



Environmental and Social (E&S) Risk Management Sector-Specific Guidance Construction and Real Estate

Preamble to All Sector Specific Guidance

While the guidance notes to the Principles provide high-level, all-sector guidance on the purpose and implementation of (and additional resources for) each Principle, some sectors represent higher environmental and social risk and require greater scrutiny. Therefore, we have provided sector-specific guidance notes, to assist with the implementation of the Principles in these high-risk sectors. These notes draw upon the IFC Environmental, Health and Safety Industry Sector Guidelines and the EBRD Subsectoral Environmental and Social Guidelines and have been adapted to reflect the Ghana-specific context.

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Construction and Real Estate in Ghana

Construction Industry in Ghana

The construction industry is recognized as a key element of the economy of Ghana. There is high demand for all types of construction such as highways, roads, hospitals, power plants, dams, housing, maintenance on existing infrastructure, etc. The industry contributed to about 14.8% of Ghana's Gross Domestic Product and employed about 320,000 people in 2016. Ghana's construction and real estate industry has been thriving with a growth rate of 70% since 2010.

Real Estate Industry in Ghana

Ghana's real estate industry has grown since 2010. Nevertheless, it is still associated with a huge housing deficit of over 1.7 million homes¹. Growth has been particularly strong in urban areas. Urban areas in Ghana have been dominated by both over population and stagnation in the supply of low income affordable housing units. This supply and demand mismatch presents opportunities for real estate investors. The discovery of Oil in 2007 also led to a boom in investment in luxury estates. Real estate in Ghana has been mostly private sector led with occasional Government interventions to solve issues associated with low income affordable housing shortages.

Regulation in the sector

The Ministry of Water Resources, Works and Housing (MWRWH) is responsible for housing infrastructure and the Ministry of Roads and Highways (MRH) directs civil infrastructure projects. Although many qualified engineers, technicians and architects lead construction projects in Ghana, there is no overarching regulatory body, and there are a few legal mandates or enforcement mechanisms currently in place for the industry.

Numerous stakeholders, including the Association of Building and Civil Engineering Contractors of Ghana, have insisted on the establishment of a dedicated regulatory body for the construction sector to ensure safety and increase professionalism in the industry.

Housing regulation in Ghana is fragmented in a number of statutes, which include:

- The Town and Country Planning Ordinance (CAP 84) of 1945,
- The Administration of Lands Act (Act 123), 1962,
- The State Lands Act (Act 125), 1962
- Rent Act (Act 220) of 1963,
- National Development Planning Commission Act (Act 479), 1994
- National Planning Systems Act (Act 480), 1994
- The National Building Regulations (LI 1630) 1996, Zoning Guidelines and Planning Standards (2011)

Current policies include:

- The National Urban Policy (2011)
- Land Use and Spatial Planning Bill (2011)
- National Housing Policy 2015
- National Policy on Public – Private Partnership (2011)

Green Building Initiative

Since 2015, the Ghana Green Building Council has reoriented the built environment outlook of Ghana towards sustainability through community planning and building efficiency. There are a few model buildings that showcase green and efficient practices and techniques.

The council collaborates with the Ministry of Environment, Science, Innovation and Technology, Ministry of Local Government and Rural Development, Ministry of Water Resources, Works and Housing and other state agencies and departments.

Public Private Partnerships (PPPs)

Public-private partnerships are a key element in the development of Ghana's infrastructure, housing and commercial properties as it unlocks private sector investment opportunities enabled by the Government.

The National Policy on PPPs and its subsequent piece of legislation provides legal guidelines and enforcement mechanisms to support the policy. This policy framework helps clarify the roles and responsibilities of all parties involved in PPPs, greatly reducing the cost and time it takes to develop a property.

¹ <http://www.africahomebuildingshow.com/?item=1018>

Summary of Key E&S Issues

ESG Risk category key

- Environment – Affects the natural environment
- ▲ Health and safety – Affects the health and safety of employees
- Labour – Affects workplace conditions and treatment of employees
- ◆ Community – Affects the health and safety, livelihoods and environment of the community and wider public

Note:

Key risk ordering based on significance of the potential financial impact to a company in the sector in question.

