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## **WHEN FISHERMEN DECIDE. CO-MANAGING LOCAL RESOURCES. User conflict and regulatory decision-making in fjord fisheries; a case-study.**

### **Abstract.**

In the Norwegian fisheries there is a long line of conflicts over access and exploitation of local resource systems, located to fjords or inshore waters adjacent to local communities. Local user groups have often had to compete with ex-locals exploiting seasonal or stationary resources, mostly coming out as losers due to differences in gear equipments, drifting patterns and catch capacities. More or less it is a conflict between mobile, specialized and capitalized fishing versus local, diversified drifting patterns using traditional and less capitalized technology.

Over the last decades the local fjord fishermen have diminished both in number and in political importance whereas local fish resources has become increasingly important due to declining access and dwindling resources both nationally and internationally. Along with increased competition over accessible resources, local resource systems tend to become less local in regulatory terms. Local regulations favouring traditional local user groups are hard to come by and conflicts come to the fore as the pressure on local ecosystems arises.

This study will focus on such local conflicts, drawing upon some developmental lines in fjord fisheries. What are the characteristics of the fishing taking place in fjord systems and why are conflicts still vivid after so many years of public regulations? How has the public authorities organized and responded to local regulatory needs and claims? What are the prospects for functional maintenance of local resource systems and their public recognition as local systems? These are some of the questions for discussion. The study will draw upon recent experiences from a local fjord fishing conflict in Nordland county, also including Sami communities and proclaimed indigenous rights.

### ***Introduction***

In the Norwegian fisheries there is a long line of conflicts concerning access and exploitation of local resource systems located to fjords and inshore waters adjacent to local communities. Local user groups have often had to compete with ex-locals exploiting seasonal or stationary resources, mostly coming out as losers due to differences in gear equipment, fishing practice and catch capacities. By and large it is a conflict between mobile, specialized and capitalized fishing versus local, diversified fishing patterns using traditional and less capitalized technology.

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This paper will focus on such local conflicts, drawing upon some developmental traits of fjord fisheries. What are the characteristics of the fishing taking place in fjord systems and why are conflicts still so intense after so many years of public regulations? How have the public authorities organized and responded to local regulatory needs and demands? What are the prospects for functional maintenance of local resource systems and their public recognition as local systems? These are some of the questions for discussion. Experiences from a local fjord fishing conflict in Nordland County will be at the core of our discussion. In Tysfjord a seasonal fishery for herring has led to a severe dispute between the local fishermen and the visiting fleet of purse seiners and herring trawlers. The communities along the fjord have a substantial Saami population and the conflict is thus also a question of proclaimed indigenous rights to exploit local resources.

Regulative policies in the fisheries may be conducted in different ways, often dependent on more general traits of government, relevant context and tradition. In Norway there is a long tradition of an active problem-solving state in close cooperation with organized fishing interests in working out and implementing regulations. We will proceed to shed some light on the institutional frame and analytical perspectives for discussing regulative needs and regulations at local level, focusing on the problems of defining fisheries and fish resources locally. Before turning to the Tysfjord case, we will give a brief description of characteristics of local fjord fishing and the challenges such forms of fishing are facing. In our analysis we will draw upon institutional theory, how institutional design is favouring some problems and solutions and how political power and influence are distributed within the actual institutional frame. These two analytical perspectives are then discussed based on the findings of the Tysfjord case, focusing on the regulative system's capacity of securing sustainability of a local resource system, ending up in a discussion of the need for institutional change in order to meet the regulative needs in a local- regional context.

### **The politics of regulation**

Conflicts among user groups are well known events as regards fisheries. In the history of the Norwegian fisheries we find ample examples among groups with different gear types and harvesting patterns, and situations where the state has been brought in as a mediator and conflict solver. Some of our earliest fishery laws were rooted in such conflicts. (Solhaug 1976)

The state has been called upon when conflicts have turned up and the state has willingly interfered by making regulative laws, securing or distributing rights and initiating organizational solutions (Hallenstvedt 1982). In a small population like the Norwegian one, there is a short distance between problems in the fishing industry and the national political agenda. Members of Parliament, especially from Northern

Norway, have a rich tradition for voicing fishery problems and solutions for the best of their region and they often work together across party lines.

In some cases organizational solutions, often in combination with given rights and backed by public laws, have been direct results of the public interference in the fisheries. The licensing and the distribution of trawler licences is one example. A special commission was put up for regulative purposes, as was the case for controlling market forces, so-called «external capital», to own and operate fishing vessels. In both these cases a public law and a private-public committee where organized fishing interests influenced the decisions, became the solution to some highly disputed topics (Mikalsen, Sagdahl 1982). But there are also examples of fishermen having found their own way of solving problems, where the state followed up by formalizing and authorizing the solutions. A case in point is the traditional cod fishery at Lofoten Islands. With thousands of participants, gathering in the area for some winter months, the need for regulations and conflict avoidance has been more than urgent. The old tradition of dividing the sea area into sections was later developed into areas for different gear types. A co-managing body was put up backed by a public law. This regulative system securing order at sea has over several decades proved to be highly successful. (Jentoft, Kristoffersen 1989)

Delegation of public tasks to non-government or semi-public actors is often found in Western public management, especially in Scandinavia (Olsen 1983). Political scientists have taken a great interest in these forms of political-administrative management, discussing their functionality, their strengthening or possible threat to democracy. (Schmitter 1974, Lembruch 1977) Whether these forms of governance should be interpreted as corporate or not is a long debate in the body of political science literature. Cawson refers to these forms, operating just on certain fields of management, as semi-corporativism (Cawson 1985). Most researchers seem to agree that such bodies are justified by their functionality, by their ability to bring workable solutions to politics (Olsen 1977). From a democratic perspective such bodies raises a number of critical questions. Only some interests are granted membership, but the decisions made may have consequences for a larger number of interests or society as a whole? It gives economic actors political influence as a result of economic positions or resources, a direct channel to government to solve specific problems, while most citizens just have to resort to the democratic right to cast a vote in elections, thus indirectly influencing policy outcomes. Activities in such bodies may even alter parliamentary policy by influencing its implementation, and their actions are often obscure to the public. More crucial questions could be added. Are the organizational delegates representative for the interests they represent? How are they chosen? Another critical question is the element of cooptation working in such political-administrative bodies over time. From a democratic perspective these forms of government raise a number of critical questions. The bottom line is that such bodies are justified by their political-administrative functionality, not from any contribution they may have in sustaining or developing democracy.

