issues with other internationally recognised certification systems and future directions) and is presented to the AFMF for its consideration before it then goes to the FRDC Board for approval or otherwise.

Currently, although AFMA uses a slightly different methodology and categorisation of its Commonwealth fisheries (and international fisheries) through ABARES in terms of status based on its harvest strategy, it also is a member of the Advisory Group for SAFS and contributes towards the SAFS content for its important fisheries. This raises an issue of inefficiency in contributing to two separate but related reports and this is discussed further in this review.

Given the broad range of the target audience above, the current governance arrangements appear somewhat restricted. No doubt various information about the wants and needs of the broader groups of users is brought to the table by existing Advisory group members. However, there is no participation in SAFS governance by the “post harvest” sector, nor by community users who are critical to improving perceptions and the social licence of the fishing industry. This is discussed later in this report.

One group of users who can be critically impacted by the SAFS outcomes are of course the fishermen themselves, who see particular advantages or disadvantages with respect to how their fishery is categorised. However, because the outcomes of SAFS have to be seen as independent, scientifically based and peer reviewed, it would be inappropriate to involve fishermen directly in the governance arrangements due to the obvious conflicts of interest. However, there should be a process to address any significant issues which this group may raise for the end result to have credibility. Initially, it is assumed that any disputes about the processes for allocating categories around stocks should be handled through the particular jurisdiction in which the dispute arises, followed by reference to the Advisory group and/or its reviewers.

Finally, in considering additions to the species list to be considered for SAFS, both the FRDC’s Recfishing Research Advisory Group and the Indigenous Advisory Group are consulted as to which species they think should be included. It should be noted that the third edition of SAFS (December 2016) added 15 new species to bring the total to 83 species.



## CONTENT OF SAFS

Although this Audit focuses on the strategic level issues with SAFS and not the scientific, technical or operational matters, it is useful to briefly comment on the SAFS content with respect to the stated objectives and end user needs.

Essentially, SAFS is about translating stock assessment information into a nationally agreed classification framework on which is based determinations about the sustainability, or otherwise, of fish stocks, and hence how well they are being managed. (SAFS is essentially a reporting tool. It is not a stock assessment). This relies on jurisdictions providing catch and effort data related to individual stocks or species so as to determine mortality and biomass impacts. Where available this includes both commercial and recreational data.

In addition, descriptions are provided on management arrangements relating to the particular fish stocks, as well as on marine environmental/eco-system impacts, including bycatch (non-target species) and protected species where information is readily available. In some cases, commentary is also included on economics and social impacts.

Notwithstanding this, the report is primarily designed to provide a nationally consistent framework for reporting stock status, while also being cognisant of “equivalence” issues with international standards around stock sustainability through, for example, the Global Sustainable Seafood Initiative (GSSI). The SAFS Advisory Group is continuing to deal with the most appropriate classification outcome for fish stocks, given the range of possible assessment methodologies and the capacities of the various jurisdictions. This will be an important aspect of the capacity of SAFS to both drive management changes and also communicate its message to the various end users.

Much of this data coverage is similar to that provided to the Australian Department of Environment in order to satisfy their requirements relating to the *Environment Protection and Biodiversity Conservation Act 1999* and export approvals (W.T.O.), as well as other requirements relating to protected species etc. Further, the information also forms the reports presented by each jurisdiction as required under their respective legislation and/or where they have been through an MSC certification process. This raises the issue of double handling of reports and/or of the data behind the reports themselves which can be a concern to some jurisdictions.

In this regard, this Audit has found that most jurisdictions have decided to adopt and support the SAFS process, in the main, for their own State reporting requirements, although some may still supplement these where thought necessary by some selective jurisdiction reports, either for non-SAFS years, for species or fishery attributes not covered, or as a supplement to the SAFS conclusions but expressed in a slightly different format. Nevertheless, even in the case where a jurisdiction may have a comprehensive State reporting capability, they have still seen benefits to Australian fisheries management, as a whole, in contributing to the national framework for stock status reporting.

In the case of AFMA, it is recognised that it would be more efficient and less confusing to an external audience if the current two separate reports - the ABARES Fishery Status Report and the SAFS report could be incorporated into a single report rather than the duplication which occurs in drafting material for both reports. While recent changes to create a much more flexible web based system can make the data transfer easier and the “fine tuning” of the stock status classifications is reducing the differences between the two reports, it remains that the ABARES/AFMA treatment of stock assessment is differently driven by the requirements of their harvest strategy. Nevertheless, discussions around this issue are continuing.

