

Step 2 - Define the Privilege

Tracking Attributes of a Successful Catch Share

Key Attributes	Definition
Secure	Tenure length of shares is sufficiently long for participants to realize future benefits.
Capped	Catch limits or geographic areas are set at scientifically-appropriate levels.
Accountability	Share holders regularly comply with catch limits.
Limited	Shares include all sources of mortality (landed and discarded) and when combined do not exceed the catch limit or total geographic area.
Exclusive	Secure privileges are assigned to an entity (individual or group) and are clearly recognized and defensible by law.
Scaled	Management units are set at the appropriate biological level, taking into consideration social and political systems.
Transferable	Privilege holders can buy, sell and/or lease catch shares.

Now that you have defined and quantified the available resource, the second step in designing a catch share is to define the privilege. In short, you will answer four key questions: who will hold the privilege, whether the privilege will be catch-based or area and catch-based, what the annual allocation unit will be and how secure the privilege will be.

Once again, existing management plans will help guide this decision. For example, the existing licensing structure may determine who the privilege holder will be, and the existence of a catch limit will influence whether the privilege is area-based or catch-based.

By completing this step, your fishery will address the key catch share features **Secure** and **Limited**. This step also affects the feature **Exclusive**.

2.1 WHO WILL HOLD THE PRIVILEGE?

Catch shares allocate a secure portion of the fishery to a privilege holder. The choice of privilege holder can range from individuals to groups, independent businesses to communities. Catch shares go by a number of different names, but essentially there are two main types: those in which shares are allocated to an individual entity and those in which shares are allocated to a group.

Individual catch shares include:

- **Individual Quotas (IQs)** – shares allocated to individuals or individual entities. Recipients are generally fishermen and shares are non-transferable.

- Individual Transferable Quotas (ITQs) – shares allocated to individuals or individual entities. Recipients are generally fishermen and shares are transferable.
- Individual Fishing Quotas (IFQs) – shares allocated to individuals or individual entities. Recipients are generally fishermen and shares may or may not be transferable. The term IFQ is more commonly used in the United States rather than IQs or ITQs.
- Individual Vessel Quotas (IVQs) – shares allocated to an individual vessel. Shares may or may not be transferable, and when they are transferable, they generally transfer with the vessel. This has been used most commonly in Canada.
- Enterprise Allocations – shares allocated to a fishing company who determines the management of the shares. Shares may or may not be transferable between different companies. This has been used in Canada.

The majority of catch shares studied worldwide are individual-based systems. This may be a result of pre-existing limited access management systems in which individuals required a license to participate in the fishery, or a number of additional social factors. Individual catch share systems have also been implemented where there is a goal of maximizing the economic efficiency or value of the entire fishery. For example, both Australia and New Zealand had specific goals to increase the value of their fishery products and chose individual-based systems as the best way to achieve those goals (Straker et al., 2002).

Group catch shares include:

- Cooperatives – shares allocated to a group of fishermen or other entities. Sometimes the entire catch can be allocated to one cooperative or it can be split among multiple cooperatives (as in sector allocations described below).
- Sectors – shares allocated to different groups of fishermen, who are generally organized around a common feature, such as gear type or location. Commonly there will be multiple sectors within one fishery.
- Communities – shares allocated to a specific community with certain rules and stipulations that tie the share, or the proceeds of the share, to that community. These have often been called Community Development Quotas (CDQs). Permit banks, community license banks and Community Fishing Associations are also beginning to emerge, and these entities may be appropriate recipients or holders of catch share privileges. See NOAA's Technical Memo *The Design and Use of Limited Access Privilege Programs* (2007) for more detailed information on possible options that are authorized under US federal law.

Cooperatives, sectors and community shares have generally been implemented where one or more of the following characteristics exist: discrete fishing units with strong social bonds, common interests and values, ability to monitor and enforce rules, or mutually agreed upon laws, norms and methods for functioning as a group. Group catch shares are also more common when the goal of the catch share is to promote or benefit a specified group of participants. When there is a cohesive, tight-knit group that can collectively

manage a fishery, or there is a goal of promoting a certain unit, a group catch share may be preferable.

There are also catch shares in which share holders are both individuals and groups. For example, since 1996, New Zealand has given 20% of all new shares to the Maori, which they manage as a group, while the remaining 80% is allocated to individuals under the Quota Management System (Straker et al., 2002).

