

Masters Module on Planning and Managing the Use of Space for Aquaculture; Unit 10 Social Investigation and Public Engagement Tools

Suzannah-Lynn Billing and Paul Tett,
Laurence Mee Centre for Society & the Sea,
Scottish Association for Marine Science

April 23rd, 2018

Abstract

This text is part of a Masters-level course in 'Planning and Managing the Use of Space for Aquaculture' made by the AquaSpace project. It provides an introduction to some of the social investigation and engagement tools that can be used for inquiry into public attitudes to aquaculture and thus to understand the extent to which an aquacultural enterprise has 'social licence to operate'.

Contents

Contents	1
1. Study Guide	2
2. Introduction.....	2
3. Social Investigation Tools.....	3
4. Public Engagement Tools	4
5. Social Licence to Operate	6
6. Self-assessment	8
7. References.....	9

1. Study Guide

This unit consists of a text (which you are reading now), a set of slides, and some suggested reading and exercises. It provides

- a broad overview of some of the social investigation and engagement tools which can be used for social inquiry and were used in the AquaSpace project
- A working example of how Social Licence to Operate – an industry-driven theoretical framework used by companies which have a social and environmental cost associated with their activities – can help describe how communities, and individuals interact with aquaculture operators and the practical consequences for the industry and its governance.

This text is short, and should be supplemented with the further reading specified in boxes (like this one) within each section. Some of this material is open access (OA), whilst others require purchase (RP). Most of the recommended texts or papers should be available to those using this material within a university or research institute.

In addition, references are cited as evidence for, or expansion of, statements in the text. These may be consulted according to interest or need.

Links from this text to slides are identified in boxes like this.

Learning outcomes: after studying the material in this unit, the learner should be able to demonstrate critical understanding of:

- the two main approaches used in social inquiry, including some examples of methods for their use;
- methods and benefits of public engagement within the aquaculture sector;
- Social Licence to Operate and its importance for aquaculture operations.

2. Introduction: why do we need to investigate social licence?

The production of marine animals and plants through aquaculture has been identified as a means to efficiently increase the amount of food that is available to global populations (Frid and Paramor, 2012). In Europe it is a key component of the Blue Growth Agenda, a strategy to sustainably develop the economic output of member state's maritime environments through targeting the growth of marine industries (European Commission, 2017). Despite wide acknowledgement of the potential of aquaculture to contribute to sustainable production of food, many EU member states are struggling to find space for expansion (Scientific Technical and Economic Committee for Fisheries & Aquaculture, 2014).

These issues were addressed in unit 1. If you have not studied that material, then you could look at:

(OA) FAO State of the world's fisheries and aquaculture 2016. Available from:

<http://www.fao.org/3/a-i5555e.pdf>

(OA) EU Blue Growth Agenda Strategy Website:

https://ec.europa.eu/maritimeaffairs/policy/blue_growth_en

The environmental and biological aspects of aquaculture have historically taken precedence in research on the industry and also within policy (Krause et al, 2015). However, with an increasing amount of marine space being allocated to different uses (such as marine tourism, shipping, marine renewable

energy, fishing), and as EU governing bodies recognize that there needs to be more robust management strategies for the marine environment and the development of maritime industries, the topic of social interactions between aquaculture and society is becoming more important (Hofherr et al, 2015). During the AquaSpace project, conflict with other users of marine space was reported by stakeholders as one of commonest constraints on aquaculture expansion (O'Hagan et al., 2017). Although such conflicts can be seen as solvable through effective marine spatial planning processes (as discussed in unit 4), they are also part of the wider political process by which societies decide the best use of their natural resources. Thus there is a need to address the very social issue of finding areas where the industry can expand to meet policy expectations and growth targets, by exploring how society interacts with the industry and vice versa.

See associated slides numbers 3 and 4, introducing social issues relating to space.

