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**FISHERIES CO-MANAGEMENT RESEARCH AND THE CASE STUDY  
METHOD**

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## 1. Introduction

Based on my own experience, I will in this paper reflect on the usefulness of case-study as a method of research in fisheries co-management. I will discuss what this particular method is, for what purpose it is used, what its strength and weaknesses are, and what is reasonable to expect from it.

While case-studies are very common in social science, they are more so in certain disciplines than in others. They are for instance more common in social anthropology than in sociology and economics.

However, many of the classic studies in social science are case studies. Until now, most of the research on fisheries co-management have used this method.

My work on fisheries co-management has for the most part also been case-study based. In fact, I can say that the idea of co-management was first revealed to me through a case-study. My first case-study on fisheries co-management was on the Lofoten fishery in Norway. In the early 1980's I travelled with a group of students to the Lofoten area, where Norway's most important cod-fishery takes place between January and April. The students did research on various aspects of this fishery for their terminal paper, and one group focused on the management system. Prior to the excursion I was only vaguely familiar with the Lofoten management system, and it was intriguing to find that fishermen in this area had successfully managed many aspects of their own fishery for almost a hundred years. Theirs was indeed a model contrary to the general pattern of fisheries management in Norway, and it was also, I realized, contrary to the assumptions of Garrett Hardin in his famous paper on *The tragedy of the commons*.<sup>1</sup> Before I visited the area, fisheries management *per se* had not been a focus of mine, but I was already tuned into the theoretical issue of coordination of interdependent fisheries activities by means of organised cooperation, which was the theme of my ph.d thesis. The trip to Lofoten made me interested in yet another aspect of this general issue, that is co-management and the interaction between government and fishermen's organizations on regulatory matters. As a result, I went back to the area a couple of years later and did a more thorough case

study. In fact, not only the general issue of co-management but also that particular case-study, has been with me ever since.<sup>1</sup>

## 2. The logic of discovery

I will return to this particular experience, because it seems to me to be a good illustration of what case-studies may bring us. But let me stress here at the outset that there is nothing unique about my experience. Many of us, I am sure, can tell a similar story. We discover something, often by pure serendipity, we stumble into something by accident which triggers our interest because it is different from what we had expected. And for some preconceived theoretical position the difference seems to make a difference, it makes us wonder, it changes our way of thinking, our interest, and sometimes even our careers. Such incidents are not unique to social scientists. Many of the great break-throughs in natural science have come about in similar ways. Remember Newton's discovery under the apple tree or the revelation of Archimedes in the bath tub. Sometimes the researcher set out to find out something, but in the process he or she discovers something else. Even in some cases, no experiment was going on. Something struck the researcher - as a lightning. Many of us have had the similar moments of clairvoyance while busily doing something else. For instance, I once got the title for a book while I was preparing dinner. Psychologists now say that walking is good for the creative mind, provided that one does not take a walk-man along as it just distracts the creativity.

It is equally stimulating to travel. When visiting a country different from your own, you learn something new about the place you come to. But after a while you also start learning something new about the place you left. You start asking yourself: "If it is like this here, why is it not like this at home?" Consequently, you have a research question or a hypothesis with you in the suitcase when you get back. Many years ago I went to Canada on a sabbatical. On the first day I saw fishermen on

the picket line. Not only did I ask what their complaints were, but I also asked myself: Why do we never see fishermen on the picketline in Norway? My answer later appeared in a published article. My Norwegian colleague Ottar Brox has told the story of how he discovered the Raw Fish Act the first time he came to Newfoundland. However, Newfoundland does not have a Raw Fish Act that regulates the exchange between fishermen and fish-producers, but Norway has. This, I believe, is part of the answer why Norwegian fishermen never go on strike. The problem with institutions is that once you have got used to them, they become invisible. You stop noticing them. And just as the only way to observe that the shape of the earth is round is to go into space, you need to go away to get a different perspective on fisheries institutions. They are best viewed from a distance.

The above are experiences similar to those that led the sociologist Robert Nisbet to argue that "the logic of discovery" and "the logic of demonstration" have different qualities. The latter is described in detail in methods text books; it has strict rules and procedures which the researchers must follow, which the former has not. The logic of discovery is more impressionistic and visionary. Nisbet argues that it is a great mistake to assume that one can obtain the latter (i.e. the logic of discovery) by following the rules of the former (the logic of demonstration).<sup>2</sup> Again, if we think of it, many of the great classic studies in social science did not result from large scale surveys and rigorous testing of hypotheses. They are in many instances ethnographies and case-studies.

