Abstract

Today’s operating environment faces a rising tide of stakeholder scrutiny, increased drilling and operating costs as well as rising cost of capital. Many large institutional lenders and insurers are protecting the risks to their own bottom lines by assuming proactive stances on industry best practices and the reputational capital of companies seeking project funding. This re-pricing of risk carries the potential to significantly impact the ability of asset owners to finance major, capital-intensive projects. Deepwater organizations are being challenged to take a more critical look at how risk management, HSE performance, organizational culture, and asset management are central to sustainability performance and securing their license to grow.

Global markets have consistently demonstrated a preference for corporations with a strong record of health, safety, and environmental performance. In addition to being a powerful source of market differentiation, sustainability performance can also help manage critical Non-Technical Risks (NTRs). The identification and early management of NTRs, such as community-related issues and sensitive environments can significantly improve NPV and an asset owner’s ability to operate in critical areas of market growth. These same NTRs can account for up to 70-75% of cost and schedule failures in major oil and gas projects in the form of project delays and cost overruns, lost deal opportunities, and host of stakeholder-related issues.

As investor scrutiny escalates in response to billions of dollars lost to Net Present Value (NPV) erosion, compounded by the Macondo incident, the need to better manage Deepwater non-technical performance has abruptly escalated. To address both internal organizational change and deliver on non-technical performance, we have found that NTR is best managed and owned by the line with support from NTR functional expertise that is integrated with the language of the business and a strategic internal organizational change management process. Now is the time to relook at how Deepwater organizations are lined up to address their NTRs, by correctly:

- Balancing short-term versus long-term business needs
- Integrating technical and non-technical risk management
- Making informed non-technical decisions grounded in facts
- Addressing internal organizational interfaces and fragmentation

Through this approach, this paper will outline how the management of these sustainability issues can be a net contributor to a company’s competitive advantage by proactively managing NTRs and ultimately lowering the cost of capital.
Introduction

In the wake of the Macondo Incident last year, many companies are being forced to reassess the status quo. Demonstrating the ability to plan for and respond to catastrophic events only scratches the surface of the shift we are seeing in the market. Upstream oil and gas companies exploring and operating in deepwater Gulf of Mexico are in the sharpest focus at the moment, facing intense attention from stakeholders and regulators alike. This attention largely stems from the significant challenges associated with effective health, safety, environment and community performance—what we refer to as Non-Technical Risk (NTR). NTR can impact a project in many different ways, most commonly through significant project delays, cost and schedule overruns, and in some extreme cases, the inability to develop fields or assets, all of which result in direct erosion of Net Present Value (NPV).

With this new operating environment comes the imperative of understanding the cost and risk implications of transitioning to a new era. Some operations in particular are under intense scrutiny, such as Deepwater exploration in the Gulf of Mexico and the Arctic where future costs of drilling and operating are anticipated to rise considerably. Some of the cost increases are attributed to insurance and capital providers re-pricing the risk of drilling and operating in deepwater, leading to higher costs of capital. In response to this shift, exploration and production companies are starting to re-examine their HSE and community performance.

To complicate matters further, the industry is facing the end of “easy oil” and the onset of “difficult oil.” Many multinational oil companies seeking to expand their reserves are facing the re-emergence of resource nationalism, finding themselves relegated to fields that are considered extremely challenging technically to produce and fraught with high levels of environmental, social and political risks. In Deepwater Gulf of Mexico, successful companies are comfortable with their organization’s ability to rise to the challenge of drilling deeper and deeper – in other words, “technically difficult” oil. Indeed, within the last two decades we have seen companies move from waters less than 1km deep to nearly 3km deep.

Up until recently, these same successful companies were comfortable that these domestic Deepwater resources were not vulnerable to environmental, social, or political risks to the same degree as Papua New Guinea or Nigeria, for instance. And while it’s true that the United States is not in a state of civil war, we are nonetheless beginning to see the onset of “socially difficult” oil in the Gulf of Mexico, offshore Brazil, and Alaska.

These factors have led to an important shift in understanding of the drivers necessary to integrate non-technical performance into a company’s core business. For progressive companies which have already made significant investments in developing and integrating programs, valuable stakeholder and market recognition has resulted. Others are still seeking to understand the link between non-technical performance and positive market recognition as a key precursor to building reputational capital. They are beginning to ask a key set of questions:

- What is the value of NTR at the portfolio and project level? Is it material to our business?
- Do we have the right systems in place to manage and improve our non-technical performance?
- Are we structured correctly to deliver optimal non-technical performance?
- How will better non-technical performance help build and protect our social license to operate and license to grow?