These interactions can come in a variety of forms. They require an understanding of the democratic processes at the operational level of governance that influence the granting of permissions for aquaculture developments, and also those at the collective and constitutional levels that determine spatial planning policy. The forms of interaction include but are not limited to;

- one directional – informing the public about aquaculture;
- two directional – informing the public about an aquaculture development and asking for opinions in return;
- relational – a continuous feedback loop of information and opinions shared between industry and society which influences how both entities feel and act toward each other.

This text considers these issues in relation to the topic of *social licence* introduced in unit 2, which includes the processes by which formal licences are issued by public authorities, and *social licence to operate*, which refers to the informal (but not necessarily unorganised) consent or opposition from communities to aquaculture industry developments.

The [main] suggested reading for this section (Krause et al., 2015) argues the need for better assessment and interpretation of the social dimensions of aquaculture, if aquaculture is to optimise production of natural aquatic resources and to distribute their benefits equitably to human communities - i.e., although not framed in these terms, to achieve the social aim of the Ecosystem Approach to Aquaculture as discussed in unit 2. What Krause and co-authors discuss largely concerns a need to understand the governance institutions that should, but often do not, aid the achievement of this aim. The unit you are now studying, concentrates on the human side of the matter, and concerns methods for studying how individuals and communities perceive and interact with aquaculture.

(RP) Krause et al (2015) A revolution without people? Closing the people-policy gap in aquaculture development. *Aquaculture* 444, pp 44-55

3. Social Investigation Tools

There are many tools used by researchers to try and understand the complexities of social interactions with the aquaculture industry. All of these tools can be categorised into two modes of enquiry; qualitative and quantitative. *Quantitative* enquiry is commonly used to reject or accept a hypothesis, or to monitor change, based on the measurement of defined variables using numerical data. These data may be 'real' numbers, ranks or categories, and are generalizable and testable by standard statistical methods. Quantitative data are usually collected using surveys, opinion polls, and structured interviews.

Qualitative enquiry is generally exploratory and non-numerical in nature. It's used to research the social reality of individuals and groups within a system and normally seeks to answer questions relating to 'how' and 'why'. Qualitative data can be collected using open-ended questionnaires, semi-or unstructured interviews, documents, participant observation, and ethnography (where a researcher will observe and in some cases try to experience life from the perspective of the subject of study). 'Mixed methods' combine the two.

Slides 5,7-8 provide an example of how qualitative enquiry and mixed methods were used in the context of gaining planning permission for new finfish farms on the West Coast of Scotland.

Qualitative enquiry is used to elicit context-rich information, which can reveal the complexities of real-life, as experienced by individuals or groups. Quantitative methods are similar to those used in the natural sciences and psychology. Social science enquiry, however, considers people in their social context, whether using qualitative or quantitative data. Historically social science enquiry took a positivist approach (where the one conducting the enquiry was considered to be 'objective'). However, the philosophy underpinning social science methods has moved on and now considers that humans are not 'objective' and therefore recognises the influence that those conducting social studies will have on any collected data. Going one step further is *action research*, where a social scientist will work with people and will record strategies, changing relationships, steps that work (or don't work), and any outcomes. Finally, all intrusions into peoples' lives, even in so minor a way as a questionnaire, requires prior ethical consideration.

The handbook of social research methods by Bryman (2012) provides detailed guidance for the use of the methods outlined above.

An example of how a survey was used in the AquaSpace can be found in O'Haggan et al (2017). Here, the authors used a questionnaire to gain contextual insights into the different marine spatial planning regimes across Europe. Billing et al. (2017) used a different method, studying information already in the public domain to gain an understanding of why people support or object to fin fish farms.

(OA) Billing et al. (2017) *Case Study: Argyll and Bute, Scotland, UK*, pp 252-272 in Ø., Strand and Ø., Bergh, eds., *Case Study Final Report AquaSpace Project Deliverable 4.2*. Available from Library/Main reports page at www.aquaspace-h2020.eu.

(OA) O'Hagan et al (2017) *Regional review of Policy-Management Issues in Marine and Freshwater Aquaculture*. AquaSpace Project Deliverable 3.1. (see pp 25-28). Available from Library/Main reports page at www.aquaspace-h2020.eu.

