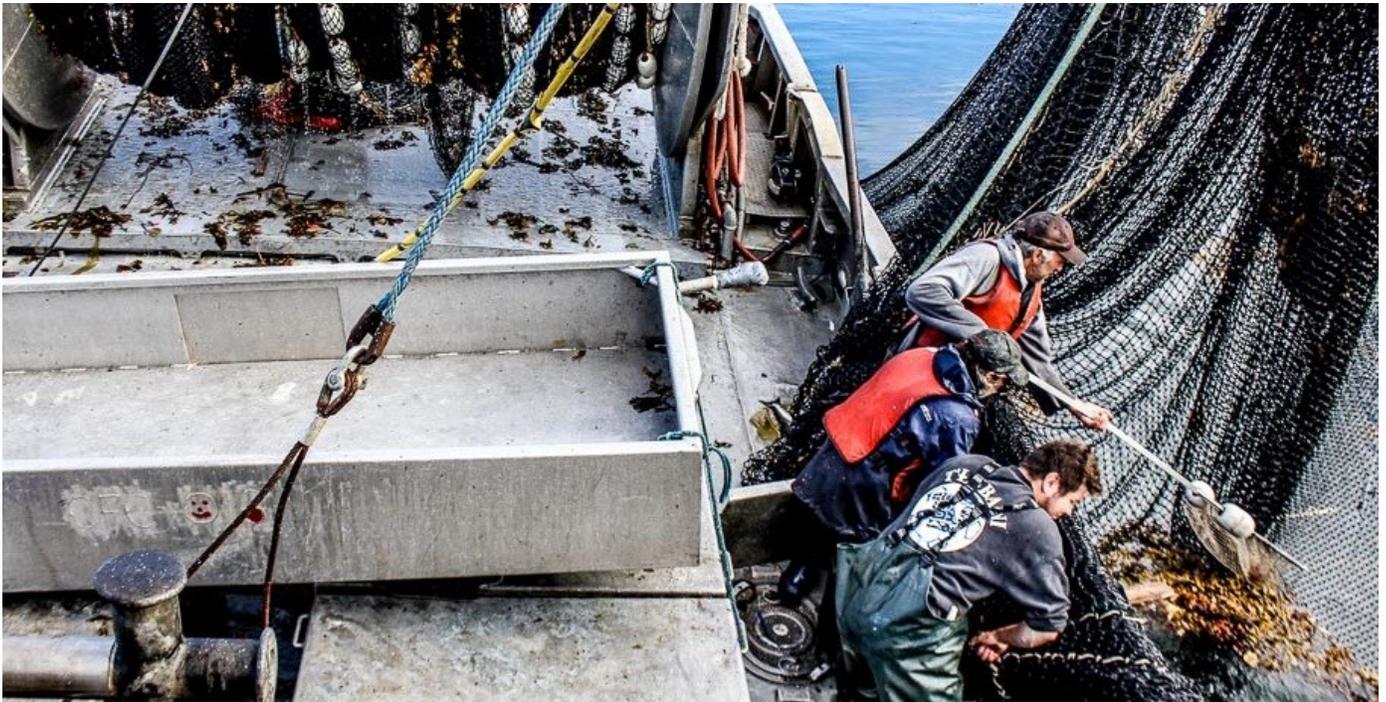


Caught up in Catch Shares



Introduction / In the 1980s, in the heart of northern BC, the city of Prince Rupert was booming. Today, the harbour is all but silent under the heavy mist. Fishing boats are still tied here, but many sit listless and idle for much of the year.

Although this is a common story on BC's coast, hope still lives—in each coastal town, there remains a desire for sustainable fisheries to rejuvenate the local industry.

Since the 1980s, BC's commercial fleet has shrunk by more than 60%. Fishermen have retired with no one to replace them. As the industry fades away, First Nations and other coastal communities are struggling with the economic ripple effects.

Individual transferable quotas (ITQs) and other forms of catch shares first became popular as a management tool for Canadian fisheries in the 1990s. Since then, as they have been used in more and more

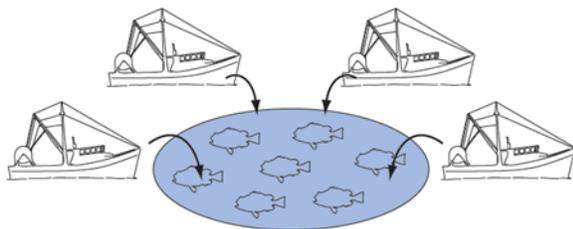
fisheries, BC has been held up as the golden child of catch shares—proof that the system works.