In Norway we find that such forms of government have frequently been used in the post-war periode in the economic sphere of society. The cooperation with organized

labour and industrial interest groups, has been close and lasting (Moren 1974, Olsen 1977). Specialized committees have been established where public and private interests meet to form or implement public policy. This corporative structure comprises especially three types of governing activities; advising on policy formation or its implementation, decisional or controlling tasks (Hallenstvedt and Moren 1975). Such political-administrative bodies may be established on a more permanent or on an ad-hoc basis. In the field of fishery policy such cooperative bodies are frequently found, especially when it comes to outlining disputed policies or implementing regulatory schemes. (Mikalsen, Sagdahl 1982)

The politics of regulations in economic matters are often disputed and may easily lead to protests and politicization, political mobilization and unwanted political costs. Protests and political turbulence from discontented actors in a small society like the Norwegian one, may easily become political realities. Such conflicts are both time and attention consuming and may even lead to lost voters and supporters. Such costs are often found in regulative, distributional or redistributive policies, where the demand structure is heterogeneous (Lowi 1964, Dye 1970). In cases of integrated demands and substantial political costs for the public decision-makers, some kind of self-regulation is often preferred. Regulations and self-regulations are what Salisbury and Heinz (1970) denote as structural policy, leading to authority structures and rules for future distributions. The more costly it is to organize the requisite coalition on an issue, the more likely it is to come out with structural solutions rather than allocative ones (Salisbury, Heinz 1970). Reduction or elimination of potential political costs and finding functional solutions to administrative problems are probably the main motivation for establishing these semi-corporative bodies, where solutions are found, not based on strict interpretation of laws and statutes but rather based on discretion, negotiation and discourse. Practical compromises and co-optation of critical voices, integrated interests rather than disintegration and political protests are likely outcomes of this corporate-functional policy-making system.

In Norwegian fishery administration we find the distribution of licences and quotas in regulated fisheries is made based on the advice of an advisory body, where appointed representatives from the Fishermen's Union form the majority. The advice given by the Regulative Council most often plays a decisive role in the process (Hoel, Jentoft and Mikalsen 1996). The importance of the close cooperation with the Fishermen's Union is illustrated by the presence of the union's steering committee meeting in the same town at the same time as the Regulative Council, ready to give its advice if needed (Sagdahl 1992). To overrule or disregard the advice given, will easily lead to disintegration of interests and an uncertain political outcome.

In the literature of the management of common property resources such corporative arrangements are often labelled co-management. The evaluation of co-management experiences is focused on its functionality in avoiding conflicts, bringing about workable solutions, securing legitimacy to the conducted policy and even of securing sustainability of the resources. The experiences differ, but by and large their functionality is proven (Ostrom 1990, Pinkerton 1989, McCay and Acheson 1987). The notion of co-management is used in a rather broad term by some authors (Pinkerton

1989), with a close link to community based problem situations. Others are arguing for a stricter definition, limiting it to bodies with decisional status representing and cooperating with the public authorities in the field (Jentoft 1989). The limitation of the concept as used by Jentoft and McCay is a confinement to situations of self-governance within legal frameworks, decentralized rights and responsibilities to make decisions (Jentoft and McCay 1966). Jentoft and Kristoffersen's study of the cooperation taking place under the seasonal Lofoten cod fishery, is an example of co-management, and in this case of a successful co-management by delegation of regulatory power (Jentoft and Kristoffersen 1989).

In our case, the conflicts taking place in fjord fisheries, we find a somewhat similar body working, the Regional Regulatory Committee, but just left with an advisory status. As in the case of the Lofoten fishery, its main function is to solve area conflicts among different user groups. A study of its managing capacity in the county of Troms, gives rather pessimistic results for its functionality as to reaching workable compromises (Jentoft, Mikalsen 1992). However, the difference in formal status between these two cases of «comanagement», do not necessarily influence the very outcomes. Advice may be costly to neglect in a political world. If neglected, legitimacy will be questioned and the implementation of the decision will easily be challenged. But this is also a question of the representativity of the advisory or decisional co-managing body and the question of scale. Is the decision taken at a level functional for solving the problems at stake? Are local or community linked problems just local problems or do they have to be evaluated in a broader context? If so, what is functional representation? At what level should the decisions be taken? These are some of the questions that will be addressed in the following.

### ***Local ecosystems - how local?***

Local access and abundance of fish resources do not necessarily mean that the resources may be defined as local resources in the strict meaning of the word. The concept local ecosystem is rather vague and should be clarified. In our context it implies a rather limited sea territory, a fjord or inshore waters adjacent to local communities where resident fishermen exploit the resource system for most of the year. Knowledge gained by experience on how the system works is more or less shared by the local users and they have a vital interest in sustaining the resources.

