SPE 86791

THE ISSUE OF ACCESS: CONFRONTING COMMUNITY EXPECTATIONS

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This paper was prepared for presentation at The Seventh SPE International Conference on Health, Safety, and Environment in Oil and Gas Exploration and Production held in Calgary, Alberta, Canada, 29–31 March 2004.

Abstract

Oil companies seeking to access new regions are often confronted by communities and governments that know little about the petroleum industry, its activities and their impacts. Their expectations are commonly based on stereotypes that are problematic, not least because various factors lead to an emphasis on negative impacts, rather than a balanced picture of potential costs and benefits. From a petroleum industry perspective, this can increase the costs of having exploration and development programs approved and implemented, and it may result in arduous conditions and even moratoria on activity. From the perspective of local communities, employment, business and other benefits may be delayed or foregone. These misconceptions are best countered through collaborative processes that educate about the industry, its activities, their effects, and how they can be managed. While these processes should use information about the impacts of upstream petroleum activity in other regions, such comparative study must be undertaken with care if it is to address, rather than reinforce, negative expectations.

Introduction

Especially in frontier regions, prospective upstream petroleum activity is commonly seen as threatening community wellbeing. As is now the case with many types of resource development activity, it is often expected to cause such things as inflation, social disruption and damage to traditional industries and the environment, while benefiting few local people and companies. It is commonly also thought that the exploitation of this non-renewable resource will be of limited duration and leave a negative social, economic and biophysical legacy.

As a consequence, oil companies seeking to access new regions are often confronted by communities and governments that are largely reactive, trying to stop activity or limit its anticipated negative effects, while hoping to get some share of any economic benefits. Based on first-hand experience with offshore petroleum activity and mining, smelter and hydro-electric projects in various parts of the world, this paper explores these expectations and responses, and discusses how they can be addressed.

The next section describes some common community misconceptions about the offshore petroleum industry and its effects, based largely on the author's recent experience in British Columbia. Its offshore has been under exploration moratoria since 1959, and government interest in lifting them has generated strong objections from environmental, aboriginal and community groups. The paper then discusses the consequences these misconceptions have for the petroleum industry and coastal communities. Lastly, it discusses the ways in which such misconceptions can be prevented and addressed, focusing on collaborative education processes. This includes discussion of the merits and dangers of seeking to learn by studying the impacts of upstream petroleum activity in other regions.

Community Expectations

Experience in a number of frontier regions, including Atlantic Canada, the Faroe Islands, the Falkland Islands and, most recently, British Columbia, indicates that there are some common misconceptions about the offshore petroleum industry, its activities, and their effects. Some of these are described below, with an emphasis on those related to socio-economic effects, given the author's interests. In each case, the expectations are most common during the early days of interaction between the industry and a region, with there being an improvement over time as a result of experience and education.

Innovation and Technological Density: It is common to view the petroleum industry as being an old, polluting, resource extraction industry, and not one that is technologically intensive and innovative. This was reflected recently in Atlantic Canada, with the Atlantic Provinces Economic Council arguing that the government and others concerned with regional economic development should not be overly focused on the rapidly growing offshore petroleum industry, and instead pay greater attention to the knowledge economy. This reflects a lack of awareness of the fact that work in challenging natural and business environments requires the development of new solutions, and that, as in Atlantic Canada, this can have major spin-off benefits for the local academic, government and private-sector research and

development community.[1]

There is often also a failure to recognize the pace or significance of such innovation. For example, fact-finding missions from other frontier regions continue to visit the Bull Arm, Newfoundland, construction yard where the huge, ice-resistant, Hibernia oilfield production platform was built. There seems to be little understanding that subsequent Grand Banks development projects, using floating production, storage and offloading (FPSO) vessels, have made declining use of the yard, and that such a greenfield facility is very unlikely to be required for offshore petroleum development projects elsewhere.

