RESCUE FISH

IKA RAUORA

A pathway to fish abundance and marine ecosystem recovery.

LEGASEA FISH FOR THE PEOPLE

NEW ZEALAND SPORT FISHING

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1. Executive Summary

New Zealand adopted the Quota Management System (QMS) in 1986 to improve economic efficiency and manage the fisheries resource sustainably. Thirty years later we have not achieved the goals of efficiency and sustainability promised by its introduction. Instead, the QMS has evolved into a system that relies on quota consolidation, rent seeking, and private control over a public resource while ignoring the needs of fishermen and women.

Māori are especially disadvantaged by current laws and practices. Māori have no opportunity to meaningfully contribute to ensuring abundance for current and future generations. The public is becoming increasingly frustrated that this rights based QMS has deprived them of the abundance and biodiversity their grandparents enjoyed.

New Zealand is not alone in ignoring the warning signs. Countries with rights based systems have experienced similar issues of depletion, quota aggregation and regulatory capture. Nations that are exploring reforms include Canada, the USA, Iceland and the Faroe Islands. In all jurisdictions the problems are magnified when the non-commercial environmental and fishing interests of the public are not given priority after sustainability has been assured.

The governance and management of New Zealand's fisheries is in crisis. We need to address issues related to fish depletion and the loss of marine biodiversity.

The New Zealand Sport Fishing Council and subsidiary LegaSea have invested almost a million dollars to date in developing an alternative to the QMS - the Rescue Fish policy. This package has been developed to deliver the economic, cultural and social potential that New Zealanders aspired to when the Quota Management System was introduced.

The Rescue Fish policy requires the Government to buy back existing quota rights in the inshore fisheries at fair value. The estimated buyback cost is between $0.76 and $3.1 billion, with a mid-point of $1.67 billion. Commercial fishing will be subsequently managed by a permitting regime. Permits will be leased, time limited and have a resource rental attached. Rental income will be collected by the Crown and shared with Māori. A new Fisheries Act will both prioritise the maintenance of healthy fish stocks and exclude bottom trawling and dredging from inshore waters. Priority will be given to Māori customary and public fishing.

There is no reason for our Government to shy away from this issue. Research shows around 70% of New Zealanders, including 73% of Maori, think reform is needed. Large numbers of voters have also indicated they would switch their vote at the 2020 general election to a party or candidate supporting fisheries reform.

At last, we have an alternative to the QMS. Rescue Fish will provide for thriving small scale commercial fishing industries, encourage whanau businesses, job growth, higher returns for fishermen and ongoing income stream for the country. More fish in the sea is a win for our fish and people. Rescue Fish is the solution to our crisis, we just need to take the first bold steps.

2. Introduction

New Zealand's recovery and long-term prospects following the Covid-19 crisis will depend on how we collectively respond and manage our natural resources. This is a timely opportunity to address the poor state of New Zealand's fish stocks. Food security is fundamental for all New Zealanders.

We have become accustomed to bulk exports of our precious seafood at three dollars per kilo, while our people continue to suffer from poor diet related diseases. Our Māori and Pasifika people are most at risk.

A clear majority of New Zealanders have expressed a strong desire for fisheries reform.

As Milton Friedman famously said,
"Only a crisis - actual or perceived - produces real change. When that crisis occurs, the actions that are taken depend on the ideas that are lying around. That, I believe, is our basic function: to develop alternatives to existing policies, to keep them alive and available until the politically impossible becomes the politically inevitable."

We have to find a workable, affordable policy solution. Now is the time to institute new policies that prioritise *te tini a Tangaroa* [all the creatures of the sea] so we can restore depleted fisheries, protect our marine environment and rebuild regional economies using their local, natural resources.

LegaSea and the New Zealand Sport Fishing Council have developed the Rescue Fish policy package to restore marine abundance so there are more fish in the sea.

Implementing this package means much needed employment, regional growth and innovation opportunities. Rescue Fish will empower our local, small scale commercial fishers and their communities, encouraging them to become stewards of the sea.

The barrier to success is the inflexible Quota Management System for fisheries. The QMS is a system that relies on protection rather than innovation - it has to go. We need to build a new governance structure based on the principles of kaitiakitanga, guardianship of our resources and people.

The Rescue Fish policy finally offers us a pathway to abundance. It may not be the definitive solution, there is much work to do. Rescue Fish has been thoughtfully crafted as a viable alternative to current management and it will help to lift the prosperity and wellbeing of all New Zealanders. With your support we can make this happen.

Scott Macindoe
LegaSea

Bob Gutsell
New Zealand Sport Fishing Council

3. About Rescue Fish

This Rescue Fish policy package results from years of research, professional participation in scientific assessment of fish stocks and consultation with recreational, commercial and Māori fishers. It is also informed by independent research of the views of Māori and New Zealanders overall, and visits to other countries using or abandoning quota management systems. The research was completed or commissioned by the New Zealand Sport Fishing Council and LegaSea.

During the project research phase, a series of interviews were conducted in New Zealand and overseas. Locally, interviews were recorded with Drs. Liz Slooten and Steve Dawson of Otago and Dr. Glenn Simmons of Auckland. Interviews were also completed with recreational, commercial and customary Māori fishing interests.

Interviews with the overseas experts were completed between 2018 and 2019. These included Jim McIsaac, Richard Williams, Art Davidson, Tasha Sutcliffe, Dr. Evelyn Pinkerton and Dr. Daniel Pauly from Canada; Rob Southwick, Dr. Seth Macinko and Dr. Daniel Bromley from the USA; Arthur Bogason, and Drs. Thorvaldur Gylfason, Niels Einarsson, Thorolfur Matthiasson and Catherine Chambers of Iceland; Hans Ellefsen and Høgni Hoydal, Minister of Fisheries, from the Faroe Islands, North Atlantic.

We are grateful for the generous contributions of these experts in their field.

LegaSea is a not for profit organisation established by the New Zealand Sport Fishing Council in 2012. LegaSea's core roles are to elevate public awareness of the issues affecting the marine environment and to inspire public support to effect positive change. The team's collective vision is to restore New Zealand's coastal fisheries for the benefit of current and future generations.

The New Zealand Sport Fishing Council is an incorporated society established in 1959. The Council has 55 clubs with 36,200 affiliated members nationwide. A key role of the Council is to advocate for responsible and sustainable management of New Zealand's marine resources. To achieve its goals the Council funds education initiatives, commissions and funds relevant research projects, participates and contributes to fisheries management decisions. Between 2004 and 2009 the Council was instrumental in the Kahawai Legal Challenge, judicial proceedings highlighting the need for more conservative management of marine resources under the Fisheries Act 1996.

4. The need for Rescue Fish

4.1 Our fisheries crisis

The governance and management of our fisheries is in crisis. The Fisheries Act 1996 has not been adequately applied to achieve its primary purpose of sustainable use of fisheries resources to enable people to provide for their social, economic and cultural well-being.

Māori are especially disadvantaged by current laws and practices. There has been a collapse of governance of our marine resources and Māori have no opportunity to meaningfully contribute to ensuring abundance for current and future generations.

Management has descended into endless discussions about how much fish we can have now while avoiding collapse. There are also debates around Ministerial allocations, which interests ought to be catered for and what issues can be ignored.

There is widespread concern about regulatory capture, declining fish stocks and biodiversity loss in our marine environment. That is because successive governments have been unable to manage our marine resources in the public interest.

It is clear that the current regime is not delivering the economic, cultural and social potential that New Zealanders aspired to when the Quota Management System was introduced.

4.2 Symptoms of our failing Quota Management System

In 1986 New Zealand adopted the Quota Management System (QMS) to better manage commercial fishing. Thirty years later we have not achieved the goals of resource sustainability and economic efficiency promised by its introduction.

The bulk of New Zealand's commercially caught fish is still exported at low prices, with little or no added value. Regional ports have lost many family fishing businesses. Quota ownership has been concentrated: 100 quota holders own 90% of all quota. Just 10 entities own 78% of all quota.