All of these approaches are feasible and can function well. The key is to assess how participants are already organized and think about the goals of your fishery.

Additional Considerations

Once you have decided on individual-based, group-based, or mixed type of catch share, the specific privilege holder must still be determined. In the case of individual-based systems, existing licensing conditions will be important determinants. In almost all cases where a fishery has moved from a limited entry system to an individual-based catch share system, the catch share privilege holder has been the license holder. For example, in British Columbia, vessels are licensed, rather than individuals. Therefore, their share of the catch is tied to a vessel (Grafton et al., 2005a). In the United States, permits are generally held by an individual (though there may be requirements for it to be tied to a vessel) and US catch shares have generally reflected that by allocating catch shares to individual participants (Redstone Strategy Group, LLC, 2006).

For group catch shares, there must be an actual entity to hold the shares. Entities that hold and manage the shares could be an existing fishermen's association, cooperative association, or local government organization. If a suitable entity does not exist, then it must be created. For example, when NOAA approved (upon the recommendation of the New England Fishery Management Council) a cod sector allocation for the George's Bank Hook and Fixed Gear Sectors, the fishermen were required to create a legal entity with the responsibility of managing the allocation and reporting to the government on a regular basis.

Furthermore, when catch shares are group-based, there are two different levels of interaction to consider. First, the interaction among groups, i.e. can shares be traded across groups? And second, the interaction within a group, i.e. how do group members divide up the catch share?

Catch shares can be exceedingly flexible with group and individual units interacting on various levels. For example, a fishery management plan may identify an individual catch share, but various fishermen can choose to create agreements among themselves and act like a group. On the flip side, when a management plan creates group catch shares, each group may choose to implement individual shares among themselves in order to effectively fish and manage their shares.

2.2 WILL THE PRIVILEGE BE CATCH-BASED OR AREA-BASED?

You can choose to design an area-based or catch-based catch share or a combination of both. Under catch-based catch shares, a total amount of allowable catch is identified (see Step 1 – Define and Quantify the Available Resource) and the privileges conferred to participants relate to the amount of fish each entity is allowed to catch. Area-based catch shares, commonly called Territorial Use Rights for Fishing (TURFs), allocate a specific area to either a group or an individual. TURFs can either have a catch limit set for one or more species, or, when a meaningful catch limit cannot be set, TURFs can provide for allocation on an area basis without setting a catch limit (a sub-optimal alternative).

Catch-based

The majority of systems recognized and defined around the world as catch shares are catch-based systems. In catch-based systems, participants are allowed to fish in a broad area; thus their effort will undoubtedly overlap with other fishermen. Though fishing activities may be limited in certain places to achieve other management objectives – such as protecting spawning stocks, protecting key habitats, or for scientific research – catch-based systems do not identify and assign a specific area to an individual or group.

Area-based

TURFs have frequently been used in locations where there are clearly defined and defensible boundaries and for species that are relatively sedentary. Shellfish, such as oysters, clams and scallops, and crustaceans such as lobsters, snails and urchins have been successfully managed by TURFs. Enclosed lagoons and bays or easily defined kelp beds and reefs may also be good candidates for TURFs. TURFs and similar area-based management approaches, which have a long history of use around the world, have been used by many indigenous cultures and communities and are still in common use today in developing countries (Cancino et al., 2007). Some of these have catch limits and others do not. See Step 2 in Practice for further discussion of area-based approaches.

2.3 WHAT WILL THE ANNUAL ALLOCATION UNIT BE?

The allocation unit is the manner in and amount of which the privilege is allocated. For catch-based systems, the output unit is the way in which the portion of the total catch, as represented by a share, is actually computed. There are two distinct options: absolute weight units or percentage shares of the overall cap. In the case of an area-based catch share without a catch limit, the unit of allocation will be a secure area and listing of specific species that are allowed to be harvested. When the catch share is area and catch-based, the allocation will be a combination of the above.

