

IMPLEMENTING THE QUEENSLAND SUSTAINABLE FISHERIES STRATEGY 2017 – 2027: A REVIEW OF PROGRESS

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REPORT FOR THE AUSTRALIAN MARINE CONSERVATION SOCIETY

An independent desk top analysis of the Queensland Government's progress against their Sustainable Fisheries Strategy 2017-2027. The analysis considers progress against the Strategy's objectives and actions and respective timeframes.

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Table of Contents

Executive Summary4
Conclusions and Recommendations5
Key Recommendations:
Introduction
Terms of Reference10
Method and Approach10
Findings and Discussion13
Queensland Sustainable Fisheries Strategy 2017/27 -10 Major Areas of Reform and 33 Actions13
Table 1. Implementation of Actions delivering foundational reforms in the Queensland Sustainable Fisheries Strategy 2017 - 202713
Discussion: Progression of foundational reforms – 1. Improved monitoring and research, 2. setting sustainable catch limits, 3. improved stakeholder engagement and 4. environmental risk assessments.
Table 2 Implementation of Actions delivering management tool reforms in the Queensland Sustainable Fisheries Strategy 2017 - 202720
Discussion. Reform of management tools – 5. Resource allocation, 6. Harvest strategies, 7 Fishing rules and access, 8 Responsive decision making24
Table 3 Actions to deliver implementation of reforms in the Queensland Sustainable Fisheries Strategy 2017 - 2027
Discussion: Progression of implementing reforms – 9. Compliance and 10. Resourcing27
Stock assessments, Sustainable catch limits, Harvest Strategies - Development and Implementation
Table 4 Fisheries/species unlikely to achieve 2027 targets 30
Evaluation of progress of QSFS 2017 - 2027 Targets
Progress implementing the Qld Sustainable Fisheries Strategy 2017 – 2027 and implications for Reef 2050 Long-Term Sustainability Plan
References
Appendices
Appendix.1. Qld Sustainable Fisheries Strategy implementation schedule
Appendix. 2. QFS stock assessment scheduling37
Appendix. 3. Fisheries Working Groups38
Appendix 4. Qld Fisheries Harvest Strategies
Appendix 5. Reef 2050 Long-Term Sustainability Plan
2021–2025 Work Area 3

Executive Summary

Fisheries management is inevitably and necessarily complex, needing to straddle ecological, economic, social, and cultural aspects. Wild stocks of fish, like the ecosystem these are part of, are a public resource, requiring management in the public interest. Ultimately determining fisheries management is a political process involving leadership, commitment, trade-offs, and imposing constraints to balance triple bottom line outcomes. In deciding how best to manage public, renewable natural resources two principles should not be compromised, transparency of decision making and the considerations that underpin it and the sustainability of the ecosystem. If the sustainability of the ecosystem is undermined, its resilience eroded, through the widespread loss of biodiversity there can be no long term social, cultural, or economic achievement – everyone loses.

In the Queensland context the stakes are arguably higher with the majority of fishing taking place in the Great Barrier Reef World Heritage Area. Australians and especially Queenslanders as custodians have taken on a special responsibility to safeguard the values of the area for all humanity. Management of the fisheries in and around the Reef is increasingly being scientifically shown to be of vital importance to its overall health and resilience. While this has always been important, if undervalued, it is now more critical than ever as the oceans and coasts endure the damage of escalating climate change. It is already impacting with dramatic effect on many of the fisheries, and the habitats with which they are inextricably linked.

The Queensland Sustainable Fisheries Strategy 2017 – 2027 as a plan, has most of the aspirations and approaches needed to deliver best practice management, including transparency and ecological sustainability. It reflects well on those politicians, policy makers, management practitioners, scientists and stakeholders who built the vision and its underlying architecture. If it is rigorously implemented, focussed on getting and maintaining stocks to the ~ 60% biomass target and significantly reducing the impacts on the broader ecosystems then it will do its part in ensuring sustainability of the GBRWHA and the broader coastal environment of Queensland. In doing so it will deliver long term economic viability for commercial fishers, improved recreational and tourism experiences, and support, rather than erode, the cultural values involved in fish and sea country for coastal traditional owners.

The next 6 to 12 months is a critical period as the mid-point of the strategy approaches. It is clear from this examination that an enormous amount of diligent work has built a sturdy foundation – legislatively, policy wise, in terms of strengthening the science, research and monitoring and public and stakeholder engagement. One of the more valuable aspects and potentially paradigm shifting aspects of the implementation of the strategy is priority now being given to systematic and robust stock assessments.

The assessment in tables 1,2,3 shows this progress in getting in place a solid framework is substantive.

However, what is also clear, is that, as implementation of management is rolled out there are significant gaps apparent between the promised approach and the reality of the measures to constrain, build and protect. Fisheries that have been long known as unsustainable with growing levels of fishing effort and ecosystem impact are not being dealt with urgently enough or with sufficient measures to address their status. Clearly much improvement is needed in addressing the impacts of fishing on other species especially vulnerable, threatened, and protected species if the strategy is to achieve its targets and overall intent.

How the government addresses the precarious state of stocks of saucer scallops, Spanish mackerel, King Threadfin salmon, snapper, and pearl perch and the impact fishing is having on vulnerable endangered and threatened species, such as pipefish, sawfish, scalloped hammerhead sharks, snub fin dolphins, turtles and dugongs will set the standard for the remaining five years of this strategy. The legislative foundations and public statements of intent are in place, if the necessary practical action is implemented in the next five years, then the Strategy will have delivered on the Queensland Government's promise to provide world's best fisheries management.

Conclusions and Recommendations

The review of the 33 actions in the strategy which are intended to deliver on the 10 major areas of reform shows that strong progress has been achieved in developing and putting in place the basic foundations for management. The analysis of progress with each action undertaken in tables 1,2,3 and summarised in figure 2 shows that despite some slippage against the original scheduling the majority of actions have been delivered by the time of this report. Given the disruption associated with the pandemic which started in early March 2020 the progress shows considerable effort and commitment by all those involved, especially Queensland Fisheries and the various stakeholders.

Of particular note is changes in legislation required as well as the investment of more resources into improving the data collection and analysis, especially for the critically important stock assessments and the strengthening of compliance. Without the achievement of this solid foundation, the world leading management the strategy aims to deliver will not be possible regardless of its aspirations.

However much of the effort needed in setting up consultative frameworks and policies is fairly methodical compared to the politically difficult and frequent conflict in the process associated with getting in place management measures that deliver on the sustainability targets. Equitably and transparently reconciling the various interests while rebuilding and protecting stocks and the ecosystem requires strong science and political will.

Of course, all the 33 actions are not of equal consequence. Several of those actions that were assessed as 'only partially delivered and behind schedule' are of critical importance to substantive management effectiveness.

Action 1.4. commits to develop and *implement* a data validation plan to provide mechanisms to independently validate data on catch and interactions with protected species. Requiring surveillance technology such as cameras on gill net and trawl vessels could have and should have been implemented as a priority by now. Implementing such measures to independently monitor species interactions is in accordance with the principle in the strategy to prioritise high risk species for management action.

It is significant in terms of impact 'in water' that Action 6.2. which committed to develop harvest strategies for all major fisheries by the end of 2020 was not achieved. It is harvest strategies that are central to delivering sustainability. Similarly with action 7.3 concerning removal of latent effort. The relatively large amount of latent effort threatens to significantly constrain efforts to secure economic and environmental sustainability. Failure to address latent effort up front risks eroding sustainability when such licences are consolidated, and their fishing entitlements activated.

Failure to develop and implement strategic compliance strategies (Action 9.1) when implementing new management plans (harvest strategies) can severely weaken the effectiveness of the management. Perhaps strategic planning to ensure effective enforcement is occurring, and the details were not able to be found by this limited study.

Action 10.2 aims to develop a resourcing strategy based on a beneficiary pays system. Again, the schedule prioritised this for 2020. The lack of progress matters because if a mechanism to increase the financial sustainability of the management is not put in place the ongoing maintenance of this management framework will be increasingly difficult and, as has happened before with fisheries and environmental management in Queensland the system goes into survival mode rather than the required continuous improvement.

