

# Environmental Risks in Infrastructure Projects

Consideration of the environmental risks inherent in infrastructure development projects has risen up boardroom agendas in recent years. The failure to manage the risk of causing pollution, that may in turn give rise to third-party injury or damage to the neighboring property, has the potential to increase costs and cause delays.

In addition, the risk of causing physical damage to the environment during the construction and operation of infrastructure has the potential to infer costs for restoration and re-habitation. As a result, there has been an escalation in the stakeholder pressure being placed on project owners and contractors to behave responsibly during the construction of infrastructure projects, and to evidence the fact that all parties are able to effectively manage the key environmental risks inherent in them. Failure to do this could leave the project open to criticism from regulators and shareholders alike,

with a key issue for consideration being the link between the project's overall environmental performance and the reputation of the project company.

There are elements of environmental risk within all phases of any large infrastructure construction project. Environmental risks may arise during the construction phase, or during the operation and maintenance of large-scale infrastructure, and they therefore need to be managed throughout all stages of the asset ownership lifecycle. With the development of strict environmental legislations in many countries, there are defined requirements for construction companies and operators of assets to assess the potential for environmental impacts, and to manage their business activities accordingly.

With many, large-scale infrastructure assets being located close to, or actually within, urban areas, or near to sensitive environments, additional consideration needs to be made for the potential harm that can be caused by pollution to third-party property, groundwater, and the environment. Significant environmental damage can be caused by both sudden and accidental pollution events, or as a consequence of gradual pollution caused by activities.



## BOARD DISCUSSION

### Spotlight on Environmental Risks

Infrastructure investors should be using recently developed protocols to assess and manage environmental risks when undertaking initial project appraisals and when developing methodologies to manage risks during the construction, operation, and maintenance of long-term infrastructure assets.

Indeed, significant damage to the environment may even arise as a result of natural-catastrophe events causing physical damage. The increased scope of environmental regulations and the strict liability regime in many countries now means that project companies could be held liable if they cause physical damage to the environment, as well as if they cause pollution. Liability associated with causing property damage or bodily injury, or damage to the environment can be costly. The heightened public awareness of environmental issues has also led to an enhanced potential for third-party claims for pollution and environmental damage.

While many of the environmental risks that arise during the

construction and operation of infrastructure assets are generic, some are specific to a particular asset type or facility. The significance of the site-specific environmental risks will depend on the environmental characteristics and sensitivity of a project's surrounding area, which can be categorised in terms of the surrounding land use and proximity to protected species or natural habitats. Following the implementation of environmental damage regulations in a number of countries worldwide, the cost of environmental losses has escalated. In some cases, the costs of undertaking clean-up or restoration of habitats today compared to before environmental regulations were in force has increased by one order of magnitude or more. The highest uncertainty in managing environmental risk issues is commonly the inability to quantify the environmental loss that could occur. In many cases, the loss scenarios that are envisaged end up with the environment as a whole being damaged, and a valuation of the environment, in terms of the cost of a coral reef, a protected habitat, or even an individual fish population, will be required to estimate the loss. Many owners and operators will not be comfortable with setting a value for such losses, in contrast to being able to value the loss to property assets, for example.

## SUMMARY OF POTENTIAL ENVIRONMENTAL LIABILITIES

Environmental risks and liabilities that may be potentially significant in the context of a large-scale infrastructure development project fall into a number of discrete categories, including:

- Land contamination (historic) liabilities.

- Construction risks.
- Operational environmental risks.
- Contractual risks and liabilities.

Each of these areas of environmental risk is discussed below in turn.

### LAND CONTAMINATION (HISTORIC) LIABILITIES

Given the nature of historic activities at construction sites, there is the potential for land contamination to exist, which could represent a significant environmental risk and potential liability for the project owner or the construction contractor for the following reasons:

- Requirements for on-site and off-site remediation by statutory authorities and third parties.
- On-site and off-site third-party property damage and bodily injury leading to claims.
- Legal and technical defence costs associated with the above.

In many countries, the liability for the cost of clean-up will lie with the original polluter of the site in the first instance. However, liability could extend to the buyer of the site in instances where the original polluter cannot be found or no longer exists.