Employment Opportunities: Some British Columbia residents have recently argued that, because offshore petroleum industry activity only provides a small number of jobs, mostly requiring highly qualified and experienced individuals, there can be few employment benefits for coastal communities. This assumption ignores the fact that offshore activity creates direct employment in a large number of areas, such as longshore work, trucking, environmental monitoring, construction, transportation, hotel and hospitality services, and business services. Furthermore, notwithstanding the technologically dense and capital-intensive nature of offshore activity, it has been shown to have relatively large employment multipliers.[2]

The Distribution of Activity: It is commonly thought that the offshore petroleum industry will directly affect large numbers of coastal communities. In reality, there has always been a strong metropolitan concentration of activity and effects. For example, this was the case in Scotland in the 1970s, notwithstanding the presence of various supply bases, heliports, pipeline landfalls and steel and concrete platform construction yards around the coast. Furthermore, new technologies (e.g., larger and longer-range support vessels and helicopters, and floating and subsea production systems that can be made anywhere in the world) and business practices (e.g., asset sharing and other cost reduction initiatives) have further concentrated frontier region activity in metropolitan centres, such as Aberdeen, Stavanger and St. John's.

One community response associated with this misconception is 'supply base fever,' whereby those seeking to boost economic development in coastal communities seek to attract onshore supply and service centres. The author first observed this phenomenon in Newfoundland in the early 1980s, with numerous communities preparing plans and 'artists' impressions' for proposed facilities, advertising them in business and petroleum industry publications, and promoting them at trade shows. Other outbreaks have been observed in the Faroe Islands and, most recently, British Columbia. Given the above realities respecting the number and location of such facilities, the result is almost always disappointed expectations and a waste of effort and resources.

The Duration of Activity: There is also a common perception that offshore petroleum activity, based as it is on a non-renewable resource, is of relatively short duration. However, as a Shetland consultant observed when asked about his community's expectations of the duration of activity: 'it's always 20 years'.[3] That is to say, that it was initially expected, in the late 1960s, that the industry would affect Shetland for 20 years, but the development of new fields, improved production from old ones, and construction of new pipelines has meant that the same expectation also held in 1990 and still applies today. There is little appreciation that new discoveries and technologies almost invariably extend the duration of activity in any region, with there having been, for example, offshore activity in the Gulf of Mexico since 1938, in California since 1950, and in the North Sea and Atlantic Canada since the early 1960s. All of these regions are still seeing new development projects and continued exploration.

The Structure of the Industry: The industry is commonly viewed as monolithic, with all activity being controlled and undertaken by the operating companies. There is little awareness that these operators vary in their approaches and cultures, or that a great and still increasing majority of work is, in fact, undertaken by myriad fabrication, supply and services companies, international, national and local, as operators downsize and outsource so as to concentrate on core business.

There is also a lack of awareness of the different phases of offshore petroleum activity and their significance, in terms of the activities and players involved. The uncertainty and footloose character of exploration activity, the short-term and very variable nature and scale of development activity, and the longer-term commitment and effects associated with production tend to blur, producing a confused picture of the industry and its effects.

This confusion as to the nature and possible consequences of different types of activity also applies in relation to a common concern: oil spills. Discussions of the effects of exploration or production, for example, often include reference to the Torrey Canyon, Braer and Prestige disasters, even though none of them was associated with such activity. Indeed, discussion of the dangers resulting from raising the British Columbia moratorium has frequently been illustrated by reference to spills and oiled seabirds in Newfoundland, despite the fact that these are almost entirely a result of bilge cleaning or accidental spills by general marine traffic, rather than local exploration or production activity, or the transportation of oil.

Uncertainty: There is often a failure to understand uncertainty and its significance. Community representatives often assume that the industry would not be interested in exploring an area unless it was certain that commercial reserves existed. They also do not understand that a number of factors influence the pace and scale of activity during exploration, and that operating companies usually make investment decisions on a global basis. This failure to understand uncertainty can lead to local communities, companies and individuals making unwarranted investments of time and money, for example in infrastructure or training, in the false expectation of a rapid return.

The Relationship to the Economy. There is also a tendency to see offshore petroleum activity as being largely independent of rest of economy. There is failure to appreciate that, as is mentioned below, the petroleum industry can have beneficial relationships with fishing, tourism and other industries. Furthermore, the very demanding nature of the petroleum industry in terms of business practices (e.g., quality control and assurance, bidding, accounting, document control, and health, safety and environment) means that local

companies that do become involved in it are also highly competitive in other sectors. As such, the industry can be help transform a local economy by both creating an additional sector and making companies more competitive in other fields.[4]