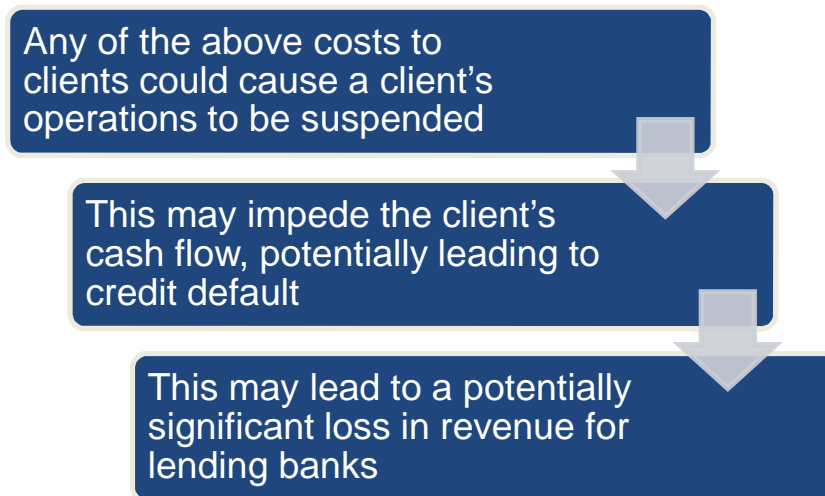
Key risks	Construction & Real Estate
Occupational health and safety	▲ ■
Waste management	● ◆
Community engagement	■ ◆
Biodiversity and ecosystems	●
Hazardous materials	● ▲
Fire	● ▲ ■ ◆
Labour rights	■
Air emissions	● ▲ ◆
Soil erosion and degradation	● ◆
Security	▲
Noise and vibration	● ▲ ■ ◆
Transportation	● ▲ ◆
Water management and waste water	● ◆
Cultural heritage	◆
Visual impact	● ◆

Potential Costs Associated with Key E&S Issues

Potential costs *to banks' clients* associated with key E&S issues



Potential costs *to banks' credit portfolios* associated with key E&S issues



In order to protect themselves, banks should consider including, in loan documentation, environmental and social Conditions Precedent, Warranties, Covenants and Events of Default. Please see the Guidance Note associated with Principle 1 for further details.

Analysis of Key E&S Issues

Occupational Health and Safety

Work in the Construction and Real Estate sectors can present various types of health and safety hazards for workers.

Construction is associated with heavy manual activity including heavy and/or repetitive lifting. This has the potential to cause serious injury. For example, lifting of heavy objects may cause musculoskeletal injuries. Injuries related to manual handling are among the most common on construction sites.

Construction sites are hazardous environments. Working at height, for instance on ladders or scaffolding, can result in injury in the event of trips or falls. Excavations or demolitions may necessitate working in confined spaces - these spaces can lack oxygen which may pose a danger to workers, while their confined nature makes rescue difficult.

Construction typically involves the operation of heavy machinery - this naturally presents a danger to workers both operating the machinery and those working close to the machinery.

Finally, there is the potential for workers to be struck by objects. This is a particularly high risk during demolitions. Objects that may harm workers include but are not limited to raw materials and tools as well as waste materials from the operation of tools.

The Labour Act, 2003 (Act 651) advises on employment issues, industrial relations and occupational health and safety. This requires employers to provide safe, health conditions for workers as well as obligate every worker to use safety appliances fire-fighting equipment and protective equipment at place of work.

Risk Management

Client companies should implement the following risk management practices:

- Ensure that an appropriate health and safety management system is in place, ideally independently certified to a recognised standard such as OHSAS18001 or ISO45001.
- Provide personnel with appropriate personal protective equipment (PPE) and/or respiratory protective equipment (RPE) to include training on its use and maintenance. Ensure use of the provided PPE at all times.
- Install fall prevention infrastructure including guard rails and devices including lifelines and harnesses.
- Implement recovery plans and procedures should a worker have to enter a confined space.
- Train workers in the proper lifting and handling of materials, including the placement of weight limits for individual exertion, and if such limits are exceeded the use of two people or lifts.
- Create specific discharge and drop zones for the movement of materials where possible, and control access to these sites during their operation.
- Control vehicle and machinery traffic through speed limits, designated and clearly marked route systems and audible reversing alarms.