Still the concept local ecosystem is somewhat blurred. The ecosystem as such can hardly be defined within fixed territorial borders. It consists of a complex interplay among some relatively stationary and some mobile species, such as different year-classes of pelagic species as herring, mackerel and coalfish. And local cod mingles through winter and spring with migrating arctic cod. New knowledge about the existence of local cod stocks makes these resources somewhat more local and questions the functionality of the existing code of regulations. (Eliassen 1993)

But the interplay between local and migrating resources does not only improve the resource base for exploitation. It also implies dependence and vulnerability of action taken by ex-local fishing interests and the overall regulatory system. If migrating arctic cod fails to appear in the local waters or is reduced in quantity, because it is

diminished by distant water fishing, it will certainly have a severe economic impact on the local fishermen as cod is the core fishery for most of them. Likewise, if the pelagic resources, forming a major part of the feeding base for most of the other species, become diminished, it will have a severe impact on the local resource system's way of functioning. The overexploitation and subsequent collapse of the Atlantic-scandic herring stock at the turn of the sixties, led to sudden impacts of the availability of predatory species in fjords and inshore waters. Local ecosystems are in this way vulnerable for events taking place in the system's environment. As a subsystem it is rather open and dependent on the state of the greater system it is a part of .

Not only the resources are hard to define as local. So also are the users. As an open system ex-local fishermen have access to the resources on the same terms as the local residents. While the latter mostly operate with differentiated forms of fishing, the visiting fishermen tend to be more specialized , using bigger boats and more capitalized fishing gear . Such vessels will have a greater catching capacity and a more intensive fishing pattern than the local ones. A clash of interests between these two groups of vessels and fishing practices are well known along the coast. Gear collisions, competition and being squeezed away from fishing grounds, interceptions in the way the local fishing fleet operates represent well known conflicts regulatory authorities have to face.

So far we have given a rudimentary description of a local ecosystem, that can hardly be defined within fixed territorial borders, neither for resources nor users . The system is open and its way of functioning is dependent on the characteristics of its wider environment. Another important feature is that the local ecosystem is not in a state of a mutual interaction with its environment. We are facing a serial system, where the local fishing conditions are more or less a sum of effects stemming from events taking place in the superior or wider system within which it belongs. In other words, the state of the involved fish stocks, assessment, regulative measures carried out far away from the local ecosystem, have a decisive impact on the local fishing conditions.

The very fact that the system is open and cannot be locally delineated, also complicates the managing processes at the local level. What kind of regulative measures can be taken and how should the management be organized to meet the local needs? Should the management be installed on the local level focusing on the local user needs only? Should the focus be on the functioning of the local ecosystem and the local fishing conditions? Should the priorities be taken at the local, regional or the national level? These are all normative questions concerning a political item filled with conflicting interests, mostly guarded by established interest organizations. The questions cannot be fully answered by science as they are first and foremost of a political nature.

Another approach is to question the ability of the existing regulatory system to address the local problems, solving conflicts and maintaining a balanced local ecosystem. Is it organized in a way that provides opportunity for local problem solving and access for local demands and knowledge? To answer these questions we need a more profound understanding of the regulatory challenges at the local level and how the problems are conceived, articulated and channeled through the administrative system.

### *Local ecosystems and local regulatory needs*

How does a local ecosystem function and what are the challenges for local management? Answers to these questions may be found by taking a closer look at fjord fisheries. As an adaptive form, fjord fisheries contrary to coastal fisheries are easier to define in territorial terms. Typically for such fisheries are immobility, passive fishing gear, great dependence on local fish resources combined with other occupations as small scale farming (Eythorsson 1991, Lunde 1994). Throughout the whole post-war period fjord fisheries have become marginalized. These have often appeared in combination with other occupations. Statistics for these forms of fishing have not been recorded separately and its development must be read out of more general statistics on part-time fishermen. Likewise, there is no specific statistics over their catches and what species they consisted of. In the same period the government policy has favored specialization and rationalization in the fisheries, fewer and larger vessels. The number of registered fishermen with fishing as the main occupation has been reduced from 51 700 in 1948 to 5 715 in 1980. Changes in statistics recording in the early 80's make later comparisons impossible, but since that time the the number of fishermen in general has been further reduced. Of those leaving the occupation one will presumably find that the fjord fishermen constitute the greatest relative number of the part-time fishermen.

The very fact that the fjord fishermen are so dependent on the local availability of fish resources, makes fjord fisheries a case in point to study local needs and regulative responses. Although the participants have been reduced in number over the years, fjord fishing is still important for many households and communities. Dependence on the local fish resources, economic marginality, open access for ex-locals and vulnerability to pressure from more capitalized and specialized fishery adaptations, are still important features of local fjord fisheries.

This openness and vulnerability has led and still leads to many conflicts between the local users and the visitors to the fjords. It is a conflict between different adaptations, between specialized and non-specialized fishing, where the local fishermen are often too few in number or too marginal as fishermen to succeed in making a case out of their problems. In Northern Norway we find these conflicts most often stemming from shrimp trawl fishing, purse-seining for coalfish or for herring in the fjords, often leading to protests from local fishermen and demands for enclosure or regulative measures. While the conflicts stemming from purse-seining for herring were absent in the 1980's due to the state of the stock, its recovery and occurrence in fjords has revitalized well-known conflicts. The annual invasion of herring and the following trawlers and specialized purse seiners at Tysfjord, close to the Lofoten Islands, has led to massive protests from the local fjord fishermen, being the losers of conflicting drifting patterns on a long-stretched, narrow fjord.

Although there are a variety of types of conflicts there is a rather strong element of local concern for the upkeep of the local ecosystem when under pressure from specialised fisheries. Local fishermen know by experience the links between forage species and the availability of local commercial species, how the local ecosystem works and its vulnerability in short and long terms.