Against the background of assessing the largely solid progress of getting in place the foundations for the reformed management it is important to critically examine how the new management approach is being applied to address management, stock rebuilding and the impacts of fishing on the ecosystem.

While it is beyond the scope of this study to examine the efficacy of the management response across all Queensland's managed fisheries it is informative to dive into several of the more significant and topical. Table 4 provides a summary of some of the concerns emerging about just how effectively the new management approach is grappling with the 'sustainability debt' that has built up over the last two decades or so with Queensland fisheries.

Unfortunately, there are obviously significant gaps evident between scientific assessments which show the need for urgent action and the delay and inadequate measures which are being rolled out. Clearly, the reality of needing to constrain activity is under duress as vested interests, push back and are actively seeking to water down the achievement of the targets.

Based on the evidence it is clear that without considerable improvement there is already significant problems with the failure to achieve two of the critical 2020 targets:

- set sustainable catch limits based on achieving at least maximum sustainable yield for all Queensland fisheries (around 40-50% biomass) RED
- maintained all Commonwealth export approvals RED

Further at this mid-point, when it comes to the likelihood of achieving significant 2027 targets there are warning lights flashing:

- set sustainable catch limits based on achieving maximum economic yield for all Queensland fisheries (around 60% biomass) **RED**
- identified that no Queensland fisheries are overfished RED

Overall progress to date has been characterised by major improvements in the legislative, policy, research and monitoring, compliance, stakeholder engagement aspects but with 'on water' delivery to address known problems of chronic over or destructive fishing, being too slow and often inadequate relative to the extent of the historical decline and ongoing impacts.

It is clear the next few months will be quite critical for strengthening the resilience of the strategy.

In particular it will be important that the management measures that are adopted to address advanced overfishing in the Rocky Reef Fishery (Snapper, Pearl Perch), Spanish Mackerel and GOC

(Threadfin King salmon) are effective and reflect the original reference points set out in the strategy. Weak measures will set the standard for what is to come with the other fisheries.

The GBR 2019 Outlook Report and the GBR 2050 Plan recognise the importance of best practice fisheries management to the health and resilience of the GBRWHA.¹ Overfishing and destructive fishing is increasing the erosion of the property's resilience, adding to decline resulting from climate change and pollution. The GBR 2050 Plan emphasises the key role the implementation of the QSFS has in the achievement of its objectives. The slowing of progress around the implementation of the QSFS shown in this assessment should be of concern to the GBRMPA and other Commonwealth agencies given their statutory responsibilities for protecting world heritage values.

Without substantive political will encouraged by strong leadership there is a real and growing risk that despite the first-class work getting in place the bulk of the enabling structures and policies, the achievements of the 'best practice fisheries strategy', increasingly look more like business as usual, rather than a strong platform of sustainability. Public opinion on management measures is influenced by the extent to which there is effective communication on the problems, challenges, and opportunities. Queensland coastal communities are typically interested and knowledgeable when it comes to the marine environment and in particular the state of the fisheries. There is likely to be greater public support for management measures if the need for, and benefits of action are well understood by the wider community.

Key Recommendations:

Given the implementation of the strategy is now mid-term the following measures should be urgent priorities for Queensland Government and all stakeholders to ensure its effective achievement.

- To ensure compliance with statutory protections for threatened, endangered and vulnerable species and better monitor impact on non-target species, require the installation of electronic monitoring² on commercial gill net and otter trawl vessels in keeping with Action 1.4.
- 2. Urgently develop harvest strategies to rebuild stocks to 60% reference point for at risk fisheries including Spanish Mackerel, Rocky Reef, and the Gulf of Carpentaria Inshore Finfish Fishery
- 3. Systematically address latent effort across Queensland's commercial fisheries.
- 4. Review licence fee structure to better reflect the cost to the public of effective implementation of the QSFS.
- 5. Fisheries and GBRMPA to take steps to implement management measures to reduce high risks identified in Environment Risk Assessments (ERA's), in particular for threatened, endangered and protected species (TEPS). Measures should include improvement of the East Coast Inshore Fishery (ECIF) Protected Species Management Strategy (PSMS) and development of a PSMS for trawl; and spatial/temporal closures in areas of high conservation value.
- 6. Progress implementation of recreational fishing licence with an appropriate fee structure to contribute to cost of fisheries management.
- 7. Government agencies involved in management of fisheries (Commonwealth, State and local) should ensure there are dedicated programs to provide transparency and public

¹ <u>GBR Outlook Report 2019</u>

² Electronic monitoring

communication more widely around contentious issues, science, and the need for and purpose of management actions.

8. Given lack of progress in key elements, and the QSFS is now mid-term, the need to accelerate implementation should be a matter for urgent high-level consideration by responsible State and Federal management agencies; especially the GBRMPA and Queensland Fisheries and their Ministers.

Introduction

The close examination of Qld Government (QF) documents, stakeholder policies and reports, together with the advice provided by several fisheries experts directly involved in the development and implementation of the strategy provided a solid basis to evaluate progress.

QF have done an enormous amount of work in ensuring there are very comprehensive records of the various stages involved. Moreover, and again the credit of those supporting the development of the strategy and now its associated management, it seems most of these records are publicly accessible. Of particular importance are the expert panel and working group communiques which provide insight into the members discussions and indirectly, a record of significant steps taken with policy, guidelines, fisheries performance, and management implementation. In June 2017, after a period of extensive planning and consultation, the Queensland government launched the Queensland Sustainable Fisheries Strategy 2017 - 2027 (hereafter QSFS or the strategy)³. The ambitious strategy was largely welcomed by stakeholders and experts as supplying a solid platform for substantially improving management of Queensland's fisheries. It was promoted as setting the Queensland Government's fisheries agenda for the next 10 years. Since its introduction there has been a large effort made by Fisheries Queensland (FQ) in the Department of Agriculture and Fisheries (DAF) and the relevant Minister(s) to put into place the required legislative, policy and stakeholder engagement changes and structures to facilitate improved management. Concurrent with getting in place these arrangements work has been progressing on developing and implementing new fisheries management arrangements across the major fisheries. Over the last couple of years this has included stock assessments, effort and quota managements and resource allocation more broadly with a focus on getting in place harvest strategies for the major fisheries.

Central to the reform agenda of the QSFS is the setting of catch limits for all Queensland fisheries to achieve maximum sustainable yield (MSY) (around 40% - 50% biomass) by 2020 and maximum economic yield (MEY) (around 60% biomass) by 2027.

³ The consultation was based on <u>Green Paper on fisheries management reform in Queensland (2016)</u>

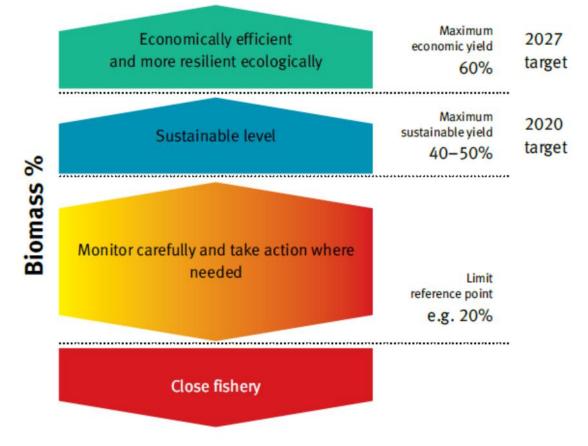


Figure 1 Reference points for management action

FQ has committed to undertaking a review of the progress with the implementation in the first half of this year. It is expected that major stakeholders and the public will be invited to provide input into the mid-point review.

The purpose of this paper is to evaluate the progress achieved in the implementation of the QSFS to date and to assess the likelihood of the targets and actions set out in the strategy being achieved by its final implementation in 2027. The assessment is largely a desk top study based on publicly available documents⁴ principally prepared the Queensland Government (QF). The assessment has also been informed by interviews with experts involved in the development and implementation of the QSFS, where available and subject to time.

