

ERM Insights

Effective management of ESG risks in major infrastructure projects

By Mark Hoff, Jaideep Das, Sarah Murfitt and Alec Martin, ERM
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Risk and project management are often part of a company's or investor's business processes, but non-technical risks and the influence of Environmental, Social and Governance (ESG) factors are often overlooked or not fully accounted for.

Emerging markets present a wide range of ESG challenges, but in fact research shows that the trend in severe delays and overruns is actually higher in developed countries. This can clearly be attributed to those countries not sufficiently addressing environmental and social issues. In emerging markets, however, insufficient design, planning and regulatory capacity, the lack of smart IT tools as well as a shortage of skilled labour and project management capacity, are also often common issues, thereby stressing the need for a social or people-based approach.

To be successful in this respect, a company needs to look at the lifetime impacts and benefits of a scheme (for example in terms of water, energy and local communities). This can apply from the earliest conception – that is 'communicate at point zero' and 'incorporation of sustainable design' in the project development or process. It continues to be important right through to the operational phase in order to maintain social licence, operating margins and investment value, particularly if an exit is considered. Infrastructure projects need to meet ESG objectives within a prescriptive regime of cost control and future revenue generation, but doing so effectively can actually increase value and future revenue.

There are increasing stakeholder expectations regarding a strong environmental performance, tangible socio-economic benefits and transparency regarding the planning and decision processes. To address these expectations, infrastructure developers and investors need to address the ESG issues associated with their projects, communicate this process and what are deemed to be the wider social and economic benefits to interested and affected stakeholders.

This chapter focuses primarily on project-level implementation of ESG management; these could be part of a project finance model for infrastructure assets, but the underlying ESG issues and lessons learnt are likely to be applicable to all types of infrastructure investments, project developments and portfolio companies.

Organisational culture

It is important to establish a culture for ESG within the organisation, especially with senior management. A framework for implementation of the ESG strategy, and the governance and

project management structures with regard to environmental and social issues, need to be in place. Improving the stakeholder relations through enhanced transparency of planning processes, including construction activities and their specific impact on environment and society, is key. The investment period and role of the investor is critical in helping to determine the best approach to ESG management and efficiently achieving desired outcomes, and addressing risks. However, it should be noted that in some cases ESG topics may not be at the forefront of considerations. For instance, during a fast turnaround transaction there may be limited opportunity to fully understand and manage such complex issues; in other cases, asset managers with minor allocations in infrastructure operations may seek to focus on ESG screening and asset risk prioritisation first before looking at the opportunities. For priority 'ESG Risk' investments, engagement may be primarily at board level and focused on governance and related management systems in order to:

- manage material ESG risks;
- identify related opportunities; or
- simply put ESG on the agenda to set expectations.

Effective stakeholder engagement

Stakeholder communication and integration always need to be based on an adequately developed communication strategy; engagement should be targeted and stakeholder-specific and above all consistent. An internal communication strategy for effective stakeholder management therefore aims to provide the key to maintaining the degree of freedom in businesses and projects. Here, it is also important to evaluate social media and the potential influence of social networks. Professional experience and research has shown that social media can offer bi-directional communication with the public, enabling an efficient flow of (ESG) information and feedback between decision makers and end users. Project communication plans should aim at integrating and using stakeholder concerns for improving the project design and implementation on time, with a communication approach aimed at resolving problems before they become publicly visible or are legally contested.

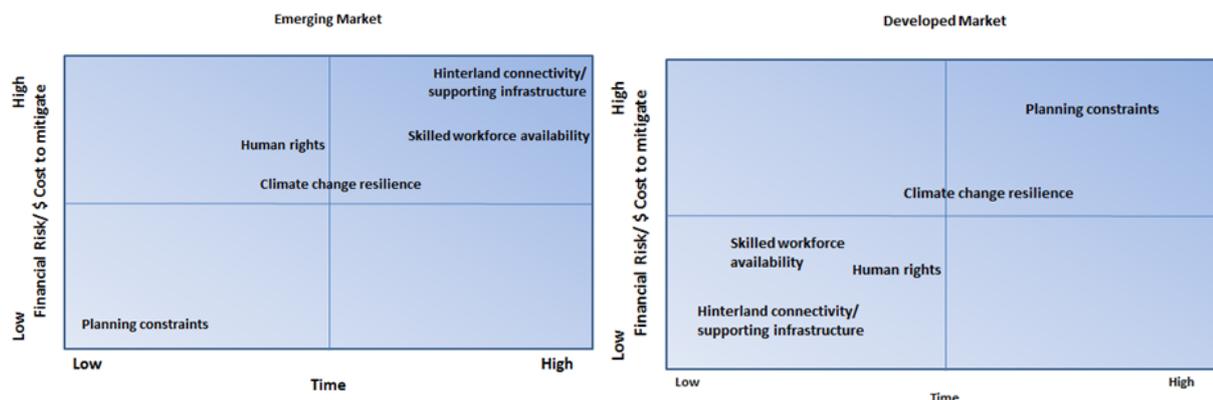
Characterising the nature of the project and key associated ESG issues