But I should add that although Nisbet's point is well put, I am not sure he is entirely correct. I have had similar experiences of discovery in front of the computer screen based on analysis of quantitative data as I have had in the field doing qualitative research- and then I do not mean a discovery for the benefit of man-kind but for myself! It should also be stressed that case-studies do not have to be qualitative. Some of the most famous case studies in the fisheries social science, combine qualitative and quantitative methods. They use both participant observation, semi-structured interviews, archival material and survey methods. This is often called method triangulation. A classic example is Raymond Firth's seminal study of Malay fishermen.<sup>3</sup> This study should of course

be mentioned given the place where we are now.

Neither do I share Nisbet's belief that it necessarily takes a particularly visionary mind to make discoveries even though it is clear that the people he is referring to, Marx, Weber, Durkheim, Simmels, were especially gifted people in this respect. However, I do share Nisbet's argument that before we can test a hypothesis, we must discover it, and that the way of discovery is not as straight forward as the path of testing and verification. In addition, I do believe that case-studies are particularly suited for the purpose of discovery, but that there are ways of making the process of discovery by means of case-study method more effective. One thing is to systematically expose yourself to new empirical research situations. My experience is also that hypotheses personally generated through empirical research in the form of a case study, stirs more enthusiasm and excitement in me than those that I receive from reading theory. Surveys can also be fun, but I find case-studies much more stimulating, but this is, of course, a matter of personal taste. The good thing with case-studies bring you out of the office and into field where you meet your respondents face to face and can get a feeling for the particular situation they are in and how they see it. And the enthusiasm one gets from doing case studies is an important component of the logic of discovery.

Before I proceed I must say something about the nature of the case study; what it is and what it is not. The criticism of this method will be part of what I will address. There is widely shared scepticism about the case study method, and I would not be surprised if many of you feel ambivalence about it. I will talk about its limitations but also about the potentials of case-studies in co-management research. Finally I will discuss what characterizes a good case-study in this context.

### **3. Case-studies defined**

A text book definition of a case study is as follows: *AA case study is an empirical inquiry that:*

- investigates a contemporary phenomenon within its real-life context; when
- the boundaries between the phenomenon and context are not clearly evident, and in which
- multiple sources of evidence are used.<sup>4</sup>

Let's say co-management, or a certain aspect of it, legitimacy, is the phenomenon and a particular country, community or fishery is the context. The country, community, or fishery is not the *focus* but the *locus* of the study.<sup>5</sup> The country, community or fishery is where we situate ourselves, but our focus of research is this particular case is co-management, or for that matter legitimacy, and all or some of what this model has to offer and may imply. We also make use of whatever methods that is available and useful in that context and for our particular purpose.

Case-studies should be explanatory: they should answer both *why* and *how* questions. They should also be explorative: They should attempt at generating new research questions and hypotheses. For this the researcher must be open minded and have an eye for the unexpected. Furthermore, case-studies should be descriptive: They should tell a story, present the actors involved and the roles that are assigned to them and the values they are driven by. Case-studies should preferably focus on the social interaction that takes place *in vivo*. Case-studies must investigate the meaning and the interpretations that actors involved draw from their experiences, and they should describe the social and cultural context within which these interactions occur. Typically, co-management case-studies focus on communication, cooperation and conflict resolution among parties involved with respect to regulatory decision-making, and the institutions that guide and shape stakeholders' behavior and world views. A good example is Doug Wilson's recently published study titled: *How the participants talk about participation in Mid-Atlantic fisheries management*<sup>6</sup>

Case-studies occur at various levels, from micro to macro contexts. They can be investigations of one organization within one community, or several organizations within one or several

communities or a particular fishery. Raymond Firth's study was of one region, Kelantan, which is the north-easternmost province of the Malay Peninsula. Case-studies can embrace a whole industry or several industries. For example, last year I published a comparative co-management case-study of fisheries and reindeer pastoralism in my area.<sup>7</sup> Case-studies may also involve a country or several countries as their locus. I recently co-authored a case-study that compared the Norwegian and the Canadian fisheries system.<sup>8</sup> At the other extreme: the best book on unemployment I ever read was a study of one single individual in a Newfoundland outport.<sup>9</sup> Again, in that case the theoretical focus is global even though the data is drawn from a small fishing community and one individual's experience with being unemployed.

It is precisely this combination of a general focus and a particular locus which makes case-studies so valuable. We don't have to be inhabitants of Lofoten, Lake Kariba, Nampula Province, or Western Cape to find that these case studies of co-management speak to us. We learn about these sites, and that is, of course, important in itself, because this knowledge can be useful for those that live there. But we also learn because they address a general issue of mutual concern, which is co-management. From a research point of view that latter kind of learning which, naturally, is the most important.