Whereas the visiting fleet leaves when the targeted resource is exhausted or the allotted quotas taken, the local fishermen are left with the remains and often have no alternatives. In other words the local fishermen become the victims of a local common pool resource «tragedy», a tragedy that is almost unnoticeable in a wider territorial context. Besides, the local ecosystem will gradually recover and the actual state of it is hard to verify. Local concerns and demands become therefore easily labeled as unrealistic and protective to resources characterized by its open access nature (Hardin 1968). And the local knowledge gained by experience and shared by few is often both vague and unarticulated. It is more of a kind of practical, silent knowledge, internalized by fishing and by sharing the ethics of the local community of fishermen. Such knowledge is not easily transformed to bureaucratic terms and do not fit into recognised scientific models of thinking. While local fishermen always have held the knowledge of the existence of local cod stocks, it has not until lately been recognised by marine science.

Conflicts between local coastal or fjord fishermen and the more capitalized and specialized fishing interests are deep-rooted along the coast and especially in Northern Norway. The most famous incident, the Trollfjord battle at the turn of the last century, have inspired both writers and painters. The fishermen's organization, the Norwegian Fishermen's Union, pressed for regulative measures and succeeded with their demands at the turn of the 50's. Regional regulative bodies were established in 1958 (Jentoft and Mikalsen 1992), although with just an advisory status. From that time local conflicts could be channeled more easily to the public authorities giving hopes for favorable solutions to the weakest parties. Areal conflicts are its main concern and it covers the sea area between the coastline and the open sea.

The Advisory Council for Local Regulations, often referred to as the local or the regional regulative council, is operating at the county level. It still has an advisory status, but some changes in its working statutes were made in 1987. While demands for local regulative measures earlier had to be channeled through the local branch of the fishermen's union, the present statutes prescribe municipal involvement. Regulative demands are to be channeled through the municipal board of fishery, where elected local politicians and representatives from the local branch of the Fishermen's Union participate. Such cases may also be debated and decided on by the district council, before the results are channeled to the county level, the Executive Office of the fisheries, a regional branch of the Directorate of Fisheries. Before presenting the case to the local regulative council, the county branch of the fishermen's union is heard, an organization that is also entitled to propose regulations directly to the council. The Fishermen's Union is still an important party in the decisional process, forming the majority of the appointed representatives to the local regulative council. Its advice is then channeled to the Directorate of Fisheries and eventually to the Ministry of Fisheries. The National Regulative Council may also be invited to give advice before a final decision is taken.

This rather complicated and thorough administrative process is both time-consuming and functional for filtering and redefining local problems as the process develops. And as the regulative council usually holds just one yearly meeting, there is ample room for



impatience and despair over lacking results. But if decisions favoring local ecosystems are to be made at all, the advisory council plays an important role. The representative pattern of the council, as defined by the new statutes, are more or less in conjunction with the former ones. Still different groups of fishermen are represented, but the numbers are halved. Most of the members are representatives from the the county branch of the Fishermen's Union, but the County Council and the Directorate of Fisheries are entitled to representation. The body is chaired by a representative from the county fishery administration, a county branch of the Directorate of Fishing, which also prepares matters on the council's agenda.

Local and regional fishing interests are well represented in the advisory process, but at different stages in the process. By examining the mentioned case of Tysfjord, visiting vessels in conflict with the local fjord fishery, we shall proceed to discuss the problem solving capacity of the designated administrative system .

### *The Tysfjord conflict*

The growing tensions between local fishermen and visiting trawlers and seiners at Tysfjord are both typical and non-typical for conflicts over local resources. Ex-local vessels are invading the fjord in their search for herring, putting obstacles for local fishing and with consequences for the balance of the local ecosystem. The Tysfjord conflict is, in this respect, in line with a traditional and historic conflict pattern that has taken place all over the coast, and which still is vivid. On the other hand, the scope of the fishery differs substantially both in the number of vessels involved, in size and catch capacity, and in the availability and dimension of the resource at stake. The herring fishery in the fjord, taking place in some hectic winter months, is probably the biggest seasonal herring fishery there is. About 250 visiting vessels and 2500 fishermen were in 1995-96 reported involved, catching their allotted quotas in some few weeks. During the first month of 1966, 200 000 tons of herring were caught, constituting just a fraction of what is regarded to be the size of the available resource. In 1996 it was estimated to be about 4 billion tons, all located in the rather narrow fjord. The dimension of this fishery makes it therefor atypical to more ordinary clashes of interest taking place in fjords and coastal waters. Nevertheless, it is a conflict between mobile specialized, capitalized fishing and a local, small boat fishing fleet. Although the local fleet is economically marginal, it is nevertheless important for households and habitation along the fjord, especially the Saami ones. And if decided, the herring could be caught in deeper waters with less local conflicts.

The herring fishery in the fjord has a long tradition but not on the scale of the recent years. When the stock of Atlanto-scandic herring broke down in the seventies, the remains survived through a moratorium being imposed on fishing at the turn of the seventies. The remaining stock stopped migrating to former spawning and nursery areas and operated just in the inner part of the Westfjord, adjacent to the Lofoten Isles and the Ofoten region. Tysfjord is a long and deep sidefjord, stretching almost to the Swedish border. During late autumn and the roughest winter months, the remaining part of the stock started to pay the fjord a yearly visit leading to a blossoming of the local ecosystem as well as the local fishery. Since 1983 the following year classes of herring have visited the fjord. When the moratorium on fishing was lifted in 1992, the fjord became a herring fishery Klondyke.