4. Public Engagement Tools

Public engagement is the participation of an individual in a group or society, and is a fundamental component of effective democratic governance (Dean, 2016). There are different levels of engagement and participation which have been described by researchers. One of the most prominent essays on the subject of public engagement is Arnstein's from 1969. She describes engagement as a ladder, where the bottom rungs are 'nonparticipation' – where the public is 'educated' by power holders but thought of as engagement by power holder. The rungs in the middle of the ladder are 'tokenism' – where people are given the chance to voice their views, but don't have the power to change outcomes. The top section of the ladder describes 'citizen power' – where people have the power to voice their opinions and create outcomes which are based on their decisions. Within each rung there are positive and negative

implications. However, the current political paradigm is based on the concept that decisions which are inclusive are more likely to be democratic (although that does not necessarily make them 'better') (Dean, 2016) as is evident in the legislation and policies outlined below.

In the context of aquaculture, public engagement relates to how and to what extent individuals and groups are able to access/ influence decision-making pertaining to aquaculture development and associated activities. There are many different models of how to engage society, used across the European Economic Area, but within the EU Maritime Spatial Planning Framework Directive (MSPFD), public consultation is a requirement (Directive 2014/89/EU).

This unit provides the example of Scotland, where engagement with both stakeholders and local communities is written into statutory legislation through the Town and Country Planning (Scotland) Act of 1997 and in policy through the National and Regional Marine Plans (derived from the EU MSPFD) and Scottish Planning Policy (Scottish Government, 2014). As explained in more detail in unit 4, Marine Spatial Planning under the MSPFD defers to 'town and country planning' in EU member states where this is already established. This is the case in Scotland, where licensing a fish-farm development is a matter for Local Planning Authorities.

The Scottish Town and Country Planning Act stipulates that all planning applications will have a public consultation period of no less than 14 days. This means that anyone can comment on an application, providing the Local Planning Authority with their opinions. The Local Planning Authority takes these opinions into consideration when making decisions on whether to grant the planning application. Scottish Planning Policy advises developers to carry out a pre-planning consultation, in an effort to address any issues that a group/ community has with the development before submitting a planning application.

Public engagement is also part of an informal mechanism used by individuals, groups and NGO's to lobby target populations and influence planning outcomes.

Slides 5, 10 and 11 provide researched examples of public engagement tools and how they influence the growth of finfish aquaculture in Scotland.

Some examples of public engagement tools which are endorsed by the EU for the aquaculture industry are;

- Consultations – where an organisation/ industry sets out a proposal and asks for feedback from stakeholders and communities, typically within a certain timeframe, before making a decision on how to proceed. In Scotland, aquaculture operators often hold community consultations before they put in their planning applications. This normally means they hire out a facility within the community (a community hall, for example), put up posters of their plans, lay out food and drink, and have representatives there to collect feedback and talk to attendees.
- Workshops – where an organisation invites stakeholders to meet and talk about a specific topic. The format of a workshop is usually dependent on the aims and objectives of the host organisation. For example, stakeholder workshops are often held by government and researchers to explore the different perspectives of the people and the industries/ organisations that they represent around development, conservation, and/or policy design.

Some examples of public engagement tools which have been used by individuals and NGOs related to the aquaculture industry;

- Leafletting – where an individual or organisation provides information pamphlets on how aquaculture activities in the local area will affect residents. These are handed out at local events, such as agricultural shows and community council meetings, and put through letterboxes.
- Door-stepping – where an individual or organisation knocks on doors in the community to talk to local people about aquaculture activities or developments in the area. People who do this will also have leaflets with the information on.
- Social media, medial, email, and the internet – where an individual or organisation puts information in social media and normal media outlets directing the public to articles, petitions, or websites where the public can post their views, sign petitions, or sign up to receive more information via email.

