



UNIVERSITY
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Social License to Operate and the Blue Economy

A Report to the World Ocean Council

by ANCORS and Wageningen University

AUSTRALIAN NATIONAL CENTRE FOR OCEAN RESOURCES & SECURITY



The **Australian National Centre for Ocean Resources and Security (ANCORS)**, University of Wollongong, is Australia's only multidisciplinary university-based centre dedicated to research, education and training on ocean law, maritime security and natural marine resource management providing policy development advice and other support services to government agencies in Australia and the wider Asia-Pacific region, as well as to regional and international organizations and ocean-related industry.

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Executive summary

The Blue Economy is an ocean based economic growth model designed to ensure sustainable use of the marine environment. It includes ‘traditional’ offshore activities (e.g. oil and gas development, shipping, fisheries) and emerging industries such as deep sea mining and renewable energy. The social acceptability of ocean based industries, sometimes known as ‘social license to operate’ (SLO), will be important to securing the future potential of a Blue Economy. Whilst maintaining a SLO is a challenge that is experienced differentially across various sectors, the loss of SLO in one sector may impact the level of societal trust in the broader concept of a Blue Economy.

The concept of SLO in the Blue Economy was explored using the following methodologies:

- In depth interviews with business people engaged in a cross section of maritime industries, including deep sea mining, shipping, ports, renewable energy, fisheries and aquaculture,
- An interactive workshop with the ocean business community conducted as part of the World Ocean Council’s Sustainable Ocean Summit, and
- A cross-sectoral online survey of maritime business people.

These three methods of data collection explored the different components of SLO within the Blue Economy. In particular, the research focused on questions of *who* grants a SLO, *what* kind of sustainability concerns are impacting a SLO and *how* sectors are working to obtain, or maintain, a SLO. By comparing the responses of individual sectors to these three critical questions, we identified three broad trends in SLO within the Blue Economy which provides important insights for both industry and Government decision makers.

Firstly, across all sectors there appears to be common issues with identifying who the relevant stakeholder groups are. Many of the industry participants highlighted the enormous scope and variety of stakeholders they interacted with and the challenges in engaging effectively with such a broad diversity of actors. This was especially challenging in relation to special interest groups who are influenced in their concerns and opinions by values, beliefs or areas of interest, which may or may not be consistent with other communities with which the industry interacts.

Secondly, the research identified two ‘layers’ of SLO challenges currently being managed across the range of Blue Economy sectors. The first layer focused on tangible impacts, which related mostly to environmental risks, especially concerns over impacts on biodiversity or amenity, pollution or contamination issues. The second layer focused on intangible impacts. These impacts are harder to conceptualise, monitor and control but are creating particular challenges for maritime industries.

They include conflict with other users or sectors over space and resource access, and clashes of values and ideologies.

Finally, the research found that across all sectors the 'Blue Economy' appears to be well equipped to respond to the technical and technological challenges associated with managing tangible impacts, particularly environmental risks, through innovation, research and mitigation strategies. A significantly greater challenge appears to lie in the most appropriate response to more intangible impacts, which have a strong relationship with the values, beliefs and ideologies of the communities of interest with whom the different industries are interacting. This will continue to be a challenge as the Blue Economy grows. At present it appears these often intractable issues are primarily dealt with in the political realm where decision makers are asked to mediate between conflicting values, and government lobbying can be expected to occur from both sides of these somewhat polarised debates.

The clear majority of marine industries who participated in this research, considered themselves to be in a relatively vulnerable position in relation to SLO. Most felt that their sector is largely accepted and/or tolerated but has occasional issues of concern with social acceptability, such as with particular stakeholder groups. Given the consistencies found across all sectors, an integrated approach to researching, monitoring and addressing SLO is recommended, with some priority areas identified:

- Stakeholder identification and understanding, including developing an improved understanding of the nature of stakeholder concerns and the values and beliefs which underpin them. Understanding where shared values exist and where they differ will assist in informing how dialogue and negotiation can best be approached and how long-term relationships can be developed over time.
- Best practice development and sharing, including facilitating opportunities for sectors to exchange knowledge on SLO challenges and approaches.
- Expanding the SLO toolbox, with a particular focus on approaches to addressing less tangible impacts. This may include new and innovative responses to stakeholder engagement, for example through participatory Blue Economy planning, benefit sharing arrangements and improved incorporation of data on social values into Marine Spatial Planning exercises.
- Evaluation and Monitoring, by developing systems of tracking SLO over time in order to guard against SLO 'shocks' to a business or sector and the Blue Economy as a whole.

1. Introduction

The Blue Economy, sometimes also called ‘Blue Growth’, aims to use innovative, integrated and cross sectoral management to promote socially equitable and ecologically sustainable use of the natural (blue) capital provided by coasts and oceans. The term Blue Economy first emerged at the 2012 United Nations Convention on Sustainable Development (UNCSD), or Rio +20 Conference. The concept was promoted at the Rio+20 Conference as the marine dimension of the broader ‘green economy’, which was defined as an economy *“that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities”* (UNEP, 2011 p16). The Blue Economy reflects the fact that over 70% of the earth’s surface is water, and that good ocean health is of central importance for global sustainability and climate adaptation (UNEP et al., 2012). It also recognises that the oceans are a vital repository and supporter of global biological diversity, a critical source of food through fisheries and aquaculture and a fundamental contributor to the global economy through sea-borne trade and other uses (Warner and Schofield, 2012 p.1).

While a universal definition of the Blue Economy is yet to be agreed, it is based upon the core principles of Sustainable Development. It recognises the multiple benefits of marine and coastal ecosystems for current and future generations and the need for sustainable use and development of these resources. This focus on sustainability and ocean health distinguishes the Blue Economy from the broader ‘ocean economy’. The ocean economy (also sometimes called the marine economy) refers to *‘that portion of the economy which relies on the ocean as an input to the production process or which, by virtue of geographic location, takes place on or under the ocean’* (Kildow and McIlgorm, 2010 p368). The ocean economy therefore includes a wide variety of sectors as outlined in Table 1 (Kildow and McIlgorm, 2010, McIlgorm, 2005, The Economist, 2015).

Table 1: Sectors that contribute to the ocean economy (adapted from The Economist, 2015)

Extraction of non-living resources, or resource generation	Harvesting of living resources	Commerce and trade in and around the ocean	Ecosystem protection and management
Seabed/ Deep seabed mining	Fisheries	Shipping (marine transportation)	Blue Carbon
Oil and gas	Aquaculture	Shipbuilding and repair	Surveillance and maritime security
Water (desalinization)	Marine bio-technology	Marine construction (e.g. jetties etc.)	Habitat protection/ restoration
Dredging	Recreational fishing and boating		Hazard protection
Energy/renewables (tidal/wave energy; coastal/offshore wind)	Seafood processing	Port infrastructure and services	Ecological/ ecosystem research

		Marine services (e.g. mapping, monitoring, consulting, maritime insurance, etc.)	Waste treatment and disposal
		Marine education and R&D	
		Coastal Development	
		Marine and coastal tourism	
		Defense	

The Blue Economy is often thought of as a subset of this broader ocean economy. It incorporates ideas which are designed to ‘green’ existing marine industries such as fisheries, aquaculture, shipping, ports and marine tourism. It also embraces new and emerging sustainable industries such as wind and wave power, and payment for ecosystems services like Blue Carbon. Questions remain as to what differentiates the ocean and Blue Economies in relation to their geographic and sectoral scope, however it is clear that potential exists within all sectors to improve environmental performance and grow social and economic benefits. In this regard at least, all sectors have the ability to become more ‘Blue’ (Voyer et al., 2018).

This report aims to explore the role of social expectations in the transition to a ‘Blue’ future. In particular it will explore the notion of a ‘Social License to Operate’ (SLO), and the role it is currently playing, and is expected to play, in securing the future potential of ocean sectors and the broader Blue Economy.

1.1 What is SLO?

The idea and concept of a SLO emerged in the 1990s, especially in the mining industry, to underscore the observation that industrial activities and developments need something more than political support and a legal license that grant companies the permission to operate from the government (Prno and Scott Slocombe, 2012). There is increased concern over negative social and environmental impacts of local communities faced with an industrial development in their neighbourhood as well as from other stakeholders. Evidence suggests that stakeholders are becoming increasingly dissatisfied with the legal procedures and outcomes of granting a legal license by the government and have become more vocal and powerful in expressing their concerns. This often results in delays in industrial activities becoming operational (Prno and Scott Slocombe, 2012). Furthermore, stakeholders are often successful in their attempts to get more attention on the social and environmental impacts of industrial activities because they have access to information as well as ways of mobilizing citizens and momentum through the use of social media and the Internet.