The Strategy names the following goals:

• Queensland's fisheries resources are managed in accordance with harvest strategies, with all fisheries to have a harvest strategy by 2020. (Well behind)

• By 2020, sustainable harvest or fishing limits will be *set* to achieve maximum sustainable yield or 40-50% biomass.

• By 2027, sustainable harvest or fishing limits will be set to achieve maximum economic yield or 60% biomass.

⁴ Queensland Government, Commonwealth Government, Industry, and stakeholder.

• Harvest strategies will set out fishery-specific targets for fishery performance, triggers for action and clear decision rules for the actions that will be taken.

Terms of Reference

• Review the available information and score the 2027 targets of the QSFS as either:

Green - On track to be achieved, Yellow - Uncertainty as to whether it can be achieved, Red - Unlikely to be achieved. (Providing a justification for the scoring).

- Review the available information and grade the performance against each of the actions identified within the Strategy. We suggest a grading system along the lines of:
 - A Action delivered on time,
 - B Action likely to be delivered on time
 - C Action delivered but behind schedule,
 - D Action partially delivered and behind schedule,
 - F Action not delivered.⁵
- Considering the above scoring and grading, give an overall grading for progress against the Strategy
- Recommend areas that require immediate attention, focussing on actions that have not been delivered and 2027 targets that may not be achieved. Making comment on the implications for other Government policies - in particular, the Reef 2050 Plan and Trawl WTO accreditation

Method and Approach

The assessment relies on publicly available publications and interviews with experts where available. The QSFS is ambitious given the 'stop/go' history of fisheries management in Queensland and essentially sets out to build a modern management framework from the ground up. There is extensive documentation of direct relevance to this paper including for example and in addition to the strategy itself, amendments to legislation (Act and subordinate legislation), policy papers and guidelines, stock assessments, environmental risk assessments (ERAs), draft harvest strategies and harvest strategies, departmental progress reports as well as interim management measures outside of harvest strategies, independent Sustainable Fisheries Expert Panel (SFEP) and working group communiques, Ministerial, departmental press statements, GBR 2050 Plan and the 2019 Outlook Report.

The communiques reporting on the expert panel and working group meetings, although only summaries provide, a particularly useful source of information for following progress on the higher-level policy and guidelines as well as issues around the stocks and fisheries.

Useful references are listed at the end of this paper.

⁵ Providing a justification for the grading of each action.

The structure of the QSFS is such that it sets out the vision of building 'a more modern and responsive system in 10 years' with clear targets to have been achieved by 2020 and full implementation by 2027.

Evaluating efforts to implement the individual actions set out in the QSFS is very helpful in coming to understand how the management is progressing against the high-level targets. However, while identifying whether a planned action (report, policy, regulations, research activity, guideline, or harvest strategy) has been commenced or instituted is not enough to build an assessment of how effectively the strategy is practically addressing the barriers to sustainability.

The QSFS identifies and lists 10 major areas of reform needed to deliver the Queensland Governments vision for the States fisheries. These can be grouped into 3 overarching types.

Foundational reforms:

- 1. Improved monitoring and research.
- 2. Setting sustainable catch limits
- 3. Improved stakeholder engagement.
- 4. Environmental risk assessments.

Reform of tools:

- 5. Resource allocation.
- 6. Harvest strategies.
- 7. Fishing rules and access.
- 8. Responsive decision making.

Implementing reforms:

- 9. Compliance
- 10. Resourcing.

Each of the 10 reform areas sets out the specific actions that are to be undertaken to deliver the reform and thereby implement the QSFS over the next 10 years. In all there are 33 specific actions.

Assessing progress on these individually and collectively is needed to gain an understanding of progress to date and in terms of the 2027 targets.

This evaluation of the 33 actions is summarised in tables 1, 2 and 3⁶ set out below.

Table 1. Foundational reforms – consisting of 4 broad areas of action:

- 1. Improved monitoring and research (5 detailed actions)
- 2. Setting sustainable catch limits (2 detailed actions)
- 3. Improved stakeholder engagement (5 detailed actions)
- 4. Environmental risk assessments (2 detailed actions)

Table 2. Reform of management tools – consisting of 4 broad areas of action:

- 5. Resource allocation (2 detailed actions)
- 6. Harvest strategies (2 detailed actions)
- 7. Fishing rules and access (6 detailed actions)

⁶ A number of the actions have several substantive components.

8. Responsive decision making (1 detailed action)

Table 3. Implementing Reforms – consisting of 2 broad areas of action:

- 9. Compliance (6 detailed actions)
- 10. Resourcing (2 detailed actions)

Interviews with experts focussed on the effectiveness of fisheries management measures to achieve sustainability targets for the major fisheries.

Each of the actions is rated as to progress of implementation against the implementation schedule set out in the QSFS.⁷

- A Action delivered on time,
- B Action likely to be delivered on time
- C Action delivered but behind schedule,
- D Action partially delivered and behind schedule,
- F Action not delivered. (Providing a justification for the grading of each action).

Based on these ratings of the actions, an overall rating is applied to each of the 10 major reform areas.

Obviously, there are limitations to this process of assessment which rates the actions as though separately and individually they are of similar worth or weight in achieving the successful implementation of the strategy. At best it is able to inform a broad high, level picture of overall progress and identify areas of concern which should be focussed on in the forthcoming review. However, it does not provide necessarily for a detailed understanding as to the quality of the implementation.

To better understand and assess how the strategy is achieving its targets it is useful to look at how its implementation is occurring in terms of managing fishing both in terms of target stocks and impacts on secondary species and endangered and threatened species.

Several fisheries which are known to be experiencing sustainability problems⁸ were examined to understand how management was proceeding in terms of the various strategy actions, the underpinning principles, and the formally adopted policies and guidelines.

Summary information and assessment is presented in Table 4.

To achieve a more detailed understanding of actual 'on ground' progress interviews were held with experts from fisheries management, science, GBRMPA and NGOs each of whom is actively involved with the development and implementation of the strategy.

Queensland fisheries were tracking progress of reforms with a dedicated site <u>Fisheries Reforms</u> however this would appear to have been last updated in May 2021.

In making this analysis extensive reading of available reports and working group and the expert panel communiques plus associated reports such as the GBR Outlook Report 2019. In addition,

⁷ See appendix.1.

⁸ See for example <u>QFS Ecological Risk Assessments</u>; <u>Status of Qld Fish Stocks</u>; <u>GBRMPA Fishing Position</u> <u>Statement</u>

detailed briefings were sought from managers and others involved in the development and implementation of the QSFS.

Findings and Discussion

Queensland Sustainable Fisheries Strategy 2017/27 -10 Major Areas of Reform and 33 Actions

Table 1. Implementation of Actions delivering foundational reforms in the Queensland Sustainable Fisheries Strategy 2017 - 2027

Foundational reforms in 2017-2027 Strategy (Reforms 1-4)	Actions (14 actions)	Schedule indicated in strategy ⁹	2020 progress/ Steps taken	2027 progress	Actio n Ratin g (A- F) ¹⁰	Reasons for rating/notes/tre nd?
1. Improved monitoring and research Overall reform rating: C	nitoring Develop a research fisheries erall monitoring and research plan		Broad components identified. 2017/18 Research and Monitoring Plan written but no update available.	Needs an ongoing and systematic review process.	C	Requires regular (2-3 yearly) updating in the light of several fisheries' performance. No indication when this will happen.
	Action 1.2 Undertake additional monitoring of key biological stocks to better understand fishery performance and support management actions in a more timely way.	2017 - 2020	Additional funding directed to research and monitoring. Stock assessment in place for major fisheries.	Progressing but requires attention further attention. Partially delivered.	C	Some trials underway but needs to be given higher priority especially with regard to sentinel and non-target species. Stock assessment has improved but fishery independent data is lacking for many fisheries/stocks