But does it? With a shrinking industry and increasing poverty in so many coastal communities, does catch share management really work as advertised?

A Rising Tide /

Riding a surge of popularity since the 1980s, catch shares have gone into effect in 500 fisheries in 40 countries. In recent years, however, many of the earliest catch share systems have begun to show their age, developing serious problems with major repercussions for small-scale fishermen and fishing communities.

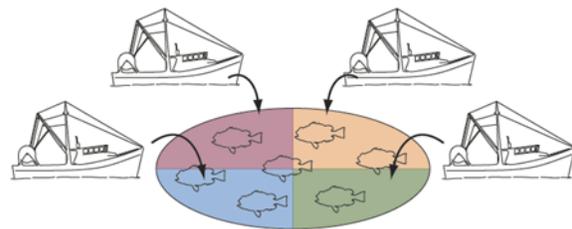
Almost every BC fishery is subject to a **Total Allowable Catch (TAC)**, a maximum harvest that is set using scientific data. TACs limit fishing operations, ensuring that enough fish are left each season to reproduce and maintain population levels.



Competitive Fisheries

In **competitive fisheries**, all licence holders enjoy the same access. DFO sets a fleetwide TAC (represented here by the oval), and all licence holders compete for fish until that TAC is reached. The fishery then closes to prevent overfishing.

The fishery may have other restrictions to protect fish stocks and habitats, including gear types, season openings and closures, and fishing locations.



Catch Shares

Under **catch shares**, each TAC is divided into individual quotas. Fishermen may only catch as much fish as their quota allows. If they want to fish more or if they catch more than their quota, they need to find more quota to cover that catch. The cost of buying or leasing that quota, however, can make or break the season.

More than half of BC's commercial fisheries are now managed under catch shares. **But how have catch shares affected the people whose livelihoods depend on fishing?**

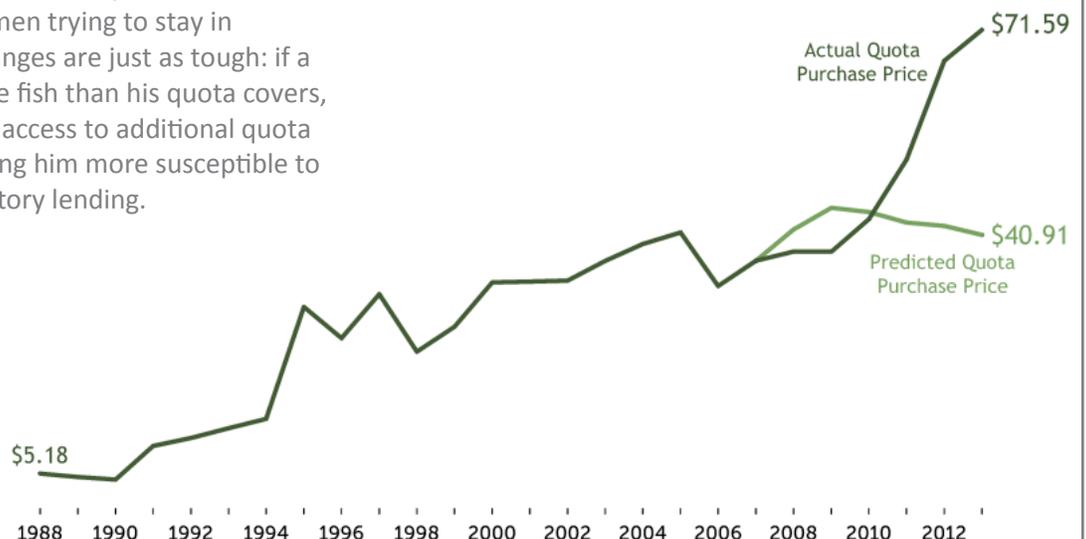
One Size Fits Few /

Supply and Demand

Under DFO regulations, **quota can be bought and sold by anyone** – including people and corporations that do not fish – on the open market. But because fisheries managers raise and lower the TAC to balance economic and cultural interests with the need to protect fish stocks, these TACs are often unstable.