Waste Management

Processes across the construction and real estate sector may produce a variety of waste material. These materials range from those created during excavation to excess raw materials post construction. These include, but are not necessarily limited to:

- Fill materials such as soil post excavation, and rubble;
- Scrap wood and metals;
- Office, kitchen or dormitory waste as part of construction and real estate activities;
- Residual construction materials such as paints;
- Waste fuel and lubricants;
- Materials used for machinery upkeep such as oil and attendant filters and cloths; and
- Electrical wiring.

The policy framework guiding the management of hazardous, solid and radioactive waste includes the Local Government Act 1994 (Act 462), Environmental Protection Act 1994 (Act 490), the Pesticides Control and Management Act 1996 (Act 528) and the National Environmental Sanitation Policy of Ghana (1999) which provides guiding on the roles and responsibilities for sanitation in Ghana.

Risk Management

Client companies should implement the following risk management practices:

- Develop a Waste Management Plan which is predicated on the “reduce, reuse, recycle” principle.
- Ensure non-hazardous waste is collected for reuse or recycling or disposed of at an approved licensed landfill.
- Ensure any hazardous wastes are handled by specialised licensed contractors (see Hazardous Materials section for further details).
- Consider procurement procedures that allow for the return – for value - of excess unused construction materials.
- Implement recycling plans for materials such as scrap wood or metals.

Community Engagement

The Construction and Real Estate sector can bring both positive and negative impacts to nearby communities. While potentially a source of employment and income, construction activities can also cause harm, nuisance and inconvenience.

For example, construction can be a source of dust and fumes, which may have negative health impacts on neighbouring communities. Furthermore, if access to building sites is not effectively monitored, then members of the community (particularly children) may be accidentally exposed to hazards similar to the occupational health and safety risks that workers face.

More specific information about the potential negative impacts on communities is also detailed in many of the other sections of this document, for instance in the Visual Amenity, Noise and Vibration, and Transportation sections.

It is important that Construction and Real Estate sector clients proactively, engage with the communities in which they operate in order to avoid reputational damage and community obstruction of operations (e.g. through protests, petitions etc.).

Risk Management

Client companies should implement the following risk management practices:

- Attempt to minimise disruption to neighbouring communities during operations (for example, by avoiding vehicle movements at peak traffic times).
- Build public trust through public engagement with community stakeholders.
- Ensure implementation of a grievance system in order to address community complaints.
- Restrict site access, with a focus on particularly high risk areas and activities, through fencing and clear signage.

Biodiversity and Ecosystems

Ghana's National Biodiversity Strategy and Action Plan notes that, "the benefits of plant, animal, water resources and microbial biodiversity to the people of Ghana are enormous. These range from economic, social, religious and cultural, aesthetic and recreational to ecological and environmental"¹.

Construction and real estate can potentially have detrimental impacts on biodiversity and ecosystems as activities in this sector represent land use change. Where new "greenfield" land is developed, there is the potential for vital habitats to be destroyed by the new buildings or other infrastructure. Moreover, construction can also lead to the release of pollutants as well as the production of waste and waste water (see Water Management and Waste Water section for further details). The release of these substances can also negatively impact nearby ecosystems.

All of these elements could result in the (at least) partial loss of biodiversity and ecosystems. The loss of ecosystems and habitats can be severe - for instance the red colobus monkey is now extinct in Ghana due to habitat loss. Once damaged or destroyed, the recovery of biodiversity and ecosystems may be impossible.

Damage to biodiversity and ecosystems represents a reputational risk, particularly if the damage receives substantial media coverage.