A SLO typically focuses on the ongoing acceptance and approval of industrial activities by stakeholders and argues for the relevance of building a relationship and dialogue between companies and these stakeholders (as opposed to the government). A number of scholars engaged in research into SLO have theorised a spectrum of SLO, ranging from full acceptance (or identification) through to complete rejection, as detailed below:

- Withheld/withdrawn: industrial activities are in danger of being denied, restricted and /or discontinued
- Acceptance: the industrial activity is seen as legitimate and there is a tentative willingness to let them proceed
- Approval: credibility exists and there is stakeholder's support for the industrial activities
- Psychological identification: a high level of trust exists and stakeholders identify the contribution of the industrial activities to their interests (Boutilier and Thomson, 2011, Boutilier et al., 2012)

The focus on stakeholder and community support for industrial operations requires an initial consideration of *who* are the relevant stakeholders, or in other words – who 'grants' the social license? These are generally thought of as groups that are impacted by or concerned about developments, or groups that are seen as important to engage with around questions of social acceptability. These may include 'communities of place', such as neighbouring landholders, and/or 'communities of interest', such as environmental interest groups or user groups such as recreational fishers (Harrington et al., 2008).

Following identification of the relevant stakeholder groups, it is then important to understand and identify the primary issues of concern which are likely to influence SLO. In other words, *what* impacts and concerns are raised by these stakeholders, and are there specific issues or perceptions that are of concern to these groups which need to be addressed in order to build or maintain their support and trust? This may differ across and within the stakeholder groups, according to a range of influences, including the values, beliefs and worldviews which underpin their notions of sustainability or appropriate use of the environment (Ratner, 2004). A next step is then to discuss *how* to ensure ongoing trust and support from these stakeholders, that is what approaches are being taken to address stakeholders' concerns, or avoid potential concerns?

1.2 About this report

This report has been prepared by the Australian National Centre for Ocean Resources and Security (ANCORS) and the Environmental Policy Group of Wageningen University to examine the different ways in which sectors within the Blue Economy are experiencing, managing and addressing SLO. Different industries engaged in the Blue Economy may experience SLO in different ways, yet the loss of SLO in one sector may have ramifications for all. In particular, the loss of sectoral social license

may impact the level of societal trust in the broader concept of a Blue Economy and lead to concerns about 'blue-washing'. In addition, while social license challenges may be different across sectors, there are likely to be significant benefits in sharing lessons learnt – including innovative approaches to building community trust and support.

In December 2017 the authors organised a workshop at the World Ocean Council Sustainable Ocean Summit (WOC SOS). The objective of this workshop was to develop a strategic, cross sectoral and systematic assessment of the SLO challenges and opportunities within the Blue Economy. The workshop aimed to facilitate the sharing of information on best practices and lessons learned by different sectors in addressing SLO through case studies and interactive discussions. Concurrent with the workshop, a short survey was also delivered to SOS delegates and the wider maritime business community which aimed to further explore areas of common ground and divergence across and between Blue Economy sectors in relation to SLO. The workshop and survey were informed by a range of in depth interviews with business leaders from a number of maritime industries. This research focused on three primary questions relating to sectoral understanding of the following:

- *Who* is perceived to 'grant' a SLO for individual sectors or businesses within the Blue Economy,
- *What* primary issues are of concern to these stakeholders, and
- *How* are maritime sectors addressing SLO concerns?

The research participants were also asked about their perception in relation to their sectors' level of social acceptability, using the scale of SLO outlined above. This report synthesizes the results of these activities and includes a range of recommendations about ways in which a collaborative and systematic approach to addressing, monitoring and maintaining a SLO for the Blue Economy, and its component industries, might be approached, including future research priorities.

2. Methods

The research utilised a combination of methods incorporating both qualitative and quantitative techniques. These included:

1. In-depth interviews with business people engaged in the Blue Economy;
2. A workshop at the World Ocean Council Sustainable Ocean Summit; and
3. An online survey of business people engaged in the Blue Economy.

Across the interviews, survey and workshop research participants tended to be involved in sectors and businesses which fall into three categories of the ocean economy (as previously outlined in Table 1). These were extraction of non-living resources, or resource generation (especially seabed mining and oil and gas operations and marine renewable energy), harvesting of living resources (especially fisheries and aquaculture) and commerce and trade in and around the ocean (especially ports and shipping). These categories also tended to be the sectors most represented in WOC membership and attendance at the associated conference. Therefore they were the primary sectors considered within the analysis of SLO contained within this report.

2.1 In-depth interviews

The initial fieldwork associated with this project involved a series of in-depth interviews with representatives of various maritime sectors as indicated in Table 2. These interviews provided a framework around which the subsequent workshop and survey were designed as it allowed for the identification of common themes of interest in relation to SLO across multiple sectors.

Table 2: Interview participants by region and sector

Sector	Region					Total
	Asia	Australia	Europe	Indian Ocean	North America/ Canada	
Mining		2	3		1	6
Renewables					1	1
Aquaculture		1			1	2
Fishing			1			1
Ports		2				2
Shipping	1	1	1		1	4
Other			1	1	2	4
Total	1	6	6	1	6	16

Analysis of the data collected from the interviews involved thematic coding using NVIVO 11 qualitative data analysis software. The primary themes identified were used to frame key questions in the workshop and survey (as seen below), and provided context and depth to the findings of the survey.

2.2 Workshop

The WOC SOS workshop was conducted on Thursday 30th of November, 2017 and was attended by 24 participants, consisting of business people, academics and Government representatives from the following sectors:

- Dredging/offshore piling and marine construction
- Deep Sea Mining
- Shipping
- Aquaculture
- Fisheries
- Marine renewables
- Research and academia
- Environmental protection/NGOs
- Finance

The workshop involved a presentation by representatives from across five major ocean industries, including fisheries, seabed mining, offshore energy, shipping and oil and gas. These representatives discussed how their sector was considering the three central research questions of ‘who’, ‘what’ and ‘how’. The workshop then broke up into small round table discussions, which again focused on these three research questions with a particular emphasis on areas of commonality and divergence between the sectors represented.

2.3 Survey

Finally, a survey was distributed to business people involved in maritime industries through the WOC membership and communication channels, promotion at the SOS workshop, direct emailing of existing contacts in the private sector by the research team and social media posts via Linked in and Twitter. Table 3 outlines the primary themes the respondents were asked to address, based on common responses seen in the in depth interviews. The term ‘social acceptance’ or social acceptability was used in this survey in place of SLO, given SLO is not a universally understood concept in practice.

Table 3: SLO themes (identified through the interviews) explored in the online survey

Research question	Survey options
Who: Which communities are seen as important to engage with around questions of social acceptability?	<ul style="list-style-type: none"> • Immediate neighbours and adjoining urban areas • Local communities (outside immediate neighbourhood e.g. province or local government area) • Indigenous communities • Local NGOs • National or international NGOs • Other sectors or users • Other

<p>What: Are there specific concerns or issues or perceptions that are of concern to these groups which need to be addressed in order to build or maintain their support and trust?</p>	<ul style="list-style-type: none"> • Amenity and human health: Concerns relating to impacts like noise, dust and localised pollution • Economic impacts: Concerns relating to access to or sharing of the economic benefits associated with the sector • Industrial relations: Concerns relating to treatment or remuneration of workers • Pollution: Concerns relating to impacts on water or air quality, including contamination and contributions to climate change through carbon emissions • Biodiversity impacts: Concerns related to impacts on ecosystem health, biodiversity or marine animals, including fish stocks • Resource conflict: Conflict with other users or sectors over space, including access and use of resources • Cultural impacts: Concerns related to degradation of culture and way of life for communities, including Indigenous peoples • Clash of values and ideologies: Opposing ethical viewpoints in relation to oceans use and management • Other
<p>How: What approaches are being taken to address these concerns?</p>	<ul style="list-style-type: none"> • Public relations: Advertising and communicating the benefits and value of the sector • Education: Informing the general public and stakeholders of existing environmental and social impact management measures (including through certification schemes) • Consultation and community participation: Engaging local communities through consultation mechanisms, such as advisory groups • Benefit sharing: Developing and promoting of appropriate benefit sharing activities and programs to ensure economic and social wellbeing returns to impacted communities • Monitoring: Measuring and monitoring SLO/ community perceptions • Managing impacts: Environmental and/or social impact assessment and mitigation practices • Innovation and research: Development of new approaches to minimising environmental and/or social impacts • Resource sharing: Collaborating and negotiating with other sectors over areas of conflict and commonality • Government relations: Building relationships with governments, including lobbying • Other
<p>A final question was asked in the survey which elicited a self-assessment by survey participants as to their sectors' current level of SLO</p>	<ul style="list-style-type: none"> • The community is an advocate for our industry/sector - they are our biggest supporters • Our sector/industry has the approval and support of the community • Our sector is accepted and/or tolerated but we have occasional issues of concern with social acceptability, such as with particular stakeholder groups • Our sector is dealing with a lack of social acceptability/SLO • Our sector is facing community rejection, such as protests, boycotts and legal challenges

The survey obtained 46 complete responses from twelve countries, although the majority of responses came from Australia, Canada and the USA (Figure 1). The respondents were engaged in a range of marine sectors, particularly fisheries, research, shipping and marine renewables (Figure 2). Finally the respondents were employed in a variety of organisations, from start-ups through to large corporations, government institutions and universities (Figure 3).

