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# Inter-municipal coastal zone planning and designation of areas for aquaculture in Norway: A tool for better and more coordinated planning?



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#### ABSTRACT

Coastal zone planning raises issues that transcend municipal borders, in particular those related to designation of areas for aquaculture. The most recent trend in further integration in Norway is intermunicipal coastal zone planning. Nine planning processes in six counties, involving 65 municipalities, have been conducted in recent years. This study investigates how or to what degree inter-municipal cooperation enhances coastal zone planning in general and planning for aquaculture production in particular. By identifying what forms of cooperation are taking place in the nine processes we found that the inter-municipal coastal zone planning processes in Norway have resulted in full inter-territorial coordinated planning of the coastal zone in several cases. All processes have to a high degree, resulted in the coordination of the process and the development of common tools and standards, but also to a certain degree of coordination of content. This study therefore supports the assumption that intermunicipal coastal zone planning only will remedy some of the challenges of piece-by-piece planning of the coastal zone, particularly related to planning for aquaculture production. We contend that intermunicipal coastal zone planning contributes to a broader and more holistic perspective on the use of the coastal zone than the municipalities would otherwise have, and that this first generation of intermunicipal coastal zone plans may be a first step towards a more integrated approach to coastal zone planning.

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#### 1. Introduction

In this paper, we examine how inter-municipal coastal zone planning can contribute to better coastal zone planning in Norway. In Norway, municipalities have had the authority to allocate and designate areas for aquaculture production and other activities through municipal coastal zone planning for 25 years. This authority was given the municipalities through the revision of the Plan and Building Act of 1989 (Ministry of Fisheries and Coastal Affairs, 2009).

Coastal zone plans are tools for the use and development of municipal coastal areas. An important aim of coastal zone plans is to set priorities between user groups and to avoid uncoordinated or piece-by-piece development of the coastal zone (Stokke et al., 2009,

2012). Balancing the interests of the growing aquaculture industry and other interests, such as those of fisheries, environmental protection and recreational use, is a major issue (Stokke et al., 2006). Aquaculture is a significant industry in Norway, with a production of more than one million tonnes of salmon in 2015 (Norwegian Seafood Council, 2016). Production takes place in 170 of the 276 coastal municipalities. Continued development requires the allocation of new and larger production sites, and the establishment of new production sites and relocation can only take place in accordance with municipal coastal zone plans.

Municipal planning autonomy is restricted by the competence of national sector agencies in areas such as the environment, fisheries, navigation and veterinary affairs. Municipalities' autonomy is nevertheless considerable when it comes to deciding whether or not to designate areas for aquaculture in their coastal zone (Jentoft and Buanes, 2005; Sandersen and Nikolaisen, 2007). They are therefore considered the key for getting access to new sites (Norwegian Seafood Federation, 2013; Expert committee, 2011).

Municipal planning extends one nautical mile from the baseline

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into the sea. For one fjord or coastal area there usually are several municipalities, hence several decision-making units and coastal zone plans. The borders between municipalities are often drawn in the middle of a fjord and areas designated for commercial or recreational activities in the coastal zone plan of one municipality affect and are affected by activities taking place in the neighbouring municipalities. This is particularly relevant for aquaculture production, where environmental and veterinary regulations require a certain distance between production sites.

In recent decades, we have seen a move towards more integrated and ecosystem-based approaches to coastal zone management (Olsen et al., 2011; Cicin-Sain and Knecht, 1998). Sustainable use of the coastal zone requires management approaches that include larger geographical areas and where decision makers consider the cumulative impact of different human uses on the marine environment (Forst, 2009). Municipalities are therefore often too small and unsuitable for area planning in fjords and coastal areas (Ministry of Local Government and Modernisation, 2014; Expert committee, 2011). To secure a more integrated and ecosystem-based planning of coastal areas, in particular related to the growth of the aquaculture industry, the coordination and integration of policies across municipal borders is needed (Bennett, 2000; Sandersen and Kvalvik, 2014).