⁹ See Pg 26-29 QSFS

¹⁰ A - Action delivered on time, B - Action likely to be delivered on time C - Action delivered but behind schedule, D - Action partially delivered and behind schedule, F - Action not delivered

	Action 1.3 Develop partnerships to trial the use of novel technologies for fisheries monitoring, such as apps, robotic vision, spatial interfaces, and mapping, social media, and citizen science.	2017 - 2020	Trialling some remote digital technologies.		C	QFS Recreational and commercial fishing App operational. Need to make increased use of InfoFish
	Action 1.4 Develop and <i>implement</i> a data validation plan to provide: • mechanisms to independently validate data on catch and interactions with protected species • education programs to improve submission of accurate catch data (include promoting a move to electronic logbooks) • robust systems for checking and forensically analysing incoming data.	2017-2020	Independent observer program discussed but not progressing in fisheries of concern. Education programs – online and workshops have taken place. Electronic logbooks operational in several fisheries. Lagging or not happening with VMS data.	Some progress in terms of plan and trials but not widespread adoption.	D	Electronic monitoring technology is available and should be mandatory at least on, otter trawl, inshore finfish net boats (ECIFF and GOCIFF) Data Validation Plan completed. Implementation ongoing. Trials of innovative technologies underway but implementation of fishery independent data collection seems to be lagging or stalled. AIMS has commenced monitoring of key fish species as part of its long- term monitoring for the GBRWHA.
	Action 1.5 Develop and implement a practical and cost-effective system for collection of economic and social data.	2017- 2020	Outsourced BDO Consulting. Commenced October 2019.	Unable to locate any reporting or analysis of social and economic evaluation of management action.	С	Social and economic collection and analysis has been contracted to BDO. s. Late getting started but underway.
2. Setting sustainable catch limits. Overall rating B	Action 2.1 Develop guidelines for how sustainable	2017-2018	Guidelines developed/ completed and reflected in legislation	Guidelines in place following consultation. Should be reviewed in	A	The guidelines covering the areas mentioned are in place although slippage

catch limits should be set, as part of a harvest strategy guideline. At a minimum, this should <i>include</i> : • determining how to divide the fishery into smaller units (e.g., fish stocks and/or regions) in order to apply management arrangements at the appropriate scale • setting catch limits (including sustainable target and limit reference points) for each fishery with an aim to promote the most economically efficient use of the resource, develop a more resilient system and maximise enjoyment for recreational fishing • determining appropriate time frames to achieve the catch limits • defining the minimum data requirements to set catch limits and social data, and level of risk for iconic status of a species).			light of experience in setting catch limits.	in timing it is not significant. Action completed as part of the Harvest Strategy guidelines.
Action 2.2 Using improved data, undertake regular stock	2017-2020	Stock assessments progressing and those to date look to be of good	Substantial progress but needs to be given higher priority	See appendix 2. Stock assessments are happening but not yet in keeping

	assessments (annually or at least every two years) for key stocks to assess the fisheries status against the sustainable target and limit reference points		quality and peer reviewed.	especially with regard to sentinel species.		with the aspirations in the Action 2.2.
3. Improved stakeholder engagement Overall rating B	Action 3.1 Appoint an expert panel to provide independent advice on best practice fisheries management and science in 2017.	2017	In place. Regular meetings. Communiques in place.	On track but question over how it will continue with understanding that members are not feeling their advice and efforts are being taken on board in a way that its applied.	A	In place. Meeting regularly. Concern over lack of advice acceptance. In need of reinvigoration.
	Action 3.2 Establish fishery-specific working groups with rotational membership to provide operational advice and participation to support the harvest strategies, with initial priority working groups to be established by the end of 2017.	2017 - ongoing	Ongoing. Major fisheries have working groups and communiques regularly published.	Working groups in place and meeting regularly	A	Somewhat disrupted by COVID. 15 Working Groups established Sept 21. Terms of references and communiques for each working group: Crab fishery East coast inshore Freshwater fisheries Gulf of Carpentaria inshore Marine aquarium fish and coral Moreton Bay Reef line Rocky reef Sea cucumber Spanish mackerel Spanner crab Stocked impoundment permit scheme Trawl fishery Tropical rock lobster Vessel tracking

	Action 3.3 Work with Indigenous groups and communities through various forums to provide advice on fisheries management issues.	2017 - ongoing	DRAFT Aboriginal and Torres Strait Islander commercial fishing development policy. (July 2019)	Progressing but in catch up mode. Likely to be delivered by 2027 but will require higher priority	С	Traditional Fishing Policy is in the process of implementation and TOs are now present on some working groups
	Action 3.4 Utilise more novel engagement techniques (including online surveys) to gather a range of stakeholder feedback on particular fishery issues.	2017 - ongoing	110 k Facebook followers. 9241 followers Instagram. Recreational Fishing app. Twitter ~ 3,000 followers. Online submissions facilitated.	In progress	В	Stakeholder consultations inputs reviews 'Catch News' regularly published. Unclear how social media and surveys are being used to gather and analyse stakeholder feedback.
	Action 3.5 Review the effectiveness of engagement mechanisms in two years (2019)	2019/20	Experts from the Institute for Sustainable Futures (University of Technology Sydney) reviewed how QF engage with Queensland's professional fishing industry. Review explored motivations, barriers, drivers, and past engagement experiences, and made recommendations for improved stakeholder engagement	Limited progress although should be relatively easy to update.	C	Internal review undertaken by QFS showed slight decline in respondents' satisfaction. UTS review. Focussed on commercial fishers. Internal review end of 2019
4. Environment al risk assessments Overall assessment B	Action 4.1 Publish a guideline on assessing the ecosystem impacts of fishing activities,	2017/18	On track. Guideline published 2018. QFS ERA Guideline.	Unclear, requires updating.	A	Guideline published. Action achieved but requires review and updating.

including the process for prioritising, and undertaking ERAs. At a minimum, this should include: • principles for prioritising ERAs according to risk and linked to national standards • a formal approach for identifying and prioritising management actions to address ERA outcomes.					
Action 4.2 ERAs to be undertaken for priority fisheries or species by the end of 2020 (including for example the East Coast Inshore Fin Fish Fishery, Gulf Fin Fish Fishery and Crab Fisheries), followed by the remaining fisheries.	2017-2020	ERAs completed for major fisheries and several lesser fisheries. Note most are level 1 with only few level 2.	On track in terms of quantity. Quality and strength of actions will need to improve if ERAs are to deliver protection as required to minimise env risks.	С	Action achieved however requires reassessment following review and strengthening of guideline. Next step.

Discussion: Progression of foundational reforms – 1. Improved monitoring and research, 2. setting sustainable catch limits, 3. improved stakeholder engagement and 4. environmental risk assessments.

Summary: Of the 14 actions required to be undertaken to deliver on the foundational reforms, 5 are rated as A – Action delivered on time or B Action likely to be delivered on time; 8 are rated as C, action delivered but behind schedule; and 1 as D, where the action was partly delivered and behind schedule.

The general picture that emerges is one of considerable progress in getting in place the foundational reforms required, however with slippage against the schedule. 9 of the 14 actions were assessed as being delivered or partially delivered behind schedule. Importantly in the context of the GBRWHA and EPBC requirements for effective protection measures, Action 1.4 which was to provide a basis for independent data validation on catches and interactions with threatened and endangered

species is only partially delivered and behind schedule. As stated in the report recommendations this slippage requires urgent attention.