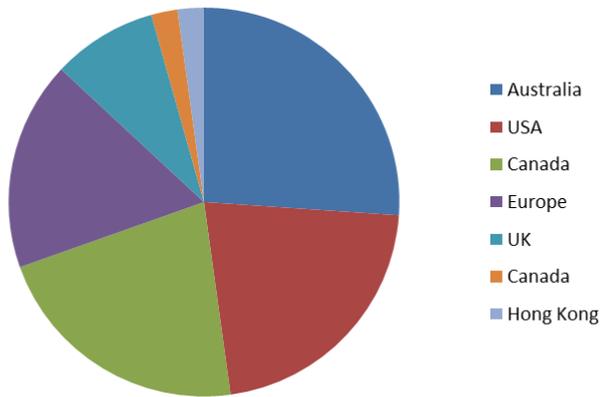


Figure 1: Respondent country of business headquarters

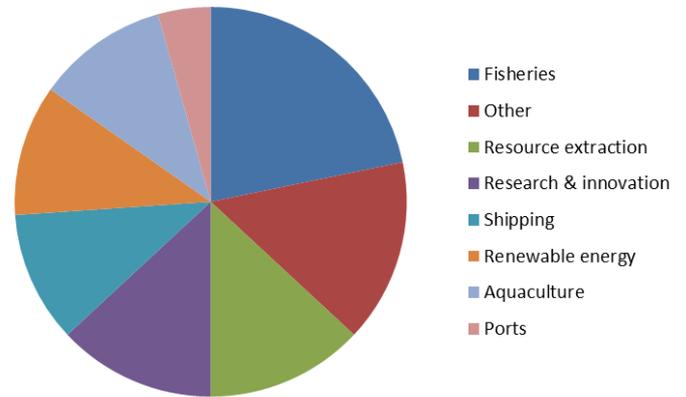


Figure 2: Respondent employment per marine sector

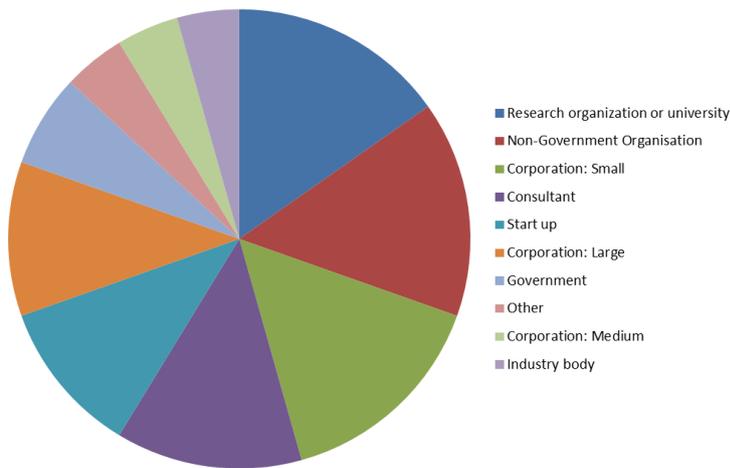


Figure 3: Respondent per type of organisation

3. Results

The results presented below are categorised according to sectoral uses. For each of these categories of use the results of the interviews, workshop and survey are organised around the three primary research questions of:

- *Who* is perceived to 'grant' a SLO for individual sectors or businesses within the Blue Economy,
- *What* primary issues are of concern to these stakeholders, and
- *How* maritime sectors are addressing SLO concerns.

3.1 Resource extraction and generation sectors

This category of the ocean economy relates to largely static, and geographically discrete operations such as oil and gas extraction, seabed mining operations, water desalination, and maritime renewable energy such as tidal, wind or wave energy generation. All these sectors were represented in the data collected through the interviews, workshop and survey.

3.1.1 *Who?*

Interviews with the seabed mining sector indicated that significant efforts had been made to engage 'communities of place' such as local and Indigenous communities. However, the largely offshore, and remote nature of many proposed mining operations (noting that deep seabed mining is yet to commence anywhere in the world) means it was often unclear exactly who should be considered a stakeholder in these operations.

So where we had our licences...well it was all within the EEZ. But the southern part of the licence was still at least 100 kilometres offshore north and then just went further north from there.... it's very much localised. If you put a three-mile boundary around any island then I would suggest that would be where their fishing territorial rights would be existing. They're not going to be fishing for deep sea, 800 metres plus [names fish species] culturally.

Resource extraction interview participant

The interview participants considered international NGOs to be of particular relevance to their sector. As such, seabed mining interview participants often focused on the influence of activist environmental NGO groups on broader public sentiment, particularly through active online campaigns. Interactions with environmental NGOs were often regarded as highly adversarial, with the arguments for and against extraction activities couched in terms of a battle for the hearts and minds of a wider constituency.

I think so much work and thought went into it and always when we engage we say who else do we need to be engaging with and always taking all the advice....there was a point though

where it was tough and it's really when an..NGO... launched a campaign and really, really tried very hard to break down some relationships we'd worked so hard to get.

Resource extraction interview participant

The workshop provided further insights into the complexities associated with identifying stakeholders of relevance to the resource extraction sectors. It included a speaker from oil and gas (Fiona Hick from Woodside Energy) and seabed mining (Samantha Smith from Blue Globe Solutions - a consultant to the seabed mining sector). Ms Hick indicated the complexity of managing SLO given it is *'intangible, informal, and not permanent'* but she recognised that all businesses *'must respond to the needs of the wider community'*. As such she indicated that Woodside actively engages with *'community groups, NGOs, regulators, investors, suppliers, employees, contractors.'* Ms Smith highlighted the diversity of SLO stakeholder requirements which *'varies tremendously depending on the nature of the project'*. In the case of projects within Exclusive Economic Zones (EEZs) she indicated there is a greater focus on local communities as well as national and international regulators such as the International Seabed Authority and the World Trade Organization. She also cited commercial competitors, NGOs and environmentalists as being relevant stakeholders for mining within an EEZ, noting that these groups *'could be more strictly opposed to new projects'*. For mining proposals in areas beyond national jurisdictions she noted that *'concerned stakeholders are everyone worldwide'*.

This tendency to consider 'everyone' as relevant stakeholders was also seen in the survey responses from the resource extraction sector (which included both oil and gas and mining responses). Figure 4 indicates a fairly consistent response to the questions about the level of importance of each of the identified groups, with a slightly greater weighting towards national and international NGOs – a trend also reflected in the interviews and workshop.

A similar trend was seen in the survey responses to another major sector within this category of use - marine renewable energy production. As with resource extraction, the average level of importance of each stakeholder group was largely consistent. In contrast to the resource extraction sectors, however, the trend was more towards a greater emphasis on 'communities of place', including Indigenous and local communities, reflecting their physical location in more coastal or nearshore areas (Figure 4).

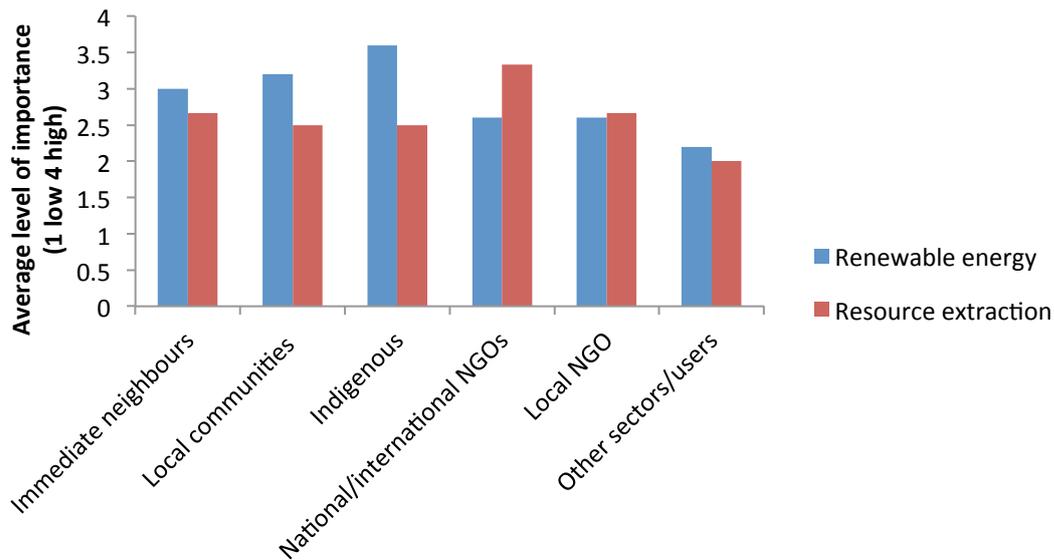


Figure 4: Sectoral responses to the level of importance of relevant stakeholder groups in relation to the social acceptability of the resource extraction and generation sectors.

One of the clear themes of the analysis of both the interview and workshop data was a focus on regulatory responsibilities to engage with stakeholders and the need to maintain productive stakeholder relationships to avoid reputational damage. Given the emerging nature of marine renewable energy and the deep sea mining sector, interview and workshop participants from these sectors often focused on the pre-approval phase of operations when consultation and community engagement were seen as crucial in convincing legislators and political decision makers about the legitimacy and worth of their activities.