The Relationship to Other Industries: Where there is consideration of the relationship to another industry, it is commonly assumed to be negative. The head of the Sierra Club in Canada recently described as 'mad' an academic who argued that the offshore petroleum industry could have positive effects on tourism.[5] This is notwithstanding evidence that the industry generates significant tourism benefits through personal and corporate expenditures, improved transportation and accommodations, industrial tourism, and the 'cosmopolitanization' of such centres of activity as Aberdeen, Stavanger and St. John's. The last sees an increased number and variety of restaurants, stores, hotels and the like. The petroleum industry has also been shown to stimulate a local cultural renaissance in such places as Louisiana[6] and Shetland.[7]

Similarly, it is common to assume that the petroleum industry has only negative effects on local fisheries, notwithstanding generally positive relationships in many areas. This includes the fishing industry benefiting from offshore petroleum industry-related improvements to weather forecasting, onshore/offshore communications, and search and rescue services.

The Emphasis on Negative Impacts

Such misconceptions are particularly problematic because they commonly emphasize negative impacts and, hence, serve to frustrate a balanced consideration of potential benefits and costs. There are three main reasons for this negative focus: the image of resource industries, the culture of the environmental industry and assessment processes, and economic development theory and practice.

The Image of Resource Industries: As was indicated above, the petroleum, mining and other resource extraction industries are commonly viewed as being old, unsophisticated and polluting, especially in comparison with 'the new economy'. Popular stereotypes of the petroleum industry, especially in frontier regions with little direct experience of it, focus on such negative effects as social and economic disruption (e.g., associated with Nigeria), accidents (e.g., the Piper Alpha and Ocean Ranger) and environmental disasters (e.g., the Exxon Valdez and Prestige). The large international corporations associated with resource extraction are commonly seen as powerful, threatening and untrustworthy.

The industry's image also inclines various groups, including police, social and health services agencies, and environmentalists, to focus their thoughts and arguments on the potential negative effects of activity. The 'threat' of petroleum industry activity provides an opportunity to publicize longstanding concerns about crime, income differentials, housing, environmental and other problems, while the industry's perceived affluence leads to a hope that it can directly or indirectly result in a funding of long-wanted resources or programs related to them.

The Environmental Industry and Assessment Processes: The environmental industry developed out of the US *National Environmental Policy Act* in the late 1960s, which was largely a response to an offshore oil spill in Southern California.[8] The initial concern of the legislation, and the industry it created, was the effects on the biophysical environment. These are, by definition, primarily negative, with the industry seeking to mitigate or prevent such effects on the flora, fauna, and other elements of the natural environment. This concern shaped both the regulatory framework and the culture of the environmental industry. The latter includes the values, approaches, priorities and methodologies of consultants, regulators, and petroleum industry personnel involved in environmental work.

It was only when the environment industry and its culture were well established that various factors resulted in a growing concern about socio-economic effects. These are often positive; for example, they normally include the creation of employment, business, income, new public infrastructure and a better standard of living. However, environmental legislation, environmental assessment processes and methods, and the environmental industry in general, given their focus on negative effects and their mitigation, do a poor job of describing, creating, enhancing or providing credit for positive impacts. For example, the *Canadian Environmental Assessment Act* specifies that environmental assessments should normally only include socio-economic effects that result from a biophysical effect (e.g., the socio-economic consequences of an activity-related decline in fish stocks or air quality).[9]

While there have been attempts to address this problem, social scientists have also been hampered by the history of Social Impact Assessment. This developed out of the United States' boomtowns literature of the 1970s and early 1980s, which was concerned with the socio-economic effects of the rapid growth of resource sector and especially energy communities. The basic theme of this literature 'is that rapid population growth associated with energy development creates social disruptions, cultural conflict, and pathological behaviours among residents of boomtowns'.[10] This has again shaped the design and content of environmental assessments and management, focusing them on negative impacts and away from positive ones.

Economic Development Theory and Practice: Based in part on past negative examples of the effects of resource development projects, economic development and theory have increasingly emphasized the merits of economic development based on community capacities, 'bottom-up' approaches, and small-scale initiatives. They reject large-scale industrial activity given an assumption that it will cause boom and bust effects, damage traditional industries, and leave a negative social, economic, cultural and biophysical environmental legacy, with the benefits largely accruing to distant corporations and shareholders.