These quota owners siphon off the bulk of the profits, reducing the returns to the hard working fishermen and women. To reduce costs fishers inevitably resort to using indiscriminate bulk harvesting methods to exploit inshore fish stocks. This has wider impacts on the long-term productivity and health of the marine environment.

The amount of effort required to catch fish is rising and, for many stocks, the amount of fish allocated is not being caught, further indicating stock depletion. The cost of fishing goes up too.

The system encourages dumping of unwanted catch and high grading, which is replacing small fish with bigger, more valuable fish of the same species. Those leasing out quota often require

those catching it to land it at specified processing plants. Furthermore, commercially, deep water fish is mostly caught, processed and sold offshore at relatively low prices per kilogram.

In 2019 the Government announced the latest in a string of policy reviews. The narrowly focused Fisheries Change Programme drew a variety of predictable responses largely reflecting long-standing sector views. A comparison of the main issues highlighted during that review, the results from public surveys and the Rescue Fish policy proposals was completed in 2019 and used to inform subsequent advocacy. (Appendix One).

4.3 Why is the QMS failing?

The Quota Management System (QMS) is failing the people of New Zealand, in part because it is based on over-simplistic characterisations of how wild fish behave and interact. The principles that might work well with land-based agriculture have not delivered desirable outcomes when applied to a very different marine environment.

To better understand the elements contributing to the failure of the QMS an analysis of the four major subsets of fisheries management was completed in 2019. Those subsets of fisheries management are ecological, economic, administrative and social. (Appendix Two).

While intended to apply theoretical economic principles – for example, that open access (unregulated) fishing will inevitably lead to collapse – the QMS has failed in practice to adequately address key issues. These issues include the lack of stewardship of the resource, the effects of exploiting one species on the whole food-chain, habitat destruction, bycatch of precious marine mammals and the incentives for fishers to discard lower value catch.

The current regime has not delivered all it could to New Zealand. The QMS is reflecting issues that plague overseas quota systems, in that using property right to fish a single species has not delivered a sustainable, innovative, commercially viable and growing fishing industry:

4.3.1 The QMS has been unable to address key sustainability issues such as bycatch, the capture of unwanted species, fish, precious birds and marine mammals, high-grading (where fishers only take the highest quality fish and discard the rest despite the fact that this is illegal), and under-reporting.

4.3.2 The legitimate expectations of Māori from the 1992 Treaty Settlement have not been delivered.

4.3.3 Inshore fisheries are coming under increasing pressure. Recreational catch limits for popular species are being reduced, as are commercial limits.

4.3.4 Food security for New Zealanders must be a priority.

4.3.5 Fishing is now concentrated in a few large owners. 78% of quota are owned by 10 entities.

4.3.6 The move away from quota holders paying resource rentals to a levy-based cost recovery system means that a valuable natural resource is given away, with little benefit going to the public at large.

4.3.7 Quota owners only pay a modest levy to cover the conservation, research, compliance and management costs attributed to their presence in each fishery. This encourages fisheries managers and quota owners to avoid research and assessments altogether or until stocks are overfished. The industry's demand to minimise these costs has led to effective industry control of fisheries research.

4.3.8 Unchecked concentration of quota and fish processing facilities have created significant barriers to entry into commercial fishing. Regional communities have lost the ability to fish and process their local marine resources.

4.3.9 The aggregation of quota results in political power and influence that can lead to regulatory capture. Governance is compromised and management decisions are limited to what the major industry protagonists will accept.

5. Rescue Fish summary

Rescue Fish is a holistic solution to address depleted fish stocks and biodiversity loss.

This innovative policy package has been developed by a team of experts with an in-depth knowledge of the issues facing New Zealand's fisheries management system, and the resulting environmental, economic, cultural and social impacts.

Implementation will make our marine environment more productive, delivering benefits for all New Zealanders.

5.1 The problems

5.1.1 The Quota Management System (QMS) has created a powerful lobby of commercial interests that block initiatives to rebuild depleted fish stocks.

5.1.2 The QMS permits dredging and bottom trawling and dredging in inshore waters including nursery areas.

5.1.3 Small scale commercial fishers do not receive a reasonable return for their efforts. This encourages low cost, bulk harvesting of fish.

5.1.4 No resource fee applies to commercial catch; this leads to overfishing of inshore stocks. Kai moana is not readily available in areas traditionally fished by recreational and Māori customary fishers.

5.1.5 Wastage from dumping and high grading of fish because fishers cannot access sufficient catching rights to cover all catch taken in mixed, bulk harvest fisheries.

5.1.6 Inadequate funding for effective research, monitoring and policing of fishing.

5.2 The solutions

5.2.1 Dismantle the Quota Management System. Establish new legislation and governance structures so the Crown and Maori can collaborate and exercise guardianship of our fish and marine resources.

5.2.2 Ban bottom trawling and dredging from inshore waters and sensitive marine habitats.

5.2.3 Reintroduce competition and innovation to commercial fishing. Encourage regional artisanal fishing enterprises and whanau businesses to create jobs and higher value per kilo returns for fish and fishers.

5.2.4 Apply a resource rental levy to commercial catch. Reset catch limits so fish stocks can recover to abundant levels and to restore biodiversity.

5.2.5 Multi-species time-limited fishing permits, effort limits, gear controls and mandatory onboard monitoring of commercial catches.

5.2.6 Initiate independent monitoring of commercial fishing to enable validation of catches and protect vulnerable seabirds and mammals.

6. Rescue Fish outcomes

In our post Covid-19 world the Rescue Fish policy presents a unique opportunity for our community to unite for change. Rescue Fish depends on us giving priority to local, healthy and culturally valued food.

Giving effect to Rescue Fish will have positive benefits for our people and the marine environment, while making the world a healthier, more productive place for future generations.

6.1 Restored abundance and diversity

Rescue Fish means more fish in the sea. This is important as we need a more resilient marine ecosystem, one that can withstand changes in the climate, warming waters and increasing levels of pollutants.

Rebuilding and maintaining fish stocks at higher levels is an essential element of revitalising our inshore marine ecosystem. The depletion from 40 years of industrial fishing excesses must be reversed.

6.2 Cleaner marine environment

Rescue Fish means a ban on inshore trawling and dredging so we can have a clean, healthy marine environment. Using more eco-friendly fishing methods will reduce our collective impact on the seabed and help to protect our precious marine creatures, seabirds and dolphins.

Rescue Fish is a holistic solution to address depleted fish stocks and biodiversity loss. Implementation will make our marine environment cleaner and more productive, for the benefit of all New Zealanders.

6.3 Food security for people

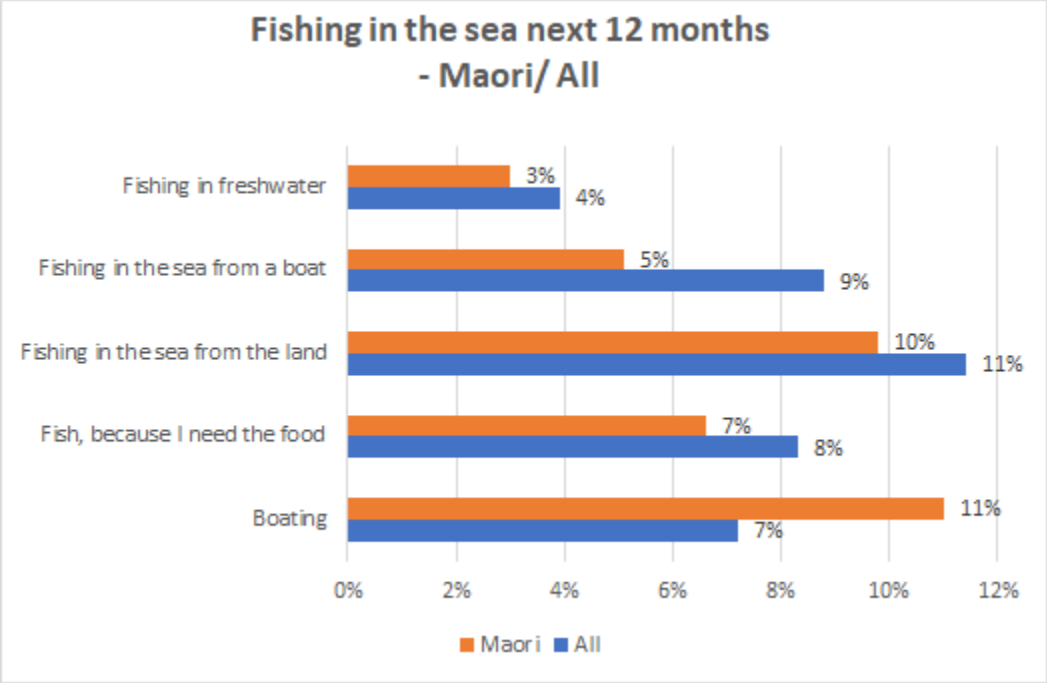
Rescue Fish means fish for the people. Over 90% of fish taken from New Zealand waters are exported. Much of the fish is exported for less than $3.00kg, while the retail price of fish can be up to $40 per kilo. As protein becomes more expensive and wild fish become scarcer, families have poorer access to nutritious food. Treating diet related illnesses increases the burden on our health system.