So my theory is that if you can get anything deployed in the ocean in the United States, and particularly California, you can do it anywhere in the world, because again this social licence comes from a million different directions and every one of them has to be addressed. We have a regulatory environment [which includes] probably 10 or more different agencies that have to know what you're doing; sign off on it. Five of those are federal agencies; another five are state agencies. You still have to go through local [approval] processes and then you've got the other stakeholders. They can be surfers; they can be commercial fisherman. They all have something to say about it and you've got to address every single one of them.

Renewable energy interview participant

The emerging technologies, ideas and processes associated with new ocean uses of deep sea mining and renewables also required broad engagement with relevant experts. Ms Smith particularly highlighted the importance of engaging with, and seeking feedback from, the science community as part of a broader SLO strategy:

'The strategies to gain social license are to start early, transparent, inclusive, engagement including the most critical aspects of the activity; to approach the risks and potential issues with the world's best scientists while providing them with independence. These external experts represent an outsourcing of credibility.'

Samantha Smith (seabed mining) – workshop presentation

Once in operation, interviews and workshop participants highlighted their efforts to demonstrate ongoing compliance with environmental legislation and demonstrations of their Corporate Social Responsibility (CSR). CSR activities often involved engaging directly with NGOs and local communities, including Indigenous communities.

3.1.2 What?

During interviews with seabed mining representatives, it was acknowledged that the sector had the potential to create significant environmental impacts, however participants went to great lengths to detail the scale and range of mitigation and management strategies employed to minimise, remediate or offset these impacts. Whilst the nature and type of environmental impacts were quite different, there were many similarities between the approaches of seabed mining and renewable energy sectors in managing impacts, with both sectors highlighting the inherent difficulties associated with doing something 'new' in the oceans. For example, workshop presenter, Bill Staby, from the renewable energy sector, indicated that *'the main problem is the remaining scepticism about these technologies. It takes a long uphill battle to develop the necessary trust'*.

In response to feelings of frustration over this scepticism research participants from these sectors occasionally used comparative approaches to highlight a perceived level of scrutiny on their operations which they believed was inconsistent with levels of risk or with the scrutiny on other industries. Some, for example, discussed the relative environmental impact of their activities in comparison with other sectors or within a broader global context. This included comparisons of the level of environmental damage from deep sea mining with bottom trawling, or large scale open cut mining on land.

Because the easy win deposits are all gone. Now they're going to either deeper deposits or more challenging areas, geopolitically [or] locationally. Those sorts of areas are really putting challenges on the mining industry to say okay, where's the next big opportunity of wins. Now it's not to say that offshore is going to provide long term sustainable resources for all minerals that we require. But it does provide and it's moving more towards economically viable and environmentally sustainable sources of supply.

Resource extraction interview participant

Resource extraction industry representatives also highlighted the important functional role of their sector, and the societal benefits that come from the products the sectors already provide, or have the potential to provide.

They all have their iMacs and want to fly business class everywhere and have their iPhone and stuff...well, you've got to get the metal from somewhere. Their standard catch call is we'll recycle. You go well that's just going to drive the prices up and it means only the wealthy can afford these things. So yeah, I think mining is good for the world if it's done appropriately.

Resource extraction interview participant

The renewable energy sectors also highlighted the societal benefits derived from their sector as an important component of their strategy to obtain and maintain SLO.

..we don't expect much pushback at all. Part of it has to do with the fact that we're providing them a lifesaving commodity that they really, really need.

Renewable energy interview participant

For the more established oil and gas industry there was a greater focus on demonstrating corporate responsibility. Workshop presenter Fiona Hick highlighted that *'environmental impacts used to be intangible, but are now more tangible in terms of reputation and economic impacts'*. She identified the major SLO issues their sector was addressing related to climate change, demonstrating regulatory compliance, ensuring transparency, anti-bribery measures and major incident prevention.

The survey responses of the resource extraction sectors reflected a high level of engagement across all the identified SLO challenges, with a particular focus on potential or perceived impacts on biodiversity as well as concerns relating to access to or sharing of the economic benefits associated with the sector (Figure 5). This, along with the interviews and workshop data, suggest a primary focus of their efforts to improve SLO lies in demonstrating that the environmental costs of their activities are outweighed by the benefits. The renewables industry generally had lower levels of concern with all the identified social acceptability challenges, in comparison with the resource extraction sectors. In particular there was a lower level of agreement with the suggestion that the values and beliefs of the sector were at odds with stakeholders or the broader community. This may in part be due to an existing 'green' image of renewable energy, whereby environmental benefits are obtained through providing an alternative to carbon intensive, non-renewable energy sources.

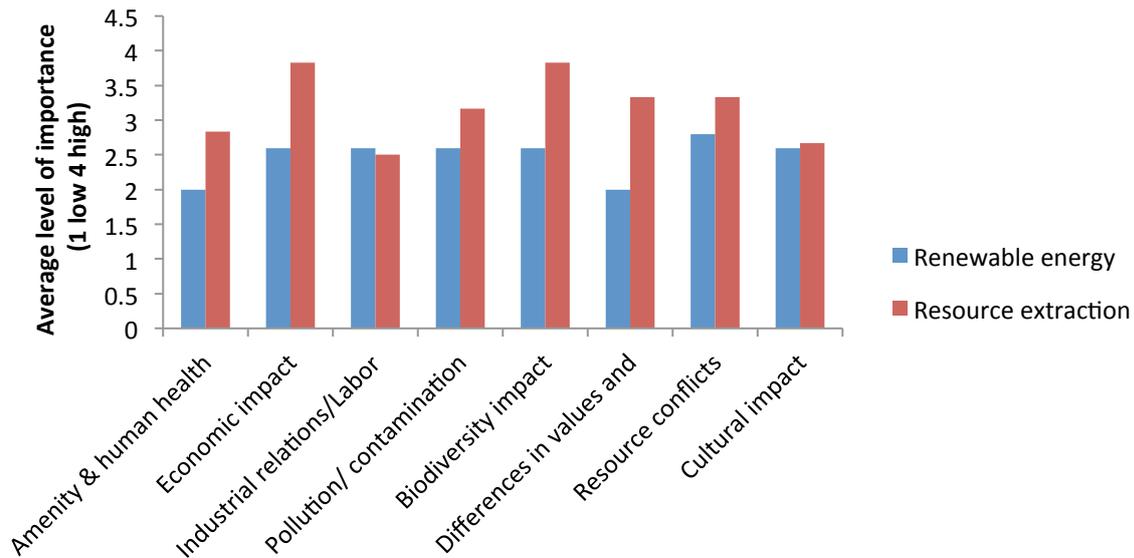


Figure 5: Sectoral responses to the level of importance of community perceptions or concerns create social acceptability challenges for the resource extraction and generation sectors.

3.1.3 How?

Throughout the interviews and workshop, participants engaged in seabed mining, oil and gas and renewable energy indicated a range of approaches to managing the identified SLO challenges for their sectors. There was a clear emphasis on developing new technologies and innovative responses to conducting operations and reducing impacts, and research participants outlined the often extensive measures undertaken to detect, monitor and address environmental impacts.

There's no drilling, blasting required. It really is just cutting, sucking and pumping to the surface... [then] the processing should be that all the material that's brought to the surface is dewatered. The water that's brought up has to be pumped back down to the area that it came from.

Resource extraction interview participant

Workshop presenter Bill Staby outlined a strategic, and step by step approach to 'retiring risk' by addressing each of the identified challenges for the renewable energy project he was managing. Ms Hick highlighted how her company has been working on building '*genuine two-way engagement - not one-way communication*' with communities. She indicated a need to '*share their goal achievements, their issues, their health and safety performances...as outcomes speak louder than words*'. These engagement strategies have been underpinned by the increasingly active role regulators are beginning to play in driving and mandating consultative processes. In Australia, Ms Hick indicated that the Federal Government have proposed to improve public consultation

mechanisms within the petroleum industry through a register of interest for future consultation, and the implementation of community engagement programs to provide the public more information on petroleum.

The survey responses indicated that in most cases, across both the renewable energy and resource extraction sectors, there was a feeling that their sector did not engage particularly well with a variety of strategies to develop and maintain SLO (Figure 6). However, the resource extraction participants felt they performed strongly in the categories of ‘research and innovation’ and ‘managing impacts’.

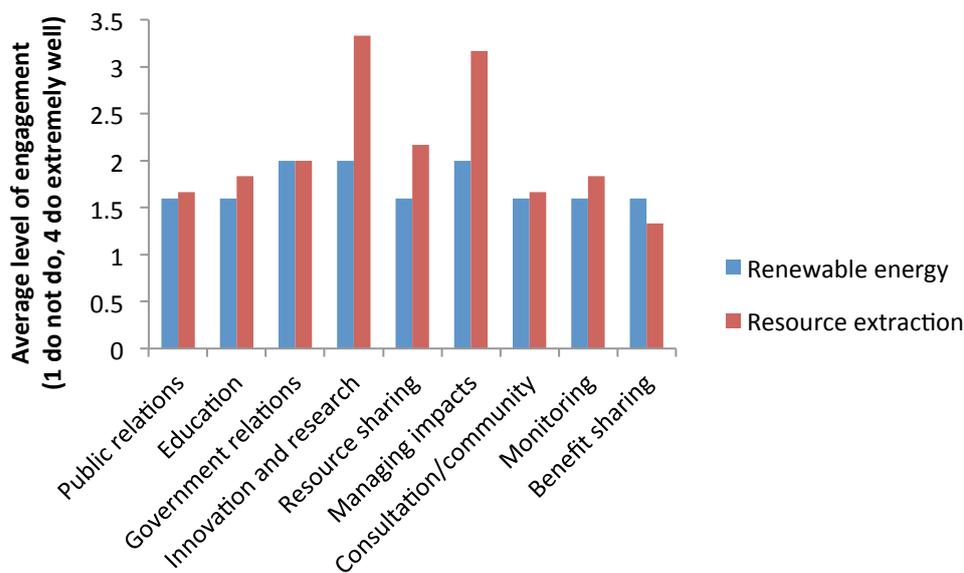


Figure 6: Sectoral responses on the extent to which they engage with strategies to improve or maintain SLO.