Some Ghanaian regulations could potentially be enacted in cases where construction and real estate companies have detrimental impacts on biodiversity and ecosystems. For example, the Wildlife Division of the Forestry Commission - a Ghanaian Government Agency mandated to protect and manage Ghana's wildlife resources - has the power to give land 'protected area' status. The Ghana Forest and Wildlife Policy 2012 defines four types of areas: 'Strict Nature Reserve', 'National Park', 'Wildlife Sanctuary' and 'RAMSAR site', with varying restrictions on what land can be used for². Moreover, the Ghana Building Code 2012 states that "Various activities having impact on health, safety and the environment need to be identified with their likely effects and proposed preventative and corrective interventions, together with the concerned statutory obligations"³. Finally, the Environmental Protection Agency has the power to request an Environmental Impact Assessment if it chooses to do so.

Risk Management

Client companies should implement the following risk management practices:

- Ensure that the most recent legislation relating to land conversion is complied with, including acts such as Ghana Forest and Wildlife Policy 2012 and the Ghana Building Code 2012.
- Before converting land for buildings or real estate, survey the area to identify ecosystem types and assess their biodiversity value. Avoid construction in areas with high value, areas that comprise critical habitats for endangered species or areas that are important for wildlife breeding.
- Minimise habitat alteration (through, for instance, avoiding the clearing of vegetation) during construction to protect and preserve ecosystems.
- Consider implementing a Biodiversity Action Plan, including the purchase of biodiversity offsets where possible and necessary (e.g. from the Biodiversity Offset Business Scheme that is being piloted in Ghana)⁴.

1 <https://www.cbd.int/doc/world/gh/gh-nbsap-v2-en.pdf>

2 www.clientearth.org/external-resources/ghana/forests-and-wildlife/2012-Forest-and-wildlife-policy-GHANA.pdf

3 <https://www.scribd.com/document/266325649/Ghana-Building-Code-Part-11>

4 See for instance: <https://www.cbd.int/2011-2020/actions/218300>

Hazardous Materials

There is considerable scope for the release of hazardous materials across the lifecycle of construction and real estate sector activities. Some of the hazardous materials encountered in demolition and construction include, but are not limited to:

- Asbestos
- Cement
- Solvents
- Lead and silica dust
- Paints
- Petroleum based products such as lubricants, and
- Fuels

This range of potential hazards reflects the many phases of the construction from the demolition of buildings, preparation of sites, to building finishing. These materials can pose both occupational hazards to workers and the public. Moreover, if they are leaked into soils, surface or groundwater they may pose danger to the environment and members of the public.

The Hazardous and Electronic Waste Control and Management Act 2016 (Act 917) provides for the control of management and disposal of hazardous waste, electrical and electronic waste and for related purposes.

Risk Management

Client companies should implement the following risk management practices:

- Provide personnel with appropriate personal protective equipment (PPE) and with training for its use and maintenance. Ensure the use of PPE provided.
- Inspect any materials that have the potential to contain asbestos and take measures to prevent airborne particles. Removal and disposal should only be undertaken by specialist licensed contractors.
- Ensure that a record of all hazardous materials is maintained on site, such as a Material Safety Data Sheet (MSDS) for each hazardous substance used on site.
- Ensure that there is adequate provision for the containment of hazardous materials.
- Ensure that facilities are inspected regularly to track and minimize any leaks or spills.

¹ <http://www.davidpublisher.com/Public/uploads/Contribute/551e55d3324b0.pdf>

Fire

Fires in commercial and residential properties can lead to the destruction and loss of property, resources and lives. They can also lead to injuries or other negative health impacts to people and populations in or around the property at the time of fire.

In Ghana, one of the main causes of fire outbreak is from electrical issues, including improper use of electrical wiring and overloading of electrical appliances¹. Other causes of fire outbreak include accidents associated with cooking, lighting devices and cigarette smoking.

The Ghana National Fire Service Act, 1997 (Act 537) provided the regulation for the management of undesirable fire and explosion in the sector. This is guided by the Fire Precaution (Premises) Regulations 2003, LI 1724 which makes it obligatory for certain premises to have fire certificates to meet fire safety standards.