Finally, the SAFS process will allow a time series of stock status and related changes in management/research as assessments are addressed over the years, thus tracing the status of a species/stock over time, together with the management changes involved. This could only occur given, as mentioned earlier, a commonly accepted framework across Australia.

As discussed earlier, SAFS currently covers 83 species and 294 stocks which constitute 90 percent of the value and production of Australia’s wild catch. The remaining species are either “undefined” (49 stocks), because of a paucity of data currently being collected, or “negligible” in that they have very low production and value.

The FRDC have established a target for expansion of SAFS content in their RD&E Strategic Plan in that by 2020 a further 117 species should be added, while the proportion of “undefined” should be reduced from 17 percent of the total stocks to 10 percent. Further, that “complementary” reports should be considered to cover a range of other fishery attributes mentioned above (ecosystem impacts, bycatch, protected species impacts, social and economic issues etc.) Commentary and text is currently included about these other attributes in the existing SAFS and the future treatment of these, plus the validity of the target of 200 species is discussed later in this Audit.

Most jurisdictions have reported that they find the current content adequate for their purposes and have expressed concerns about the wisdom, costs and benefits of “chasing a long tail” of species. A number of reasons are behind this view. Firstly 90 percent of the value and production are currently being addressed; secondly species in the “long tail”, by definition, have inadequate data or poor data to base an assessment on; thirdly it would take significant resources to commence a program of collecting such data; fourthly these fisheries are currently covered by some management arrangements and finally it would involve changing the jurisdiction’s priorities away from the more significant fisheries and their issues.

Further, as discussed elsewhere, some of the jurisdictions still compile their own reports in between the two yearly SAFS reports and do include comment on these other species and on the other attributes of particular fisheries. Such comment is not in the same common national standard as the data is often not available, would be expensive to compile, or does not lend itself to such a common, national treatment.

Nevertheless, most jurisdictions would prefer a consolidation of the new interactive, web based format of SAFS, together with a testing of the “market” of its acceptability, content and presentation, before then proceeding with a gradual expansion of agreed species and content.

## **COMMUNICATION AND EXTENSION OF SAFS**

As we have seen, SAFS has objectives of satisfying the needs of two widely different groupings of end users with quite different requirements when it comes to needs, formats, language, and information transfer and knowledge dissemination. This then logically requires different approaches to the communication and extension strategy.

The first grouping of largely Government/ fisheries managers/scientists/industry has a high level of awareness of the SAFS reports and its central purpose in reporting stock status across Australia’s fisheries. They, as a grouping, are currently the major users of SAFS as the content is the “bread and butter” of their responsibilities in fisheries management and reporting and they align with the objective of producing a nationally cohesive assessment of all Australia’s fisheries.

The second grouping, however, is critically important to the objective around the protection of the fishing industry’s “social licence”, which depends on the transfer of information and knowledge created by SAFS in a much more accessible, simple and understandable form. Independently commissioned FRDC stakeholder surveys have shown a figure consistently around 28 percent for positive perceptions of commercial fishing. For this to change, there is a need to improve how we connect better within the community about our fisheries management performance and provide information in a form the public finds understandable and has comfort with.

At this level, however, it is unrealistic to expect that most members of the community, seafood consumers, retailers etc will want to access SAFS directly and be the prime users of the data; let alone to try to interpret what they find into either a “responsible purchasing decision” or into a cohesive story transferring information about the fishery or species. For many, sustainability may not be the most significant issue they are interested in, but rather provenance issues, traceability, food safety, social aspects about the fishery etc, may rate more highly.

Of course, included in this grouping will be a small percentage of very interested and aware persons/organisations who will certainly access SAFS to its potential, but most will rely on others – “third party mechanisms” – to access and present that information drawn from SAFS in a variety of forms.

Thus a communication strategy will have to be designed quite differently if SAFS is to become more than a very useful tool for the first grouping and end its life as a scientific reference document for Government reports, either domestically or internationally.

This slow uptake of SAFS is a similar story to the slow uptake of other certification schemes to be recognised and accepted throughout the community, e.g., MSC certification schemes.