Case for Action

In oil and gas in general and particularly in deepwater Gulf of Mexico, NTR is emerging as core to ensuring profits. As a result, we are seeing more Executive Team and Boardroom-level discussions on NTR as critical to maintaining “license to operate,” and increasingly, “license to grow,” beyond the typical concerns over regulatory compliance. Even prior to the incident in the Gulf the view of non-technical performance as a strategic priority was emerging; a truth evidenced by the increasing entry of sustainability into the C-Suite. At the same time, the attention on the incident has put dramatic pressure on the concept that compliance is a sufficient stand on risk management. Our clients’ intuition—“We believe 70% of our risk is non-technical”—is reinforced each year by the Goldman Sachs report on the largest capital projects.

Specifically, the Goldman Sachs GS SUSTAIN team has found that Environmental, Social, and Governance (ESG) performance, or non-technical performance, has a correlation with each company’s ability to deliver the “Top 280” projects on-time. This research demonstrates that companies with higher ESG scores, or stronger non-technical performance, have “a strong industry positioning…and high return on capital,” as they are less vulnerable to costly delays, as illustrated in Figure 1 below. It should be noted that these scores were developed in January 2010, prior to the incident last year.
Only the integrated assessment of technical and Non-Technical Risks, as well as opportunities, allows investors to view the complete picture and make a genuinely informed decision. This requires an in-depth focus on the non-technical side and often represents a shift—in both time and resources—from how risk may have been managed before, and may be met with some organizational resistance to “doing things differently.” To address this requires a steadfast focus of leadership at the top, by the support functions (e.g., Environment, Community Affairs/Relations, Regulatory, Sustainable Development, etc.), and—“where the rubber hits the road”—within asset leadership.

The business case for non-technical performance is clear: as an industry, we are leaving billions of dollars on the table. We now need to apply our ingenuity and leadership to the challenge of “socially difficult” oil with the same intensity and vigor as that which overcame “technically difficult” oil over the past two decades.

Understanding the new requirements on the business

The new business context creates a new set of demands for the leadership of Deepwater organizations and creates a ripple effect felt across the entire upstream oil and gas industry. The impacts are even felt across other industries—each trying to anticipate its own unforeseeable incident. In summary, demands on the business include:

- Balancing short-term versus long-term business needs
- Integrating technical and non-technical risk management
- Making informed non-technical decisions grounded in facts
- Addressing internal organizational interfaces and fragmentation

While these rather common management techniques are definitely in use across organizations, the consistency of their application is the more significant concern, requiring a review of our ability to effectively implement, especially in the post-Macondo world.

Balancing short-term versus long-term business needs

While business has long been aware of the potential imbalance of the short-term focus on numbers (e.g., quarterly shareholder concerns, disclosure, cost-cutting for efficiency, pushing schedules to mitigate outgoing capital), recent events accelerate the need to rebalance this focus with a more proactive, strategic, and longer-term view. In addition, this short-term focus offers a false economy—it is the very acceleration of schedules and the cutting of cost that can lead to increased risks to project quality, and as we have seen, a compromise to quality can lead to catastrophic events. We see this evidenced in more mature segments (e.g., traditional onshore production, refining, etc.) of the oil and gas industry—making a short-term financial decision to avoid maintenance costs can very well mean millions or billions in regulatory fines in the future, for example.

The call for a longer-term view also means moving to a proactive stance on NTRs and a deeper exploration of the non-technical opportunities. In Deepwater Gulf of Mexico, the potential for understanding the socio-economic impacts and building genuine and inclusive relationship to local and regional communities, governments, and Non-Governmental Organizations (NGOs) may, overtime, increase the organization’s choices for both developing and producing assets.
It is not just business leaders, but the non-technical specialists who must have the ability to move beyond a short-term compliance mindset to a proactive and strategic stance on NTRs, as well as non-technical opportunities. In order to manage the increasing complexities of NTRs. They must look beyond their area of specialty and look across the broad spectrum of NTR and its interconnections. Rather than responding to regulations with the minimum requirements, they must anticipate the next regulatory ask and stay ahead of the curve as much as possible or face the increased rework that merely remaining compliant will demand of the organization.

**Integrating Technical and Non-Technical risk management**

Over the past year we have seen a greater requirement for aligning the organization to crisply manage risk in an integrated fashion. The organization must have clear visibility of both the technical and Non-Technical Risks, and the interconnections between them. This interconnectedness can show up as technical solutions to NTRs or non-technical opportunities such as developing a traffic plan that minimizes the impact on a community near an onshore fabrication yard, or as a non-technical solution to a technical risk such as preventing foreign algae to enter the Gulf of Mexico on foreign-built constructs. An integrated leadership team, both at the corporate level and the project/asset level, looking at the complete set of risks allows for more options to mitigate the risks and opportunities.