Percentage approach

Catch share fisheries have overwhelmingly favored the percentage approach to allocating catch shares. Under this approach, a share holder gets a certain percentage of the catch limit for a specific species as shares. These represent a proportional amount of the overall catch. While the proportion in relation to other participants will stay the same (assuming no trading or leasing has occurred), the amount of catch allowed in any given year may change. In each year, an individual's shares (total percentage) are multiplied by the catch limit for that species to determine an individual catch allocation for the year. For example, if a share holder has 1% of the species share and the catch limit is 100,000 tons, then that share holder is allowed to catch 1,000 tons that year. If the overall catch limit increases to 150,000 tons the following year, then the same share holder would be allowed to catch 1,500 tons.

Absolute weight approach

Absolute weight units allocate a specific amount of fish to a participant in the form of pounds or tons. Each year, the participant is ensured the same amount of fish. If the catch limit is adjusted from year to year, then the government plays a role in the market. For example, if the catch limit goes down, the government must buy a corresponding amount from participants in the fishery, and if the catch share goes up, the government would sell additional shares.

Rule of Thumb - Percentage shares of the overall cap are preferable to absolute weight units.

Trade-offs

Who bears the risk of change, and therefore who also reaps the rewards of success, is the main difference between a percentage share system and an absolute weight system. Under the percentage share system, existing catch share holders bear the risks of changes to the catch limit. Under absolute weight units, the government bears the risk (Straker et al., 2002).

Experience has shown that fishermen are generally better equipped to bear the risk and reap the reward of changes in stock that translate into changes in catch limits. This favors a percentage-based approach. Importantly, under a percentage share system, share holders can be rewarded for increased stewardship. When a catch limit increases, then the amount of fish a participant is allowed to catch in a year increases. This increase allows participants to directly reap the benefits of conservation choices and provides a direct incentive for conservation.

Often, percentage based systems have increased industry participation in collecting science and sponsoring research in an effort to learn more about the stock and increase catch limits (Hilborn, 2004). Improved science increases understanding of stock dynamics. If industry-led science is encouraged, the government should establish protocols and appropriate standards.

One potential benefit of absolute weight unit systems is the ability to create bonus incentives for certain outcomes if the stock increases. For example, in years of increasing catch limits, governments could allocate additional shares to achieve various goals such as conservation or encouraging new entrants. While this aspect of the system may be attractive to government, experience has shown that governments are ill-equipped to bear the financial burden of declining stocks and catch limits (see Box 4 on New Zealand's experience). In addition, governments may face internal conflict about the cost of lowering limits, potentially even to the point of going against recommended science.

Box 4 - New Zealand's Experience with Absolute Weight Units

New Zealand experimented with an absolute weight unit approach when first implementing catch shares in 1986. They initially allocated shares as metric tons of the catch to individual fishermen. Though the government was initially interested in buying and selling shares, the approach created two immediate problems. First, through an appeals process, the government actually allocated more shares than the total catch limit. Second, shortly after implementation new science showed it was necessary to cut the catch limit for several species. The government had to enter the market and buy back significant amounts of shares from share holders. This was extremely expensive and the government determined it could not afford to continue to pay for changes in the catch limit. In 1990, New Zealand passed legislation to change their allocation to a percentage approach (Straker et al., 2002).

2.4 HOW SECURE WILL THE PRIVILEGE BE?

One of the main differences between catch share systems and open or limited access systems is the security of the privilege. Tenure is the length of time for which catch shares are allocated. Fishing privileges can be allocated for as short as a year or as long as for perpetuity. In most limited access fisheries, permits for participation must be renewed every year by paying license fees. Generally, there is an assumption that participants will be allowed to renew, but the rules and regulations regarding participation regularly change, resulting in overall instability.

On the other hand, catch shares allocate a secure share of the catch via weight or percentage shares, rather than the opportunity to compete with other fishermen for catch. There is a strong assumption that the privilege holder's share is secure for a long time. Many countries, including New Zealand, Australia and Iceland, allocate shares into perpetuity, in order to maximize incentives for long-term sustainability. United States federal law says that catch shares can be allocated for 10 years with a presumption of renewal (Public Law 94-265.16 U.S.C. 1853 et seq.). Generally, a longer tenure induces

a stronger sense of stewardship and recognition that short-term decisions and actions directly influence future profitability.

Some programs issue catch shares on an annual basis, with renewal subject to satisfactory performance. For example, the Canadian Minister of Fisheries retains the right to cancel or reissue licenses at any time based on performance. In practice, licenses are rolled over every year (Gislason, 2006).