Apart from social media platforms, it would appear that consumers and members of the public would be relying more on third parties to access their information about sustainability/consumer purchases than directly accessing the information themselves, at least in the first instance, e.g., with 57 percent of consumers buying their seafood from the major supermarkets (with only 17 percent from seafood markets and 9 percent from seafood shops), the major retail chains will be playing a major role in providing information on sustainability through their species selection and sourcing policies.

To date, the FRDC has been utilising its current range of communication mediums to promote the SAFS report. This includes its Fish magazine, press releases, the “Escape with ET” television program and its social media platforms –

FRDC and Fishfiles, Facebook and twitter. However, as mentioned in the beginning of this review, the new SAFS web based interactive functionality is not fully in place and it is not unexpected that the second grouping of users and their objectives have not been fully addressed at this time. Its design is to make accessing the information much easier.

These changes will need guidance, in a governance sense, from feedback from the “market” as comments recently made to this review include ...”too much scientific language”, “the language is difficult”, “too difficult to access information we need”, “four colours are confusing to consumers” etc., which ties in with a common response that “you can’t expect SAFS to meet the multiple objectives, you need a separate or supplementary approach” but using SAFS as a building block.

The related issue is how to positively influence public opinion on an ongoing basis through the provision of information and engagement with public debates or responses to public positions taken by other parties. Certainly the FRDC can use SAFS to access and provide scientifically robust information into the public arena, but as a part of government it cannot be seen to be the industry lobbyist.

SAFS does provide an opportunity, however, for FRDC and all jurisdictions to be “singing from the same hymn sheet” on sustainability issues, as it does for industry organisations, so that a consistent story would be presented by all parties to the public, which would go some way to counter the suspicions of the public around various sources of information.

The SAFS Advisory Group are also charged with developing a more comprehensive communication and extension plan as SAFS completes its build into phase two and the new interactive web based platforms are finalised. This Advisory group, plus the other parts of the governance framework, need to work together to decide on the most appropriate way forward to get the maximum benefit out of SAFS for the different needs of its users.

## *CURRENT SUPPORT AND USAGE OF SAFS*

As indicated in the above section on objectives, the expected users of SAFS fall into two broad groups – the bureaucracy (fisheries management agencies, scientists etc.) with its responsibilities to Government for managing and reporting on fisheries and secondly the post harvest community at large (processors, wholesalers, retailers as well as consumers and the community itself). Within these groupings the commercial and recreational fishermen themselves have an interest in both areas, as does a range of organisations including conservation/environment groups, local governments and tourism groups etc.

Thus the range of expectations from users is extremely varied and wide, bringing forth the commonly quoted comment that the SAFS content concerning stock status is at the one time “both too complex for some and not complex enough for others”. This is at the heart of the question of what is SAFS really designed to do and for whom, as it is expecting too much to attempt to create one document or product which will satisfy all the needs.

The major users of SAFS currently are the fisheries agencies in each jurisdiction which, with FRDC and others, are also the builders of the system. As discussed later in this review, this can be a limiting feature of the system as it will reflect these needs and not necessarily those of the wider groups.

In terms of the current support for SAFS, the Audit has found that all fisheries agencies continue to support SAFS and for the following reasons:

- (i) There is complete agreement for the need for a nationally consistent framework across all jurisdictions with scientifically accepted methods for reporting stock status; and hence complete support for SAFS in this role.
- (ii) The process of engagement across jurisdictions, with the inclusion of expert consultants, in assessing stocks brings with it advantages in sharing approaches and solutions to problems (as well as possible joint funding) and hence resulting in improved stock assessment skills and outcomes in many cases, as well as an expansion in methodologies among the agencies.
- (iii) The process of undertaking more rigorous assessments in itself assists in determining future policy changes in fisheries management, rather than an agency simply responding to the end result of the assessment; the process also assists in identifying future RD&E needs in moving forward with assessments which can include cross jurisdictional research.
- (iv) The adoption of SAFS not only allows a more comprehensive assessment of fisheries across jurisdictions on a common language basis, but is often more efficient in meeting the individual jurisdiction’s responsibilities

for reporting within their own jurisdiction, as it is possible to simply download their State's reports from SAFS, with or without their own additions or variations.

The FRDC is to be congratulated for this initiative (as does ABARES) and for providing the very dedicated staff and funding to facilitate SAFS development to this point and the consequent improvement in co-operation on stock assessment analysis across jurisdictions.