Our community needs greater access to healthy sources of protein and access to fish directly off the boat. Communities need access to their local resources and incentivising small scale inshore fisheries means supply will be closer to demand.

Food security is strengthened when many small-scale fishers are able to supply the local demand for seafood, in preference to having one big vessel contracted and only supplying supermarkets.

Rescue Fish recognises that many Kiwis depend on fishing to feed their families. In April 2020 a Horizon Research survey found that over 400,000 adults intended to participate in land-based sea fishing in the 12 months after Covid-19 restrictions were lifted. Almost 300,000 of survey respondents said they would fish because they needed the food. From the same research an estimated 7% of Māori will fish because they need the food, that equates to around 52,000 Māori adults[1].

Figure 1. Analysis of who intends to go saltwater fishing in the next 12 months.



6.4 High value, thriving commercial fishing industry

Rescue Fish means a thriving commercial fishery supporting regional growth, jobs and local enterprises. Increased tax revenues means all New Zealanders will benefit from commercial fishing.

Rescue Fish means encouraging commercial fishers to process their catch locally. This creates local business opportunities while providing fresh kaimoana for local families. A mix of fishing and water based activities will help to attract tourists to the regions.

[1] Horizon Research survey April 28-30, 2020, 1,151 adults. Maximum margin of error is +/- 2.9% overall. Survey on those who intend to undertake fishing activities in the 12 months after the easing of Covid-19 restrictions allow. Respondents are members of Horizon's online research panels.

Rescue Fish requires a government buy-back of quota. Fishing permits will be auctioned to those willing to pay a resource fee for using a public resource. Permits will be issued to match the expected catch in each area.

Rescue Fish means innovation and developing new fishing methods, so every fish is valued.

6.5 Honouring Treaty of Waitangi commitments

Rescue Fish seeks to enhance Māori rangatiratanga (chieftainship) and enable greater expression of kaitiakitanga (guardianship), in respect of traditional fisheries, governance of fisheries, and in fishing. The Government, on behalf of the Crown, has a duty to help Māori develop policies to recognise customary use and management practices.

It is intended to establish a Mana Whenua Reference Group to be made up of nominees from iwi and hapū. The Reference Group will work closely with the Rescue Fish team to develop a deep understanding of the need for change as well as the benefits to be expected for mana whenua, the fisheries and society in general.

Research shows that 73% of Maori think reform is required so our fisheries can become more abundant[2]. Restoring abundance and diversity in inshore waters will deliver more fish in the sea, benefiting Māori and all New Zealanders.

[2] Horizon Research Māori and the Future of Fisheries survey, May 29 - June 13, 2019, 1000 respondents representing the 18+ Māori population. Maximum margin of error +/- 3%.

7. Rescue Fish policy

The Rescue Fish policy is a viable long-term solution to rebuild fish abundance, to conserve New Zealand's marine environment, and to honour Te Tiriti o Waitangi.

7.1 Scope

Initial scoping of the policy encompassed all fishing within New Zealand's Exclusive Economic Zone. The Rescue Fish policy now applies to all fishing in the inshore zone. The inshore zone is defined as waters within 12 nautical miles or the 200 metre depth, whichever is more distant from shore.

7.2 Overarching principles

The following principles are to guide drafting of new legislation that enables a new fisheries governance board and management agency. Those principles are:

7.2.1 All Fisheries laws will comply with Te Tiriti o Waitangi.

7.2.2 The living marine resources of Aotearoa New Zealand remain the property of the people and cannot become the private property of private companies or individuals or sold abroad.

7.2.3 All fisheries must be biologically, economically, and socially sustainable.

7.2.4 To the greatest extent possible, commercial fishing rights will be granted in line with the principles of a market based system. The legislation will prevent private sales of licences or fishing rights.

7.2.5 Catches will be landed in New Zealand and to the extent possible be processed here for added value.

7.2.6 Only New Zealand owned and registered companies or private New Zealand citizens paying taxes in New Zealand and complying with all relevant employment and maritime law will be able to participate in New Zealand's commercial fisheries.

7.2.7 Within the inshore zone (12 nautical miles or 200 metre depth, whichever is more distant from shore) commercial fishing vessels may only be operated by the owner of the fishing permit.

7.3 Policy features

Rescue Fish requires the Crown to buy back existing commercial shares in the inshore fisheries, at fair value. Initial calculations undertaken by the New Zealand Institute of Economic Research estimates the buy-back cost is between $0.76 and $3.1 billion, with a mid-point of $1.67 billion.

The combination of the initial buy-back and an equally large ongoing revenue stream from selling fishing permits with attached resource rentals means this would be at least fiscally neutral to the Crown over the long term.

Rescue Fish will rebuild depleted fish stocks to abundant levels by initially reducing catches and by banning destructive, indiscriminate bulk harvesting methods from inshore and sensitive nursery areas. Rescue Fish will enable Māori to have a meaningful co-governance role.

7.3.1 The Crown will buy-back all existing commercial quota shares in the inshore fishery at fair value. Estimated buy-back cost is between $0.76 and $3.1 billion, with a mid-point of $1.67 billion.

7.3.2 A new independent Authority to set catch limits and undertake scientific research. The priority will be maintaining a healthy marine environment.

7.3.3 Shared governance of Authority. Māori and the Crown will collaborate to exercise rangatiratanga (chieftainship) and kaitiakitanga (guardianship) of New Zealand's marine resources.

7.3.4 Catch limits will be reset, initially at lower levels to ensure fish stocks recover to abundant levels. Some depleted fish stocks may need to be closed to all fishing while rebuilding.

7.3.5 Effort limits and gear controls will apply to commercial fishing. Bottom trawling and dredging will be banned from inshore waters.

7.3.6 Fixed term commercial permits will be leased, time limited and have a resource rental attached. Rental payments to the Crown will apply to landed catch. Iwi will receive an agreed percentage of the rental revenue.

7.3.7 Multi-species commercial fishing permits. Catch limits in mixed finfish fisheries will be set to account for those species that live or move together.

7.3.8 Independent monitoring. Electronic monitoring and cameras on all commercial vessels will help officials monitor and validate catches, and protect vulnerable species such as seabirds and mammals.

7.3.9 A new Fisheries Act will include explicit criteria to set stock targets, guide catch allocation decisions and encourage innovation. Priority will be given to Māori customary and public fishing.

7.3.10 Decentralise commercial fishing effort to encourage local participation and promote regional economies. This will help to discourage inefficient investment and effort.

7.4 Policy elements

The settlement of Māori grievances over long-standing Crown breaches of the Treaty of Waitangi, some of which stemmed from the introduction of the current fisheries management system itself, are a unique part of the New Zealand fisheries environment. The Settlement included granting iwi shares of fishing quota and protecting customary fishing rights. No reform of fisheries management in New Zealand can proceed without Māori being engaged as an active Treaty partner, in utmost good faith in consultations.