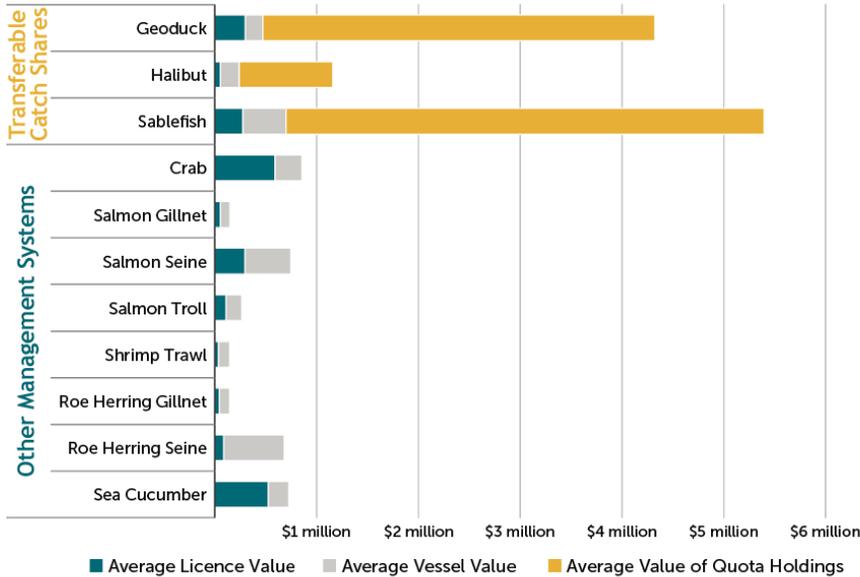
Supply and demand have driven prices ever higher, trapping fishermen trying to stay in business. In-season changes are just as tough: if a fisherman catches more fish than his quota covers, he must quickly secure access to additional quota or risk penalties – making him more susceptible to price inflation or predatory lending.

ITQs were introduced in the halibut fishery in 1991. Twenty-four years later, quota prices continue to rise with no sign of stopping. In 2008, DFO assessed the potential impacts of reducing the commercial TAC. The prediction was that even with a further-limited commercial fishery, the price of halibut quota would soon level out and begin to decline. Instead, the price of halibut quota has **nearly doubled** – from \$38 per pound to more than \$71 just 5 years later.



RIGHT / The constant upward trajectory of halibut quota purchase prices.

Sources: Nelson Bros Fisheries Ltd (2013 & 2006) *Analysis of Commercial Fishing Licence, Quota, and Vessel Values*; Nelson Bros Fisheries Ltd (2008) *Pacific Halibut IVQ Price Forecast*; Bank of Canada consumer price index.



The Money Pit

A common catch share myth suggests that quotas reduce capitalization in fisheries by allowing even the most poorly-equipped boats to compete with vessels sporting the latest and greatest gear. And to some extent that's true; the race to buy the best vessels has indeed diminished. But in its place has come competition over access, where fishermen must sink their money into ever-increasing quota purchase and lease prices.

And these investments can take decades to pay off; when compared to income, licence and quota costs are disproportionately high.

The large gap between costs and earnings places a huge burden on small-scale fishermen already in the industry looking to maintain or expand their ability to fish – and it's **downright prohibitive** for the next generation looking to start their careers.

So where do fishermen go if they can't afford to buy licences or quota?

They lease. Many retired fishermen who were gifted quota in the initial switchover to catch shares have kept their quota to lease to new fishermen or processors. Corporations and processors with deep pockets have also purchased quota in order to re-lease to fishermen.

This leasing does not come cheap. Just as quota purchase prices have risen, so too have quota lease prices.

Sablefish



Halibut



TOP / Market value in BC fisheries. Quota holdings reflect the purchase price of the average amount of quota held by an active fishery participant.

Source: Nelson Bros Fisheries Ltd (2013) Analysis of Commercial Fishing Licence, Quota, and Vessel Values.

ABOVE / Cost of access vs. gross income for one pound of fish.