The SAFS report has achieved major successes in gaining the support and cooperation of all jurisdictions in developing an agreed, common framework for stock status reporting. It has also made this information available to the international community in a way that allows them to better understand the assessment methodology and the performance of Australia's fisheries management arrangements.

This has also allowed international agencies access to data on the state of stock assessments within Australia's fisheries as a whole and hence a basis to compare and contrast our performance in fisheries management against that of other countries. Previously, such attempts were thwarted by the many and varied formats, approaches and classifications used by each jurisdiction.

However, another common response from jurisdictions is that this current high level of support needs to be nurtured and consolidated and not pushed too far too soon which may jeopardise the goal of having SAFS seen as co-operative, mainstream business. The jurisdictions vary in their staffing and resourcing capacities and the current funding model does not adequately recognise this, particularly if SAFS is expanded too quickly. In this regard, all jurisdictions have expressed the view that an expansion in species covered from 83 to 200 over the next two reports is "a bridge too far". Consolidation and considered expansion appears to be the common expressed preference with views that attaining an "arbitrary" target of 200 species will not achieve much compared with the alternative priorities among jurisdictions for improving fisheries management.

Also, most jurisdictions are still faced with multiple reporting either in their own jurisdictions, or to meet the requirements of other bodies, e.g., Departments of Environments, WTO obligations for exporting, MSC certifications etc. This cumulative workload and the resources used needs to be recognised and taken into account as SAFS moves forward.

Of course SAFS is also currently being used by both commercial and recreational fishers as they refer to it in their own newsletters and information exchanges with members. They also variously use and interpret the classifications to support their cases for variations to fisheries resource access issues – either arguing for or against any proposed changes in resource access and allocations. This, of course is a subset of one of the primary objectives of SAFS which is to support the "social licence" for both commercial and recreational fishers. This needs to be emphasised to fishers that rather than having them using it against each other, they should all be supporting its use it maintaining fishing rights generally.

It is also used by such groups to lobby governments for additional funding for research or for particular management changes for fisheries and this adds greater transparency to calls for improvements in current practices and arrangements.

Similarly, environmental NGOs and conservation groups use the reports to argue for an expansion in the other attributes included in SAFS, improved management arrangements and the furtherance of various goals they may hold which are not currently being met, or to point out the deficiencies in our understanding and knowledge base in certain areas; they also use it to develop their own policies and positions around classification/certification frameworks as a guide to seafood consumers and the public at large. SAFS is a platform to respond to such issues and groups, but the Audit has found little effective and/or co-ordinated activity in this arena.

As discussed previously, the large retail chains play an important role in potentially influencing consumer views on seafood sustainability through their sourcing/sales policies. However, they prefer not to access SAFS directly because of its complexity and their lack of capacity to "join all the dots" to give a complete picture of the "risks" around sourcing particular species. Instead they engage independent "third party" consultants who use SAFS as a base document on stock status. To this, the consultants add a range of further information on aspects of each fishery's operations to form their own risk based assessments on fish species/stocks which the retail chain then uses to determine their purchasing and sales policies.

This demonstrates two things about the use of SAFS content and descriptors at the consumer/retail level. Firstly, apart from stock status classifications, a range of specific other data is required to give a more complete assessment of each fishery or species and secondly even if all this additional information was clearly available, it is beyond the capacity of retailers/wholesalers to themselves draw it all together through proper interpretations to arrive at a guide to their purchasing policies on "responsible sourcing of seafood".

Some of these other attributes of a fishery include the methods of catching fish, the impact of fishing types on the habitat/environment, the nature of bycatch taken in the fishery, interactions with protected species, economics and social aspects of the fishery and the management arrangements. In addition, for many, issues around provenance of the fish/product, as well as food safety, traceability and local community issues feature more highly than questions around sustainability.

While these attributes do not directly impact on the stock assessment of a fishery, which is the current single purpose of SAFS, they do impact on the ability of SAFS to satisfy the information and knowledge needs of other users further along the marketing chain to the consumer and members of the community. They also raise the complexities around influencing the social licence debate.

Thus “third parties” are developing commercial businesses based partly around SAFS and designing “tailor made” products with additional information which the market is requesting.

It should be noted that FRDC is currently funding a project aimed at more closely satisfying the needs of seafood businesses through a broader inclusion of some of the other attributes of fisheries/species. This is called the “Risk Assessment for Sourcing Seafood” or RASS model used by UK Seafish and is under development at this time as a product which can capture the relevant data about a species or fishery which businesses require and presented in a simplified format for ease of understanding and use.