The intent of reform is to restore fish abundance and address biodiversity loss. The Rescue Fish policy also seeks to enable Māori to secure larger and more enduring returns from their Treaty Settlement. Given their traditional, current and future interests in fisheries it is imperative that Maori support the reforms.

Transitioning from the Quota Management System (QMS) to new arrangements can occur quickly following the support of Māori and the passage of new legislation to replace the current Act, the Fisheries Act 1996. Transitioning will also require the complete buy back of existing quota shares in inshore fish stocks. The Crown can then issue new permits through a structured competitive tendering process.

7.4.1 Quota share buy-back

The Crown will buy back all existing commercial quota shares in the inshore fishery at fair value. Completing a share buyout will at first require the agreement of Māori as these shares have been used in settling commercial fishing claims.

Initial calculations by the New Zealand Institute of Economic Research (NZIER) suggests the combination of the buy-back (an upfront cost) and tendering of permits (a long-term revenue stream) will be at least fiscally neutral to the Crown over the long term.

The NZIER initially modelled three main scenarios, based on low, medium and high costs of the buy-back for all existing quota shares. That is, shares in the inshore and offshore stocks. We have since revised the estimate for inshore stocks only, as per Table 1 below.

Table 1. Estimated cost of quota share buy-back, for all shares and inshore shares only.

Cost of buy back	Low	Medium	High
All shares	-$1.27 Billion	-$2.75 Billion	-$5.58 Billion
Inshore only	**-$0.76 Billion**	**-$1.67 Billion**	**-$3.1 Billion**

For the purpose of progressing the Rescue Fish policy proposal the buy-back price has been established by using 10 times the average of the last 5 years of Annual Catch Entitlement (ACE) price paid by fishers. Of note:

- Transition costs include the costs (if any) of rebuilding fish stocks to the new statutory targets. The time for rebuilding will vary across species, ranging from a few years to fifteen years. Some may never recover without additional conservation measures.
- There will be new monitoring capacity as full independent electronic monitoring and reporting capability is implemented.
- The Crown will own and control the monitoring equipment except for smart phones used for logging in/out fishing days and reporting catch.
- Resource rental income will be constrained as stocks rebuild and a full yield becomes available for allocation. This does not translate to a direct cost as there are no resource rentals now and cost recovery levies are less than actual costs. It is a cost imposed by depleted stocks rather than transitioning regimes.
- There will be costs associated with building computer capacity to operate the species trade-off mechanism that resolves landings back to the quota unit in real time and leaves the permit holder with the number of units remaining.

7.4.2 Create an overarching governance body

A new independent statutory Authority will be created to set Total Allowable Catches (TACs) and direct fisheries research priorities. The primary aim is to maintain a healthy marine environment.

Authority members will be approved by Cabinet and may serve a maximum of two 3-year terms and comprise three representatives each of Māori and the Crown, with an independent chairman having the casting vote.

Having an independent governance Authority provides the following benefits:

- The governance Authority will be accountable to Cabinet and Parliament through an annual reporting regime, avoiding issues around regulatory capture.
- Recommendations for Total Allowable Catch and "grid of transfer ratios" will conform to the new Fisheries Act, to ensure fisheries and biodiversity are restored in a reasonable time frame.
- Decision-making is principle-based and underpinned by the need to provide for future generations' interests.
- There will be independent determination of research to inform decision making.

7.4.3 Minimum stock sizes are legislated

A new statutory minimum stock size that guides the setting of Total Allowable Catches (TACs) at no lower than 50% of the unfished biomass (this replaces the current 'at or above the biomass required to produce maximum sustainable yield, B_{msy}'). For stocks below the 50% level the maximum time allowed for a 70% probability of being above target is 2 x T_{min} (the current timeframe specified in the Harvest Strategy Standard Guidelines, Ministry for Primary Industries). That is, no longer than twice the time the stock would meet the target if there was no fishing.

The benefits of maintaining stocks at these levels are the provision of essential ecosystem services and greater resilience against climate change and external shocks.

The most effective way to provide for ecosystem services is to maintain stocks at a size that includes all representative age classes, provides for close to maximum yield, and provides for maximum resource rent to be generated and captured by the Government.

Ensuring minimum stock sizes are provided for in the new Fisheries Act provides the following benefits:

- Prevents stock depletion.
- Defends the functions of inshore marine ecosystems.
- Reduces costs to fishers.
- Improves catchability - reduces costs - promotes higher value catches.
- Provides for a balanced age structure population.
- Avoids the expense and time delay associated with setting catch limits that are dependent upon implementing a complex version of ecosystem-based management that seeks to measure all the inputs and outputs of our inshore marine ecosystem.

7.4.4 Allocating the Total Allowable Catch (TAC)

Total Allowable Catch (TAC) limits will be reset, initially at lower levels to ensure fish stocks recover to abundant levels. Some depleted fish stocks may need to be closed to all fishing while rebuilding.

The new Fisheries Act will contain explicit priorities for the Minister when determinations are made in allocating the Total Allowable Catch (TAC). Allocation of catching opportunities will be guided by value to New Zealand. This will require some high-level value assumptions being made at the outset and incorporating design flexibility to provide for future amendment.

Having explicit allocation priorities will provide the following benefits:

- Promotes Māori customary non-commercial fishing as a priority catch that must be provided for.
- Promotes non-commercial public fishing as the second priority.
- Enables the balance of catch opportunities to be allocated for commercial use by permit holders.
- Provides for innovation that will deliver high value commercial catches while protecting inshore waters from destructive practices.

7.4.5 Fixed term commercial permits

Fixed term commercial permits will be leased, time limited and have a resource rental attached.

Commercial fishing permits will be issued for a fixed term, no longer than 5 to 8 years. The permit can only be used by the permit holder - there is no provision for absentee ownership. The permit limits the quantity of fish that can be landed, the amount of fishing effort that can be applied, and the area in which the permit can be used. There can be no private sales of permits or any fishing authority issued by the Government.

Permits are allocated by competitive tender. The tender price would represent a resource rental.

Fixed term permits will provide the following benefits:

- Removes the barriers to entry, encouraging people into fishing and creating jobs in associated industries.
- Restores competition for fish and fish products.
- Prevents industry capture of the regulator.
- Provides a market for commercial access rights.
- Drives economic efficiency and innovation.

- Decentralises commercial fishing effort to encourage local participation and promote regional economies.

7.4.6 Multi-species commercial permits

Catch limits in mixed finfish fisheries will be set to account for those species that live or move together. Fixed term commercial permits will be conditioned by Output limits. Output limits will replace the existing quota limits for single species.

Output limits will be described as equivalents to account for mixed species catches. All catches will be accounted for against a gross biomass limit, and particular species will have attached transfer ratios to allow them to be counted as equivalents. For example, in the North Island's northern waters the biomass limits would be Snapper equivalents (SNAE). The other species that live with and are caught in the same areas will have a conversion ratio to allow them to be defined as Snapper equivalents. It may be that 2 kg of Gurnard requires 1 kg of SNAE to be in balance. The ratio is a combination of economic value and ecological risk.

Having multi-species commercial permits provides the following benefits:

- Removes target and bycatch categories (catch is catch).
- Moves from single species to multi-species management.
- Removes the current complexity of catch balancing and deemed values.
- Reduces economic incentives for discarding.
- Encourages innovation.
- Removes the incentives to deploy indiscriminate bulk harvesting methods.
- Improves public perception of effective management and fishing practices.

7.4.7 Resource rentals

A resource rental is a tax applied to the commercial use of natural resources. A resource rental is to reflect that the fish are common property and those that catch and sell them ought to pay something back to the community.

When the Quota Management System was introduced in 1986 quota holders were required to pay a resource rental on their annual catch of fish. The tax was terminated in 1994 and replaced with a user pays, levy based system. Over time the cost recovery levies collected have not kept pace with the actual cost of administration, monitoring and research.