If shares are only granted for one year without a strong assumption of renewal, then there is little or no incentive for holders to invest in the long-term health of the stock. The longer the tenure, the greater the opportunity for the current holder to reap the benefits of good stewardship in the form of future increase in the stock and catch limits.

Rule of Thumb - Allocate shares for as long as possible to encourage stewardship. This can be achieved by allocating into perpetuity and/or for significant periods of time with a strong assumption of renewal, provided rules are adhered to.

Trade-offs

The length of tenure and the security of the privilege are important components of a catch share in order to ensure stewardship and sustainability. The program must strike a balance between creating appropriate incentives for stewardship and maintaining the resource as a public good. Some argue that allocation into perpetuity gives holders a sense of entitlement or the right to fish that is not technically theirs. On the other hand, many fishermen highlight unpredictability in management from year to year as an impediment to good business planning, including improving the health of the stock.

Catch shares are a contract between the share holder and the management authority. Managers are responsible for managing a public good and providing benefit to the public and the participants are responsible for abiding by the rules and regulations set out. If a participant violates stated rules or regulations, then it is appropriate for the management authority to revoke privileges.

To ensure maximum biological sustainability, length of tenure should, at a minimum, correspond with the underlying biology of the species in order to match the rebuilding time of a stock. For example, fast growing, abundant species may not require as long a period of tenure in order to promote stewardship behavior, whereas slow-growing, less abundant species may require a longer tenure. When tenure length is matched to stock rebuilding times as a minimum, holders will have more incentive to comply with rebuilding schedules because they will reap benefits in the future from the increased value of their asset.

A common concern about the length of tenure is the impact on potential new entrants. Specifically, if privileges are allocated into perpetuity, then how will new participants

enter the fishery? A number of design options are outlined in “Step 3—Identify Eligible Privilege Holders and Determine Transferability” to address the concern about new entrants.

It may be instructive to review other public resources and their approach to management. Most other public resources in the US have been granted to users in perpetuity or for a specific period of time with a strong assumption of renewal (White, 2006). Finally, regular reviews of the program are strongly recommended to ensure that the program is meeting its goals.

2.5 WHEN SHOULD AN EFFORT-BASED APPROACH BE CONSIDERED?

Tradable effort shares place a maximum cap on the total number of effort units available, such as days, pots, trawl tows, etc. An individual can hold a share of the overall unit, either as a finite number or a percentage of the effort cap. Managers can then adjust the cap up and down as required for stock sustainability.

Tradable effort shares possess many key attributes of a successful catch share (**Secure**, **Accountable** and **Exclusive**). However, the key difference is that the shares are not specifically tied to the catch and the mortality of the species. Rather, they are tied to the amount of allowed effort. Therefore, a fishery may still exceed a sustainable catch level if the effort units are not set appropriately.

Tradable effort shares may be an appropriate approach for fisheries where it is challenging to set a catch limit, due to either lack of data or the characteristics of the species, such as a species with variable annual recruitment. Generally, these fisheries have low bycatch mortality and very weak stock recruitment relationships.

Under tradable effort shares, there is still the challenge of setting the correct input-based control (effort) in order to achieve the appropriate output (catch). Tradable effort share programs have most often been used in fisheries targeting crustaceans, such as in Florida’s and Australia’s tradable trap limits programs which target lobster and Australia’s tradable effort units program which targets northern prawn (Step 2 in Practice - TURFs in Mexico, Japan and Chile)(Vieira and Hohnen, 2007). Tradable effort systems have often been effective when existing size, sex and season regulations are effectively meeting biological goals for a fishery but there is substantial overcapitalization or other economic goals are not being met. Tradable effort shares are unlikely to work well when there are high bycatch rates, as well as when there is low survivability of discards.

It is also possible to implement an individual-based, group-based or area-based catch share alongside an effort-based system.

Step 2 in Practice - TURFs in Mexico, Japan and Chile

Territorial Use Rights for Fishing (TURFs) allocate a specific area to either a group or an individual. TURFs have frequently been used for species that are relatively sedentary, in locations where there are clearly defined and defensible boundaries, and when there is an established social system for enforcing geographically-based rules and norms.