Finally there is little evidence from this Audit that SAFS has had any impact on the broader “social licence” debate throughout the community, or has resulted in any improvement in the public perception of the fishing industry, i.e., Commercial, Recreational and Indigenous sectors. This, of course is a complex issue which cannot be solved simply by SAFS, but SAFS can and should be a key building block in a broader strategy to address “social licence” through the transfer of creditable information to the community.

## ***FUTURE DIRECTIONS***

### **(i) Governance**

The current governance of SAFS includes only one of the major user groups, i.e., the Government/fishery agency/ research group, which has been appropriate as SAFS is being built from core agency data across the jurisdictions. Furthermore, its Advisory committees are composed primarily of scientific/data management representatives which of course is appropriate at the initial stage of determining independent and scientifically based frameworks, terminology and processes and will continue to be necessary as SAFS evolves.

However, the further evolution of SAFS needs to occur in close consultation with the major end users and to date this is not occurring. There is engagement of the fisheries agencies through the CEOs at the Australian Fisheries Management Forum (AFMF), which is supportive of SAFS, but this engagement is more of an information sharing nature, rather than that of an active role in overseeing and directing it. If fisheries managers are one of the critical end users of SAFS, then it would be appropriate if AFMF played a more significant role in SAFS in a strategic/policy sense.

This could occur through the formal engagement of fisheries managers through the AFMF Fisheries Managers Group on an ongoing basis. It is recognised that some issues are referred to this Group from time to time through the AFMF. However, this more formal engagement through the governance structure would allow a more detailed consideration of issues arising as SAFS develops through the eyes of a critical end user and would not involve creating any new structures. This would also engage AFMF more effectively in the future of SAFS.

Likewise, in terms of meeting both objectives of SAFS, there is no involvement with the “post harvest” grouping in a governance sense which would be necessary in providing advice on how best SAFS, or a related separate product or “front face” of SAFS could be designed to meet their needs; this may also assist in designing the communication/ extension strategy to reach the broader community. Recent figures show that there has been a decline in the number of web based sessions accessing the current SAFS compared with previous versions.

The point is that if SAFS is to evolve to the point of satisfying all the varied needs, then it would be prudent to actively engage the end users in the process as SAFS is being built. This is not to suggest that the critical purpose of SAFS in building an independent, scientifically based stock assessment should be impacted, but that the “public face” of SAFS may need to spin off different products, or processes, in order to increase its penetration of the post harvest group and the broader public. Otherwise the SAFS product risks satisfying only the needs of those who are currently intimately engaged in building it.

What the Audit has heard is that what is needed is two different governance structures; one to build the data base and report stock status (together with its “drill down” capacities), and a different, but linked one, to design the “public face” of the end reports. Otherwise, the risk is building a product which has a much more limited “market” and/or which will have little impact on the social licence debate

The question of how to achieve this is not an easy one, but goes to the heart as to whether SAFS can, or should, attempt to satisfy both objectives by itself. Significantly, more feedback, particularly from the new version of SAFS may help in this regard.

## (ii) Content

The current content of SAFS is directed primarily at forming a scientifically rigorous assessment of the state of fisheries stocks in terms of four main stock status agreed categories – “sustainable”, “depleting”, “recovering” and “depleted” (with “undefined” and “negligible” for stocks not yet assessed). This is done by reference to separate biomass and fishing intensity limit reference points. The Advisory group has recently proposed these classifications, together with separate biomass and fishing intensity axes, to further explain the relationships with the proposed main classifications (these are yet to be approved by the FRDC Board). It also brings the stock status classifications closer to the approach in the ABARES classifications for Commonwealth fisheries. An important consideration in this discussion was an awareness not to add further complexity to the appearance and presentation of SAFS to potential end users.

Earlier, the shortcomings of SAFS in terms of its capacity to effectively meet the needs of major retailers/consumers were discussed, i.e., it does not have all the attributes or characteristics of a fishery necessary to let them interpret, not only sustainability, but also the risks a fishery may be facing in its other attributes which may make the species unappealing as a “responsible sourcing” choice.