3.2 Harvesting of living resources (fisheries & aquaculture)

This category of the marine industries relates to a variety of methods of living resource extraction from the oceans, including fisheries, aquaculture and marine bio-technology. The data collected focused on the fisheries and aquaculture sectors.

3.2.1 Who?

Interviews with representatives from fisheries and aquaculture tended to focus on interactions with other users as a particular category of stakeholder of interest to their sectors. For the fisheries sector there were concerns in relation to recreational fishers and the increasing prevalence of offshore wind farms and other fixed infrastructure, particularly within European waters.

But there are a number of recreational fishermen who are semi-professional fishermen who have no problem with licensing and the quotas, who sell their fish on the black market. So that's unfair competition.

Commercial fishing industry interview participant

Workshop presenter from the fisheries sector, Jenna Lahey, outlined the importance of home port communities in her presentation and particularly highlighted the benefit of a long term, historic engagement with that community as crucial to their success in maintaining a high level of SLO.

Aquaculture producers cited opposition from commercial fishers as an example of conflict with other resource users. They also discussed significant stakeholder groups within their local communities, including close neighbours to their onshore facilities and residents with views that might take in their offshore facilities.

...we're going to have trucks coming in and out and you don't want your neighbours complaining so you don't want to be in the middle of a residential pocket.

Aquaculture industry interview participant

The survey responses indicated that stakeholders for fisheries and aquaculture were largely consistent across the two sectors and can best be summarized as encompassing a high level of interaction with all relevant stakeholder groups (Figure 7).

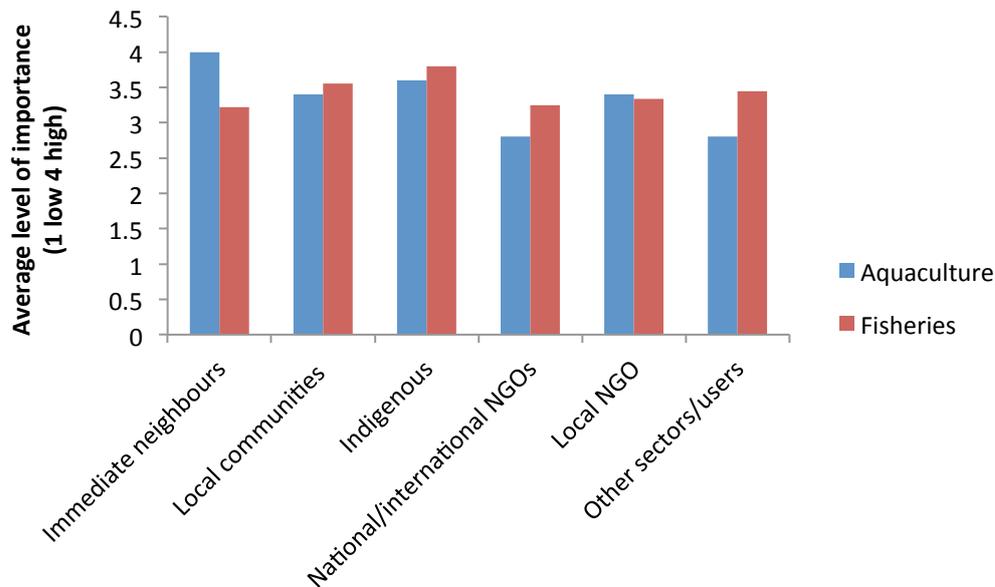


Figure 7: Sectoral responses (averaged) to the degree of importance of relevant stakeholders in relation to the social acceptability of the sectors involved in harvesting living resources.

3.2.2 What?

Interview and workshop participants from fisheries focused particularly on questions of resource conflict as a major issue of concern for their sector, along with perceived or actual environmental impacts such as overfishing, by-catch and habitat damage. Ideological differences were also considered of concern for the fisheries sector, with a sense that some sections of the community are opposed to commercial fishing in any form.

There are NGOs who are very orthodox, very strict in everything and it's almost a religious discussion. They're very difficult to deal with because it's their belief against our belief. Then you have a standoff. But on the other areas we can work - so if the NGOs and the fishing industry work together in the discussion with wind farms on nature conservation, fisheries et cetera and if we support each other we are much, much stronger.

Commercial fishing industry interview participant

Aquaculture participants discussed a range of environmental impacts their industry were required to address, including managing escapes, sustainable feed options and water quality.

In general survey respondents from the fisheries and aquaculture sectors indicated a range of potential or perceived SLO challenges as being particularly relevant to their industries (Figure 8). Of most significance for the fisheries sector were concerns over sharing economic benefits, impacts on biodiversity or ecosystem health, conflict with other users or sectors and a clash of values or ideologies. For the aquaculture sector, slightly higher emphasis was placed on biodiversity impacts and resource conflicts.

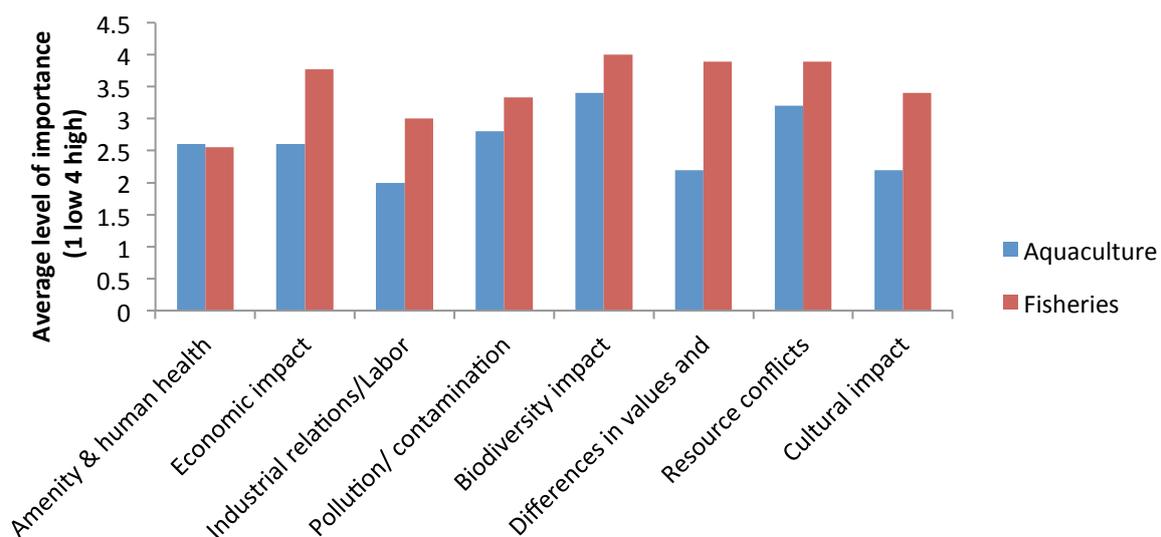


Figure 8: Sectoral responses to the level of importance of community perceptions or concerns create social acceptability challenges for the sectors involved in harvesting living resources.

3.2.3 How?

Some of the strategies identified in the interviews and workshop to addressing SLO concerns included efforts to ‘humanise’ the fisheries and aquaculture industries, as well as active engagement in community life. For example, workshop presenter Ms Lahey shared the history of her company, Louisbourg Seafoods, which started as a result of cod stocks collapse in Canada. She highlighted a range of strategies which have contributed to a high level of community support for their business. This has included making the health of ocean as a central element of their business, ensuring stocks are managed in a responsible way using in-house science and contributing in a range of ways to the local community, including through employment, financial assistance and sponsorship activities.

A range of other strategies for improving SLO were also highlighted in the workshop. This included a scallop business in the US which was using cooperative research to reduce turtle mortality to zero and a public relations campaign by the seafood industry in New Zealand, which told the story of some of the people involved in the industry, and ended with a pledge to look after the environment and the resource. The workshop participants talked about the importance of humanising the industry through storytelling and linking consumers with the faces of the industry. This was particularly strong in the fisheries sector where the history and increasingly ‘romantic’ notions of fishing are seen as key assets for the sector in building SLO and connections with communities.

Similarly, workshop participants from the aquaculture industry participants highlighted a range of strategies they had employed to build SLO. These included a focus on the innovation and research currently being conducted around offshore aquaculture and improved feed opportunities with technical advancements sought to address environmental concerns relating to escape and water quality.