The concentration of herring in the fjord has also led to important economic side effects for the community. Flocks of killer whales in a number seldom seen have yearly visited the fjord, giving rise to tourism and whale watching during winter, which was formerly off-season for tourism in the area. Local lodging and owners of suitable boats have thus got some extra income during late fall and early winter. Whale watching in Tysfjord has obtained increasing attention abroad and has been covered by world wide television. Locals have exploited the opportunity by arranging a yearly wilderness festival at the peak of the whale watching season.

The local fisheries at the fjord have a long tradition and consist of both subsistence and commercial fishing. The community has a large Saami population that traditionally has been dependent on the fjord resources. Of the 52 registered fishermen in 1995, 38 had fishery as their main occupation. Although the number of actual active fishermen is somewhat lower, fishing is important to many families. Investments in new and modern boats have been made by some of the younger fishermen. Contrary to many communities, local fishery recruitment has been promising. The fjord offers the opportunity for all year fishing on a variety of species and is known for its diversity. The Northernmost stock of lobster is found in the fjord and contrary to what is usual in the area, mackerel is also a part of the local resource system. The district council has in later years made an effort to encourage the local fishery and has taken initiative to improve the landing facilities by planning another fishing plant.

But while the herring resources have given a boost to the local fishery, the open access to the resource by ex-local licenced vessels has had severe side-effects for the local fishermen and the belonging communities. Gear collisions, dumping of undersized herring and bottom fish have been reported. The oldest year classes of herring give the best prices, and as the fjord has a lot of younger year classes, illegal dumping of catches has been reported. Some of the adjacent sidefjords are argued to be more or less ecologically destroyed by dumped herring. The by-catches of demersal species are believed to be high in some cases and the fishermen are afraid of the long term consequences for the local ecosystem. The local fishermen's catches have had an alarming decrease in the last years and it is commonly believed that this has to do with the fishing efforts of the visiting herring fleet. This development has endangered the economic maintenance for some of the most indebted boats. The local fishermen argue that fjord fishing seems to be forgotten by the outside authorities and that they have been patient too long. Both the two local branches of the Fishermen's Union have filed protests against the large industrialized vessels. According to their demands, only coastal vessels, not bigger than 70 feet and using nets not deeper than 60 fathoms, should be allowed. Although they primarily believe that the industrialized herring fishery should be banned in the fjord, they were concerned about raising unrealistic and untactical demands to the authorities. By acting in this way, they hoped to be backed by the county branch of their organization. Their demands were evaluated at a board meeting of the organization, but did not gain the necessary support. It was argued that controlled fishing on the fjord was a better solution than fishing at open sea where control was more difficult to carry out.

The district council followed up the local reactions and made an unanimous decision. Nets deeper than 60 fathoms should not be allowed in the fjord and net-fishing for herring should be prohibited in the inner part of the fjords. It was argued that resource management in such cases should favour local communities on the coast and be more in line with the general regional policy for the region. Hence the local fishermen should be given more exclusive rights to local fish resources. The public authorities were also asked to follow up the local rumours of polluted areas by proper investigations and research. The decision was channeled both to the regional branch of the Fishermen's Union, the County Council, the Directorate of Fisheries, the county's Chief Executive of the Fisheries and to the Ministry of Fisheries.

### *Stricter regulations?*

Regulations of the herring fisheries are yearly decided by the Ministry of Fishing. These regulations have over the years been adjusted and specific rules have been laid down for fishing in the areas of Tysfjord. The Tysford conflict is therefore not a question of whether regulations should be established, but about their scope, implementation and their enforcement. It also comprises a dimension of local knowledge and fears for long term consequences that are not shared by the regulative bodies involved.

According to existing regulations the herring fishery in the area is generally forbidden and can only take place as an exception to the rules, and it has to be performed along rather strict guidelines. The Directorate of Fishery is represented by its regional control unit that is empowered to stop the fishing if unacceptable conditions or events take place. The inspectors' judgment of situations is essential for the way fishing is performed or eventually stopped. Their decisions may be appealed to the Directorate and overruled. The inspector is therefore under substantial pressure both from the locals and the visiting fleet. Solid documentation of proof is needed if action against fishing practices is to be taken. The inspectors have often been addressed by locals arguing that illegal events have occurred in the fjord and that some kind of actions should be taken. But there is a substantial amount of critical, verbal expressions uttered in seasonal fisheries and in most cases it is met with indulgence as being normal for the situation. However, a polluted side-fjord has been temporarily closed, likewise the inner part of the main fjord due to local protests and pressure for stricter regulations. These regulatory actions were responses to the tense situation. But formal reactions to the specific demands made by the local units of the Fishermen's Union and the district council were left in the dark. It was not a subject for discussion in the yearly meeting of the regional regulative council in 1994, nor in its December meeting of 1995. What was received was only a letter from the Directorate of Fisheries explaining the purpose of the set regulations, how the regulations were implemented in the area. By expressing the public concern for sustaining the herring stock, the Directorate left no doubt that the herring in the fjord was a national resource. And according to the letter, some waste and pollution was natural for the kind of fishing taking place. The Directorate had given a quick response but did not comment on the council's specific demands. Instead, an invitation to join one of the Directorate's controlling vessels at the fjord was given, so that the local authorities could learn more about how the regulatory system worked.

As no adequate answers to the specific demands by the local district council were received, the demands were repeated at a council meeting in the fall of 1995. At that time the seasonal fishing for herring was at its peak and the local reactions were stronger than ever. This time the demands were sharpened. They expressed the need to protect the inner part of all the fjords and that North Sea trawlers should be barred from fishing after 01.01.96. The demands were sent to the same authorities just like the year before and were followed up by a reminder some months later. Still the problems are unsettled but the demands are to be discussed at the yearly meeting of the regional regulative council at the turn of 1996. However, eventual support will have no effect for the fishery season of 1996-97. Besides there is an open question as to how long the herring will turn up in the fjord in such quantities. If a change occurs, the problems will disappear with the herring.