The Effects of these Misconceptions

These misconceptions can distort the decision-making of various players. For example, as was seen above, a recent First Nations conference in British Columbia concluded there was little possibility of direct employment and business benefits from offshore petroleum activity, predisposing these groups to focusing on benefiting through resource revenues. In the Faroe

Islands, and on Cape Breton Island, Nova Scotia, tourism and fishing industry representatives argued against offshore petroleum activity because it would have negative effects on them. Even in Newfoundland, where the benefits from oilfield development projects have been substantial and widely distributed, a regional development agency argued against further such projects because 'the concept of economic development by mega-projects has been discredited by the weight of its own failures'.[11]

This has been damaging to the interests of both the petroleum industry and frontier regions. From an industry perspective, it has resulted in de jure and de facto moratoria in activity, such as in the Faroe Islands, British Columbia and Cape Breton Island. It has resulted in the establishment of long-winded and expensive approvals processes, and increased the time and money costs of involvement in same. Misunderstandings of the wealth and mobility of the industry, and the value of resources, have also led coastal states and their citizens to having inflated financial expectations and, hence, unrealistic negotiating positions. Lastly, misplaced expectations of the nature and timing of business and employment opportunities may deny the petroleum industry access to locally available goods and services. This, in turn, may cause people to question the merits of involvement in offshore petroleum activity.

From the perspective of the local region and communities, generally negative expectations may result in major benefits being delayed or foregone, with companies and individuals declining to invest in the training and infrastructure necessary to work in the new industry. Furthermore, the above-noted inclination of police, social and health services agencies to focus on the potential negative effects of activity may distort public expenditures and result in wasted effort.

The factors that conspire to produce negative expectations can also distort the learning process itself. In British Columbia, for example, the Government of Canada put in place to two-stage process to study whether the moratorium should be lifted. This saw an initial review of information on the industry and its effects, which provided input to public consultations on the merits of raising the moratorium. However, the scope of the panel undertaking the review was limited to science issues, such as the effects of seismic activity, produced water and oil spills. There was no parallel review of what is known about the socio-economic effects, despite the large body of scholarship on this topic. The process, therefore, allowed an informed discussion of the (negative) biophysical effects, but not the (positive and negative) socio-economic effects. The latter include employment and business issues of critical interest to many coastal communities.

Appropriate Responses

It is critical to avoid such distortions, and allow a balanced understanding and assessment of the potential effects of offshore petroleum activity. This means that the industry, government, academe and other interested parties must facilitate access to a broad range of information about the industry, its activities, their social, economic and biophysical effects, and how they can be managed. The rest of this section provides an overview of approaches to doing this.

There are various ways for the public, civil servants, community leaders, business-people, the media and others to find out about the industry, its effects and their management. For example, most oil companies have websites, reports, brochures and videos that describe issues, technologies, employment opportunities, and provide other information that can assist people in understanding the oil industry. A number of industry organizations also provide information about the industry as a whole or aspects of it. This includes information on petroleum geology and technology, an understanding of which is critical to appreciating what the industry is doing and the underlying uncertainty. Industry journals and attendance at trade shows also provide an exposure to all aspects of the industry.

However, government officials, business-people, community leaders and the media from frontier regions will also want to learn about the industry's impacts and how they can be managed, and these are seldom addressed by industry sources. Furthermore, such sources may be viewed as biased, combining the provision of information with the promotion of the industry. Accordingly, local stakeholders commonly use other approaches, including web-searches, literature reviews, study missions and tours, trade shows, workshops, courses and conferences.

In many cases, this involves seeking to learn from the experience of others. For example, British Columbians have held conferences and workshops featuring speakers from areas that have seen offshore petroleum activity, attended trade shows in Houston and Atlantic Canada, and undertaken 'fact-finding' missions to Alaska, Nova Scotia and Newfoundland. However, unless such comparative research is undertaken with care, it can generate, as well as counter, the types of preconceptions and misunderstandings discussed above. This results largely from the common assumption, by both those consulted and those seeking their advice, of simplistic effects formulae such as Newfoundland, therefore British Columbia'.

This assumption that what happened in one place will be replicated in another overlooks, or pays insufficient attention to, a number of issues that must be born in mind by those seeking to learn through comparative research:

Differences in the Scale and Type of Activity: As was discussed above, the industry innovates rapidly such that, for example, the industry that caused effects in Newfoundland in the early 1990s is very different from that of today. New technologies and business practices continue to change the way the industry works and its prospective effects. As was discussed above, it is difficult to know what a British Columbia delegation could learn from visiting the Bull Arm construction site. Designed primarily to build a huge iceberg-resistant platform, it has seen declining use given the use of FPSOs for subsequent fields. Most local fabrication activity now occurs in a pre-existent shipyard, and the same can be expected in British Columbia.