Currently SAFS does contain some content and discussion of some of these other attributes but not anywhere in the same consistency, rigor, data availability, coverage etc., of the stock assessments. It does include details of fisheries management arrangements, gear types used, impacts on habitat and protected species and bycatch, as well as some economic impacts but none of this is really addressed in any standardised and rigorous format. Of course, this is recognised by the SAFS project and discussions are occurring about the expansion of SAFS beyond a focus on stock assessment to either cover these issues or to produce “complementary” reports to separately provide such information (as some jurisdictions do in their own State/Commonwealth reports).

In addition, as mentioned earlier, SAFS is considering expanding the number of species/stocks it covers from 83 species (294 stocks) to 200 species by 2020, while also reducing the number in the “undefined” category. Currently SAFS coverage accounts for 90 percent of both the gross value of fisheries in Australia and of the total volume of wild-caught product. Further the “undefined” stocks account for less than 5 percent of the total catch of species considered by SAFS.

In terms of future content, feedback from the Audit suggests that the jurisdictions would prefer a consolidation of the current SAFS building and interactive web based functionality rather than pushing ahead to what they regard as a nominal “target” of 200 species/stocks. Further, that SAFS not be significantly expanded to a quantitative based, eco-system approach to a range of other fisheries attributes as much of this would require the collection of significant extra data which, in itself, is inherently difficult and costly to collect. Rather, the preferred approach appears to be to include such ecosystem information progressively as it becomes available, by way of discussion and text treatment in SAFS and expand this text treatment, in either a qualitative or quantitative manner, as further data becomes available.

The principal reasons for this position is that to attempt to quickly move into a wide range of additional species will be forcing jurisdictions to change their fisheries management priorities (which are determined by more issues than simply stock assessment outcomes). As discussed, it will require shifting scarce resources into lesser value/lower production fisheries and into fisheries which will often have lesser, or lower quality, data available. Finally, with the on-going transformations of SAFS to a web based platform, it is yet to be tested, in the “market place”, whether its use will meet

the needs of, and be embraced by, the “post harvest” /consumer/community groupings of end users. The earlier comments concerning the governance of SAFS lacking any post-harvest etc., involvement are relevant.

Jurisdictions are supportive of gradual additions to SAFS where they have some control over what additions and when, but regard the target of 200 species by 2020 as an arbitrary target. In the case of the category “undefined” there is support for this to be gradually reduced, however for this to be achieved will require support from FRDC and a program of exposure of jurisdictions to the range of methodologies appropriate to use in such “data poor” situations; such approaches would need to involve agreed frameworks nationally.

Of course, some operators at the post-harvest level, as well as some NGOs, would prefer to expand the coverage of species more quickly to have information on the species they are dealing with, or which may be “sensitive” in the community’s mind. While this is desirable from their point of view, it has to be weighed against the extra cost and time involved, the need to agree on the methodology to be used (if undefined or negligible volume species) and the difficulties in collecting the quantitative data required. All of this would involve additional funding as, by their nature, the undefined or negligible fisheries would be more difficult to assess and may involve the collection of significantly more data not currently collected. Further, it may again go against the priorities as seen by jurisdictions and hence potentially weaken the co-operative support for SAFS.

The issue of whether to significantly expand SAFS into other areas impacting on fisheries sustainability to give them a similar treatment to the stock assessment process, has both advantages and disadvantages. Some of these other attributes (bycatch, protected species impacts, habitat/environmental impacts, economic and social impacts etc.), are subject to existing fisheries management arrangements, but they do not, in the main, easily lend themselves to a “scientifically robust, common national framework” approach as does stock assessment; further they more readily fall into the domain of each jurisdiction’s responsibility where their relative importance as a fisheries management priority varies considerably by species, by location and by jurisdiction. In this sense, each jurisdiction is able to determine its priorities in how and where it reports on such attributes.

This is not to diminish the need to consider and deal with these issues as part of fisheries management, but simply to argue that attempting to give these issues a similar national treatment through incorporating them into an expanded SAFS would be counterproductive and potentially put at risk the future of SAFS as fundamentally a stock status reporting tool. The preferable approach, as discussed, is to have these issues covered in text against the particular fisheries and against the descriptions of the fisheries management arrangements in place for each species.

As discussed elsewhere, the new RASS project is another vehicle where potentially information on these, and other impacting issues, can be incorporated to assist in a risk based decision.