Under a major infrastructure development model, an investor is commonly involved in a comparatively long investment period (7 years plus) where understanding and managing ESG risks and opportunities at a more detailed level and taking account of longer term aspects can pay significant dividends. In many cases, it may also be a core requirement of the finance arrangement, especially if the lending financial institutions are signatory to the Equator Principles (EP), adopt IFC Performance Standards (PS) or Principles of Responsible Investment (PRI). There is a growing recognition that long-term sustainable returns are 'dependent on stable, well-functioning and well-governed social, environmental and economic systems' .

The risk-return ratio and ESG risks, which are often categorised under the term non-technical risks (NTR), may vary considerably depending on the nature of the project (for example, brownfield or greenfield, developed or emerging market). The ability to manage and engage on ESG issues may also vary depending on the role of the specific investor in the wider project finance structure, with minor investors commonly having less overall influence in decision making.

Figure 1.1 presents potential differences in the relative importance of a range of typical project ESG issues in emerging vs a developed market setting.

Figure 1.1: Comparison of the relative importance of ESG issues in emerging and developed markets



Source: ERM data, 2013

Whether working in developed or emerging economies, the importance of robust stakeholder engagement cannot be overstated. The issues of key concern may vary; in developed economies, we often find that public concerns focus on engagement, health impacts and nature protection, whereas in emerging markets issues associated with land take, resettlement and impacts on livelihoods are often more prominent.

Why effective management of ESG matters and key challenges

Many projects purport to effectively consider and manage ESG issues, but few successfully implement effective management of ESG through the project lifecycle. Failure to implement effective ESG management can have wide ranging and significant implications, including the following:

- Negative impacts on the environment, social and community receptors and the reputation of the project and its investors.
- ESG directly affects project risk, which in turn may impact loan terms and rates, or result in higher CAPEX and OPEX affecting the return on investment.
- Delays in project realisation leading to cost overruns, which ultimately affect financial performance. It may also affect long-term opportunity cost, lead to increased competition or reduced long-term demand, which will in turn affect long-term operating revenue.
- Failure to comply with IFC performance standards, guidelines or safeguards of a development bank or Equator Principles institution could have significant implications, particularly on funds not being released, or even blacklisting.

When financing and realising project developments, effective communication and early stage engagement is critical. Increasingly, investors and project developers find themselves in complex and ever-changing socio-political environments where multiple stakeholders have wide-ranging, and at times conflicting, demands and interests and there is often a low level of trust in developers and local governments. As a result, delays in project realisation are a common phenomenon.

Having an appropriate level of acceptance or approval by local communities and stakeholders, known as a 'social licence to operate', is increasingly an essential part of project development and

operation. This social licence is in addition to the required regulatory permits and is important for the effective management of environmental and social risks. Maintaining a social licence to operate requires a good stakeholder engagement process and 'best practice' consultation and communication, linked with a robust grievance management process.

As issues such as climate change (including impact and adaptation plans) and resource scarcity continue to gain prominence in decision making for infrastructure projects, social factors are also becoming increasingly important to infrastructure developers and investors as they strive to ensure business continuity and reduce the potential for conflict. Aspects such as human rights and supply chain labour standards are key issues that need to be considered and addressed in a proactive and timely manner.