Differences in Local Context: The local social, economic and political context modifies the effects in a particular region. This context includes the nature of the labour market, the availability of industrial infrastructure and, not least, the local aspirations and priorities.

Uncertainty: As was noted above, exploration is

subject to high levels of geological, economic, technological and political uncertainty. Economic and political change also strongly influences, and causes changes in, development and production decisions. The scale, scope and nature of activity, and thus the onshore effects, in any place at any time are hostage to such uncertainties and, hence, do not provide a good basis for predicting the likely scale, scope, nature and effects elsewhere.

The Role of Management: There is a danger of examining outcomes without assessing how they were influenced by management initiatives. For example, someone studying the community impacts of construction activity at Bull Arm would learn they were mostly positive. It would be easy to conclude that such projects generally have few negative effects, rather than to understand that this outcome resulted from various management initiatives. Those undertaking comparative study must focus as much effort on management as on outcomes.

The Attribution Problem: The image of the industry leads to a tendency to attribute all social and economic changes to it. In a classic case, while many Stavanger residents and officials blamed the petroleum industry for increases in crime in the 1980s, research showed that there were similar increases in other Norwegian communities that had not been affected by the petroleum industry.[12]

Confusing Experience with Understanding: In a related manner, the residents of petroleum industry-affected areas and communities commonly know, but do not understand, what they have experienced and hence they may provide erroneous information to visitors. For example, what they see as a large and problematic growth in population may, in another context, be a modest change relative to long-term trends.

Self-interest: As was noted above, there is a tendency for various groups to focus on the potential negative effects of petroleum activity. This may distort their interpretation of the effects when describing their own experience of the industry, or interpreting that of others.[13]

For all of these reasons, those involved in comparative research, including those planning studies, conferences and study tours, should be encouraged to be wary of the pitfalls. Furthermore, careful attention should be paid as to where to study. Clearly, there is merit in examining the experience of somewhere with a similar context and likely scale and type of activity. It is also best to have facilitated education initiatives, with the dangers being discussed and information interpreted by someone familiar with the petroleum industry, effects and management issues, and the merits and shortcomings of comparative research.

In Newfoundland in the late 1970s and early 1980s, for example, the provincial government held public courses in the petroleum industry and its effects, and established multi-stakeholder committees to investigate and report on different effects issues. Memorial University of Newfoundland also played an important role in educating the local population about the industry and its prospective impacts. Similarly, the University of the Faroe Islands in the Faroes, and Simon Fraser University, the University of Northern British Columbia and Royal Roads University in British Columbia, have taken on educational roles in those two regions.

In the case of the Faroe Islands, Falkland Islands, Saint-Pierre et Miquelon and British Columbia, short courses have been held describing the industry (including an overview of petroleum geology and technology), its potential effects and management options. They also explicitly discussed the merits and dangers of comparative research. While the courses in British Columbia were directed at business-people and economic development officials, the others were attended by a mix of people from government agencies, community groups, business-people and the media and sought to establish a broad understanding and a degree of consensus among these different stakeholders. Various educational institutions and consulting companies can provide these types of initiative.

Such education initiatives should be accompanied by petroleum industry programs that seek to ensure that the prospective negative impacts of activity are prevented or mitigated, and positive ones created or enhanced. This will normally include programs concerned with the biophysical environmental effects, but should also include initiatives that aim to deliver economic and social benefits, such as a benefits plan or impact and benefits agreement.[14]

Conclusion

Community expectations can pose a significant constraint to petroleum industry access to new frontier regions. These expectations are commonly based on stereotypes and a limited understanding of the industry, with a number of factors resulting in an emphasis on the potential for negative impacts. This leads to misperceptions and misunderstandings that increase the costs of having exploration and development programs approved and implemented, and may result in arduous conditions and even moratoria on activity. From the perspective of local communities, major industrial benefits may be delayed or foregone.

The best response to this problem is an effective program of education on the industry, its activities, their prospective effects, and how these may be managed. This should be a collaborative effort, involving the petroleum industry and local governments, business groups, educational institutions, media, consultants and other interests. The study of other regions that have experience of the industry is a very valuable learning tool; however, such research must be undertaken with care if it is to address, rather than reinforce, negative community expectations.

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