Reform of manageme nt tools (Reforms 5- 8)	Actions (11 actions)	sched ule indica ted in strate BY	2020 progress/ste ps taken	2027 progress?	Action Rating (A- F) ¹¹	Reasons for rating/notes/trend?
S. Resource allocation Overall rating A	Action 5.1 Develop a resource allocation policy to outline how decisions about allocation and reallocation of access will be made. At a minimum, it should include: • a transparent and repeatable process with clear reasons for decisions • opportunities for stakeholder input, • criteria for when and how to explicitly allocate fisheries resource access • the value (economic or social) of the fishery or resource to Queensland • a method to adequately quantify the benefits to the community • solutions that are cost- effective • specific consideration of the Indigenous sector allocations	2018	Qld Fisheries Resource Allocation Policy 2018. Includes sections dealing with specific points set out in action 5.1 in QSFS 2017-27. Actual resource allocation to be included under harvest strategies.	On track, policy completed.	A	Policy documented developed and adopted. Contains guidance on approach although fairly broad and high level. ¹² Could not see how the policy deals with estimation of community benefits?

Table 2 Implementation of Actions delivering management tool reforms in the Queensland Sustainable Fisheries Strategy 2017 - 2027

 ¹¹ A - Action delivered on time, B - Action likely to be delivered on time C - Action delivered but behind schedule, D - Action partially delivered and behind schedule, F - Action not delivered
 ¹² <u>QFS Resource Allocation Policy</u>

	Action 5.2 Determine allocations as an explicit part of harvest strategies for individual stocks or regions	Depen dent on progr ess with harves t strate gies	Ongoing. On track.	Individual allocations and sectoral allocations are built into harvest strategies for the below fisheries as from September 2021: Crab fisheries Coral and marine aquarium fish East coast inshore finfish Reef line Sea cucumber Trawl fin fish (stout whiting) Trawl fisheries Tropical rocklobster	Α	Timeline for implementation determined by progress on harvest strategies. (see Actions 6.1/6.2) Harvest strategies that use stock biomass estimates (from stock assessments) to guide management include: • inshore fishery • mud crab fishery • blue swimmer crab fishery • blue swimmer crab fishery • tropical rock lobster fishery • sea cucumber fishery • sea cucumber fishery • southern offshore trawl region • southern inshore trawl region • Moreton Bay trawl region • central trawl region • northern trawl region.
6. Harvest strategies Overall Rating C	Action 6.1 Develop a guideline on harvest strategies, including a process for how parameters should be set. At a minimum, this will include: • defining the fishery and its overall objective • defining reference points for fish stocks (target reference points and triggers for management action) • defining performance indicators and monitoring activities, as well as the process for assessing fishery performance against objectives •	2018/	Completed. In place.	Completed	A	Guideline approved. Completed as per Action 6.1. Triggers included and reference points.

	defining decision rules and appropriate management responses if triggers are reached • a biennial review to ensure management arrangements remain effective.					
	Action 6.2 In consultation with fishery working groups and the expert advisory panel, develop harvest strategies for all major fisheries by the end of 2020, with a priority to develop trawl, crab, and inshore fisheries strategies by the end of 2018.	2018 (?) 2020	Not on track. At least two years behind in terms of 2018 aspirations and 2020 target.	Progressing however significantly behind schedule.	D	Action partially delivered but behind schedule. Will require significant effort both political will and resources to get on track. Fundamental to achievement of the Strategy
7. Fishing rules and access Overall rating C	Action 7.1 Review fishing rules, regulations, and access arrangements as part of developing harvest strategies for each fishery.	2018/ 21	Not on track.	Progressing but lagging. Changes to fishing rules in	С	Behind schedule as are the development of harvest strategies although noteworthy progress made. Not sure of the actual review mechanism here.
	Action 7.2 Amend fisheries legislation to minimise regulation and ensure rules are clear and practical.	2017/ 20	On track. Qld Fisheries Act 1994 and subordinate legislation in place.	Ongoing but on track	A	Would appear that consolidation and modernisation in the complexity and volume of regulations (subordinate regulation) has been well achieved and on schedule.

Action 7.3 Implement an ongoing latent effort removal policy to ensure entitlements that aren't being used are not reactivated.	Ongoi ng.	Widespread adoption of ITQs loosely allocated makes it difficult to deal with latent effort.	No policy document draft or final found.	F	Could not find evidence showing where this is being actively and systematically pursued. May need further investigation but there is a lot of historical latent effort being moved across into the new harvest strategies with no mechanism for reduction of latent effort.
Action 7.4 Help facilitate industry-led structural adjustment through a range of mechanisms (e.g., two-for- one licence requirements and industry-led buybacks).	Ongoi ng	TAC and Quota allocations being set underharvest strategies but not aimed at significant effort reduction.	Supposed to be ongoing but no clear process or policy.	D	No significant progress. Commercial reluctance to pay for effort reduction. Will need to be prioritised and actively addressed in second half of the strategy.
Action 7.5 Pilot regional management in a key location (e.g., Moreton Bay) to assess the benefits and limitations of regionally specific management arrangements.	2018-2020		On track	C	Changes to Qld Fishing Rules Sept 2020 EC Trawl. Lagging and important for addressing co - management and dealing with structural adjustment and latent effort
Action 7.6 Develop a traditional fishing policy to clarify arrangements and an Indigenous commercial fishing development policy to support Indigenous economic development in a way that supports sustainable fishing	20118 - 2020	Policy completed. Not clear how it is being applied		A	An Aboriginal and Torres Strait Islander commercial fishing development policy has been completed. TO allocations included in some fisheries harvest strategies <u>Aboriginal and</u> <u>Islander Commercial Fishing</u> <u>Policy</u>

8. Responsive decision- making Overall rating A	Action 8.1 Amend the fisheries legislation (Fisheries Act 1994 and Fisheries Regulation 2008) in 2018 to clarify the roles of the responsible minister and Fisheries Queensland, to ensure decision- making is at the	2017-2019	Roles clarified and legislation amended.	Ongoing and will require review.	A	Amendments completed. The changes have been made although it is arguable how responsive the new system is to need to respond to evidenced based sustainability concerns. Although there is improved certainty and clarity around roles, the advocacy and decision change context remain somewhat opaque.
	ensure decision-					

Discussion. Reform of management tools – 5. Resource allocation, 6. Harvest strategies, 7 Fishing rules and access, 8 Responsive decision making.

Summary: Of the 11 actions required to be undertaken to deliver on the reform of the management tools, 7 were rated as A – Action delivered on time or B - Action likely to be delivered on time; 1 is rated as C- action delivered but behind schedule; and 2 as D - where the action was partly delivered and behind schedule. 1 is assessed as F – action not delivered. The four major groups of action here; 5. Resource allocation; 6 – Harvest Strategies; 7. Fishing rules and access and 8. Responsive decision making were given collective ratings based on the individual actions. 5 and 8 were rated as A – action delivered on time. 6 and 7 were rated C- Action delivered but behind schedule.

As with the previous set of reforms and again in the context of the disruption and delays caused by the pandemic, progress has been steady on those actions needed to set up the foundational platform for management. Work has progressed in keeping with the schedule or with only minor delays for the necessary policy and guidelines as well as legislative changes to underpin the reforms and implementation. Examples here are the development and adoption of policies to guide allocation or components and processes to be included in harvest strategies and supply guidance for Aboriginal and Islander commercial fishing development. Again, these are crucial 'foundation stones' for ongoing management.

However, four important actions that were rated C, D and F, show significant delay difficulties in progressing against the original schedule are 6.2. concerning harvest strategies where there does seem to be an acceleration in the last 12 months and 7.3 and 7.4 which undertake to address latent effort and structural adjustment. Individually and certainly collectively these are matters for concern and considered fundamental to effective fisheries management. Latent fishing capacity threatens to undermine the efforts to deliver sustainability in several key fisheries. Addressing these critical matters requires urgent attention by the Government.