Reading material for this section includes guides from Government and a NGO on how to engage with the Scottish Planning System. When reading them, keep in mind the different methods that each uses and what type of engagement it might be. The first text provides theoretical context for public participation, defining the different types of engagement and how they might influence policy outcomes:

(OA) Dean, R.J., (2016) Beyond radicalism and resignation: the competing logics of public participation in policy decisions. *Policy and Politics*
<http://eprints.lse.ac.uk/65177/1/Beyond%20radicalism.pdf>

(OA) Scottish Government - Community Engagement How to Guides. Available at:
<http://www.gov.scot/Topics/People/engage/HowToGuide/Publications>

(OA) Friends of the Earth (2008) Scotland's Planning System; A Community Guide. Available at:
http://www.planningdemocracy.org.uk/resources/PlanningCommunityGuide_FoES.pdf

5. Social Licence to Operate

Theoretical frameworks can help us understand the way that different social systems work by describing the component parts and the areas where improvement can be or need to be made. Social licence to operate (SLO) is an industry-coined term and also a sociological theory. It is defined as a negotiation process between industries which have social and environmental costs associated with them and the communities who host them (Gunningham et al., 2004). Community is a wide-ranging term, but in this instance it means the people who are living by or near to the industrial activity.

SLO first emerged in the mining industry, where companies were finding that they had to satisfy the needs and expectations of local communities as a risk management strategy (Boutilier and Thomson, 2011). A global focus on the state of our natural environment, embodied in the Convention on Biological Diversity in 1993, The Kyoto Protocol of 1997 and the Stockholm Convention of 2001 to name a few started a shift in attitude to polluting industries in the early 2000's. These changes included 'hard' legislative modifications and 'soft' social changes, such as an increased public awareness around environmental impacts. The two interact with each other as well, where pressure from the public or communities can create enough momentum to push through changes to legislation (Gunningham et al 2004).

Although SLO is a well-established part of the mining industry, it has only recently been introduced into the aquaculture sector (Leith et al, 2014). Research on the role of SLO in the aquaculture industry is limited, but there is an increasing recognition that aquaculture's environmental impacts create social costs which can lead to conflict and at the extreme end of the scale, litigation (Kruase et al, 2015). This

is especially problematic where there are other users vying for the same space (such as marine tourism and fishing). If aquaculture is to expand, it will have to rectify these social issues, and applying an SLO perspective can provide a useful tool in understanding what communities require from industry and why (Gehman et al, 2017). Figure 1 depicts the different types of external 'licences' (Unit 2) needed for aquaculture to operate efficiently and effectively. Figure 2 provides more detail on the components of social licence to operate.