The lack of a resource rental on commercial catch leads to overfishing. Rescue Fish promotes a resource rental for all commercial catch landed to prevent overfishing and to acknowledge that a national resource is being exploited for private profit.

Having a tax applied to commercial catch will incentivise fishers to look after our fish and the marine environment. It would also incentivise fishers to innovate so they can generate maximum value from each fish harvested.

The Rescue Fish policy proposes all of the resource rental applied to future commercial catch of inshore fish is collected by the Crown. This revenue will fund the governance Authority, fisheries administration and research costs as directed by the Authority. It will also be shared with Māori interests, with the remainder available for the benefit of all New Zealanders. The Rescue Fish policy is based on a model of 15% of the net resource rentals collected each year being distributed to Māori. The actual percentage going to Māori will be negotiated between the Crown and Māori.

7.4.8 Input controls

Effort limits and gear controls will apply to commercial fishing. Indiscriminate, mobile, bottom contact fishing methods such as bottom trawling and dredging will be banned from inshore waters.

Input controls will be attached to each commercial fishing permit and will be described as effort limits. Each permit holder is restricted to a maximum annual effort limit. For a long liner, this will be a daily maximum number of hooks set per day, and a maximum number of fishing days. Vessels log in/log out at the end of each fishing day/trip.

Having input controls provides the following benefits:

- Will prevent increasing effort to maintain catches when stocks are declining.
- Will protect benthic communities (the creatures living on the seafloor) and nursery habitats from bottom trawling and dredging.
- Will reduce the risk of hyper-stable Catch Per Unit of Effort (CPUE) analysis being used to justify catch. (see 7.4.9)
- Will prevent undetected efficiency creep occurring.

7.4.9 Independent research

Research needs to be fisher-independent where possible. The reliance on a time series of Catch Per Unit of Effort (CPUE) analyses will be avoided where possible because it has led to the overestimation of yields, depleting stocks and long-term productivity.

The lack of independent research is raising growing concerns that fish stocks are being driven to the edge of social, cultural, and economic collapse. This is particularly so in the inshore fisheries where there is widespread public observation of a continuous trend of depletion.

Having independent research provides the following benefits:

- Surveys can be scheduled in advance and at a maximum of 3-year intervals.
- Will enable annual sampling and monitoring of catch at age data, showing trends or changes in fish stocks.
- Will enable responsive management to ensure maintenance of a balanced age structure in fish populations.

7.4.10 Independent electronic monitoring

Electronic monitoring and cameras on all commercial fishing vessels will help officials monitor and validate catches and protect vulnerable species such as seabirds and mammals.

Monitoring will combine self-reporting catch and electronic monitoring. Daily catch returns will be submitted by permit holders reporting the green weight of all catches. Cameras will be mounted in all vessels and used for validation of self-reported data. The Crown will own and control the monitoring equipment except for smart phones used for logging in/out fishing days and reporting catch. All vessels will operate the Vessel Monitoring System (VMS).

Having independent electronic monitoring provides the following benefits:

- Zero discards of non-protected species. All catches will be landed.
- VMS will determine whether vessels are at sea fishing or in port (validating the log in/out process)
- Incentivises honest self-reporting.
- Provides for independent monitoring of video captured at sea.
- Enables rapid response to any reports of spillage or dumped fish.

7.4.11 A new Fisheries Act

New legislation will be required to establish the governing Authority and enable new instruments, described above, to be used.

Drafting a new Fisheries Act will require the following detailed policy matters to be settled:

- Details of the governance body, new management areas, and the species trade-off mechanism, the output limits for each region.
- The permitted fishing methods and setting of input limits to be described with aggregations limits and maximum/minimum catch units settled.
- The data collection and management for monitoring arrangements, including an integrated electronic monitoring reporting system, and rules around penalties for permit holders who breach the new regulatory structure.

- Defining new Fisheries Management Areas, which will involve both rohe moana, fisheries-management and regional development elements. In the first instance the existing statistical areas could be useful and if necessary, these could be divided into smaller areas. As each area adds cost there will be the temptation to simply draw a ring around every harbour, this must be resisted - there must be a reasonable trade-off that gives effect to the regional development aspirations while avoiding unnecessary complexity.

7.5 Māori interests

The 1989 Māori Fisheries Act, the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992, Fisheries Act 1996 and the Maori Fisheries Act 2004 provide for Māori interests in fisheries. The Treaty of Waitangi (Fisheries Claim) Settlement Act 1992 provided for full and final settlement of commercial claims to fish, and an ongoing obligation on the Crown to fulfil Māori customary needs.

Legislation recognises and provides for customary food gathering, and the use and management practices of Māori in the exercise of non-commercial fishing rights. Unless fishing with a permit, much of the non-commercial fishing by Māori is categorised as ‘recreational’, that is, governed by the amateur fishing regulations. Many Māori acknowledge that depletion of fish in their traditional fishing areas has meant they cannot readily catch fish for their whānau or for cultural occasions.

7.5.1 A long term revenue stream

As part of the 1992 Settlement, $150 million was paid for Māori to buy 50% of the Japanese-owned off-shore commercial fishing company Sealord, so Māori could also benefit from the off-shore fisheries and new jobs. These new jobs have not eventuated.

Initial calculations undertaken by the New Zealand Institute of Economic Research (NZIER) suggests the combination of quota buy-back (an upfront cost) and tendering of fishing permits (a long-term revenue stream) will be at least fiscally neutral to the Crown over the long term[3]. This assessment includes Māori quota holders receiving 15% of resource rentals in perpetuity. The precise percentage of rental received by Māori will need to be negotiated with Māori.

7.5.2 Potential benefits for Māori

The Settlement assets have largely been quota shares, with the inshore shares allocated on the basis of rohe moana and the deep-water shares allocated on the basis of population. Out of that

[3] They that go down to the sea in ships. The case for reforming the New Zealand fisheries management system. New Zealand Institute of Economic Research. Report for LegaSea. July 2019.

Settlement iwi are currently estimated to own around 10.7% of the total quota share value. That value is expected to decline under the existing Quota Management System.

As with all quota shares, they are subject to variation due to Ministerial decisions for each fish stock. This in turn affects current rates of return. With Rescue Fish, Māori would replace their 10.7% ownership of quota share value from a diminishing fishery with a share of the growing resource rental income from a recovering fishery.

This means that resource rentals are expected over time to provide Māori with more revenue than the current quota shares, while enhancing the opportunities for Māori to be involved in commercial fishing.

How Māori and other existing quota holders are treated in any move to a new regime will be crucial for both ensuring a return to abundance and gaining stakeholder buy-in. The principle of the Rescue Fish reforms is that Māori secure larger and more enduring returns from the Treaty Settlement.

The Rescue Fish alternative management structure is designed to benefit Māori in the following ways:

- **Quota share buyback:** To buy back the quota shares that iwi hold at fair value. Initial calculations by NZIER were based on buying back all existing quota shares, in offshore and inshore fish stocks. NZIER could provide an assessment of the returns from buying back only inshore stocks.
- **To create a *Rūnanga***: This new statutory Authority will exercise the highest chieftainship over fisheries by setting Total Allowable Catches (TACs), the maximum catch that allows the stocks to always be above 50% of the unfished, natural size. The Rūnanga would comprise equal members of Māori and the Crown with an independent chair, to reflect the principles of Te Tiriti o Waitangi.
- **Treaty of Waitangi fulfilment:** This allows for fulfilment of the intention of those who signed the Treaty of Waitangi (Fisheries Claim) Settlement Act 1992. The original intent was to use Settlement cash to support “the development and involvement of Māori in fishing”. Out of that Settlement iwi are currently estimated to own around 10.7% of the total quota share value, however, that value is expected to decline under the Quota Management System. Maori would replace their 10.7% ownership of quota share value from a diminishing fishery with a share of the growing resource rental income from a recovering fishery.
- **Commercial regulation:** To regulate commercial fishing, and to encourage and enable small scale fishing along the coast. Aspiring commercial fishers would apply for a permit, with maximum catches and maximum fishing days applying to each permit. This is to provide employment opportunities and again encourage young Māori to get their hands wet by getting involved in fishing.
- **A new Fisheries Act.** A new Fisheries Act based on a clear set of principles (See 7.2 above) will be required to ensure the fish stock abundance targets are met. Optimum results come from having the minimum stock size set in law and

not able to be changed as a result of lobbying. The Rūnanga (Authority) will exercise kaitiakitanga (guardianship) to ensure our mokopuna (grandchildren) can exercise their customary fishing rights by having fish plentiful in inshore areas again.