Additionally, and often painfully, the organization must look deeper into the secondary and tertiary impacts of NTRs if they are to thoroughly mitigate them. As an example, an environmental incident, if significant, can also have a community impact and/or reaction which can also affect the regulatory environment. As Figure 2 illustrates below, however, the originating event may seem benign; but its implications can be quite costly (e.g., serious injury or death at a fabrication yard). Secondary and tertiary impacts are best contained when a mitigation plan anticipates and addresses/prevents each of these levels of impact beyond the originating event.

**Figure 2 – Secondary and tertiary impacts to NTRs: regulatory changes to contracting requirements**

Making informed non-technical decisions grounded in facts

Knowing the facts about each asset’s social and environmental impact is critical to meeting these new business requirements. In order to be able to make efficient and effective development or production decisions, the organization must understand its stakeholder touch points at a deeper level—they must gather and assimilate the facts regarding the community, governmental agencies, influential NGOs, and the environmental conditions. Furthermore, they must understand how their socio-economic footprint can be interpreted or misinterpreted by each of their stakeholders. Without the appropriate data, the Deepwater organizations remain vulnerable to external media campaigns. And without proactively using the facts to educate the public and prevent media attacks, the organization may remain in a state of ongoing reactive management.

Gathering and interpreting the facts is not enough. Some hard decisions may have to be made with regard to building up the interfaces and relationships with stakeholders. Increasingly including stakeholders in some of the decision-making may, in the longer-term, be the less risky route to take. While this blurring of the organizational boundaries can be uncomfortable, we are seeing emerging benefits to having contractors, NGOs, community representatives, and even governmental agencies involved in NTR planning and prevention. As NTRs are more and more driven by society rather than regulations, it is becoming more critical to understand and involve key stakeholders groups, decreasing the chance of being blind-sided.

**Managing internal and external organizational interfaces**

Tapping into the intelligence of the organization, including those functions that focus on people-centric issues, whether external or internal (e.g., Corporate Affairs, Socio-Economic Specialists, Human Resources, as well as Financial, Legal, and Procurement) is essential in identifying innovative solutions to NTRs. However, the new Deepwater business context insists on a heightened ability to bridge the expert silos that often exists within organizational structures. Speed to data, expertise, relationship status, and the interdependencies of all three are vital and will not tolerate inefficiencies in internal communications, making internal interfaces a Non-Technical Risk itself. The ability to work in an integrated manner across
organizational boundaries can be accomplished by putting the results of the project over the separate functional agendas. As an example, on a recent project in Australia, ERM worked closely with an engineering procurement company to tackle critical environmental and social challenges—aiming to make the project successful overall, rather than any single player.

One piece of the answer clearly lies in identifying the language sets which bridge organizational boundaries. These language sets include:

- Financial business language for executive leaders, investors, Finance, and Procurement
- Compliance language for Regulatory
- Local content and socio-economic language for Communities
- Capabilities and capacity language for Human Resources
- The entire package of language options for Corporate Affairs and Asset Management

In this new environment, additional pressure may be placed on the expertise of the Corporate Affairs function to bridge these communication and language gaps, adding more to their already full plate. In addition to ensuring we look across and communicate with each function we must ensure that the right information is effectively available to the top of the organization, as Deepwater leadership may be blind to these new and often critical non-technical decisions. As we at ERM have often heard from our clients regarding NTR, “It is not the things that I know about that I worry about, it is the things that I do not know about that make me worry.”

**Implementing the new business requirements**

In Deepwater the major non-technical issues have usually been focused primarily on the environment and regulations, as there were no immediate communities to be impacted. However post-Macondo, the new sensitivities and increased scrutiny require a new look at how development is done in Deepwater. Additionally, there are early indications of effects to onshore projects, causing all development to rethink the timing of doing NTR assessments.

The new NTR assessment process for major capital projects must begin earlier in the development lifecycle, ideally starting in the pre-lease phase. An in-depth understanding of the eco-system, the potential socio-economic impacts of developing and then retiring an asset, and the community relationship to development projects for the oil and gas industry, must all be taken into consideration to ensure that NPV will be optimized. Proactive lifecycle assessments of regional considerations and local content by teams of anthropologists, economists, and environmental specialists and contribute significantly to necessary financial decisions by both investors and leadership.

There is a rational process to building non-technical capability that can be executed within a Deepwater organization. This can be done working Non-Technical Risks and opportunities at the:

- Strategic Portfolio Level
- Specific Asset Level
- NTR Functional Support Level

**Figure 3 – Non-technical performance must be lifted up at three different levels of the organization**

![Diagram showing strategic portfolio, specific asset, and NTR functional support levels](image)

Shoring up the capability and capacity at each level will enhance the line’s ability to understand, anticipate, and eventually own the NTRs, ensuring access to resources today and more importantly, tomorrow.
At the Strategic Portfolio Level
Identifying the leadership team’s NTR strategy is critical for guiding the performance of the portfolio of projects. A thorough approach to this can be done by an independent non-technical assessment across the portfolio of producing and developing assets, and we fully support this fact-finding mission that will allow for leadership decision-making and a clear view of the NPV erosion that is currently taking place.