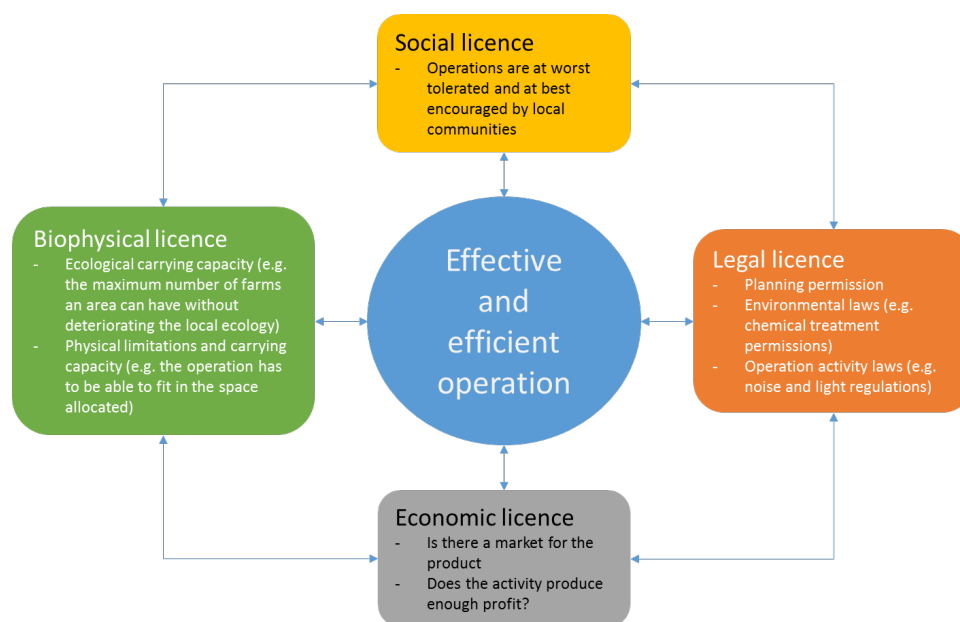


Figure 1. Diagram showing the different 'licences' which the aquaculture industry requires to have an efficient and effective operation. Under each of the licences are examples of what might be involved in them. Unit 2 provides more insights.

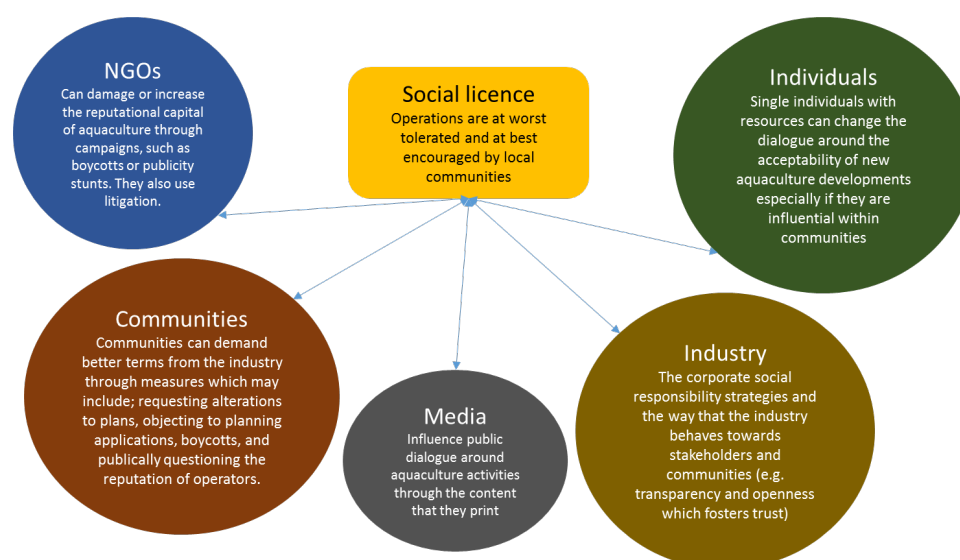


Figure 2. The component parts of a social licence to operate.

Slides 10-13 provide an example of why social licence is important to the aquaculture industry in Scotland and some of the expectations that communities might have of operators.

Reading material for this section includes two different approaches to social licence to operate and a guide on how to improve social licence to operate. Whilst you are reading them, think about how different public engagement strategies influences social licence to operate;

(OA) Thomson, I., and Boutilier, R., (2017) [SocialLicence.com website](#).

(RP) Gunningham, N., Kagan, R., Thornton, D., (2004) Social licence and environmental protection: why businesses go beyond compliance. *Law and Social Enquiry*. 29 (2) 307-341

(OA) Ministry for Primary Industries, New Zealand (2014) How to improve your social licence to operate; A New Zealand Industry Perspective. Available at; <http://www.aquaculture.org.nz/wp-content/uploads/2014/04/2014-05-How-to-improve-your-social-licence-to-operate-1.pdf>

6. Exercise

Make a critical comparison of the SLO theory and methods presented by Gunningham et al (2004) with that of Thomson, I., and Boutilier, R., (2017).

7. Self-assessment Questions

The SAQs that follow test your achievement of the learning outcomes and help you think actively about the points raised in this lecture. No answers are given.

1. Analysis of public comments about a fish-farm licencing application shows that many objectors cite environmental impacts as their reason for objecting; however, objectors seldom provide specific information about these impacts, and so you form the hypothesis that they are motivated by concerns about the effects of a fish-farm on house values: what methods could be used to test this hypothesis?
2. Why is it desirable that an aquaculture enterprise should have social licence to operate?
3. What is the relationship between MSP and social licence to operate?
4. What types of public engagement are there?
5. How does public engagement relate to social licence to operate?