Baja Spiny Lobster in Mexico

The Baja spiny lobster (*Panulirus interruptus*) fishery is a single stock, single species fishery located in central Baja along the Pacific coast, ranging from Punta Abreojos to Isla Cedros. The Federation of Fishing Cooperatives (FEDECOOP) manages the fishery and consists of nine cooperatives with participation from ten villages. Each of the nine community-based cooperatives has a defined territory to which they are each guaranteed access in return for managing the stock within the rules of the FEDECOOP.

Managed this way since the 1930s, by 2004 the fishery had approximately 500 fishermen participating from the nine cooperatives. Fishing rights are limited to community members in the designated member villages and are granted as 20 year concessions for fishing from the government. The National Commission on Aquaculture and Fisheries (Comisión Nacional de Acuacultura y Pesca, CONAPESCA) is the management authority for Baja spiny lobster and informal management oversight is enforced by the members of FEDECOOP communities. In 2004, the fishery was awarded Marine Stewardship Council (MSC) certification. The Baja spiny lobster fishery was the first small-scale community fishery from a developing country to achieve the Marine Stewardship Council certification.

Nearshore fisheries in Japan

Japanese coastal fisheries are managed via community-based TURFs that evolved from traditional organizations dating back to Japan's feudal days. Presently, there are over 1,600 fishery cooperative associations in Japan with exclusive fishing rights. The fisheries are co-managed by two types of organizations: fishery cooperative associations (FCAs) and fishery management organizations (FMOs). FCAs are comprised of the communities that participate in the coastal fisheries and the Japanese government has granted them the exclusive right to manage these fisheries. Community members are the only people eligible for fishing rights in FCA coastal fisheries and therefore access privileges are not transferable. The management areas are defined by geo-political backgrounds rather than stock boundaries. A single FCA manages more than 1 community; therefore it manages multiple species, gears, and sectors at once. Additionally, FCAs have the responsibility for keeping catch records within their communities of management.

Fishery management organizations (FMOs) are subdivision of FCAs and are specific to a fishery/species. FMOs are comprised of fishermen who fish at the same fishing grounds, fish the same species stocks, or employ the same type of fishing gear. These groups are not legally recognized by the government but are self organized groups. Responsibilities

of a FMO can include fishery resource management, fishing ground management, and fishing effort control¹. They are legitimately recognized by the FCAs, and together they help manage the fishing grounds (Cancino et al., 2007).

The Japanese experience highlights how different layers of group-based and area-based management can work well together. They have FCAs overseeing a larger area for biological reasons and FMOs working on a small-scale community level. Japan has managed their fisheries through this cooperative area-based approach for hundreds of years.

Chilean caletas

After suffering stock depletion and race-like conditions under open access management, Chile implemented an extensive TURF system for its coastal fisheries. Fishery waters that extend from the shoreline up to five nautical miles offshore are divided and managed by organizations called caletas. Each caleta is organized by members of fishermen's unions, called sindicatos. As of 2007, there are 453 permanent artisanal caletas along the coast of Chile.

The TURF system is split into defined spatial units, called Management and Exploitation Areas of Benthic Resources (MEABRs), in which small fishing associations receive exclusive harvesting rights for benthic resources within these particular zones. The TURF system was introduced by the national government in the early 1990s to assist with the failing shellfish fisheries, most notably the Chilean abalone (loco) fisheries, which were being quickly depleted by an open-access style of management.

The Undersecretary of Fisheries, Chile's lead fisheries management body, is in charge of allocating MEABRs among the legally sanctioned artisanal associations. The national government is also responsible for setting Total Allowable Catch (TAC) limits, size limits, and gear restrictions for the MEABRs and employing officials to monitor the status of the fishery and to preparing technical reports. However, the local fisherman groups self-manage their MEABRs by implementing and enforcing their own strategies, such as the right to exclude non-members from the MEABR. Such management strategies vary among different MEABRs. For example, some groups evenly distribute their MEABR TAC between its members, effectively creating individual quotas within their TURF. Others allow fishermen to fish the TAC over time as they please, but pay members a price proportional to the size and quality of the product they harvest. Both of these approaches remove some of the incentives to race for fish.