However, we can expedite matters by taking an executive-level look at the organizational commitment and relationship to NTR. By borrowing language and lessons from the safety journey, we can ask the leadership team what its level of ambition is; is it to be Compliant, Proactive, or Resilient with regard to NTR?

Figure 4 – Asserting our NTR ambition: from Compliant to Resilient

Once the decision is made—to move from Compliant to Proactive, for example—it is a relatively easy thing to begin to outline the high-level implications for Health Safety & Environment, Stakeholder Engagement, Social Performance, Social Investment, and even Operations. This is then handed to the asset developers and producers to ensure their ongoing non-technical performance.

At the Asset Level
Building the initial integrated view of technical and Non-Technical Risks, as well as opportunities prior to purchase decisions gives you the initial backdrop of information that will be eventually be built into the asset’s ongoing risk management process. However, the integrated view can be developed regardless of where in the development lifecycle the asset is. While the processes for doing risk assessment likely already exist in the organization, the non-technical challenge to the process is simple:

- Does it look long enough and hard enough at the non-technical aspects?
- Is it in line with the leadership team’s strategy on non-technical performance?
- Are there mitigations plans?
- Are the mitigations being performed at the right level?
- Who identified the non-technical aspects? Was it an integrated technical and non-technical team or was it a separate non-technical team?
- Were the non-technical aspects monetized appropriately?
- Were enough non-technical backgrounds included on the team?
- Do we have enough non-technical specialists’ time dedicated to this asset?
- What NTRs and non-technical opportunities are beyond the control of the asset, cross other assets or business units, and therefore, need to be escalated to the leadership team for effective management?

At the Non-Technical Risk Functional Support Level
Supporting the leadership and assets are the non-technical specialists, and there are many of these specialist contributors (Social Performance, Social Investment, HSE, Regulatory, Governmental, Legal and more). However, since the new business conditions insist that there is a more integrated view of the NTRs and non-technical opportunities, there is an increasing focus on the organization’s capability and capacity to integrate across the specialty areas.

This integrated view is also consistent with a proactive stance on compliance, the complete lifecycle focus, and the community interfaces that were mentioned earlier in this paper. The question then becomes where and how do you shift from working separately to working together and how to do this in an efficient manner.

In some of our clients, we see an exceedingly rare breed of individuals who have the ability to work in partnership with the asset management team, and advise on NTR issues. This individual has the ability to work both broadly and with some limited depth, and knows when to call on deeper specialists if a more in-depth understanding is needed. They also have the ability to speak in financial and operational terms to open the ears of the asset management team and the ability to keep them
open by managing internal and external relationships well. However, the number of individuals who are the integration of domain expertise (NTR specialties), organizational change management, and financial business case are rare indeed.

Figure 5 – Integrated NTR management goes beyond subject matter expertise

This integrated capability can, however, be replicated by bringing together a team of individuals from areas of domain expertise (depending on the Non-Technical issues), change management, and financial business case. We have early indications that working in this manner with our clients—working closely with leadership and asset management—can act as a bridge in building solutions between the organization and its stakeholders.

This integrated capability also addresses the need to develop packaged solutions to NTRs which compliment their complex and dynamic nature. It’s about finding the balance between pragmatic and proactive; to address the myriad of stakeholder points of view; to support the functional specialists; to identify opportunities to reduce redundant activities and their associated costs; and to remove organizational barriers to progress as necessary.

The biggest challenge, however, is the capacity of the organization to adjust to the changes that the post-Macondo world demands of it: the ability to focus on both “doing work as usual” and embedding the new emphasis on Non-Technical Risks and opportunities into their daily work. The increased pressure regarding NTR will not be addressed easily, but by getting on the genuinely proactive and integrated side of NTR, the model Deepwater organization can and will differentiate itself in front of investors and society, thereby earning access to “socially difficult oil.”

About the authors
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iii ibid
vi ibid
vii e.g., even offshore development impact onshore communities; the must be impacts assessed during the development and coordination of land traffic safety plans. Communities risk being impacted by short- to medium-term increased project traffic—in and around fabrication yards, for instance—particularly cumulative impacts to traffic. Project efforts such as establishing bus transport for employees and traffic safety awareness campaigns around communities and at local schools would alleviate risks to community safety and negative impacts to livelihoods.
viii e.g., the development of a response and recovery plan for harmful algal blooms to avoid the risk of an aquatic invasive species compromising the integrity of a TLP.