Strategy 2017 - 20)27					
Implementing Reforms 9&10	Actions	Sched ule in strate gy	2020 Progress	2027 progress?	Action Rating (A- F) ¹³	Reasons for rating/notes/trend?
9. Compliance Overall Rating B	Action 9.1 Continue to refine strategic compliance plans to support implementation of this strategy.	ongoi ng	Couldn't find much evidence of strategic compliance plans	Will need to be prioritise d to see a suite of strategic complianc e plans in place	C ¹⁴	Unable to find strategic compliance plans. Could be these are in place but not public. QFBP do engage with the National Fisheries Compliance Strategy but it's very high level. Coordination required across agencies.
	Action 9.2 Boost compliance resources from 2017–18 onwards.	2017/ 18 2021/ 22	Increased funding for the patrol. More staff.	Progressi ng.	В	Twenty new Queensland Boating and Fisheries Patrol (QBFP) officers are now authorised and operational, and the Gladstone QBFP office has reopened. (2020)
	Action 9.3 Undertake a thorough review to strengthen enforcement powers, particularly in relation to serious offences.	2019/ 2020	New powers began for Queensland Boating and Fisheries Patrol officer	Ongoing.	A	Ongoing will require adjustment.
	Action 9.4 As part of the boost to compliance, establish a cultural liaison role for some Queensland Boating and Fisheries Patrol officers to support education and other community initiatives.	2017-2020	Ongoing. Positions established 2019.	Ongoing.	A	QBFP cultural liaison officers are collaborating closely with Traditional Owners and land and sea rangers to enhance surveillance capacity in remote areas and support education and other community initiatives.

Table 3 Actions to deliver implementation of reforms in the Queensland Sustainable Fisheries Strategy 2017 - 2027

 ¹³ A - Action delivered on time, B - Action likely to be delivered on time C - Action delivered but behind schedule, D - Action partially delivered and behind schedule, F - Action not delivered
 ¹⁴ Could be assessed higher but limited information available on the public record. Warrants further investigation.

	Action 9.5 Continue to promote cross- decking with other enforcement organisations (e.g., police, maritime safety, and marine parks) and establish formal arrangements to facilitate data sharing and collaboration.	2017	Ongoing. General business not reform.	Ongoing. 2027 date is not relevant here.	A	Appears to be cross agency collaboration. Requires constant management and Leadership.
	Action 9.6 Require installation of vessel monitoring systems (VMS) on all commercial boats by 2020, with a priority to install VMS on net, line, and crab boats by 2018	2017 - 2020	On track	On track.	A	Vessel tracking is now operational in major Queensland commercial fisheries. Reliably informed that the data is not being effectively used for management purposes. <u>Vessel tracking working</u> group
10. Resourcing ¹⁵ Overall rating C	Action 10.1 In the short term, increase government funding to Fisheries Queensland to implement the reforms set out in this strategy.	2019/20	Increased funding to support fishing (FADs, market support)	17/18 budget allocated \$20.8m for first 3 years. 21/22 Budget increased funding of \$42.5 million over 4 years to continue the fisheries reform process as detailed in the Queensla nd Sustainab	В	Budget increasing but lacking forecast of total funds needed to achieve QSFS 10-year targets. Difficult to estimate amount directly benefiting sustainability as opposed to wider industry support. An additional \$9m per year over 7 years does not seem sufficient given the size of the activity needed to deliver on the 33 actions.

¹⁵ A - Action delivered on time, B - Action likely to be delivered on time C - Action delivered but behind schedule, D - Action partially delivered and behind schedule, F - Action not delivered

			le Fisheries Strategy 2017– 2027		
Action 10.2 In the longer term (by 2020), develop a resourcing strategy based on a beneficiary- pays system. This should include a review of the recreational use fee and commercial licence fees once harvest strategies are in place for key fisheries	2019/ 2020	No progress on this strategy. Commercial and recreational fees do not seem to have increased beyond inflation.	Not progressi ng. Some mention in communi ques of recreatio nal fishing licence.	F	This would require involvement of Qld Treasury and substantial public and stakeholder engagement process. No evidence.

Discussion: Progression of implementing reforms – 9. Compliance and 10. Resourcing. Summary: There are 8 actions set out to deliver what are called 'implementing reforms' to deliver the proposed compliance and resourcing for the QSFS. 6 of the 8 are rated as either delivered on time or action likely to be delivered. Action 9.1 - Continue to refine strategic compliance plans to support implementation of this strategy and Action 10.2 - In the longer term (by 2020), develop a resourcing strategy based on a beneficiary-pays system. Are assessed as only partially delivered and

behind schedule at this mid-point.

Taking all the individual actions and the progress to date into account the overall ratings for Reform.9. Compliance and Reform. 10. are C which shows that these actions are being delivered but behind schedule, except for the 10.2 on development of a resourcing strategy which appears to have not been progressed in any substantive manner. It is beyond the scope of this desk top study to be able to assess how effectively compliance is serving the new fishing rules and harvest strategies or dive into whether there are more strategic compliance plans are being prepared than are being reported in the available documentation. Similarly, there is no attempt here to assess whether the increased resources that have been devoted to the QSFS implementation are adequate. Suffice to say the critically important aspects of resourcing and compliance appear to be well recognised and additional resources have been allocated.

Figure 2. illustrates the summary of progress on all the major 10 major areas of reform with the 33 actions; 14 Actions are assessed as A – Action delivered on time; 3 actions are assessed as B - proceeding with it likely these will be delivered on time; 11 actions were assessed as C – action being delivered but behind schedule; 3 actions are assessed as D – Action partially delivered and behind

schedule. 2 actions are assessed as not delivered/will not be delivered. The two actions assessed as not delivered and unlikely to be achieved at the present rate are 7.3, requiring steps to address the latent effort in commercial fisheries and 10.2 concerning reviewing user fees and the implementation of an adequate resource strategy.

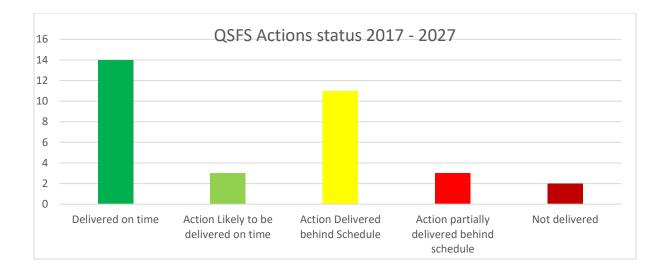


Figure 2. Progress on actions in the Qld Sustainable Fisheries Strategy 2017 -2027

Stock assessments, Sustainable catch limits, Harvest Strategies - Development and Implementation

Arguably the effectiveness of fisheries management efforts under the QSFS overwhelmingly depends on how well the interdependent issues of stock assessments, the setting of sustainable catch limits and management measures in harvest strategies are developed and implemented. Moreover, final harvest strategies for fisheries ideally should include measures to ensure that the ecological impacts of fishing on non-target species and habitat are minimised. This focus on minimising ecological impact takes on heightened significance when the fishing activity occurs in the Great Barrier Reef World Heritage Area. Separating out the habitat, bycatch and protected species aspects from harvest strategies ignores the ecological reality that these aspects are integral to the longer-term sustainability and resilience of the target and secondary stocks as well as wider ecosystem.

The Queensland Government outlined its commitment to adopt harvest strategies to manage Queensland's fisheries resources in the QSFS. The Strategy identifies the following goals:

• Queensland's fisheries resources are managed in accordance with harvest strategies, with all fisheries to have a harvest strategy by 2020.

• By 2020, sustainable harvest or fishing limits will be set to achieve maximum sustainable yield or 40-50% biomass.

• By 2027, sustainable harvest or fishing limits will be set to achieve maximum economic yield or 60% biomass.¹

Harvest strategies for Queensland fisheries should apply the precautionary principle (a key principle of ecologically sustainable development), in guiding how risk is managed and in the development of reference points, particularly when a high degree of uncertainty exists.

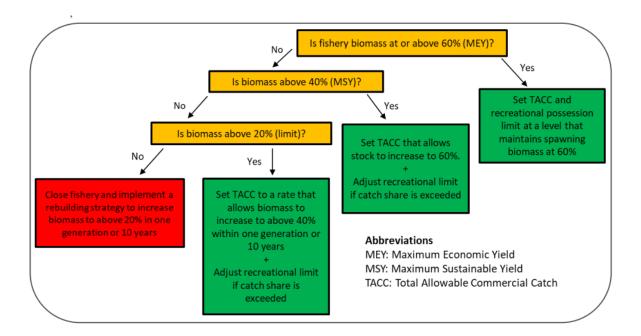


Figure 3. Decision rules based on target reference points in the Qld harvest Strategy Guide.