It's very important that we have a feed that's not introducing anything in to the ocean environment that's foreign so we're looking into feed developments.

Aquaculture industry interview participant

One workshop participant also discussed the benefit sharing strategies her business proposed to employ in order to build SLO, which included a plan to donate a full cage of fish to food charities. Another common strategy for building SLO encountered within the fisheries and aquaculture sectors were certification programs such as Marine Stewardship Council (MSC) and Aquaculture Stewardship Council (ASC) accreditation schemes.

In the survey, both the aquaculture and fisheries sectors responses to SLO challenges were strongest in the ‘innovation and research’ category and weakest in the monitoring of SLO or community perceptions of the sector (Figure 9). Fisheries respondents to the survey also felt their sector were

moderately strong across all the other responses, while the aquaculture sector felt they were weaker in the categories of ‘Government relations’ (e.g. lobbying) and collaborating with other sectors (resource sharing).

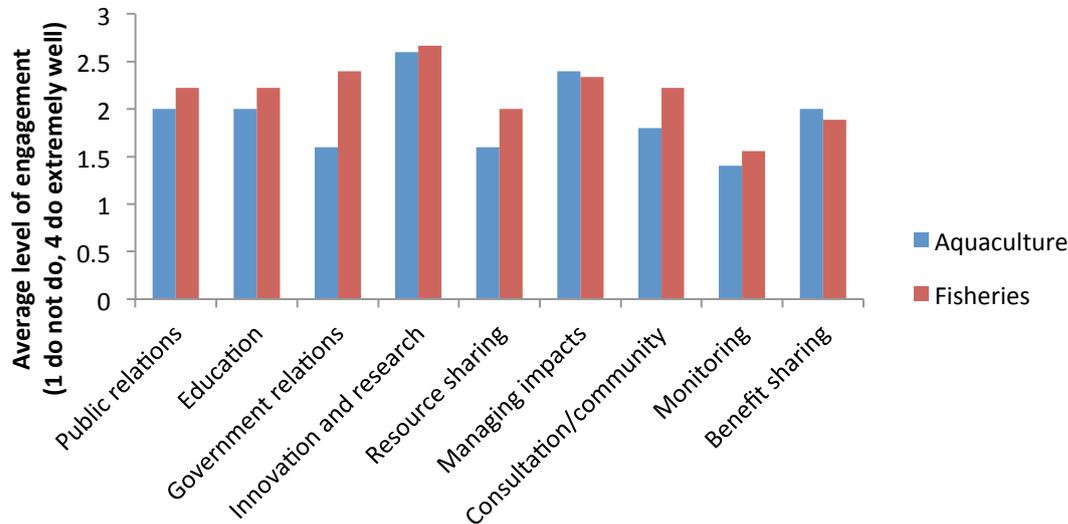


Figure 9: Sectoral responses on the extent to which they engage with strategies to improve or maintain SLO.

3.3 Commerce and trade in and around the ocean (shipping and ports)

This category of the ocean economy relates to shipping and transportation, ports, coastal development and marine and coastal tourism. The sectors of ports and shipping were represented in the data collected for this report.

3.3.1 Who?

There was a clear trend in the interviews with members of the shipping industry to focus on the ‘hidden’ nature of shipping as a major challenge for their sector in building SLO. In the workshop and interviews they talked particularly about the ‘general public’ as their major stakeholder group given the fundamental importance of shipping for international trade, yet there was a feeling that this was not well appreciated or understood. For example, workshop presenter Peter Hinchliffe (International Chamber of Shipping) indicated that *‘even if the shipping sector carries 90% of world trade, there is still a wide misunderstanding from the social or political spheres regarding the social importance of the shipping sector’*.

For port interview participants there was a greater focus on immediate neighbours, particularly with reference to concerns over urban encroachment and changing demographics or gentrification around port lands.

A lot of the older type of people are coming to live here. A lot of them are lawyers and that kind of thing. They start to complain, because they don't have any interest with [our company]. They see it as a burden.

Shipbuilding industry interview participant

The survey identified clear differences between ports and shipping in regard to relevant stakeholder groups (Figure 10). Ports appeared to have a stronger focus on 'communities of place', especially immediate neighbours, reflecting the static and localized nature of these activities. The survey indicated that they had the lowest level of concern in relation to interaction with other sectors, perhaps reflecting that port lands are often protected and prioritised in coastal planning and management.

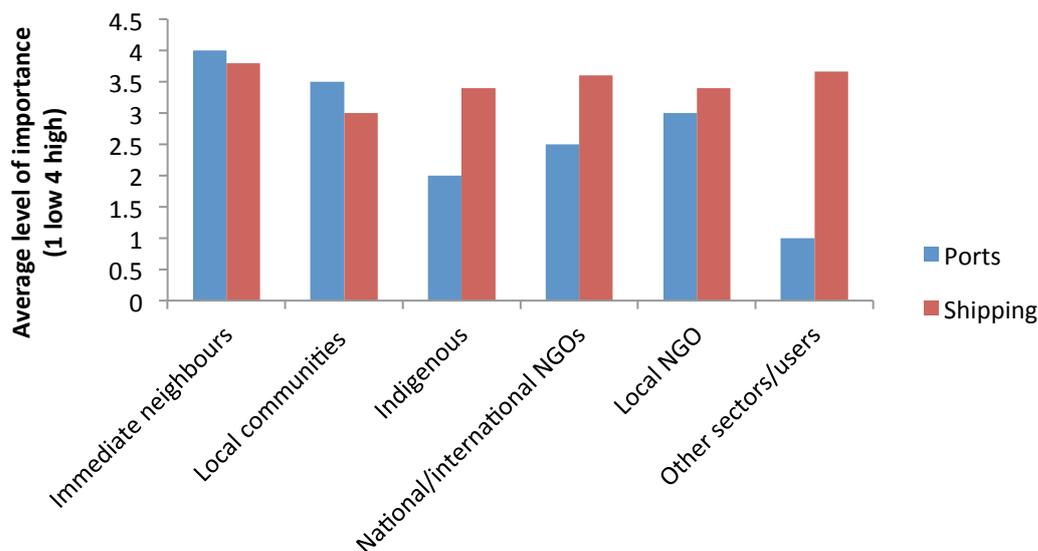


Figure 10: Sectoral responses (averaged) to the degree of importance of relevant stakeholder groups in relation to the social acceptability of the sectors involved in commerce and trade in and around the ocean.

3.3.2 What?

The workshop and interviews identified a range of SLO concerns which the sector is working to address. Workshop presenter, Mr Hinchliffe, for example, highlighted the often negative reputation

of the shipping industry in relation to labour standards. He also indicated the SLO would require going beyond regulated standards, including in relation to carbon emissions and fuel emissions.

The survey responses indicated that SLO challenges for the shipping and ports sectors focused most strongly on amenity and human health and pollution and contamination, for shipping biodiversity impacts were also a notable concern (Figure 11). This reflects the nature of the most likely environmental concerns for these sectors which includes fuel spills, emissions, noise and dust from port activities and introduced marine pests.

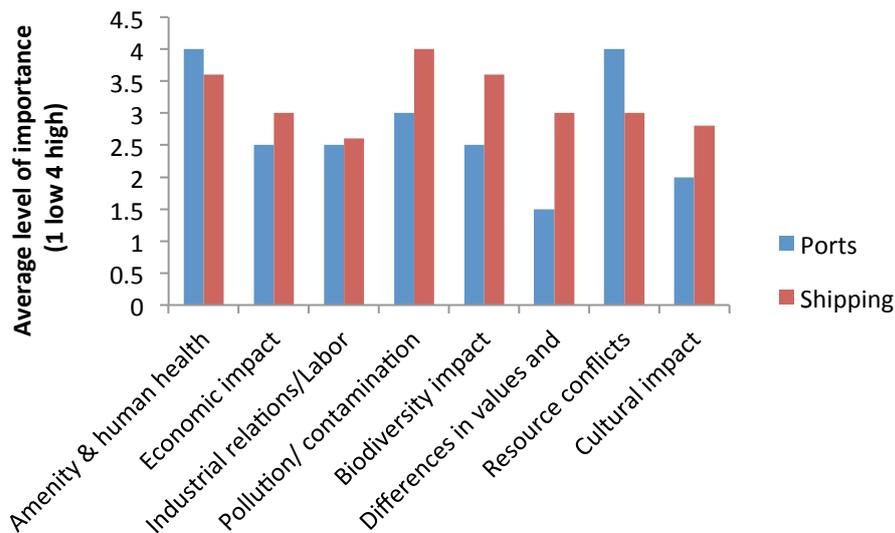


Figure 11: Sectoral responses to the level of importance of community perceptions or concerns create social acceptability challenges for the sectors involved in ports and shipping.

3.3.3 How?

Interview and workshop participants considered education as critical to SLO for shipping and port sectors. The need to inform the general public about the role of ports and shipping in the economy were often seen as important, and included exercises such as open days and education campaigns. The experience of a Canadian shipping company was shared in the workshop. It included a six month advertising campaign about the role of shipping and was seen to have had a very positive impact. Socially, the company was largely accepted and economically, it improved its commercial activities. This success was not always replicated, however, with at least one interview participant sceptical about the extent to which the public were interested in ports or shipping:

We are the port, we manage the port but this is not our freight. We are facilitating the people and the businesses of [our region] to thrive and to maintain a high standard of living..you can actively inform people about how that works, but I've heard that people

generally are not that interested in hearing about that. They basically just don't want to hear about freight, they just want it to work. They're not that interested.