Role of ESG in project delay and associated costs

To determine the most common causes of delay and overruns in infrastructure project delivery, we have drawn on both scientific evidence and professional experience. ESG issues are inevitably intertwined and include:

- Lack of/inefficient communication.
- Ineffective management systems, organisational culture and change management processes.
- Inadequately trained staff or shortage of experienced staff.
- Missing and/or changing legislation (the legal situation at the time of permitting is crucial) and permitting complexity.
- Lack of administrative capacities/fragmentation of local approval processes

ESG or NTR may include some 'non-quantifiable' risks and others that are challenging to estimate and quantify and where expert judgement may be required to aid quantification, even if only order of magnitude levels are achievable. These can include a wide range of risks such as political risk, security and corporate governance. The impact of these issues on the project investment may be difficult to quantify but has the potential to be significant should one or more of these risk scenarios be realised.

In the context of major infrastructure projects, a common non-technical risk is local community opposition plus related communication, which can be significant and sometimes exceed €1billion.

Land acquisition and resettlement is an example where it is important that people are appropriately consulted and compensated. Reasons for protest are often the fear of adverse impacts on real estate value, potential health issues, or visual impacts on the landscape as well as the loss of the recreational value of nature; and in more general terms, often the (lack of) communication in such projects.

In Europe, for example, the Stuttgart 21 railway station in Germany, the motorway link Rijksweg A4 between Delft and Rotterdam in the Netherlands, and the Eurotunnel between France and the UK, all faced severe public opposition and project delays because of concerns over nature protection and grievances associated with a lack of transparent project communication with

affected stakeholders. Table 1.1 shows more examples of high-profile infrastructure projects and the specific challenges they presented).

Table 1.1 Large-scale infrastructure projects and their challenges

Example	Budget vs actual € billion	Delays and start-up problems	Incorrect capacity and revenue plans	Total value lost vs plan € billion
Eurotunnel		<ul style="list-style-type: none"> 6-month delay 18 months of unreliable service after opening 	<ul style="list-style-type: none"> Overestimated market-share gain in freight and passengers by 200% 	~7.5
High-speed rail Frankfurt-Cologne		<ul style="list-style-type: none"> 1-year delay of construction Legal and technical issues 	<ul style="list-style-type: none"> Unforeseen capped government funding 	~1.5
Betuwe Line NL (cargo rail)		<ul style="list-style-type: none"> 1.5-year¹ delay of construction Technology choices still not finalized 	<ul style="list-style-type: none"> Annual revenue shortfall of €20 million 	~3.0
Kuala Lumpur Airport		<ul style="list-style-type: none"> Initial issues with connectivity to downtown area Complaints about facility hygiene levels 	<ul style="list-style-type: none"> Handles only ~60% of current capacity Losing market share to Singapore 	~1.5

Source: Beckers, F. et al. November 2013. A risk-management approach to a successful infrastructure project, McKinsey Working Papers on Risk, Number 52.

Another important factor for consideration is ESG opportunity. By looking only at the ESG risk perspective, related opportunities are sometimes overlooked. In common with risks, opportunities, or beneficial ESG outcomes, may be difficult to fully quantify. However, significant potential opportunities and beneficial outcomes can often be achieved through effective ESG management at little additional cost to the project investment. Examples for generating value from opportunities range from creating shared value for local communities and developers, to increasing employer attractiveness through sustainability efforts, or enhanced communication (that is, by consistently informing internal and external stakeholders about the [positive] impact of a project).

Often ESG-related opportunities – when communicated at the right time, to the right audience and in a transparent manner – can have a positive impact on stakeholders’ perception of the project and, ultimately, also investors’ and companies’ reputations. This is aptly illustrated by the case studies below.

Case Study 1 – Development of a coal-fired power plant in Germany

The situation

Plans for an existing coal-fired power plant to be expanded with an additional, high efficiency boiler unit had been in place for at least ten years, with the original permit issued before construction activities started. However, four years into construction – and the project developer having spent more than €1billion – political voices and local stakeholders started calling for a permit revision. Ultimately, the project development was stopped by the regional authorities, which then resulted in a four-year delay.

The official reasons were based on regulatory issues in relation to the local land use plan. This local plan was conflicting with the regional planning authorities’ view, with the argument that the

original permit had not addressed all technical as well as environmental and social issues, in particular in respect to the local building permit requirements, and that had failed to include a formalised public participation process as well as a wider assessment of environmental and landscape issues.

More fuel for a revision of the permit was also added by increased media attention and a change of players in the political landscape.

Key learnings

Long-term major capital projects such as power plants often span time horizons of more than ten years, and while changes related to the composition of the local political landscape are generally accepted, changes in the legal framework are often not foreseeable, nor accepted.