Of the 12 major fisheries managed by QF, 8 have established harvest strategies are implementing the proposed management measures and 4 are under development.

Fishery/	Sustainability	Stock	Status of	Management	Achievement
Species	Matters of	Assessments	Harvest	measures in	of QSFS 2027
	Concern		Strategy	place	targets ~60%
Rocky Reef Fishery (Red Snapper, Pearl Perch)	Long standing overfishing of key stocks. Secondary species uncertainty. Inconsistency in catch data. Increasing effort in the context of expanding range, depth, and concentration. Deeper shoal fishing increasing.	Snapper current estimates ~25 -30% (2016) Pearl Perch ~ 20% QF modelling indicated 10 – 15 years of closure needed to achieve MEY (~60%)	Under development. Working group unable to agree on necessary measures.	Incremental and inadequate against shown to be necessary by modelling for rebuilding.	Extremely unlikely. Requires wide and lengthy closures. Likely inadequate response due to political caution. Target species likely to remain overfished.
Spanish Mackerel	Overfishing. Long term stock decline. Localised chronic depletion. Ecological impact from significant decline of higher order predator in WHA.	17% Biomass. Peer Reviewed. Still disputed by some in commercial and rec sectors	Not in place. Under development but likely require action outside of harvest strategy. Working group divided and disagreement	Commercial TAC (significantly above actual). Recreational Bag limit. Inadequate	Possible but very unlikely given the precarious stock status. Given biology. Unlikely MSY reference point in strategy by 2027. Certainly not 60%
East Coast Inshore Finfish Fishery	Dugong, inshore dolphins, turtles, sawfish, sharks, and rays, bycatch, and discards. Concern over tier 2 and 3 species	Focussed on tier 1. Species. Tier 3 species of concern.	Harvest strategy in place.	Regional management. Commercial TAC/region. Recreational bag limits. Minimum size limits. A Protected species management strategy (PSMS) for the east coast inshore fishery	PSMS lacks sufficient deterrent to protect protected species – voluntary reporting of 'incident', lack of observers and or remote surveillance. Regional caps and triggers should be implemented. Species of high conservation value remain at risk/vulnerable with fishing activities resulting in

Table 4 Fisheries/species unlikely to achieve 2027 targets

East Coast Trawl	Overfishing of some target species. Saucer Scallop collapse. Effort creep – technology and vessel power/storage. Protected	Scallops ~15% 2021 Assessment.	5 Harvest strategies in place focussed on effort management by region. EPBC approvals and conditions important lever		deaths that threaten regional or national populations. Extremely unlikely. Measures in place will support some rebuilding but will not achieve target of ~60% over next 10
Gulf of Carpentaria Inshore	species. Sea snakes, pipe fish, sawfish, discards. King Threadfin Salmon severely depleted.	B ~ 5%, <u>Threadfin</u> salmon stock assessments.	for overall management and protected species. Early-stage discussions. Working Group	Bag limits Rec. TAC Commercial. Reporting on	years. Scallop decline resulting in increasing effort to Moreton Bay Bugs Extremely unlikely. Science advice is three-
Insnore Finfish fishery	Protected and bycatch species impacts – dugong, snub fin (inshore dolphins), turtles, sawfish, crocodiles		first meeting Jan 2022. EPBC export accreditation revoked.	protected species.	year closure to get the stock to ~20%. 8 years of no take to reach 44%. \$Given the multi species fishery and the indiscriminate gear (gill nets)
Coral Harvest and Marine Aquarium Fish	Localised depletion. Export controls weakly applied. Inshore species already severely affected by water quality decline and bleaching.	Stock status 'undefined. No systematic/rigorous stock assessment in place. No reliance on fishery independent data.	Harvest strategies in place for Sept 21. <u>Coral</u> <u>Harvest Aqua</u> <u>Fish</u> Very 'lite' management actions dependent on vague indicators around status quo	Information poor. Very 'lite' management actions dependent on vague indicators around status quo	Indeterminate status but unlikely. Harvest strategies do not accord with precautionary principle in both legislation and QSFS. Requires greater attention from all management agencies.

Table .4. continued.

Evaluation of progress of QSFS 2017 - 2027 Targets¹⁶

Based on the assessment of the 33 actions and the sustainability issues clear in these fisheries the following assessment of the 2020 and 2027 targets has been developed.

By 2020, the Strategy aims to have:

• set sustainable catch limits based on achieving at least maximum sustainable yield for all Queensland fisheries (around 40-50% biomass) RED

¹⁶ Green - On track to be achieved, Yellow - Uncertainty as to whether it can be achieved, Red - Unlikely to be achieved.

• implemented harvest strategies for all Queensland fisheries, which set clear targets for fishery performance, triggers for action and clear decision rules for the actions that will be taken **RED**

- maintained all Commonwealth export approvals RED
- improved stakeholder satisfaction about engagement mechanisms YELLOW
- increased satisfaction of recreational fishers (compared to 2017 figures) YELLOW
- better data for key fisheries to underpin evidence-based management. GREEN

By 2027, we aim to have:¹⁷

• set sustainable catch limits based on achieving maximum economic yield for all Queensland fisheries (around 60% biomass) RED

- identified that no Queensland fisheries are overfished RED
- increased certainty for commercial operators YELLOW
- reduced the volume of fisheries regulation YELLOW
- improved trends of compliance rates YELLOW
- implemented a responsive and consultative approach to fisheries management. YELLOW

Progress implementing the Qld Sustainable Fisheries Strategy 2017 – 2027 and implications for Reef 2050 Long-Term Sustainability Plan¹⁸.

Over two thirds of the fishing activities in Queensland occur in the GBRWHA. Currently the GBR is experiencing its sixth major bleaching event since first detected in 1998 and its fourth since 2016.¹⁹ The 2050 Plan identifies climate change, declining water quality from land-based activities and unsustainable fishing as the major threats to the long-term health of the GBR.

Healthy fish populations contribute to overall resilience of the marine and coastal ecosystems. There is increasing evidence from around the world and from research and monitoring conducted in the GBR that unsustainable fishing (overfishing and destructive fishing) impacts on wider ecosystem resilience and functioning. Monitoring from AIMS is showing that reef areas that are not subjected to fishing are showing greater resilience to bleaching and Crown of Thorns and improved health²⁰.

¹⁷ Green - On track to be achieved, Yellow - Uncertainty as to whether it can be achieved, Red - Unlikely to be achieved.

¹⁸GBR 2050 Plan (2021- 2025)

¹⁹ GBR bleaching confirmed

²⁰ <u>https://www.aims.gov.au/docs/media/latest-releases/-/asset_publisher/8Kfw/content/04-april-great-barrier-reef-no-take-marine-reserves-protect-much-more-than-just-the-fish</u>

The current GBR 2021 -25 statement names the QSFS as one of the strong foundations needed to achieve the long-term sustainability of the GBRWHA.²¹ In identifying actions needed to address 'water-based threats' the plan identifies *full* implementation of the QSFS is being required. Regular reporting on progress of implementation and on threats is required by parties.

Appendix 5 of this report sets out the specific actions that the 2050 Plan lists to deal with the threats to the GBR associated with fishing activities – recreational and commercial included. The majority of these align closely with the actions and outcomes in the QSFS.

Rigorously dealing with the impacts of overfishing and the impacts of fishing on the associated ecosystem, including bycatch, and especially endangered, threatened, and protected species, alone will not combat the damage being wrought by climate change or pollution but it has to be a significant part of efforts to shore up the GBR's resilience.

It follows that complete and prompt implementation of QSFS is of crucial importance to efforts to secure the future health of the GBRWHA. Despite the strong foundational basis and some timely progress achieved in part, there is increasing inertia identified in its effective implementation in this report. Failure to deliver the overdue reform of fisheries management in Queensland but especially in the GBRWHA would constitute a significant setback in collective efforts to protect this global asset.