Risk Management

Client companies should implement the following risk management practices:

- Ensure that a fire risk assessment has been undertaken by a suitably competent person to identify fire hazards and document mitigation measures.
- Ensure relevant electrical safety precautions are taken when constructing commercial or residential properties.
- Ensure inspections are undertaken according to the relevant legislation in Ghana.
- Ensure appropriate ventilation is installed near any cooking facilities.
- Instate rules to limit or ban smoking in and around commercial and residential rental properties.
- Install smoke and heat alarms in all properties and ensure that they are tested regularly.
- Provide fire safety and emergency information to all renting individuals and businesses.
- Ensure that appropriate emergency procedures are in place in the event of a fire. This includes establishing suitable communications with the appropriate local emergency authorities.
- Purchase insurance to protect against financial losses caused by fires.

¹ Anaglaty PB. Accra continues to record fire outbreaks. The Chronicle. 2013 Jul 30. and <https://www.sciencedirect.com/science/article/pii/S2093791116000226#bib15>

Labour Rights

Ghana has ratified all 8 of the International Labour Organisation (ILO) Fundamental Conventions. Moreover, labour regulation in Ghana stems from the Labour Act 2003. The Act consolidated all laws relating to labour, employers, trade unions and industrial relations, as well as establishing a National Labour Commission.

As a labour intensive and project based industry, construction can attract a large number of casual or short term workers. Many of these workers may be migrants, who are particularly vulnerable to exploitation. Hiring may be direct but can also be through labour agents or contractors.

The Labour Act, 2003 regulates employment and labour issues in Ghana. It covers a broad array of topics such as employee security, sick leave, domestic and compensation, works and wages in Ghana.

Risk Management

Client companies should implement the following risk management practices:

- Examine companies and construction sites for the signs of modern slavery listed above.
- Ensure that conditions for all workers meet the latest International Labour Organisation (ILO) requirements on working hours, pay, and overtime.
- Ensure that any contracted labour supply agencies adhere to all the latest ILO prohibitions on child labour.
- As needed, provide appropriate worker accommodation which meets, at a minimum, the basic needs of workers, and adheres to local Ghanaian and international good practice.
- Ensure compliance with the Labour Act, 2003 including areas regarding:
 - Protection of employment
 - General conditions of employment
- Provide a code of conduct in a language accessible by migrant workers and sub-contractors.

Air Emissions

Emissions to air can occur as a result of construction activities. These can represent a nuisance for local communities and are potentially hazardous.

Of particular prevalence is the emission of dust, which is generated by a variety of construction related activities and processes. These activities include demolition, excavation and the exposure of soil.

Moreover, other hazards include: emissions from activities such as welding, solvents used when painting, and substances (such as magnesium and limestone dusts) emitted from construction materials.

A secondary source of emissions comes from the operation of heavy machinery and vehicles, which include exhaust fumes and volatile organic compounds (VOCs). VOCs can be harmful to human health and the environment.

Risk Management

Client companies should implement the following risk management practices:

- Carry out activities that work to suppress dust emissions including:
 - The use of covers
 - The use of control equipment such as bag houses and cyclones
 - Increasing the moisture content of soil by hosing down exposed surfaces
 - The cleaning of vehicles
- Ensure that plans are in place to minimize personnel exposure to any toxic air emissions.
- Ensure that storage equipment has been designed and is maintained to minimise any toxic air emissions.
- Ensure that any power, heat generation and transportation operations use the least carbon intensive method available.

Soil Erosion and Degradation

Many of the activities that fall within the scope of construction can cause or exacerbate the processes of soil erosion and degradation.

Construction processes such as site clearing, earth moving and excavation can lead to soil exposure to rain and wind. As wind and rain are the main drivers of soil erosion, this exposure means that soil is more vulnerable to erosion.

Soil erosion can lead to heightened sedimentation of surface drainage networks. This will reduce the quality of natural water systems thus harming any biological life which depends on these systems.

Risk Management

Client companies should implement the following risk management practices:

- Minimise the clearing of vegetation, and re-vegetate where possible to create vegetated buffers.
- Use off-site sediment transport prevention mechanisms such as:
 - Settlement ponds
 - Silt fences and,
 - Water treatment.
- Manage water runoff by ensuring that clean water is not:
 - Mixed with water containing a high degree of sediments.
 - Passed through solids, thus picking up sediment.
- Locate any access roads on soil with good drainage capability, taking into account the material of the road and its maintenance, and limit the gradients of the road to reduce erosion caused by runoff.
- If construction is conducted in water bodies, ensure that disturbed sediment is prevented from entering streams.