#### **4. Defense of case-studies**

This is a crucial point that I must dwell on, because this is where we meet prejudices against the case-study method. How often have we not heard that case-studies have low scientific merit because they lack the rigor necessary to be called a scientific method, and because their findings cannot be generalized. First of all, in defense of the case-study method it can be argued that there, is nothing inherently sloppy in the case study method, even though there are many instances where the case-

study research deserves that label. There exist hand books that is of great help to the case-study researcher. Besides, also an experiment or a survey could be carried out in a sloppy fashion. As to the second question of generalization from the particular case, it is true that the particular case is not a representative sample that can speak for larger population or universes. But as Yin points out, case studies are "generalizable to theoretical positions." They can be used to develop theories, for instance pertaining to co-management.

Research designs may also, as the project that you are involved in, consist of many case-studies, just as experiments can be repeated many times.<sup>10</sup> In fact, multiple case studies designed to be comparative, is as close to the laboratory experiment as one can get in social science. Society cannot easily be turned into a laboratory, but, in principle, by carefully stratified sampling one can at least do the same thing as in a laboratory. By selecting cases for comparison one can keep some variables constant while studying the effect of varying others. For instance, one can select fisheries that are fairly similar with respect to resources and technology, and then look for management institutions that are different. This will give an idea of how institutional form matter. Admittedly, this can be a difficult research design to employ, particularly on a large scale as in the project that unites you as participants at this meeting.

However, the laboratory approach is more useful for theory verification than for theory development. So even though this project has not been designed in accordance with the experimental principle, the many case-studies that this project consists of, adds to another and together they should tell us a lot of co-management and about the conditions under which co-management may work or not. But some kind of synthesis of all of them may be in order. The case studies would then have to be read as examples and with some analytical categories and theoretical questions in mind. For instance, what do all your studies have to say about the very critical issue of legitimacy and compliance? What do they suggest regarding conditions necessary for peaceful conflict resolution and for generating trust among participants? What does it take to promote interactive learning and

capacity building for real power-sharing? Do the case studies show that co-management can be an effective tool in generating community?

A good case-study speaks to one or several general issues such as these. A case study is not pure description or story-telling without focus and message. It is an obligation of the researcher to be both empirically thorough and theoretically relevant. The researcher should attempt to make a point, a general argument, and to draw a lesson from his findings. Only when the study, deliberately or not, addresses a general analytic theme can it be interesting from a comparative perspective. The ideal is: case-studies should be theoretically informed and theoretically informative.

The reason why many of us find co-management theoretically interesting is because it touches issues with a deep history, such as democracy and legitimacy. Personally I have found inspiration in reading political theory and bringing it into the co-management debate. I am currently working on a paper on the issue of representation in fisheries co-management and what roles that may be assigned to involved users who represent, that is speak for, a larger constituency. Representation and democracy have been an interest of social theorists for a long time. Rousseau, Hobbes, Burke, Madison, and Schumpeter, all had relevant things to say on this subject. They were concerned with the issue of what constitutes a representative government. When can we say that a government is truly representative of its people? For our purpose we can easily replace government with co-management and ask: what does it take to make co-management systems genuinely representative of affected user groups? The question is no doubt an important one, and although I believe that it is useful to know how theorists have struggled with the answer, one could also fruitfully address the issue empirically by means of case-studies of actual co-management systems. I have concluded that even though my own country Norway has long traditions of co-management, it can hardly be characterized as truly representative of user-groups. I must emphasize that I got that insight before I read Edmund Burke, James Madison, and other theorists on representation. My colleague and I simply attended management council meetings and listened to who argued what. We concluded that,

because coconstituencies have complex interests, it matters not just who the representatives are but also *who they represent and in what capacity they meet.* In the Norwegian co-management system fishermen are represented only as members of certain gear groups and as union members, not as members of communities and districts.<sup>11</sup> This has bearing on how they argue and how they vote in the decision-making process.

## 5. Grounded theory

I have stated that case-studies are useful for generating hypotheses that can later be tested on a larger sample, as is the ambition of your project. This is also the central argument in the book by Barney Glaser and Anselm Strauss, titled "The Discovery of Grounded Theory", which I have used in my methods class.<sup>12</sup> They argue that generating theory should involve a strategic, comparative process of research. It is the emerging gaps in the theory that should decide the next step in the empirical analysis. "The emerging theory points to the next step." This is what they call "theoretical sampling", in contrast to statistical sampling. The cases are not randomly chosen, but out of theoretical relevance. They are picked out in order to discover categories and their properties, and to suggest their interrelationship into a theory. The position of Glaser and Strauss is that there is no clash between the purposes and capacities of qualitative and quantitative research, as we are often led to believe. The two approaches can fruitfully support each other, and they can both be used for both verification and generation of theory. The authors argue that quantitative studies have a potential for theory generation that has not been fully exhausted.