### **Why no response to local demands?**

In the Tysfjord case we have a rather unusual example of local protests to ex-local fishing vessels. Fishing in narrow fjords by such a number of purse seiners and trawlers, including some of the biggest Norwegian purse seiners built for open sea fishing, is a unique event in the modern history of the Norwegian fisheries. But so is the ecological phenomenon of the yearly visit of herring to the fjord in such quantities, and its followers of flocks of killer whales. What is questioned by the locals is the behavior of the visiting vessels. The issue at stake is the local conception of what is in the short and long-term interest of the community compared to the short term economic interests of the visiting herring vessels. Catching their allotted quotas in the fjord is economically efficient as the search for herring is reduced to a minimum compared to fishing in open waters. The concentration of herring in the fjord makes almost every catch successful.

Since the herring fishing can just take place as an exception to the general moratorium, local demands are confined to the enclosure of the biggest and the most efficient part of the fleet, vessels over 70 feet with nets bigger than 60 fathoms' depth. These demands are by no way unrealistic in the given situation. They are backed by a rather unusual degree of local support. The local council has made two unanimous decisions and defined the case not only as a regulatory problem but also a question of regional policy in favor of local users access and rights to local resources. It was argued that local communities depend on local resources for their existence and that imbalances in the local resource system could lead to severe socio-economic consequences.

Another important feature of the Tysfjord municipality is that it has a large Saami population and that most of the local fishermen identify themselves as Saami. Although the municipality consists of a mixed population as a whole, some of the local communities are purely Saami and traditionally dependent on access to the local natural resources. The Saami parliament, representing the Norwegian Saami interests, has for rather a long time demanded influence on the management of the natural resources in the core areas for the Saami people. Tysfjord is regarded as such an area although it is located on the outskirts of the Northern Saami region. On the other hand, Tysfjord could be argued to be the core area for the Lule-saami population, a minority of the northern Saami people.

Greater Saami influence on politics and administration of the natural resources in Saami core areas is a highly disputed matter on the communal and regional level in North-Norway. The access to the commons is feared to be narrowed if Saami agencies are given greater influence on regulatory questions. The Samii are referring to the ILO convention no. 169 which gives indigenous people protection and rights to manage natural resources in their own areas. Norway has signed and ratified the convention, but hesitates to put it into political practice. Its implementation is regarded to be politically difficult and will certainly be met with massive protests from most of the municipalities in North Norway.

Being a highly disputed question the local council of Tysfjord had avoided addressing it when discussing the local regulatory needs. If this question had been brought up, the unanimous decision could hardly have been reached. Besides, questions of indigenous rights could not have been solved at the administrative level dealing with resource management and local regulations. Such questions belong to a higher political sphere, being unsettled both practically and politically. Nevertheless, it gives the Tysfjord dispute an extra dimension and a possible political concern for the Minister of Fisheries. Political interference not to accept fishing of herring at the fjord, or more correctly not to accept exceptions to the regulations of the herring fishery, could in this respect be a solution to the dilemma. However, the decisions made by the local council did not go that far. But despite their rather modest character, they have not been followed up by the higher authorities.

Scattschneider's argument that «organization means bias», shed some light on the lack of results (Schattschneider 1960). The questions concerning local regulative needs are met with specific procedures that have to be followed. These procedures are rooted in former conflicts among different user groups at sea. They reflect the need for local regulations to avoid reoccurrence of conflicts, not to preserve local resources for adjacent communities. Different groups of fishermen are therefore given an opportunity to influence the formal outcome by partaking in the regional advisory council. Besides, there could be marine biological concerns that demanded some kind of public interference and where the co-management aspect of the administrative process could be functional for making and implementing decisions. These are all problems we know from the past and which still are not outdated. This corporative arrangement is, according to our arguments, functional rather than democratic bodies. In political and administrative situations where uncertainty prevails, such bodies may negotiate a functional solution for the participants in the process. The essential question is whom is entitled to take part? Is the pattern of representation within the council favourable to the local needs and indigenous rights?

The biases of organizational solutions and procedures could of course be designed intentionally. But in most cases they are results of changing problems or conflict pattern, representing some kind of organizational time lag. The procedural changes in 1988 adjusted somewhat the situation. At that time there was a considerable gap in the municipal administrative status and the former procedures. The general policy of strengthening the role of local government also had to comprise the management of

local regulations. The new statutes gave the local councils a key role in forming the local demands. Due to the new procedures, aspects concerning regional policy, employment and local needs will more easily be channeled to the authorities. The Tysfjord case gives evidence of the use of such arguments linked to local regulatory needs .

Although the procedures have opened up for a wider range of local arguments, for the decisions made by the Directorate of Fishing regional policy concerns, employment and local communities are more or less irrelevant. The Directorate has no experience in dealing with such arguments and is not staffed with this kind of professional expertise. These are merely political questions belonging to other spheres of the governmental structure. For the Directorate matter purely regulative questions, gear collisions, pollution, the degree of undersized fish or unacceptable by-catches and so on. These are all questions where there is an established administrative practice to be followed. Regional policy arguments are thus easily disconnected from the final stages of the decision-making processes. Neither the regional regulative council nor the Directorate have so far changed their former practice. What is essential to their judgment is documentation of fishery aspects in a narrow sense, not the wider context of the regulative problem at stake. The rather broad local problem definition as in the case of Tysfjord, becomes therefore stripped and limited as the demands are brought to the higher authorities. The vertical decisional structure is in this way rather dysfunctional for solving the problem within the context demands were made at the outset. The way the decision-making process is organized has implications for what problems can be raised and the solutions that can be reached.