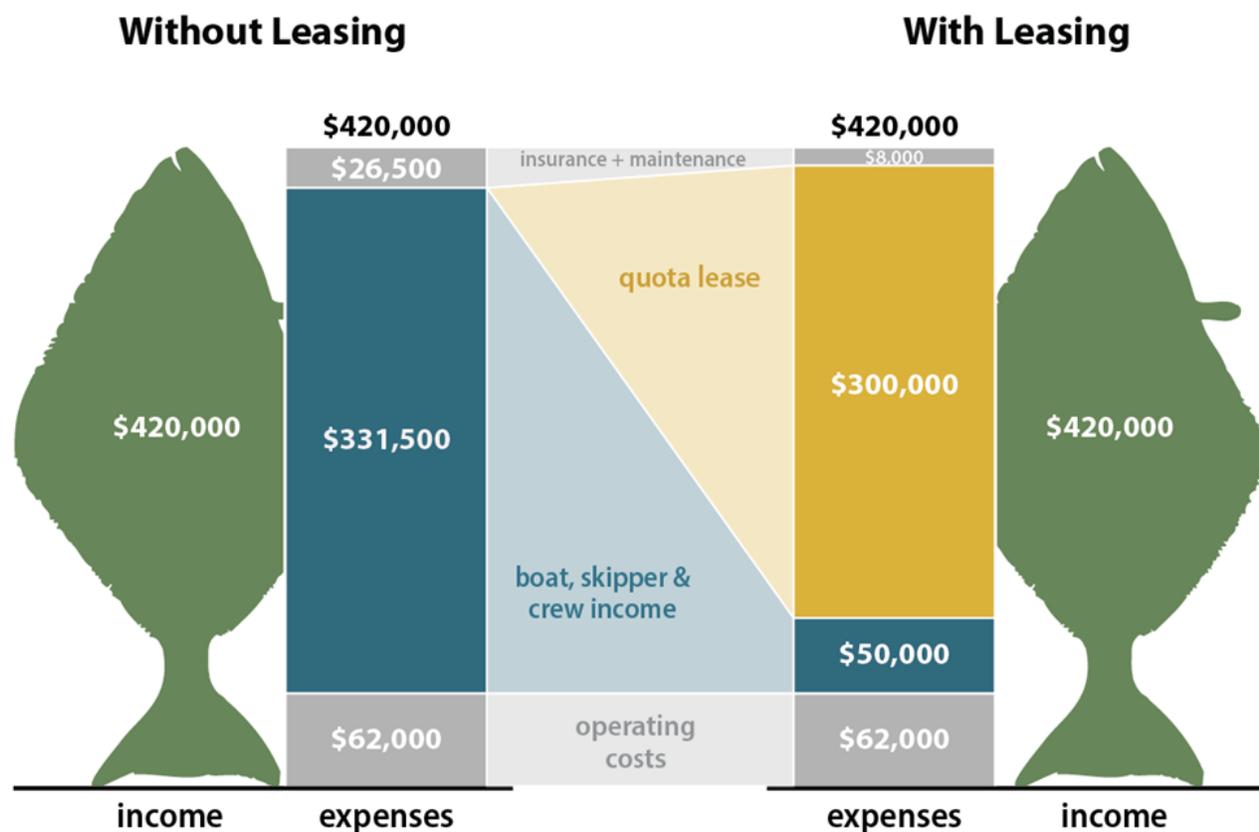
Sources: Nelson Bros Fisheries Ltd (2013) Analysis of Commercial Fishing Licence, Quota, and Vessel Values; DFO Data Unit (2012) Summary Commercial Statistics – Dockside Monitoring Data.

What Floats Your Boat

Fishermen are entrepreneurs, running small businesses on the sea. And as with any small business, there are many costs to consider. When lease prices climb, fishermen spend their money on lease fees rather than maintenance, food, and insurance. Fluctuating seafood prices, fuel prices, foreign exchange rates, mid-season closures, and other factors can throw a serious wrench in the already-delicate works. Because the flow of

“ The [people] who first get these quotas gifted [from DFO] are the winners. Every cycle of new buyers in, it gets costlier and costlier, and less and less. And then slowly, individuals don't buy, corporations buy. So there are zero new entrants as we move into more and more ITQ fisheries.

income only begins when a fish is landed at the dock, it is the fisherman who assumes all of the financial risk.



Nearly one third of the halibut fleet focuses exclusively on halibut. Many of these single-licence vessels own the quota they fish, allowing them to at least break even. In rare cases they may even be profitable. But what happens when the next generation of fishermen enters the industry? If they can't afford the nearly \$1 million required to purchase a licence and the median amount of quota, they are forced to lease.