- **Local area management:** This will occur in each rohe (coastal zone), with each management area having a Kaitiaki (caretaker) board comprising mainly representatives of iwi, hapū, and the local council. The main role for this local board will be to maintain the marine resources using a suite of tools. This could include the ability to apply a rāhui to protect areas of high significance, for example habitats that are at risk, shellfish beds, and set local rules for fishery users.
- **A resource rental levy will apply to commercial fishing permits:** This resource rental is to reflect that the fish are common property and those that catch and sell them ought to pay something back to the community. All of the resource rental is collected by the Crown. This Crown fund will pay for research and management costs. The Rescue Fish policy is based on a model of 15% of the net resource rentals collected each year being distributed to Māori. The actual percentage going to Māori will be negotiated between the Crown and Māori.
- **Māori will be free to invest the proceeds from any buy-back and resource rental income as they see fit:** As the fishery returns to abundance, the resource rental income is expected to grow. Some iwi may choose to reinvest in fishing opportunities for their people, others may decide they would generate more income elsewhere.
- **Reverse the negative impacts on Māori:** Prior to the introduction of the Quota Management System in the early 1980s the Government revoked the permits of fishers who were deemed to be part-timers, not making an annual income above $10,000 from fishing, or if fishing was less than 80% of their annual income. This had a disproportionate effect on Māori, especially in the regions where it was common for people to spend several months at the freezing works or dairy factory and the rest of the year fishing inshore for flounders, mullet and kahawai. The ability to provide kai moana for the marae and community enhanced the mana of these fishers and their families. The removal of their fishing permits diminished their ability to work and provide kai for their communities.
- **Rebuilding stocks with catch reductions:** As fisheries rebuild Māori will benefit from the resource rentals generated from the commercial use of fisheries. In the short term there will need to be catch reductions to achieve the desired level of abundance. In the governance role, Māori will be part of the process to apply the necessary catch reductions in some areas to enable fish stocks to rebuild.
- **Rebuilding abundant stocks for non-commercial fishers:** Non-commercial fishing will improve with more fish in the water. Māori customary interests will be paramount and best served by having kai moana readily available in the places traditionally fished. Fishing to feed the whanau without a permit is classed as

‘recreational’ fishing. In April 2020 a Horizon Research survey found that over 400,000 adults intended to participate in land-based sea fishing in the 12 months after Covid-19 restrictions were lifted. An estimated 7% of Māori will fish because they need the food, that equates to around 52,000 Māori adults[4]. A return to abundance is the key to providing for Māori’s interests in fisheries.

[4] Horizon Research survey April 28-30, 2020, 1,151 adults. Maximum margin of error is +/- 2.9% overall. Survey on those who intend to undertake fishing activities in the 12 months after the easing of Covid-19 restrictions allow. Respondents are members of Horizon’s online research panels.

8. Public opinion and support for reform

In 2019 LegaSea commissioned Horizon Research to conduct two surveys of the views of New Zealanders overall and a survey of 1,000 Māori on fisheries management and the main reform proposals. These surveys are available in full on the website www.rescuefish.co.nz.

From across the political spectrum, there is very strong agreement that New Zealand's fisheries need to be reformed to ensure there is an abundant fishery. 70% think reform is needed (around 2,229,700 adults), while just 6% (195,100 adults) think it is not[5].

The general population survey found the public also want the Government to do further work to reform fisheries, to:

a. Make sure they become abundant and

b. Commercial fishers pay a resource rental.

- **67%** (around 2,127,300 adults) support this while just
- **2% (**around 57,600) oppose.

New Zealanders support the Government to buy back the existing fishing quota and to implement reforms so commercial fishers pay a resource rental fee for the fish they harvest.

- 77% of New Zealanders think fish stocks within the 12 nautical mile territorial limit are becoming less abundant.
- 69% of New Zealanders think not enough is being done to stop dumping of unwanted catch by commercial fishers.
- 67% of New Zealanders support the Government doing further work to reform fisheries, to make sure they become abundant and commercial fishers pay a resource rental.
- 57% of New Zealanders support banning bottom trawling that destroys habitats and targets small fish in the inshore fishery.
- 54% of New Zealanders agree that commercial fishers should be required to have their catch independently monitored, including cameras on their vessels[6].

The Rescue Fish policy is a viable long-term solution to rebuild fish abundance, to conserve New Zealand's marine environment, and to honour Te Tiriti o Waitangi.

[5] Horizon Research Fisheries Policy survey, May 23-31, 2019. 1,083 respondents 18+ years. Maximum margin of error +/- 3%.

[6] Horizon Research Future of Fisheries survey, January 14-19, 2019. 1,046 respondents 18+ years. Maximum margin of error +/- 3%.

8.1. Maori want reform

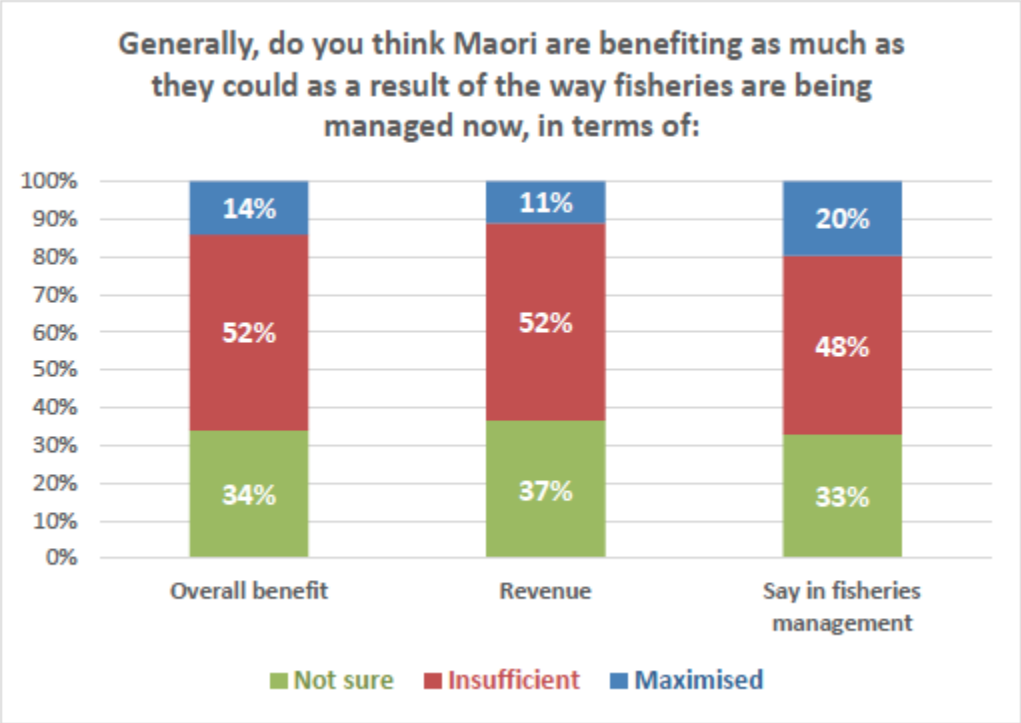
In 2019 a survey was conducted specifically targeted to gather the view of Māori adults. The 'Maori and the Future of Fisheries' survey was conducted between May and June 2019. From that survey we know there is overwhelming support amongst respondents for reforms to ensure there is an abundant fishery[7]:

- **73%** think reform is needed, while just **9%** say it is not needed.
- **55%** of Māori also support the Government doing further work to reform fisheries, to make sure they become abundant and commercial fishers pay a resource rental. Only **5%** oppose this.