The Directorate of Fishing is a specialized agency with frequent contacts with the fishing industry, especially the bigger fishing vessels. These vessels confront a variety of regulations that presuppose frequent contact with the authorities. Besides, this part of the fleet is forming their own organizations. Although being group member of the Fishermen's Union, they also operate on their own with direct access to the Ministry and the Directorate of Fishing. Their association is considered to be strong both politically and economically with an established network to the Directorate and the Fishery Ministry. Since the moratorium on capelin fishing in the Barents Sea was established, this part of the fleet has had a narrower resource base to exploit. The recovery of the herring stock and access to this fishery has thus been regarded of uttermost importance for the seiners, both by the governmental agencies and the associations of vessel owners and fish producers. And as profit could be more easily gained by fishing in the Tysfjord rather in open waters, the Directorate would have been met with strong political reactions from the herring fleet if access to the fjord was forbidden, especially as the fishery is conducted in an asserted controlled way under supervision of the Directorate itself.

Following this line of argument, the municipality of Tysfjord is left with a weak case . The local demands are backed by arguments that traditionally fall outside the decision-making framework. The assertion of possible damages to the local ecosystem is not backed by scientific documentation and will according to former practice easily be disregarded. Although the local demands are politically strong at the communal level,

the demands are not supported by a wider political aggregation. No further political alliances have been established. Demands have been sent to the county authorities, but have not been followed up by local political pressure. And as the case has been postponed by the regulative authorities, it can hardly get priority to other pressing cases the local authorities are facing, especially not over a long time. Besides, the local authorities seem to have a rather vague knowledge of the specific procedures in such cases, being few in number and rather atypical cases for local government to handle.

Decisions on local regulations are usually time absorbing processes the way they presently are organised. One to two years are not an unusual waiting time for a decision to be made. In the process of preparing the case for the regulative council, the office of the Chief Executive of Fisheries, according to the statutes, may ask for the opinion of the regional branch of the fishermen's union. And according to the statutes, just one annual meeting is to be the ordinary meeting frequency, although the Chief Executive may make his own decision to hold more meetings. In Nordland county this opportunity has not been exploited. To find a date suitable for all the representatives, has proved to be difficult. The council holds its annual meeting in December, an event that usually gets no press coverage. The decisions, or advice given, are then in due time forwarded to the Directorate. In cases more important, in scope or character, the national regulative council is to be consulted. Even if more meetings at the regional level were agreed on, the council's budget is decided by the Directorate and is as such an obstacle for more frequent meetings. Political importance can hardly be read out of these data. The decision-making system as to local regulations is suffering from what we may denote as «political and administrative underdevelopment». The administrative structure for grasping with such problems is established, but organized in a way that makes the handling of cases time absorbing and rather dysfunctional for local communities, arguing for local rights or favoritism to local resources. In such cases it can be argued that the decision-making structure has a repressive function in problem solving. Problems are caught up, but can not be handled properly within the existing decisional framework, especially if they are of a multiproblem character as in the case of Tysfjord.

The advisory status of the regional regulatory council is not necessarily the most important factor in explaining why proper results are lacking. Unanimous advisory decisions can not easily be disregarded by superior authorities. Besides, decisions made by bodies with public tasks may always be appealed to higher levels, whether the decisions are taken at the local, regional or state level. In our case it is the system of representation, who has and who has not direct access to the advisory body, that seems to matter. In our case 9 out of 11 representatives of the council represented regional fishing interests. The pattern of representation is laid down by the statutes and biased to cases of an explicit local community character. All gear types in the region are to be represented. Most of these members represent specialized fisheries that can only be operated profitably by having access to ex-local resources. Fjord fishermen are not represented as a category of its own. Neither do they form a specialized fishery. The pattern of representation is more or less biased to the support of local demands for local exclusiveness to resources. But in the Tysfjord case, only the biggest vessels were argued to be expelled from the area, not the majority of the ones that are

represented in the council. The tactical aspect of the local demands improved the chances for support by the council.

The council is handling a number of cases at their annual meeting and is heavily dependent on the advice given by the office of the Chief Executive of Fisheries who conducts the meeting. The advice is given based on the established knowledge of the way the Directorate argues in cases of local regulations. Arguments referring to local dependence of local resource systems leading to some kind of local favouritism, will not give the results asked for. The specialized fishing interests represented are usually sceptical to demands that limit their access to fjord resources in the region, if not the conflicts are prevailing in such a way that some regulations have to be made. Open access to fish resources for registered fishermen is in general a must. The advice is given based on the principle that the sea is a common property ground and should not be the object for restrictions without strict reasons, according to the Chief Executive of Fisheries. The general practice is to be restrictive in such cases. Of the 10 cases considered at the 1995 meeting, most of them were rejected because no biological reasons were documented to exclude one fishing practice to another. The opportunity for the regional government to appoint one representative to the council, opens up for more local or regional contextual arguments. But in our case, Nordland County has not made use of this opportunity, making the decisional processes of the council a purely fisheries matter. And according to the office of the Chief Executive of Fisheries, the impression is that the representatives represent just their own interests.

The Tysfjord case has a potential for political support in a wider context. However, this opportunity has not been exploited. Arguments concerning indigenous rights have not been voiced by the local authorities and they have not been able to keep the case a persistently hot political issue. The prospects for a successful outcome seem rather gloomy. The board of the regional branch of the Fishermen's Union has been unwilling to give its support. Hence the union's representatives in the council seem unlikely to break away. The postponement of the case in 1994 and 1995 gives evidence of what we may denote as administrative uneasiness of the matter. A «wait and see» policy was probably preferred by the office of the Chief Executive of Fisheries, knowing that the Directorate had responded by sending a letter to the local council, an event that was rather unusual compared to established administrative practice. Besides, the annual event of visiting herring to the fjord in such a quantity could change and the problems could turn out to be solved by «the nature itself».