Leasing places a major burden on crews and skippers, turning fishermen into sharecroppers on their own boats. And it can carry additional financial risk: many fish companies lease their quota to fishermen under the condition that the fishermen sell them any fish they catch – at prices set by the company. This turns fishermen into “price takers,” removing their ability to negotiate prices or take advantage of market spikes.

ABOVE / Financial breakdown for a vessel fishing 60,000 lbs of halibut, the typical amount of quota caught by more profitable halibut vessels. The right side of the graph shows what happens when a crew has to lease quota rather than owning it outright. These are conservative lease prices for today's market; lease fees have risen far above the 2012 prices here.

Sources: Nelson Bros Fisheries Ltd (2013) *Analysis of Commercial Fishing Licence, Quota, and Vessel Values*; Interviews with fishermen.

“ You used to be able to start as a crewman, because if you got a job on halibut you could make some pretty good money, but that's changed now because you've got to help the skipper pay for a leased quota.

I get a young crewman, he can work on the deck, sure, but can he make enough money on this boat to buy quota? I don't know. I don't think so.

Ripple Effects /

Safety at Sea

Under a catch share system, what little income was once earned by crew members is now required for quota. Forced to cut costs, a fisherman faces hard choices about the amount of money he can afford to spend insuring and

maintaining his boat and gear. No small wonder that the incidence of injuries and fatalities at sea has **more than doubled** in the last 20 years.

Catch shares are frequently touted for their contributions to safety because they prevent the “race for fish” that can send desperate crews into bad weather, hoping to catch fish before a fishery

closes. In a dangerous twist, however, catch shares are now causing poorly maintained vessels to venture out into rough conditions to take advantage of fleeting spikes in market prices. It has replaced the race for fish with a race for wealth.

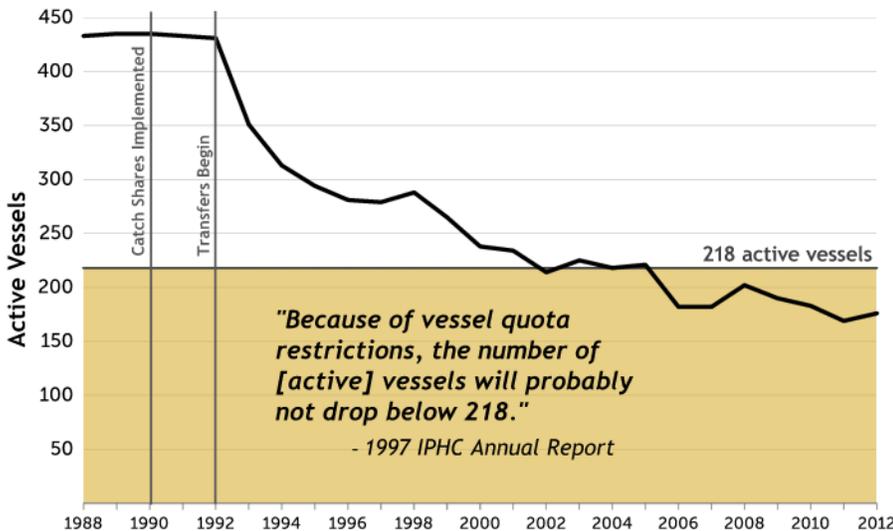
The shrinking fleet size has had other unforeseen consequences for safety at sea as well:

“It’s quite rare to see another boat out there now, whereas we would have been probably in sight of 2 or 3 [boats] even 10 or 15 years ago. And that’s a real point; it’s really reduced the vessels that can help each other, which is where most of the aid for fishermen comes from. The Coast Guard comes in extreme cases but most of it’s handled within the fishing fleet when a guy needs help.”

Shrinking Fleets, Shuttered Communities

As quota is consolidated into fewer hands and commercial fishing becomes financially untenable for many fishermen, the number of vessels that can afford to participate in the fishery declines.

When fishermen retire or move out of the industry, they often sell their vessels, licences, and quota. Some have been bought back by DFO for redistribution to First Nations; others have been sold to the highest bidder.