What we have observed in recent years is an even swifter change in politicians' point of view – sometimes based on public polls, public opinion as well as protest from local interest groups, or pressure through social media networks. Secondly, public opinion is more likely to change faster than projects can be developed; here the general view is that just because a project has been granted a permit a number of years ago, this does not mean that it has the social licence to operate. Furthermore, conditions precedent are nowadays not a safety blanket when it comes to completing projects on time and on budget, as the general culture in Europe and elsewhere has changed from a consent-oriented to a more resistant and not in my backyard (NIMBY) culture. Here, a well-structured, open and early communication strategy as part of the project's public engagement framework would have been crucial for anticipating and proactively addressing ESG issues and stakeholder concerns. This means, for example, organising an early public hearing of stakeholders from the direct neighbourhood or planning and acting in line with the current (and not an outdated) regulatory framework. Also, inconsistent communication of project milestones is another issue during the permitting and planning phase of large projects. In summary, delays due to ESG issues must be taken into account before planning the project.

Case Study 2 – Road project in Eastern Asia: Resettlement issues

The situation

This road and tunnel project in Istanbul faced concerns from local stakeholders as a result of potential impacts on cultural heritage and potential requirements for resettlement of small businesses and local residents. The project was initiated to alleviate traffic pressure in this growing metropolitan area, and reduce journey times, improve reliability and lead to an overall reduction in fuel consumption, greenhouse gases, emissions and noise. Strategically, this was an important project for the city but there were social issues that needed to be appropriately considered as part of the planning.

Involvement of international financial institutions and balancing national requirements

International project financing was sourced for this project and as such international financial institutions (IFIs), including the European Bank for Reconstruction and Development (EBRD), were involved. Their involvement meant that the international financing requirements of EBRD had to be met and in some cases these went over and above what was required nationally. Stakeholder engagement was a specific requirement. As a result, an extensive programme of stakeholder engagement was undertaken by the project developer with local communities, regulators and NGOs. This engagement was critical as it provided an opportunity to understand key concerns and consult with key stakeholders about project-related impacts. It formed the

foundation of the required environmental and social impact assessment and specifically informed both the cultural heritage assessment and resettlement action plan.

Key learnings

The involvement of IFIs ensured that a robust stakeholder engagement programme was undertaken as part of project development and in accordance with good practice. This required the project proponent to continue to engage with external stakeholders throughout construction and operation. A mechanism was also established whereby stakeholders could contact the project with any questions, queries or grievances. The level of engagement required was more broad and detailed at the same time than that required by national legislation, but was critical in understanding and managing material issues. It also provided a mechanism to share information with stakeholders, which helped manage expectations and allay any unsubstantiated fears about potential project impacts.

The involvement of financing parties brings a minimum set of standards that need to be met on infrastructure projects. There is significant pressure on IFIs to ensure that their financing requirements continue to evolve so that they focus on key issues and remain relevant for projects today. Projects that have applied such standards are often viewed as lower risk and a key reason for this is that they require social and community issues to be appropriately identified and managed, therefore reducing both reputational and financial risks, which also leads to reduction of potential delays and better local acceptance and understanding of the project. In ERM's view, this approach has enhanced the projects local 'standing' and perception and facilitated better local acceptance and understanding of the project, while delivering additional mitigation benefits for stakeholders and the environment – over and above that which would have been required only for local compliance.

Effectively managing ESG issues to maximise beneficial project outcomes

Consideration of data quality – evidence-based decision making

A critical factor to consider – and one that is typically well understood by investors – is the need for reliable data in order to inform evidence-based decision making. While some ESG issues may lend themselves to quantification (Scope 1 and 2 emissions and carbon for example), others may not.

Where ESG issues are more qualitative they can be harder to factor into risk-based modelling and analysis, but can commonly be just as significant from a cost or schedule perspective, and potentially harder to understand, qualify and manage. For such issues, analysis by technical subject-matter experts, based on a robust evidence built in part through effective engagement, is critical.

Data requirements and associated time frames and risks need to be considered early, factored into the project and investment cycle and actively managed to reflect changing conditions on the ground.