Port sector interview participant

Another interview participant pointed to recalcitrance from within the shipping industry to any move to raise the profile of the sector. He suggested that the combined effect of low levels of scrutiny, alongside the extreme reliance of global economies on the sector, serves as shield, which inhibits long term change:

.. even when the scrutiny comes on, it doesn't mean that there's going to be a wide-ranging impact. Nobody it's going to call for, right, that's the end of shipping...So there is a flurry of activity, probably results in some unwanted regulation or probably unneeded regulation and then because politicians have to be seen to be doing something and then it all goes quiet again and we get on with business as normal....I'd love to see much more proactivity, but the industry is not - it doesn't like proactivity. So the industry is much more content to keep its head down and get on with its normal business and then respond reactively when something goes wrong...[this comes from]...two-thousand years of history, the fact that ship owners know if they keep their heads down, then they'll probably be left alone more or less.

Shipping industry workshop participant

Despite this, some within the sector are working to encourage and promote more responsible and proactive approaches to shipping and port management. The workshop and interview participants indicated that environmental certification schemes are an emerging trend as the shipping and ports sectors begin to respond to various social and political pressures to demonstrate their environmental responsibility. 'Green Port' and green shipping accreditation schemes are beginning to build momentum in many areas but their coverage of the sector as a whole remains low.

But we respect the environment more than the regulatory requirements. Our ships are now classified for what we call ISO 14000. It's a very difficult certification to get. ISO, International Standard Organisation, they assigned this certificate after a very meticulous, very careful evaluation and audit.

Shipping industry workshop participant

The survey results indicate that the shipping sector is most actively engaged in the categories of government relations (building relationships with government/lobbying), innovation and research and impact management. The ports industry respondents felt they were weakest in the areas of innovation and research and monitoring of SLO (Figure 12).

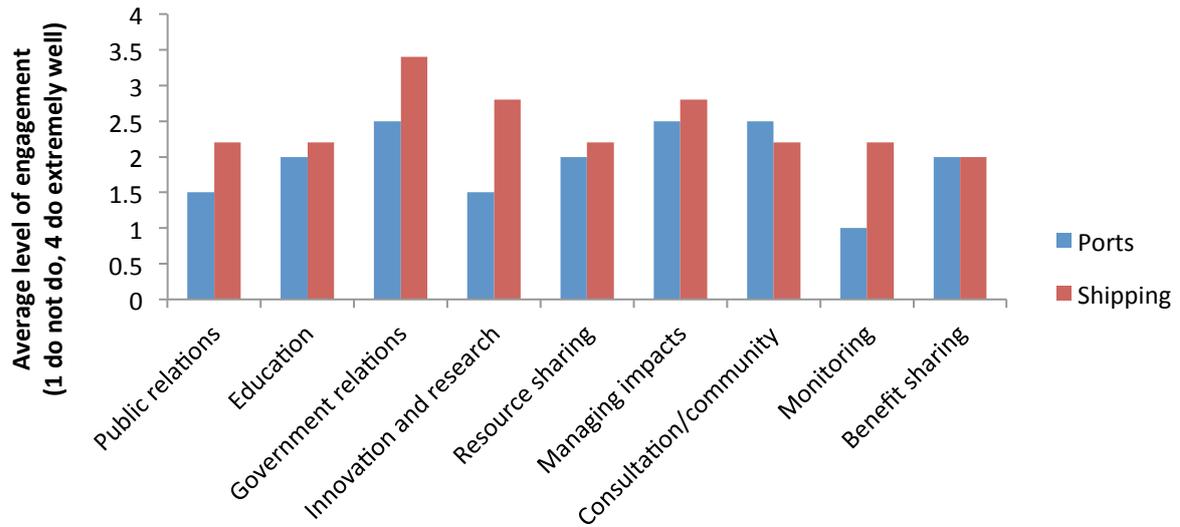


Figure 12: Sectoral responses on the extent to which they engage with strategies to improve or maintain SLO.

3.4 Cross sectoral assessment of SLO

The final question of the survey asked participants to complete a self-assessment of their perceived level of SLO for their sector (Figure 13). Sectors consistently considered themselves in the middle ground of SLO, largely accepted but with occasional issues with particular stakeholder groups. While fisheries and aquaculture respondents had a broad spread across the full range of responses to the questions about their perceived level of SLO, the resource extraction sectors and renewable energy sectors were more likely to consider that they were accepted, at risk of losing their SLO (withheld) or were unsure.

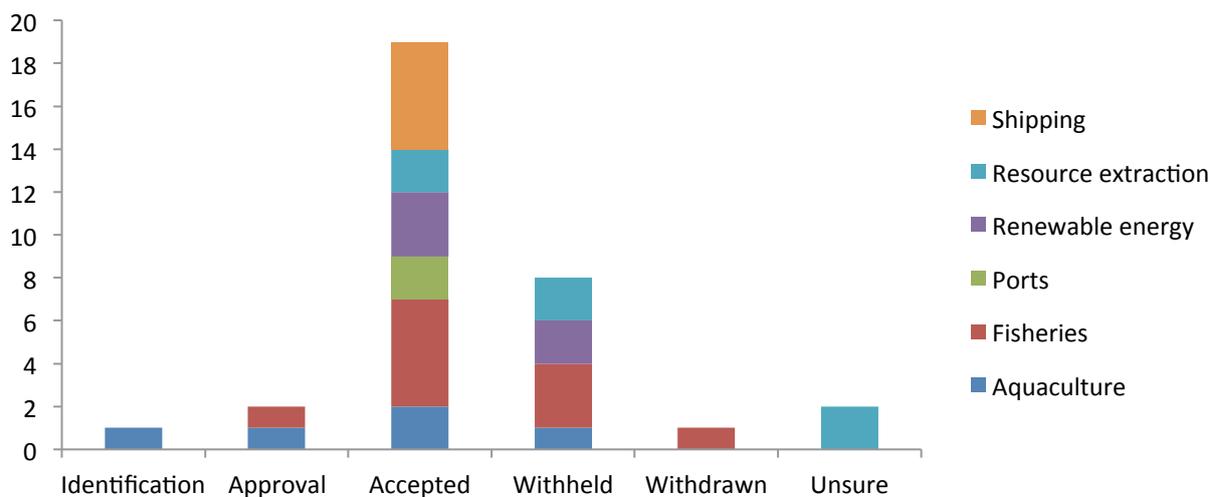


Figure 13: Degree of SLO perceived to be held by sector.

The interviews and workshop highlighted the fickle nature of SLO and a general level of frustration over the difficulties in adequately prosecuting the case that individual sectors are worthy of community support. Many of these discussions highlighted the fundamental role of emotion, values, beliefs and worldviews in influencing SLO, and how difficult this could be to address using science based or technical responses.

Even if a project has a social licence you can so easily lose it, sometimes as we've heard through no fault of your own because somebody's decided they're fundamentally opposed to mining and so wants to try to wreak some havoc...so how do we prevent that? Because I'm all for intellectual conversations and intellectual challenges based on science, but nobody should be able just to.....make something up, spread lies, or be violent.

Resource extraction interview participant

4. Discussion

There were a range of differences and similarities experienced across the ocean industries who participated in this research, in relation to understanding and managing SLO (Table 4).

Table 4: Summary of findings across sectors

Sector	Who	What	How	SLO level
Resource Extraction (oil and gas and seabed mining)	All, especially International NGOs	Benefit sharing, managing environmental impacts	Technical responses through innovation and research, often to demonstrate to Government and communities a commitment to minimising environmental impacts	Lower levels of support on average – most participants unsure or a feeling that SLO is currently withheld or accepted to some degree.
Marine Renewables	All, with slightly higher emphasis on local & Indigenous communities	Resource conflict/ competing uses	No clear trends, but emphasis on pre-approval phase in demonstrating environmental compliance	Lower levels of support on average – most participants unsure or a feeling that SLO is currently withheld or accepted to some degree.
Fisheries	Broad ‘general public’ statements and cross section of stakeholders identified	Conflict with other users, ideological differences	Certification schemes and other forms of public relations	Varying levels of SLO, from approval through to withdrawn. On average a feeling of precarious acceptance.
Aquaculture		Conflict with other users, and managing environmental impacts	Focus on innovation and research	Varying levels of SLO, from identification through to withheld. Likely to relate closely to type and nature of aquaculture operation.
Shipping	Broad ‘general public’ statements and cross section of stakeholders identified – most within the context of being ‘invisible’	Amenity (e.g. noise and dust) and contamination concerns (eg pollution, oil spills etc)	Focus on government relations and lobbying as well as innovation and research into technical responses to improve environmental performance. Emerging accreditation schemes.	Feeling of acceptance with occasional issues of concern, sense of largely flying ‘under the radar’.
Ports				

4.1 Who?

One of the most fundamental challenges for marine industries is understanding who the relevant stakeholder groups are for each sector. This is in part related to the transboundary, mobile and transient nature of some ocean based industries – especially fishing and shipping – and the largely remote and offshore nature of others – especially the resource extraction sectors. While the more static industries, such as offshore energy, aquaculture and ports, tended to predominately focus their SLO engagement around ‘communities of place’, especially neighbouring communities, the remaining sectors had a stronger emphasis on ‘communities of interest’, such as NGOs and other user groups. This has created a range of challenges for these sectors because communities of interest, by their very nature, are influenced in their concerns and opinions by a shared set of values, beliefs or areas of interest, which may or may not be consistent with other communities with which the industry interacts. As a consequence many of the industry participants highlighted the enormous scope and variety of stakeholders they interacted with either voluntarily or as part of their regulatory requirements. The breadth and variety of stakeholder engagement was characterised by many participants through catch-all statements like ‘the general public’ as a description of their primary stakeholder groups, or through long lists of the different groups with which they engaged. More static industries, such as aquaculture and renewable energy sectors, also experienced similar challenges in articulating the full array of stakeholders which were relevant to their interests. In these instances the challenge often lay in the relative ‘youth’ of these sectors, with emerging technologies and new uses of the ocean space creating scrutiny not just from neighbouring communities but also a range of communities of interest with concerns or scepticism about how these new uses of the ocean may impact existing social, economic or environmental values.