#### (iii) Timing of reports

Currently SAFS aims to have new reports available every two years, with updates on existing fisheries and the addition of new species or stocks. However, suggestions have been made that with the new web based formats, it would be possible for continuous updates to be provided as new work was undertaken, thereby avoiding the “last minute rush” to complete a new SAFS reports. “Public releases” could be made at any time and could coincide with each significant update or improvement in a fisheries/species performance.

Comment has also been made that changes in stock assessments tend to happen slowly in fisheries, unless there has been a significant impact in the fishery or a new stock assessment undertaken. This raises the issue of the frequency of SAFS updates where some have suggested it could go out to three years or more for the major species, allowing breathing time to add species or reduce “undefined” species.

#### (iv) Communication and Extension Strategy

The Audit has found that the first objective and its target end users appear to have a good knowledge of SAFS and awareness of its uses and its continuing development; international users are becoming more aware of it as a reference source and its improvements towards a measurement of fisheries management performance across Australia’s fisheries. It is increasingly being utilised in various government reports, reports to government central agencies by fisheries agencies and being consulted by environmental NGOs and accessed by “third party” consultants in preparing policy positions and submissions for a range of clients. Fishing industry groups are also using it in debates on resource re-allocation and success rights.

However, the second objective of the transfer of information and knowledge on the performance of fisheries management to the wider post harvest marketing area, consumers and the community itself significantly lags behind. The difficulty with this lies in the significant diversity in user needs. Communicating with the post harvest seafood sectors is

a business to business exercise with tightly packaged information required through restricted channels in line with their business needs; while communicating with the community is a much more open and on-going process across a broad range of public media, social media channels for transfer of a wider range of information over time.

While SAFS is still being further developed in terms of its functionality and ease of access, the Audit has found that the approach of “build it and they will come” has, to date, not proven to be the case with this second grouping of users. Rather, because of the nature and complexity of fisheries management itself, end users will more and more rely on informed “third parties” to undertake the accessing, interpretation and presentation of the information.

A range of these third parties can include government agencies themselves, natural resource management groups, scientific organisations, FRDC, individual consultants, industry associations of various sorts, academic institutions, environmental NGOs and perhaps even independent “think tanks” like the Australian Farm Institute model etc. Of course, different groups will put their own particular interpretations on the information, but at least SAFS has now drawn all the stock assessment information together so as to put a common baseline under the debates that will still inevitably occur and this is a significant achievement.

Rather than a passive, re-active strategy, SAFS needs an approach that is more pro-active. It needs to take advantage of any and every opportunity to promote its functionality and story on an ongoing basis, while at times also react to issues by emphasising the factual information now available across Australia’s fisheries.

One example of the pro-active initiative mentioned earlier, is FRDCs sponsorship of the new project – RASS – which seeks to use SAFS as a base and selectively add additional fisheries attributes to “join the dots” for business to business clients. This will also enable businesses to pass information on to consumers at their point of contact.

Finally, the development of a broader communication and extension policy for the reformed SAFS needs to be undertaken in light of the governance comments made in this Audit plus the other comments referred to through the feedback provided on communication and extension. All parts of the framework need to work together to decide on the most appropriate way forward for the SAFS product to be a tool to transfer information to the public to ensure the industry’s social licence is sustainable.

## Recommendations

All fisheries agencies continue to support SAFS and recommend that moving forward, most would prefer a consolidation of the new interactive, web based format of SAFS, together with a testing of the “market” of its acceptability, content and presentation, before then proceeding with a gradual expansion of agreed species and content.



# Appendices

## APPENDIX 1: LIST OF ORGANISATIONS CONSULTED

1. Queensland Department of Agriculture and Fisheries
2. New South Wales Department of Primary Industries
3. Australian Bureau of Agricultural and Resource Economics
4. Australian Fisheries Management Authority
5. Department of Fisheries Western Australia
6. Primary Industries and Regions South Australia/South Australian Research and Development Institute
7. Department of Primary Industry and Fisheries Northern Territory
8. Tasmanian Department of Fisheries/Institute for Marine and Antarctic Studies
9. Agriculture Victoria - Fisheries
10. Fisheries Research and Development Corporation
11. Sydney Fish Market Pty Ltd
12. CSIRO Oceans and Atmosphere
13. SainSolutions Pty Ltd
14. Oceanwatch Australia
15. World Wildlife Foundation
16. MRAG Asia Pacific
17. FRDC: SAFS Advisory Group
18. Commonwealth Fisheries Association
19. National Seafood Industry Alliance