As of May 2005, approximately 547 MEABRs have been created, 301 of which have fully-approved management plans, fishing about 50 species. Some artisanal associations have combined into larger cooperatives in order to sell management area resources between their given associations. For example, in central Chile fifteen fishing associations created the PACIFICOOP and in Southern Chile five fishing groups

(representing approximately 700 artisanal fishers) created a private company called ERPESCAR.

The Chilean system highlights how the management of fisheries has been tailored to local conditions and mitigated the race for fish.

Summary

Although these three examples have differing characteristics and management techniques, they are all examples of TURF-managed fisheries. The common thread between these three examples is the ability for the group to create their own management strategies and provide incentives for stewardship and conservation of the resources.

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Step 2 in Practice - An Effort-Based Approach for Australia's Northern Prawn Fishery

The Northern Prawn Fishery (NPF), located off Australia's northern coast, is a multi-species fishery, with 80% of the harvest comprised of white banana prawns, grooved tiger prawns and brown tiger prawns. These species are harvested from vessels ranging in length from 14 to 29 meters using a technique known as otter trawling, in which nets are pulled along the bottom of the seafloor behind the vessel. The commercial fishery is open twice during the year, from April/May to June and again from August to November. The NPF is one of Australia's most valuable fisheries, with the current value of production estimated at \$64 million in 2007, having declined from \$135 million in 2001 (AFMA, 2009b).

Since 2000, the Northern Prawn Fishery has been managed through a system of tradable effort units. Under this system the total amount of gear used in the fishery is limited by capping the fishery wide length of headrope used for trawling nets. Used in conjunction with season lengths, this gear restriction limits the amount of effort exerted to catch prawns in the fishery, and in turn limits the total catch (Vieira and Hohnen, 2007).

A tradable effort system was chosen by the Australian Fisheries Management Authority, in part because it was deemed too difficult to determine total allowable catch and individual quotas for each species. The tradable effort shares used in the Northern Prawn Fishery meet some of the key features of catch shares, namely they are secure, accountable and exclusive. However, because the system targets the amount of effort used in the fishery rather than setting a clear cap on catch, there is still a high degree of uncertainty around the each year's harvest.

By choosing an effort-based system, the management authority has had little flexibility in changing harvest levels and has had to consistently reduce allowable effort units to achieve reductions in harvest levels. In both 2002 and 2005, effort levels were decreased through a 25% reduction in the total allowable headrope length in the fishery. In 2006 the Australian government conducted a costly buy-back of some tradable effort units, reducing the total amount of effort in the fishery by 34%.

While the effort-based system has had some success, the Australian Fisheries Management Authority plans to implement a catch-based catch share system in the North Prawn Fishery by 2010. The goal is to overcome the problems associated with establishing correct harvest levels through limiting effort (Vieira and Hohnen, 2007).

Status: Currently banana prawn, brown tiger prawn, and grooved tiger prawn stocks are not overfished. Other species in the Northern Prawn Fishery have not been assessed (AFMA, 2009b).

Table 1 – Step 2 Design Options - The table below provides guidance on selecting design options based on your goals. The representative objectives – Ensuring Effective Stewardship, Maximizing Fleet-Wide Economic Benefit and Promoting and Improving Fishing-Related Jobs and Communities – are listed on the left side of the table along with goals within each objective, and all steps are represented across the top of the table. To use the table, review the guidance in the boxes below each step to understand which design options will help you meet your goals.

			Privilege Holder	Area-Based or Catch-Based	Annual Allocation Unit	Tenure / Duration of the Privilege
Outcomes	Ensure Effective Stewardship	End overfishing		Catch-based systems have often been preferable in order to quantify the amount of catch in a fishery. Area-based systems with tight feedback loops may be preferable for sedentary, localized species.	It is easier to adjust catch limits under percentage-based systems, which may be important to end overfishing and/or rebuild stocks. Also, percentage shares and exclusive area-based approaches directly link the benefits of rebuilding to the share holders.	A longer, more secure tenure will reward share holders for today's stewardship in the form of increased future catches from stable and rebuilt stocks and is an important incentive to encourage stewardship behavior.
		Rebuild stocks				
		Reduce waste and bycatch				
	Maximize Fleet-Wide Economic Benefit Through Increased Asset Value	Increased asset value due to long-term sustainability			Area-based catch shares that require stewardship of all species in the area may help reduce waste and bycatch.	Percentage shares allow share holders to reap the benefits of rebuilt stocks and increases in catch limits; absolute weight systems distribute benefits to the government.