8.1.1 Unmet expectations of Māori

From the polling we know that around half of Maori do not feel that they are benefiting as much as they could from the way fisheries are managed, either overall, in revenue terms or in having a say in fisheries management. Around a third of respondents were not sure.

Figure 2. Are Maori benefiting as much as they could from the way fisheries are managed.



[7] Horizon Research Māori and the Future of Fisheries survey, May 29 - June 13, 2019, 1000 respondents representing the 18+ Māori population. Maximum margin of error +/- 3%.

Only 34% of Māori believe the current system and the Treaty of Waitangi Settlement for fisheries gives Māori tino rangatiratanga (highest chieftainship) over their fisheries possessions, as agreed in the Treaty, with 45% saying they have not achieved tino rangatiratanga.

68% of Māori support the Government doing more work to see if Māori could benefit more - socially, culturally and financially - from managing fisheries to make those fisheries more plentiful.

8.2. What voters want

From the Māori-specific survey we know that they are significantly more likely than the population as a whole to switch their Party and Candidate votes to those who have policies to reform fisheries.

The general population survey found that large numbers of voters will switch both their Candidate and Party votes at the 2020 general election to a party or candidate supporting fisheries reform and the introduction of resource rentals. When viewed by groupings of electorates, the desire for reform and charging resource rentals is almost universal in Northland and strong in most other concentrations of coastal electorates.

The general population survey also found that voters for the five parties now in Parliament all strongly agree fisheries need reform:

- Green voters 92%
- NZ First 88%
- Labour 80%
- ACT 75%
- National 70%.

The survey results indicate any multi-party initiative for fisheries reform would be well supported. (Table 2).

These independent surveys of the New Zealand adult population found that:

- Few New Zealanders agree with arguments made for the country's current Quota Management System (QMS) and the way fisheries are managed.
- Large majorities agree with policies to reform fisheries, including independent governance and fish stock research.

While the Māori and general population surveys were conducted well prior to the Covid-19 crisis, the potential losses and gains in voter support for all Parliamentary parties heading into the 2020 election are significant.

Table 2. Support for a multi-party initiative, by party voters at the 2017 general election.

Party	Votes received	Support for reform	Voters for reform
National	1,152,075	**71%**	**819,100**
Labour	956,184	**75%**	**714,300**
NZ First	186,706	**85%**	**158,500**
Green	162,443	**92%**	**149,100**
ACT	13,075	**66%**	**8,600**

9. Impacts of Rescue Fish summary table

Shown in Table 1 is an overview of the impacts of implementing the Rescue Fish policy proposals, and how they will help restore abundance over time.

Table 3. Overview of the impacts of the Rescue Fish policy on specific aspects of fisheries governance and management.

Policy	Activity	Impact
Buy back current quota. Re-introduce resource rentals	Fair dealing purchase by the Crown of all inshore quota.	Allows for resource rentals, funding the buy-back at an internal rate of return for the Crown of 12.5% (mid-point). This meets Treasury guidelines for investment. Fiscally neutral for the Government. Provides current quota holders with compensation of around $2.75 billion (mid-point) for a complete buy-back. Inshore buy-back estimated to be $1.67 billion (mid-point). Current quota holders are free to continue investing in fishing or use their compensation for other purposes.
Bottom trawling banned	Bottom trawling banned in inshore fisheries.	Stops destruction of marine habitat and depletion of fisheries.
Monitoring of commercial fishers	Independent Government monitoring of commercial fishers, including the use of cameras on all commercial vessels.	Exposes and reduces high grading, dumping, and industry influence over how fisheries law is enforced. Ensures sustainable fisheries and greater abundance.

Policy	Activity	Impact
Introduce open tendering for permits to fish and payment of resource rentals	Open tendering for permits to fish commercially. Crown gathers resource rentals. An agreed proportion of resource rentals is paid to iwi (compared with iwi ownership of about 11% of income from quota currently). Requires all fish caught inshore to be landed in New Zealand. Allows inshore fishers to decide where to land their catch within New Zealand and to whom they will sell catch: Sales directly from vessels allowed.	At the mid-point it will take 11 years to pay for the buy-back of $2.75 billion. Once paid for, the Crown could use ongoing revenue to fund fisheries management and research, industry growth and regional development, and other Government policy priorities. Open access to/ liquid market to fish commercially. Higher value achieved for fish. Encourages innovation to reduce dumping and improve targeting of high-value species. Provides fish for higher value local and niche markets (like restaurants and exports) for high value species.
Liquid market for fish	Allows all to tender for permits to fish.	Creates a free market for current quota owners and leaseholders and all others to enter commercial fishing. Stimulates development of inshore fisheries, job creation and regional development.

Policy	Activity	Impact
Establish a new independent Crown agency: “Guardians of the Fisheries”	Funds independent research of fish stocks. Sets total allowable catches at sustainable levels based on independent research, including more surveys of fishing area stocks. Operates independently of the Minister of Fisheries, Ministry for Primary Industries and other fishing interests. Has Māori representation by statute. All decisions are guided by principles.	Ensures a return over time to abundance in fish stocks and sustainable fishing. Provides for independent management of sustainable total allowable commercial catch, removing undue influence on research and other policy priorities. Ensures “highest chieftainship” over fishing, in compliance with the Treaty of Waitangi. Stops the progressive depletion of the fisheries through wasteful practices and over-fishing. Returns offshore and inshore fisheries to abundance over time, including inshore recreational and customary Māori fisheries. Allows the high-value charter boat tourism industry to grow.

Appendix One

New Zealanders want reform

New Zealanders want their fisheries reformed[8]. In 2019 Fisheries New Zealand announced yet another narrowly focused review of policy, the Fisheries Change Programme. Presented in Table 1 is a comparison between the Government's 2019 Review, the Rescue Fish policy package, and the public's views on reforms. The public's views, including responses from Māori, were captured in three separate, independent surveys undertaken on behalf of LegaSea in 2019.

The Horizon Research surveys that have contributed to the Rescue Fish policy development are:

1. Horizon Research Future of Fisheries survey Policy survey, January 14-19, 2019. 1,046 respondents 18+ years. Maximum margin of error +/- 3% overall.
2. Horizon Research Fisheries Policy survey, May 23-31, 2019. 1,083 respondents 18+ years. Maximum margin of error +/- 3%.
3. Horizon Research Māori and the Future of Fisheries survey, May 29 - June 13, 2019, 1000 respondents representing the 18+ Māori population. Maximum margin of error +/- 3%.

Table 1. Comparison of Government 2019 review, Rescue Fish policy, the public's response to proposed policy aspects, and opinion on current fisheries or management issues.

Issue	2019 Government Review	Rescue Fish policy	Public Response	Public Views
Change the catch rules, to lessen catching of 19 species of undersized fish.	Yes	Yes	Yes	Not enough being done (69%) Just 3% trust commercial fishers not to dump unwanted species and think no cameras are needed.

[8] Horizon Research Fisheries Policy survey, May 23-31, 2019. 1,083 respondents 18+ years. Maximum margin of error +/- 3%.

Issue	2019 Government Review	Rescue Fish policy	Public Response	Public Views
Cameras on all commercial vessels to monitor catches. Not in the current review and being managed separately (possibly later in 2019).	Not yet. Runs the risk of providing more allowable catch in return for monitoring/ reduced catches.	Yes - Cameras and real time monitoring on all commercial vessels. Government owned cameras.	Yes	62% support Government-owned cameras on all commercial vessels.
Future focused/ efficient	Yes	Yes	--	--
Increased value	Ensure every fish is valued by the commercial industry.	Improve value and sales opportunities.	--	--
Increase the volume and funding of independently conducted fisheries research.	No	Yes	Yes	Government should independently fund all research and fund it from a resource rental: 53%.
End gifting quota/ buy-back quota.	No	Yes	Yes	49% support, 12% oppose.
Charge resource rental fee.	No	Yes	Yes	75% support, 7% oppose.
Change catch limits to ensure fisheries are sustainable.	No	Yes	--	--
Less abundance is being noticed and managed within the 12 nautical mile limit.	No	Yes	Yes	77% think fish are becoming less abundant, 14% the same or more abundant.