4.2 What?

As might be expected, the vast number of communities of both place and interest with a stake in ocean development and use creates an equally vast array of issues and concerns which these groups will prosecute. In general the array of issues can be loosely classified into two main areas:

4.2.1 *Tangible impacts*

Tangible impacts related mostly to concerns over impacts on biodiversity or amenity, pollution or contamination issues, and some of the more concrete expression of economic impact.

Environmental risks were a clear trend across all sectors in relation to issues of concern for SLO, although, as would be expected, the nature of these risks varied across sectors.

4.2.2 *Intangible impacts*

Whilst harder to conceptualise, monitor and control there were also strong examples of intangible impacts which were of concern to participants. In particular, conflict with other users or sectors over space, including access and use of resources was a major issue for many sectors. Also problematic were clashes of values and ideologies, including opposing ethical viewpoints in relation to oceans use and management. The pace of change in uses of the oceans is also likely to create some additional, but intangible, challenges for emerging sectors or sectors engaging with disruptive technologies, including fear, resistance to change and scepticism and mistrust.

4.3 How?

4.3.1 *Tangible impacts*

In almost all cases technical or technological responses were being actively pursued to address environmental impacts, with particular emphasis on demonstrating to regulators and stakeholders environmental responsibility and compliance with legislation. Many sectors formalise these demonstrations of environmental responsibility through CSR reporting and/or accreditation and certification schemes. For many participants across the workshop, interviews and surveys the emphasis was on managing risk, with the risk of reputational damage a major driver in engagement with questions around SLO. This points to the potentially powerful role that SLO may play in improving environmental performance across the entire Blue Economy.

4.3.2 *Intangible impacts*

The data collected through this research indicates that industries operating within the Blue Economy may be well equipped to respond to the technical and technological challenges associated with managing tangible impacts, particularly environmental risks, through innovation, research and mitigation strategies. A significantly greater challenge appears to lie in the most appropriate response to more intangible impacts, which have a strong relationship with the values, beliefs and ideologies of the communities of interest with whom the different industries are interacting. This will continue to be a challenge as the Blue Economy grows. With this growth will come increased scrutiny across all the component sectors of the Blue Economy, including those largely considered 'invisible' in the past.

There are a range of approaches available to sectors to address and consider intangible impacts. These include resource sharing and negotiation, participatory approaches to business development and management and benefit sharing. In many cases the more common response, however, is direct lobbying of Government. This is perhaps a direct reflection of an appreciation that for many

communities of interest SLO challenges may be intractable, if they are based around fundamentally opposing values systems. In these instances questions of legitimacy fall to the political realm where decision makers are asked to mediate between conflicting values, and government lobbying can be expected to occur from both sides of these somewhat polarised debates.

5. Conclusions and Recommendations

It is clear that the vast majority of marine industries who participated in this research, across the breadth of the Blue Economy, consider themselves to be in a relatively vulnerable position in relation to SLO. Most feel that their sector is largely accepted and/or tolerated but has occasional issues of concern with social acceptability, such as with particular stakeholder groups. The analysis indicates that in those instances where the challenges relate to tangible impacts, and communities of place, the ocean sectors are relatively well equipped to deal with these challenges through technical or technological innovations, benefit sharing exercises or other forms of community engagement. Where concerns concentrate particularly on ‘communities of interest’ (such as NGOs or user groups) or are focused on intangible impacts or conflicts between value systems of uses, levels of vulnerability may be higher. Whilst the Blue Economy is therefore positioned well to respond to tangible impacts that can be addressed through its strong focus on innovation and technical solutions to risks such as environmental impacts, it may meet significant challenges in addressing these much more fundamental and often intractable concerns. The nature and scale of the challenges associated with intangible impacts are unlikely to be within the expertise or capabilities of individual businesses, or even sectors and may therefore benefit from strategic, cross sectoral engagement around a number of core areas.

1. *Stakeholder identification and understanding*

Understanding the ‘who’ question in SLO is a critical first step for any sector and for the Blue Economy as a whole. Once the ‘who’ is established it is important to better understand the nature of stakeholder concerns and the values and beliefs which underpin them (Wilburn and Wilburn 2011). Understanding where shared values exist and where they differ will assist in informing how dialogue and negotiation can best be approached and how long-term relationships can be developed over time.

2. *Best practice development and sharing*

There are clear overlaps in the many issues and challenges being faced across the various marine industries and sectors in relation to SLO. Facilitating opportunities for sectors to exchange knowledge on SLO challenges and approaches, through the WOC or other mechanisms, may provide fruitful avenues not just to share lessons learned but also to build and strengthen relationships and encourage collaborations which may assist in addressing current and future intangible impacts, including managing inter-user conflicts.

3. *Expanding the SLO toolbox*

Across the sectors involved in this research there was a clear engagement with innovation and research, and technical solutions to tangible impacts and issues. Gaps exist in approaches to addressing less tangible impacts. Broadening the scope and nature of tools and strategies used by marine sectors to engage with stakeholders, particularly ‘communities of interest’ (such as NGOs and user groups), is a current opportunity which could be explored. This may include new and innovative responses to stakeholder engagement, for example through participatory Blue Economy planning, benefit sharing arrangements and incorporation of data on social values into Marine Spatial Planning exercises.

4. Evaluation and Monitoring

Finally, many sectors indicated that they are not currently actively involved in monitoring community perceptions in relation to their sector or business. Without systems of tracking SLO over time, challenges or loss of SLO are more likely to come as a shock to a business or sector and may have larger implications for the Blue Economy as a whole. Large scale, long term and cross sectoral analysis of SLO may be best achieved through a collaborative approach which pools resources and creates efficiencies of scale.

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THE CHALLENGE

The ocean is an inter-connected global ecosystem supporting a wide range of uses. Maintaining a healthy ocean requires responsible stewardship by all users.

Concerns about the impacts of economic activity on ocean health from a growing range and level of commercial uses are on the rise. These concerns may limit industry access to marine areas and resources. Ocean users are increasingly being held accountable by governments and NGOs for the state of the ocean. Continued ocean access and use will increasingly require the social licence to operate – above and beyond simple regulatory compliance – and participation in the Sustainable Development Goals.

The best efforts by a single company or an entire sector will not be enough to address the cumulative impacts on the inter-connected marine ecosystem from growing use across the sectors. Companies dependent on the ocean can achieve business value from working with others to address shared challenges regarding sustainable development, science and stewardship.

WOC – OCEAN BUSINESS ALLIANCE FOR SUSTAINABILITY

The World Ocean Council is the international, cross-sectoral industry leadership alliance on “Corporate Ocean Responsibility”.

The WOC brings together leadership companies from the diverse ocean business community to achieve the business benefits of cross-sectoral leadership and collaboration on sustainability.

The WOC develops global “platforms” to address cross-cutting ocean business and sustainability challenges, e.g. ocean policy and governance, marine planning, marine debris, marine sound, marine mammal impacts, water pollution, data collection by industry vessels and platforms, sea level rise and extreme event impacts, priority regions (e.g. Arctic, Indian Ocean), and investment for ocean sustainable development.

THE INVITATION TO RESPONSIBLE OCEAN COMPANIES

Responsible ocean companies are invited to join the growing number of organizations distinguishing themselves as leaders in “Corporate Ocean Responsibility” through the WOC.

In addition to the 75+ WOC Members from the diverse Ocean Business Community, the WOC Network includes 35,000+ ocean industry stakeholders around the world. The WOC is recognized or accredited by numerous U.N. agencies and other international organizations as *the* credible, global leadership body on ocean business and sustainability. The WOC Sustainable Ocean Summit (SOS) – 2010 Belfast; 2013 Washington DC; 2015 Singapore; 2016 Rotterdam; 2017 Halifax; 2018 Hong Kong; 2019 Paris – is acknowledged as *the* international business conference on ocean sustainable development, science and stewardship.



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