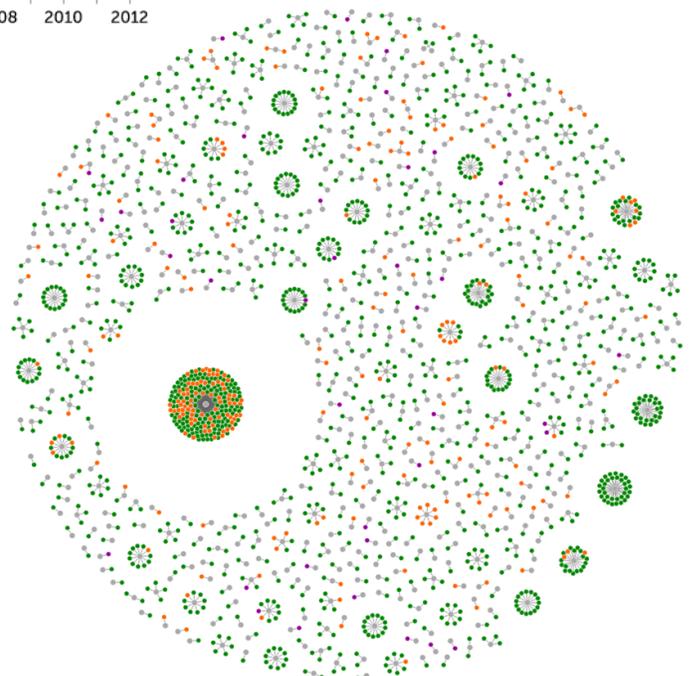
LEFT / Quota transfers began at the end of the 1992 season. Since then, the halibut fishery has experienced a precipitous decline in fleet size – a pattern borne out in other catch share fisheries as well. Though some reduction is expected under catch shares, even fishery managers didn’t anticipate the continued decline.

Sources: Intl Pacific Halibut Commission (1988-2012) Annual Reports; Nelson Bros Fisheries Ltd (2013 & 2006) Analysis of Commercial Fishing Licence, Quota, and Vessel Values.

“When it comes to the ownership [of licences and quota], we have had it stolen from these communities, from the individuals that live in these communities and it’s going to continue to be stolen in the name of consolidation.”

RIGHT / Herring fishery consolidation. Gray dots represent licence owners, while coloured dots are types of herring licences: roe herring by gillnet (green) and by seine (orange), plus spawn on kelp (purple). Clusters show where a single owner holds multiple licences. The largest cluster represents the 226 licences owned by Jim Pattison Enterprises and subsidiaries.

Source: DFO-Pacific Operations Branch (2014).





Various forms of commercial fishing have supported BC's coastal communities for thousands of years. But with licences and quota being bought up by fish companies and deep-pocketed individuals, that revenue stream is being lost. Reduced access to fish has led to loss of fisheries infrastructure, further shrinking both local fleets and communities. Coastal communities used to benefit from their adjacent resources. Today just about every fishing community is experiencing declining populations, increased unemployment, and shuttered storefronts.

This loss of local industry hits rural coastal communities hard. According to BC Stats, every thousand dollars that fishermen spend in their home communities generates \$1,490 of local income, \$550 in local GDP, and \$130 in government tax revenues. For every million dollars spent, 3.69 local jobs are created.

The Future of Fisheries in BC /

Despite the apparently gloomy outlook for BC's commercial fisheries, there remains a great deal of hope among fishermen and fishing communities – and rightfully so:

- Fishing is one of BC's most environmentally sustainable resource-based industries
- There is high consumer demand for seafood
- Fishing supports regional food security
- Commercial fishing is vital to economies in coastal communities

We must ask ourselves how commercial fishing's \$300 million in annual landed value should be distributed. Will there be a thriving small boat fleet or will we settle for a few massive vessels? What place will fishermen and coastal communities will hold in BC's future?

More information /

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Ecotrust Canada is an enterprising nonprofit whose purpose is to build the conservation economy. Working at the intersection of conservation and community economic development, we promote innovation and provide services for communities, First Nations and enterprises to green and grow their local economies. Our work is innovative, entrepreneurial, partnership-based and relentlessly practical.



The T. Buck Suzuki Environmental Foundation was founded in 1981 by commercial fishermen to protect habitat, prevent pollution, and promote sustainable fisheries. The Foundation supports ecosystem-based management by supporting integrated marine planning processes, connecting decision-makers with affected communities and stakeholders.