Issue	2019 Government Review	Rescue Fish policy	Public Response	Public Views
Influence of commercial fishing company donations on MPs.	No	Yes	Yes	73% think donations will influence MPs' decisions on fisheries, 13% think not.
Bottom trawling inshore.	No	Yes	Yes	57% think bottom trawling of inshore fisheries should be stopped, 3% say it should not be.
Quality of fisheries management.	No	Yes	Yes	Current management of commercial fisheries in New Zealand is extremely poor, very poor or poor: 45%. Good, very good or extremely good: 22%.
Fisheries depleted and in crisis.	No	Yes	Yes	Some inshore and deep water offshore fisheries stocks face a crisis of depletion: 54%. The country's inshore fish stocks are being over exploited commercially: 54%.

Appendix Two

An analysis of the Quota Management System - Why the status quo is untenable

LegaSea

October 2019

The goals of the Quota Management System (QMS) are resource sustainability and economic efficiency. LegaSea expands on these goals as it continues to advocate for greater abundance and considers that none of the overarching goals have been achieved.

Any successful fisheries management regime that has the support and respect of the citizens must be based on strong principles. The set of principles LegaSea has adopted are:

1. All fisheries laws will conform with the principles of the Treaty of Waitangi.
2. The living marine resources of Aotearoa New Zealand remain under the control of government and cannot become the private property of private companies or individuals or sold abroad.
3. All fisheries must be biologically, economically, and socially sustainable. The legislation will prevent private sales of licences or fishing rights.
4. To the greatest extent possible, commercial fishing rights will be granted in line with the principles of a market-based system. Commercial fishing permits will be tendered and those offering the highest resource rental will be successful.
5. Catches will be landed in New Zealand and processed here for added value.
6. Only New Zealand owned and registered companies, or private New Zealand citizens, paying taxes in New Zealand and complying with all relevant employment and maritime law will be able to participate in New Zealand's commercial fisheries.
7. In the Territorial Sea there will be complete fleet separation. That is, only vessel owners will be eligible to own and operate a permit. There is no vertical integration permitted.

Discussion on the efficacy of the QMS must begin with examining current institutions and instruments in relation to how they have contributed to achieving the overarching goals of sustainability and economic efficiency while complying with the principles.

LegaSea considers the QMS as systemically flawed and unable to produce long run value for New Zealand. Furthermore, New Zealand has ignored the series of warning signs that have arisen over the last two decades and failed to learn from the systemic flaws that have become

apparent in other jurisdictions that have embraced the ‘rights based’ framework to manage fisheries assets.

We can begin by asking how well the QMS has achieved sustainable fish stocks and delivered economic efficiency. This will take us on a journey that traverses the four major subsets of fisheries management - ecological, economic, administrative, and social.

Ecological

1. Failure to use international best practice and maintain stocks at 50% or above of the unfished biomass. This is the point where the maximum sustainable yield is available and provides for ecosystem services.
2. Lack of precautionary principle. When information is unavailable or unreliable the Total Allowable Catches (TACs) need to be set at low levels. Increases in TACs become available when better information is obtained.
3. Failure to rebuild fish stocks once identified as being below the management targets. Even the targets incorporated in the Ministry’s Harvest Strategy Standard have become unattainable once the stock is depleted below 30% of Bzero.
4. Failure to control dumping and high grading. There is a strong perverse incentive for fishers to high grade and dump that stems from the core tenets of the QMS.
5. Failure to undertake stock monitoring and assessment to provide timely and reliable stock status reports of a standard that would provide reliable yield estimates.
6. Embracing shifting baselines. If you want to fight the loss of memory and knowledge about the past, you have to rely on past information. However, past information is viewed by most fisheries scientists as anecdotal and not expressed in the language of today’s stock modellers. As the decades pass the depleted state of the fish stocks is becoming normalised.

Economic

7. The Quota Management System is a simple feudal system of resource allocation and use that relies on monopoly, rent seeking, and private control over a public resource.
8. Failure to deliver resource rentals. A management regime operating without resource rentals for commercial exploitation gives away national resources to a few privileged firms, each and every year.
9. Cost recovery controlling research. The exchange of resource rentals for a cost recovery regime resulted in research spending priorities being captured by Total Allowable Commercial Catch (TACC) shareholders.
10. Low profitability in industrial firms. Despite being given fish for free the profitability of New Zealand fishing firms remains low. Research & Development (R & D) spending and value creation remains poor as competition has diminished.

11. Diminishing gross revenue. As catches decline from overexploited fish stocks earnings are dropping as lower landings are not compensated by value adding.
12. Lack of innovation and R & D. The industry has R & D subsidised through Primary Growth Partnership (PGP) grants and innovation funding. These projects are designed to benefit private firms and reduces the incentive for internal investment.
13. Institutionalised rent seeking. It is inevitable that fisheries decline under rent seeking pressure if resource rentals are not capturing most of the rent.
14. Fishing rights market lacks liquidity. The notion of a market ensuring that fishing rights pass to those most efficient is defeated by the lack of trading – again being driven by a failure to capture rents.
15. Excessive consolidation of rights. Beyond the simple neoliberal doctrine of economic success being defined as the lowest possible consumer price, there is ample evidence of the social and economic costs that are externalised and result from consolidation.
16. Massive overcapitalisation in TACC shares. The steady increase in Total Allowable Commercial Catch (TACC) share price for high value species has pushed prices to where the total value of all shares are earning about bank deposit rates.
17. Complete absence of competition for fish. Fishers are indentured to TACC shareholding companies through the provision of Annual Catch Entitlement (ACE). The competition for fish at the wharf has evaporated and now pricing is feudal in nature.
18. Barriers to entry and exit. An efficient and innovative industry needs to have very limited barriers to entry and exit. The use of perpetual fishing rights, by this construct, immediately imposes barriers that defeat efficiency aspirations.

Administrative

19. Industrial fishing interests control fisheries policy. The use of Individual Transferable Quota (ITQ) rights inevitably results in effective political control. Matters such as Party donations, MP donations, and having influence with senior Party figures results in Regulatory Capture.
20. Lack of a transparent process to test allocation choices. The tension between commercial TACC shareholders and non-commercial fishers exists as a consequence of commercial rights holders expressing the regulatory capture. More importantly, there is no statutory transparent process, or overarching principle, to determine allocations of the TAC.
21. Lack of strategic planning in the national interest. MPI is book ended by a duty to service the industry they regulate and other policy options that would serve the national interest.
22. Relying on user group control of decision making. It is pointless putting user groups together with an expectation that they will overcome the tensions arising from

systemic dysfunction. The problem must be identified, and an accurate solution applied.

23. Utilising feudal governance instruments that institutionalise rent seeking and value suppression.
24. Failure to provide for tino rangatiratanga and kaitiakitanga.

Social

25. Lack of anthropological studies to inform fisheries policy choices. The failure to internalise the social and environmental costs of adopting the QMS. Failing to do so makes for low quality institutions.
26. Failure to defend Māori customary catch. Allowing depletion to run down abundance and leave areas barren has destroyed, and continues to destroy, customary fishing ability.
27. Failure to provide for coastal fishing community wellbeing. Commercial fishing opportunities have strong economic benefits when domiciled in regional ports. The QMS has relocated these opportunities to major ports.
28. Citizens disenfranchised from their local fisheries resources. Fishing is a place-based enterprise and inshore fishers, customary fishers, and recreational fishers, all need an abundant and productive inshore fisheries resource.