From my own research experience I can give an example of this: Together with a Canadian colleague I did a case-study of one fishing cooperative in Nova Scotia, Canada, using a survey among members. Inspired by the concept of "organizational slack" by Cyert and March<sup>13</sup>, when

analyzing the data by means of SPSS, our tabulations suggested that the more members were involved in the daily decision-making within the coop, the more willingly they accepted a price below the going market rate and the more they accepted to take on voluntary, non-paid work for the coop. We concluded that involvement and participation generates organizational slack, which for the coop is an asset to tap on in hard times. Consequently, participation should therefore lead to a higher crisis resistance for the cooperative as well as for the community.<sup>14</sup> People are willing to make sacrifices in times of crisis, provided that they are involved in the process that leads up to the decision that they should be required to do so.

Here, one may object that this finding is just based on a small case study, that the data analysis is not all that sophisticated, and that the finding cannot be readily generalized for a larger population of fishing cooperatives. This is of course true. But we could, if we decided to do so, find out. We have at least been equipped with a very interesting hypothesis, also with respect to co-management. The finding, even if is preliminary and suggestive, supports the general thesis on co-management as a management system that promotes legitimacy and compliance, because compliance requires that fishermen make a sacrifice of what is in their short term, private interest.

Similarly Lofoten paper contains some reflections on the relative strength on co-management with respect to participation and compliance. My co-author and I argued that co-management is particularly important in committing the minority interests of those that lose the vote to the collective decision made. Again, I consider this more as an interesting hypothesis than a solid finding.

Glaser and Strauss distinguish between *substantive* and *formal* theory. The latter is at a higher, more abstract, level than the former. For example the legitimacy of co-management is theoretically at a lower more substantive level than the legitimacy of the state, which again is at a lower level than the legitimacy of power. Theories about fisheries management is at a lower analytic level than theories of natural resource management, which again is at a lower level than theories of governance. Theories of users' eco-knowledge are at a lower level than theories of knowledge and theories of

organizational learning.

Substantive theory is developed for, and about a particular empirical area, such as fisheries co-management in developing countries, while formal theory pertains to a more general, conceptual area, such as participatory democracy, power-sharing, and institutions. While some cases are not theoretically comparable at one level, they can make useful comparisons at another level.

Cooperatives, capitalist business firms, and co-management systems are different empirical entities, but they are comparable from the perspective of participation, legitimacy of decision-making, and implementation of rules and regulations. In all three instances, I have found the theory of organizations and theory of democracy to provide useful analytical tools.

The process of generating grounded theory, that is theory drawn from empirical data, should, according to Glaser and Strauss attempt to make shifts between the two levels of theory. And it should be done with a deliberate goal in mind; discovering and generating grounded theory. The approach which they prescribe should then reduce our reliance on the specially gifted, visionary mind, as Nisbet referred to. By means of their method we can all make theoretical contributions.

Formal theory may fruitfully guide our research questions. But a good case study should also have the ambition of moving from the substantive to the formal level. There are important lessons to be learned from the empirical studies of fisheries that are relevant for larger issues. Also the case-studying fisheries social scientists should have the ambition of contributing to the general debate on sustainable development, the democratization of society, the general issue of power and equity, and the relationship between the citizens and the state. If not, fisheries social science will continue to be considered as an esoteric area of research within our disciplines, something which only concerns people with a special interest.

Your research project is impressive in many ways. Never has such a global scale co-management study been carried out before. The international participation is unique. The organizers should be congratulated for all this. The case-studies that I have had the chance to read till now, are

indeed interesting and well done. But I hope that this project, when it is over, will consist of more than a collection of high quality case-studies. It should also be an integrated contribution to the development of theory at substantive as well as formal levels of theory.

## Notes

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  3. Raymond Firth: *Malay Fishermen: Their Peasant Economy*. New York: W.W. Norton Library, 1966.
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  5. See Conrad M. Arensberg: 'The Community as Object and as Sample.' *American Anthropologist*, 63:241-264, 1961.
  6. Douglas C. Wilson and Bonnie J. McCay.....*Ocean and Coastal Management*, 41, 1998, pp. 41-61.
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