Underdal (1980), in an early study on integrated marine policy states that the aim of policy integration is to promote consistency between policies in different sectors and at different levels; to improve the achievement of cross-cutting goals; reduce duplication in the policy-making process; and promote synergies through win—win solutions (Stead and Meijers, 2009). There are, however, a number of practical barriers and institutional constraints to policy integration, amongst them lack of knowledge and expertise and the protection of institutional autonomy and competence. This affects what can be expected from integration. Recognizing the barriers and determining the degrees of commitment to coordination among the actors involved helps explain lack of or weak integration and can also give insight into possible measures for its improvement (Andersen and Pierre, 2010; Feiock, 2009; Geerlings and Stead, 2003; Rayle and Zegras, 2012; Tornberg, 2012).

Several approaches for integration are possible: national, regional and/or inter-municipal. While national institutions in other countries have stronger leverage over the local level, the central government in Norway does generally not compromise local autonomy in questions of area planning (Andersen and Pierre, 2010).<sup>2</sup> Hence, in Norway, voluntary agreement is constitutive for the development of more holistic approaches to coastal zone planning in an area transcending municipal boundaries.

At the turn of the century, the regional level in the Norwegian political structure, the county councils, was considered to be the appropriate body to conduct and coordinate this kind of planning, and the government introduced regional level coastal zone planning as a tool to enhance integrated coastal zone management (Report to the Parliament, 1996). The aim of regional planning processes was to contribute to integration across municipal borders, public sectors and levels of government (ibid.). The county council, however, has only limited formal authority in area planning, and the regional master plans are merely guidelines and not legally binding for local municipalities or sector agencies. Hence, Hovik and Stokke (2007a, b), in their studies of three regional coastal zone planning processes in Norway, found a great deal of

variation in the degree of integration and level of implementation of regional coastal zone plans. The difference was explained by the counties' different planning strategies (i.e. integration of different actors into the planning process) and actors' perceived payoff from participation (i.e. the distribution of power and interdependencies among the actors involved). The conclusion was that the integrative potential of the county council as coordinator and policy formulator in coastal zone planning is unpredictable, due to their limited authority, and that municipalities in general were reluctant to be bound by regional plans.

The most recent trend in further integration of municipal coastal zone planning is inter-municipal coastal zone planning. Nine inter-municipal coastal zone planning processes in six counties, involving 65 municipalities, have been conducted the last few years, and several more are under way (Robertsen et al., 2014) (see Fig. 1). This is encouraged by the government. The new Plan and Building Act, which entered into force in 2009, invites municipalities to engage in inter-municipal cooperation in area planning to a greater extent. The government generally advocate inter-municipal cooperation as a way to overcome the lack of planning expertise in small, rural municipalities. It is also encouraged when coordination across municipal borders is necessary to secure the integration of planning for the development of an area (Plan and Building Act, 2008 §9-1). Inter-municipal cooperation in coastal zone planning is also called for in the government's strategy for an environmentally sustainable aquaculture industry (Ministry of Fisheries and Coastal Affairs, 2009) and in the Reports to the Parliament on 'The world's leading seafood nation' (2013) and 'Predictable and environmentally sustainable growth in Norwegian salmon and trout farming' (2015). The Directorate of Fisheries (2013) also supports such a development, arguing that this would most likely improve the quality of the plans. This is also the position of the aquaculture industry (Harvold and Skjeggedal,

However, while the county councils do not have the authority to impose their decisions or priorities on regional sector authorities or



Fig. 1. Inter-municipal coastal zone planning processes.

<sup>&</sup>lt;sup>1</sup> The baseline is the low-water line of the coast, and is used as the starting point to measure the territorial and other maritime zone of a state.

<sup>&</sup>lt;sup>2</sup> The exceptions are some control and regulation on issues like urban planning and environmental protection (Andersen and Pierre, 2010).

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