The increasing reluctance to effectively implement the QSFS should be of concern to both governments but especially the GBRMPA given its national and international statutory responsibilities and consequent management accountabilities.

ReferencesTaking Stock (MRAG Report)Queensland Sustainable Fisheries Strategy 2017 - 2027Green paper on fisheries management reform in QueenslandGBRMPA Fishing Statement 2020GBR Outlook Report 2019Qld Sustainable Fisheries Expert PanelQld Fisheries Working GroupsAu Stock Status ReportEngagement satisfaction survey 2019: results (publications.qld.gov.au)Qld Fisheries Stock AssessmentsQFS Ecological Risk Assessment Guideline 2018 QFS ERA Guideline

²¹ <u>GBR 2050 Plan 2021 - 25</u> pp 12 and 29

QFS Resource Allocation Policy

Queensland Fisheries Resource Allocation Policy (2018)

Qld Fisheries Legislation

<u>Qld Stock Status Results</u>

<u>Qld Govt Harvest Strategy Policy</u>

<u>Qld Fisheries harvest Strategies</u>

<u>Qld Fisheries Harvest Qld harvest Strategies Link to PDFs</u>

QSIA media and policy statements

Aboriginal and Torres Strait Islander Commercial Fishing Development Policy

QF Fisheries Reforms (overview of policy and legislative reforms)

Changes to Queensland Fishing Rules Sept 2020

Great Barrier Reef 2050 Plan 2021 - 2025

Appendices

Appendix.1. Qld Sustainable Fisheries Strategy implementation schedule

Reform area	Actions	2017-18	2018–19	2019–20	2020-21	2021-22	2022-23	Ongoing
1. Improved monitoring and research	1.1 Monitoring and research plan	→						
and research	1.2 Additional biological monitoring			\rightarrow				
	1.3 Partnerships for novel monitoring technologies			\rightarrow				
	1.4 Data validation plan for quota management			→				
	1.5 System for collecting economic and social data			→				
2. Setting sustainable catch limits	2.1 Guideline for setting catch limits (see '6.1 Harvest strategy guideline')	\rightarrow						
	2.2 Regular stock assessments for each fishery							
3. Improved	3.1 Establish expert panel	→						
stakeholder engagement	3.2 Fishery-specific working groups							→
	3.3 Work with Indigenous groups through various forums to provide advice on fisheries issues							→
	3.4 More novel techniques (like online surveys)							→
	3.5 Review engagement mechanisms after two years			→				

Reform area	Actions	2017-18	2018–19	2019–20	2020-21	2021-22	2022-23	Ongoing
4. Environmental risk assessments	4.1 Guidelines on assessing ecosystem impacts	\rightarrow						
	4.2 Environmental risk assessments (ERAs) to be undertaken for priority fisheries or species by the end of 2020 (including the inshore and crab fisheries)							
	 ERAs for remaining fisheries on a priority basis 							•
5.Resource allocation	5.1 Establish a resource allocation policy	→						
	5.2 Determine proportional allocations for each sector (see '6. Harvest strategies')							
6. Harvest strategies	6.1 Harvest strategy guideline	\rightarrow						
	6.2 Develop harvest strategies for trawl, crab and inshore fisheries by the end of 2018.		→					
	 Develop harvest strategies for remaining major fisheries by the end of 2020. 		_		→			

Reform area	Actions	2017-18	2018–19	2019-20	2020-21	2021-22	2022-23	Ongoing
7. Fishing rules	7.1 Review fishing rules	_		→				
and access	7.2 Amend legislation to ensure rules are clear and practical	_		→				
	7.3 Latent effort removal							→
	7.4 Help facilitate industry-led structural adjustment	_						→
	7.5 Pilot regional management	_		\rightarrow				
	7.6 Develop a traditional fishing policy and Indigenous commercial fishing development policy		→					
8. Responsive decision- making	8.1 Amend fisheries legislation to ensure decision-making is at the appropriate level	_	\rightarrow					

Appendix. 2. QFS stock assessment scheduling.²²

The following species are scheduled to be assessed over the next 3 years.

Species	2020	2021	2022	2023
Barramundi			✓	
Black jewfish			✓	
Black teatfish		✓		
Blue swimmer crab				✓
<u>Common coral trout</u>			~	
Crimson snapper		✓		
Dusky flathead			✓	
Eastern king prawn	✓			
Goldband snapper				\checkmark
<u>Grey mackerel</u>			✓	
King threadfin	\checkmark			
Moreton bay bug		√		
Mud crab				\checkmark
Pearl perch		\checkmark		
Red emperor			\checkmark	
Redspot king prawn			\checkmark	
Redthroat emperor				\checkmark
Saddletail Snapper		\checkmark		
Sand whiting			✓	
Saucer scallop		√		
<u>School mackerel</u>				\checkmark
Sea mullet		✓		
<u>Shark</u> *			✓	\checkmark
· · · · · · · · · · · · · · · · · · ·				

²² <u>QFS Stock assessment program</u>

Species	2020	2021	2022	2023
Snapper		\checkmark		
Spangled emperor			✓	
Spanish mackerel		✓		
Spotted mackerel			✓	
Stout whiting		✓		
Stripey snapper				✓
Tailor	✓			
Tiger prawns	✓			
Tropical rock lobster			✓	
White teatfish		✓		
Yellowfin bream			✓	

* Sharks will be assessed by species or species group. New species/species groups will be assessed on a three-year rotational basis.

Appendix. 3. Fisheries Working Groups.

Read the terms of references and communiques for each working group:

- <u>Crab fishery working group</u>
- East coast inshore fishery working group
- Freshwater fisheries working group
- Gulf of Carpentaria inshore fishery working group
- Marine aquarium fish and coral fisheries working group
- Moreton Bay working group
- <u>Reef line fishery working group</u>
- <u>Rocky reef fishery working group</u>
- <u>Sea cucumber fishery working group</u>
- Spanish mackerel fishery working group
- Spanner crab working group
- <u>Stocked impoundment permit scheme working group</u>
- <u>Trawl fishery working group</u>
- <u>Tropical rock lobster fishery working group</u>

Appendix 4. Qld Fisheries Harvest Strategies.

- Crab fisheries
- Coral and marine aquarium fish fisheries
- East coast inshore fishery
- Reef line fishery
- Sea cucumber fishery
- Trawl fin fish (stout whiting) fishery
- Trawl fisheries
- Tropical rocklobster fishery

Appendix 5. Reef 2050 Long-Term Sustainability Plan 2021–2025 Work Area 3²³

The threats associated with legal and illegal fishing are reduced

3.5 Reform fisheries management and compliance to

contemporary best practice

Prioritise actions to implement a modern, responsive fisheries management approach through the Queensland Sustainable
Fisheries Strategy 2017–2027 in consultation with stakeholders.
Deliver a strengthened compliance program that maximises

the benefit of zoning plans and reduces the occurrence of and impacts from illegal fishing.

3.6 Implement measures that reduce impacts from fishing activities, verify data and improve understanding to strengthen management of fishing activities

• Deliver protected species and bycatch management strategies for fisheries within the Great Barrier Reef based on ecological

²³ Reef 2050 Long-Term Sustainability Plan 2021–2025 pp29 - 32

risk assessments, with priority given to the mesh net fishery and the trawl fishery.

• Use a harvest strategy approach for each fishery to build and maintain fished stock biomass to achieve the maximum economic yield (proxy 60% unfished biomass) to meet fishery objectives and promote resilience to adverse environmental conditions.

• Implement rules under harvest strategies and other measures that ensure ecological risks from fishing (beyond fishery species) are mitigated.

• Implement stock rebuilding measures that provide for timely recovery of depleted fish stocks and prevent overfishing and depletion of targeted species.

• Develop and implement robust systems of independent data validation for the mesh net and trawl fisheries, including independent verification of levels of interaction with species of conservation concern, potentially including electronic monitoring