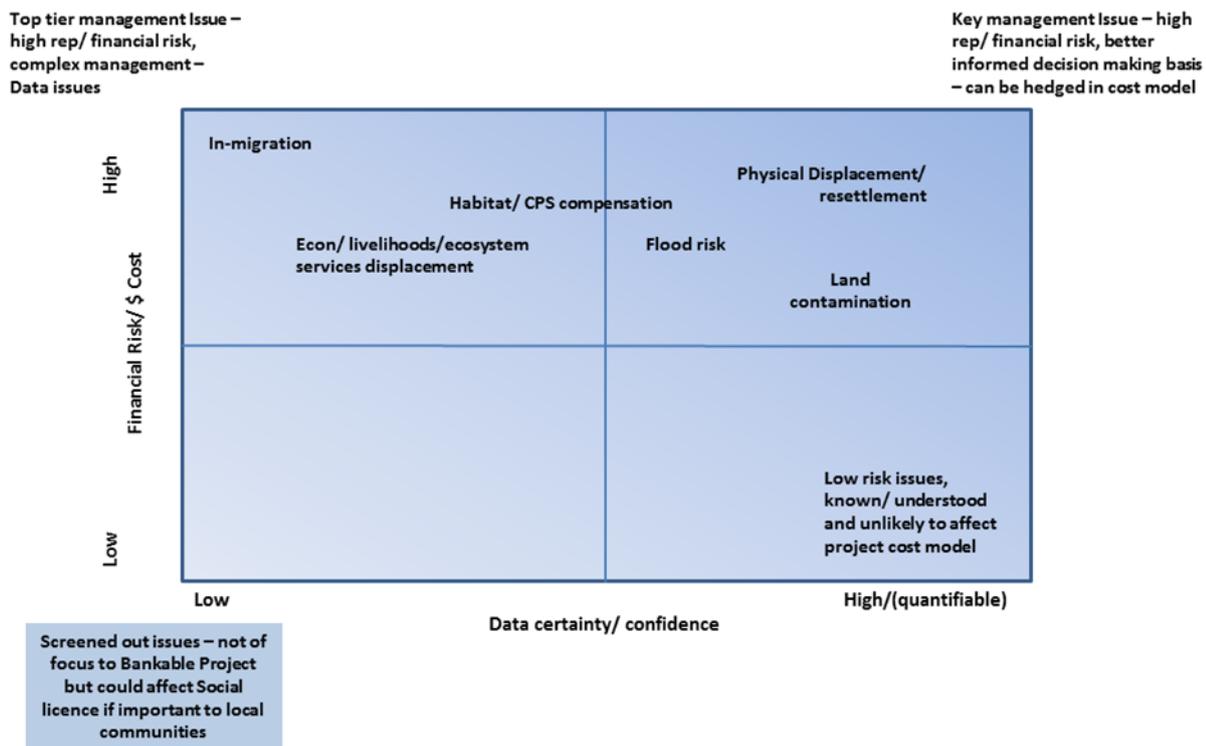
Project-specific review and identification of key issues and ESG management focus

Every project and financing structure has its own specific challenges. The key issues for ESG management focus may follow common themes, but at a project finance level are likely to vary depending on factors such as the development environment (developed or emerging), the nature

of the infrastructure (linear, fixed site, multi-site), and the development context (greenfield, brownfield).

An efficient exercise may be to perform ESG issue prioritisation (see *Figure 1.2*), which can be carried out in a range of ways and simply presented to get project stakeholder engagement and agreement on the key areas for ESG management focus.

Figure 1.2 *ESG issue prioritisation matrix*



Source: ERM data

Those issues for which there is available data or a high level of certainty and that pose a low financial risk may require little focus. Some issues may not be critical (for example, for bankable ESIA), but could be perceived as important to some stakeholders and may require specific management to maintain the social licence to operate. Those issues with a high potential risk or cost to the project, but for which data quality is good, can be built into the project financial model and accounted for in forecasts. The most complex issues are commonly those with the highest potential risk financially or reputationally, but for which there is a low level of certainty or data resolution or for which no clear management approach has been identified. These may be a key focus for investors in terms of achieving good ESG and financial outcomes from the project and associated investment.

Conclusion

Sustainable infrastructure developments and existing operations require organisations to meet or exceed required environmental performance and align the priorities of the operator with those of end users and the wider community. Only then can infrastructure operators and investors ensure more efficient infrastructure developments, which not only generate better overall ESG outcomes, but enhanced value for all stakeholders.