### **Concluding remarks.**

The Tysfjord case illustrates the need for institutional development in local resource management. The institutional frame, as it now works, seems to be somewhat outdated compared to the way problems are posed in our case. That is hardly something new. Local concerns over the exploitation of local resources by specialised fishing vessels or industrialised fishing practises have been explicitly rooted in the local fishermen's adaptations and the lack of alternative fishery possibilities. In our case the problems were voiced in a more limited way influenced by the decisional structure as it works. The institutional arrangement and the procedures have functioned to simplify the problem structure, reducing it to a purely fishery question, suitable for handling in the



established frame of co-management. And the mere existence of the established management system, blocks the way for a more adequate one to be established, a system focusing on sustainable local resource management as well as area conflicts.

The present problem structure in fjords and coastal waters is more comprehensive and complex than the situation was some decades ago when the local regulatory system was established. Not only our knowledge and experiences of how vulnerable local ecosystems are, have become common shared knowledge. The growth and volume of the aquaculture industry along the coast has led to the need for area planning and balancing of often contradictory local interests. Pollution problems, escaped and in some cases infected fish, have caused serious problems both for local fisheries and the adjacent communities. Rivers with former rich stocks of salmon have been infected and shown a drastic decrease of availability of wild salmon. More than thirty local stocks have already been destroyed and several stocks are endangered. Rescue operations to save local stocks have been carried out during the last few years with uncertain future results. Conservational interests for preservation of coastal biotopical areas have gained ground, challenging established industrial interests and local use of resources. In these cases, state agencies are often initiating preservations of areas and regulatory measures, thus having to mediate among conflicting interests. New knowledge of local fish stocks, especially of cod, is another argument for a more complex problem structure in coastal areas and that there is a growing need for local or cross-level problemsolving. The present administrative structure is underdeveloped to meet these challenges, scattered and organizationally biased to meet the local administrative needs. Coordination and institutional development is therefore needed. The big question is how to organise? At what level? And whom should be entitled to participate? Should the state be the the decision-maker, the local or the regional authorities? Or should the present co-management system in the regional fisheries be developed to meet the actual needs? These are questions where the answers are mostly politically dependent.

Co-management experiences have given hopes for handling Hardin's old tragedy paradigm as an alternative to privatization of common property resources. The benefits of such institutions facilitate communication and use of local knowledge, better access for local interests to the decisional structure, improving legitimacy and consensus possibilities on the solutions and their implementations. (Dyer and McGoodwin 1994, Pinkerton 1989) But in many cases one is left with the problem of scale. Local resources are not necessarily so local. Nor are the users entirely local or should be confined to be so. These aspects are probably the most challenging to deal with in advocating co-management institutions (Jentoft and McCay 1995). The Tysfjord case exemplifies the troubles of designing functional institutions. Fishermen having a say in the solution to local problems, gives no guarante for acceptable solutions at the local level. The intermediate level of interest organization becomes easily the critical factor in this respect.

Institutional development is first and foremost a matter of politics, not of science. By organization some interests are included, others excluded. These are all deliberate choices to be made in designing organizational structures. However, it seems rather

unlikely that functional solutions to local regulatory problems can be reached in our case without including some kind of improved co-management. Improved in the sense of a more complex and multiproblem approach as well as in the question of representation. The present regional regulative council seems outdated to meet the problem structure at stake, especially compared to present challenges.

As shown in the Tysfjord case, local fishermen are exposed to competition for local resources. This is not merely a trend in situations of dwindling resources, but a problem with long roots in our fishing history. And even if administrative procedures to meet these needs have been established, the potential for conflicts seems to be more relevant than ever. The changes in the procedures in the 80's have most likely improved communication, giving more local political weight to local demands. Besides, by bringing the local council into the process the arguments will easily become rooted in more general socio-economic considerations as was the case in Tysfjord. The local fishery was backed unanimously by the local council, arguing for positive discrimination of local fishermen to local resources and the communities dependent on these resources for their future upkeep. Indigenous rights are at stake, although not formally voiced. Nevertheless, positive outcomes have been hard to come by.

Previous research has documented institutional shortcomings to solve regulatory problems in a way favourable to local users and their communities (Jentoft and Mikalsen 1992). Institutional development or the establishment of new institutions seems to be needed, not only based on experience of local fishery conflicts but also based on the more complex problem situation that has developed in coastal areas. Coastal management has to be reconsidered and developed to meet these needs. Coastal zone planning and administration is just in its beginning in North-Norway. The communal level will in that case become of more importance, also in fisheries, although problems of fishery regulations are in most cases only partly local. The complex administrative situations that have to be faced, will hardly be possible to carry through without some kind of co-management with affected interest groups involved. But if local concerns are to be met in a positive way, it seems necessary that the formal decisions become disconnected from the present vertical structure they are a part of. The Directorate of Fisheries is too specialized to meet the complexity of the local needs. If local socio-economic considerations and the principle of precaution is to prevail in the work for sustainable management of local resource systems, the decisions have to be taken close to the problems in question. The county authorities would at least open up for such arguments if the prescriptions were changed to allow such considerations to be taken. But some kind of co-management would be needed to sort out arguments and support. Such institutions are in line with the Norwegian tradition of handling regulatory matters. The present institutional lag, the mismatch between the problem and the decision structure, makes an institutional change in local resource management most plausible. The question is not so much if this will happen, but rather when and how.

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