### CONSTRUCTION RISK

The potential for causing pollution or damage to the environment is generally elevated when assets are located in environmentally sensitive locations. The potential for a fuel spillage, for example, or for the escape of large volumes of contaminated water, is elevated and therefore so is the potential for a regulator or third-party claim for damages or a requirement for clean-up. There is also a requirement

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to consider the potential for the exacerbation of an existing pollution condition at a site where significant groundworks are to be undertaken as a part of the construction project.

### OPERATIONAL ENVIRONMENTAL RISKS AND LIABILITIES

These include operations associated with infrastructure asset management, such as wastewater treatment, and the maintenance of new or existing facilities. Presently, this type of environmental risk may be managed through the use of the “sudden and accidental” pollution coverage provided by some forms of a public liability insurance.

### CONTRACTUAL RISKS AND LIABILITIES

Where a current site owner has been involved in a number of mergers, acquisitions, and divestitures in the past, and where all transactions have the potential to impose environmental liability, the scope and scale of liabilities will depend upon the nature of the sale and purchase agreements entered into at the time of a transaction. Environmental warranties and indemnities have been seen in a number of complex, large-scale transactions in the past, and the security of any indemnity will be associated directly with the financial strength of the company providing it.

## INSURANCE FOR POLLUTION AND ENVIRONMENTAL DAMAGE

### CONTRACTORS POLLUTION LIABILITY INSURANCE

Environmental insurance can provide cover for the direct and indirect costs of cleaning-up pollution if required by the environmental regulator or by a third party. The insurance will also cover third-party claims for bodily injury or property damage caused by pollution and can be structured to cover the eventuality of causing biodiversity damage or environmental damage due to non-pollution-related incidents, such as a fire, water runoff, or physical disturbance.

Contractors pollution liability insurance can be used to insure against the eventuality of having an environmental liability for pollution, caused by a spill or leak or through the exacerbation of an existing land contamination situation.

On completion of the construction period and on commissioning for use, a contractors pollution liability insurance policy can be used to cover the everyday operation and maintenance required under project agreement, where there is an ongoing potential to cause pollution or damage

to the environment or an assumption of liability through contract.

Gradual as well as sudden and accidental pollution events can be covered (including the mobilisation of existing pollution) arising from a contractor’s operations that result in:

- Statutory first- and third-party clean-up costs.
- Third-party claims for bodily injury and property damage.
- Biodiversity damage.
- Legal defence expenses.
- Third-party loss of use, including diminution in value.

The policy provides comfort that pollution liabilities associated with a development project are covered, ensuring the ongoing financial viability of the project and protecting all stakeholders from environmental liabilities.

### SITE-SPECIFIC LEGAL POLLUTION LIABILITY INSURANCE

There are distinct limitations in the insurance coverage that is provided for environmental risks under general liability and property insurance policies. In most cases, these types of insurances may provide some cover for sudden and accidental pollution incidents but offer very limited cover in respect to



the costs for gradual pollution, own site clean-up, and for causing damage to the environment such as flora and fauna or soil and groundwater.

Where land at a particular site under ownership or operation could be potentially contaminated, or where “operations” may have caused or could cause pollution in the future, environmental insurance can provide cover for the associated environmental liabilities. Environmental insurance can provide cover for “gradual” as well as “sudden and accidental” environmental damage events, resulting from historic or operational pollution. Environmental insurance can provide cover for:

- Statutory requirements for clean-up (both on-site and off-site).
- Third-party claims for bodily injury and property damage.
- Remediation of biodiversity damage not caused by a pollution event.
- Legal and technical defence expenses.
- Insured’s own business interruption losses.

An environmental insurance policy can be used to provide comprehensive protection from the financial impacts of pollution and environmental-damage events.

## CONCLUSION

The scale and scope of environmental risks and potential for unforeseen costs in preventing, mitigating, and remedying environmental damage have increased, due to the implementation of environmental regulations. In addition, the link between the environmental performance of a project and the reputation of the project owner and the contractor is overt and it is important to manage the environmental risks involved. Environmental impairment liability insurance is available to provide coverage for a broad range of environmental risks associated with the construction and operations of large infrastructure projects.

The information contained herein is based on sources we believe reliable and should be understood to be general risk management and insurance information only. The information is not intended to be taken as advice with respect to any individual situation and cannot be relied upon as such.

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