		Privilege Holder	Area-Based or Catch-Based	Annual Allocation Unit	Tenure / Duration of the Privilege	
		Address overcapitalization	Individual catch shares are more likely to reduce overcapitalization more quickly and more fully.	Catch-based systems are more likely to reduce overcapitalization.		Long-term stability and confidence in the management system will encourage reduced overcapitalization.
		Leverage the market place and encourage innovation	Groups may be able to create better economies of scale and improve access to certain markets. Individuals may be able to differentiate their product (through value-added or high quality products) and gain a market advantage.			Longer tenure will allow participants to build longer-term business plans and create stronger, more stable market relationships.
	Promote and Improve Fishing-Related Jobs and Communities	Improve Jobs	Individual catch shares may lead to higher paid jobs; group-based catch share may result in a larger number of jobs.		Absolute weight units may be easier to distribute to new entrants and/or fishing communities if the catch limit grows over time and new shares can be allocated.	Longer tenure is likely to create more stable jobs; However it may also create larger barriers to entry for new participants.
		Support and Promote Fishing Communities	Consider a community-based catch share in which the privilege is tied to the community and community access to shares is guaranteed.	If there is a localized area with an adjacent community, consider an area-based approach.		Longer tenure that is tied to the community will provide the community with more stable, predictable access to the resource.
		Ensuring Fairness	Stakeholders in fisheries comprised of one or more tight-knit groups may prefer group-based approaches. Fisheries with a strong history of independent businesses may consider individual catch shares to be more fair.			

Design Worksheet

Step 2 - Define the Privilege

USE THIS SHEET TO RECORD YOUR NOTES AND DESIGN DECISIONS AS YOU WORK THROUGH THE DESIGN MANUAL

What are your goals?

1. Who will hold the privilege?

2. Will the privilege be catch-based or area- and catch-based?

3. What will the annual allocation unit be? **CIRCLE ONE**

ABSOLUTE WEIGHTS PERCENTAGE OF CATCH AREA

4. How secure will the privilege be?

5. When should an effort based approach be considered?

At a Glance - Define the Privilege

The second step in designing a catch share is to define the privilege. In short, you will answer four key questions: who will hold the privilege, whether the privilege will be catch-based or area and catch-based, what the annual allocation unit will be and how secure the privilege will be. By completing this step, your fishery will address the key catch share features **Secure, Limited and Exclusive**.

1. Who will hold the privilege?

The catch share holder can either be an individual or a group. Individual-based catch shares include Individual Quotas (IQs), Individual Transferable Quotas (ITQs), Individual Fishing Quotas (IFQs), Individual Vessel Quotas (IVQs) and Enterprise Allocations. Group-based catch shares include cooperative, sectors and communities. Individual catch shares are more common when there is a history of individual licenses. When there is cohesive, tight-knit group that can collectively manage a fishery, or there is a goal of promoting a certain group, group catch shares have been used.

2. Will the privilege be catch-based or area-based?

Catch shares can be either catch-based or area-based or a combination of both. Most commonly cited catch shares are catch-based and are generally used when it is possible to set a catch limit. Area-based catch shares, also known as Territorial Use Rights for Fishing (TURFs), are commonly used when a species is relatively sedentary and when area boundaries can be clearly identified and defended.

3. What will the annual allocation unit be?

The allocation unit defines the nature of the privilege that will be allocated on an annual basis. For area-based catch shares, the annual allocation unit is a specific area. Options for catch-based catch shares are percentage shares and absolute weight units. Percentage shares of the overall cap are preferable.

4. How secure will the privilege be?

Tenure length is directly related to the security of the privilege. Privileges should be allocated for as long as possible to encourage stewardship. Tenure length can also impact the ability for new entrants to be competitive and so must be carefully considered. Allocating privileges for significant periods of time with a strong assumption of renewal is common.

5. When should an effort-based approach be considered?

Effort-based catch shares allocate a certain amount of effort for the fishery and then allow participants to trade efforts shares. Effort-based approaches are not true catch shares. However, when it is difficult to set a catch or area limit and when sex, size and season closures are not preventing overcapitalization then a tradable effort share system is advisable.