8. References

- Billing et al. (2017) *Case Study; Argyll and Bute, Scotland, UK*, pp 252-272 in Ø., Strand and Ø., Bergh, eds., *Case Study Final Report AquaSpace Project Deliverable 4.2*. Available from Library/Main reports page at www.aquaspace-h2020.eu.
- Bryman, A., (2012) *Social Research Methods*. 4th Edition. Oxford University Press, Oxford, UK. (RP)
- Boutilier., R. G., and Thomson, I., (2011) *Modelling and measuring the social licence to operate: fruits of dialogue between theory and practice*. Available at: <https://sociallicense.com/publications/Modelling%20and%20Measuring%20the%20SLO.pdf>
- Dean, R.K., (2016) *Beyond radicalism and resignation: the competing logics of public participation in policy decisions*. *Policy and Politics* <http://eprints.lse.ac.uk/65177/1/Beyond%20radicalism.pdf>
- EU (2014) *Directive 2014/89/EU of the European Parliament and of the Council – establishing a framework for maritime spatial planning*. Available at: <http://eur-lex.europa.eu/eli/dir/2014/89/oj>
- European Commission (2017) *Blue Growth – shaping the next five years together*. Available at: https://ec.europa.eu/maritimeaffairs/content/blue-growth-%E2%80%93-shaping-next-five-years-together_en
- FAO *State of the world's fisheries and aquaculture 2016*. Available from: <http://www.fao.org/3/a-i5555e.pdf>
- Friends of the Earth (2008) *Scotland's Planning System; A Community Guide*. Available at; http://www.planningdemocracy.org.uk/resources/PlanningCommunityGuide_FoES.pdf
- Frid, C.L.J. and Paramor, O.A.L., (2012) *Feeding the world: what role for fisheries? ICES Journal of Marine Science*. 69 (2) 145-150.
- Gehman, J., Lefsrud. L., Fast, S., (2017) *Social license to operate: Legitimacy by another name? Canadian Public Administration*. 60 (2) 293-317.
- Gunningham, N., Kagan, R., Thornton, D., (2004) *Social licence and environmental protection: why businesses go beyond compliance*. *Law and Social Enquiry*. 29 (2) 307-341.
- Hofherr, J., Natale, F., Trujillo, P., (2015) *Is lack of space a limiting factor for the development of aquaculture in EU coastal areas? Ocean & Coastal Management*. 116, 27–36.
doi:10.1016/j.ocecoaman.2015.06.010
- Krause et al (2015) *A revolution without people? Closing the people-policy gap in aquaculture development*. *Aquaculture* 444, pp 44-55.
- Leith, P., Ogier, M., Haward, M., (2014) *Science and Social Licence: Defining Environmental Sustainability of Atlantic Salmon Aquaculture in South-Eastern Tasmania, Australia*. *Social Epistemology*, 28 (3-4) 277-296.
- Ministry for Primary Industries, New Zealand (2014) *How to improve your social licence to operate; A New Zealand Industry Perspective*. Available at; <http://www.aquaculture.org.nz/wp-content/uploads/2014/04/2014-05-How-to-improve-your-social-licence-to-operate-1.pdf>
- O'Hagan et al (2017) *Regional review of Policy-Management Issues in Marine and Freshwater Aquaculture*. AquaSpace Project Deliverable 3.1. (see pp 25-28). Available from Library/Main reports page at www.aquaspace-h2020.eu.
- Scientific Technical and Economic Committee for Fisheries & Aquaculture (2014) *The Economic performance of the EU aquaculture sector*. Publications of the European Union, Luxemburg. Available at; <http://publications.jrc.ec.europa.eu/repository/handle/JRC87692>
- Scottish Government - *Community Engagement How to Guides*. Available at: <http://www.gov.scot/Topics/People/engage/HowToGuide/Publications>