Security

Construction sites can contain valuable machinery and types of material - such as copper wiring or pipes. This could make the sites targets for theft. For example, Vodafone in Ghana has reported that copper wiring is often a target for theft¹. These thefts can represent a cost to construction businesses, especially if the material is particularly valuable.

Risk Management

Client companies should implement the following risk management practices:

- Ensure plans are in place to insure against potential financial losses from theft.
- Implement security features such as:
 - Securing valuables
 - Restricting site access to authorised personnel only
 - Employing security guards.
- Install security features such as:
 - An alarm system
 - Motion sensitive cameras

¹ <http://ghananewsagency.org/human-interest/vodafone-hit-by-the-largest-cable-theft-at-madina-450-customers-affected--55453>

Noise and Vibration

Construction activities can generate high levels of noise and vibration. Excavation, the operation of power tools such as pile drivers, operation of machinery and other general activity on a construction site can all contribute to noise and create vibration. This is potentially a public nuisance, especially if activity takes place during the evening or night.

Heightened noise and vibration can affect nearby exposed local communities and members of the public, workers on the construction site and local wildlife.

Risk Management

Client companies should implement the following risk management practices:

- Provide workers with protective hearing equipment to minimise their exposure to heightened levels of noise (and ensure the use thereof).
- Monitor noise levels to establish ambient and operational levels to help manage them.
- Consult with local communities to ensure that noises that represent the greatest disturbance are carried out at times which minimise disruption.
- When selecting equipment to use, consider operational noise levels as part of the procurement decision.
- Install silencing or muffling equipment on machinery where possible.

Transportation

Construction and real estate activities can typically bring large amounts of additional traffic to the local area. This is particularly acute if the construction site is new. This is because materials are transported to the construction site, and in particular heavy goods vehicles may be used to transport machinery and large quantities of materials.

Vehicle traffic will lead to an risk of injuries. It can also result in congestion, air pollution and noise disturbance to local communities and residents.

Risk Management

Client companies should implement the following risk management practices:

- Ensure that only licenced and well trained employees are involved in the use of heavy goods vehicles and the transport of dangerous goods.
- Consider traffic management approaches including identifying potential risks, implementing speed restrictions and avoiding times when roads are likely to be busiest.
- Ensure that all vehicles are equipped with appropriate safety measures in order to decrease the likelihood and/or intensity of catastrophic impacts in the event of an accident.
- Install GPS monitoring equipment to monitor the behaviour of drivers. Reward good performance and penalise poor performance.
- Consider different modes of transport where possible (e.g. rail).

Water Management and Waste Water

Construction activities can require both fresh water and in turn generate waste water. It is imperative that proper water management and waste water treatment are carried out to address water scarcity. Moreover, contaminated waste water can have negative impacts on human health and biodiversity if it leaches into the environment.

Construction can draw water from mains supply or via abstraction either from nearby rivers or ground water. Its uses include, but are not limited to, the cleaning of machinery and tools, dust suppression and other general site activities.

Waste water can also be discharged from construction sites. This can come from sanitation facilities and water used for various cleaning jobs.

Risk Management

Client companies should implement the following risk management practices:

- Implement policies aimed at reducing fresh water use including:
 - Rainwater harvesting.
 - Finding secondary uses for waste water, such as cleaning.
 - Installing and maintaining adequate leakage control systems.
- Compare water usage targets with actual performance, to identify areas in which there is excessive water use.
- Ensure that drainage systems are functional to reduce releases to the environment.
- Use waste water settling tanks to separate water from sediment and silt before discharging water.

Cultural Heritage

The IFC E&S Sustainability Performance Standard 8 recognises three types of cultural heritage¹:

- Tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values
- Unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls;
- Certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles

Ghana has ratified seven UNESCO conventions for the protection of its cultural heritage and The Ghana Museums and Monuments Board (GMMB) is the legal custodian of Ghana's material cultural heritage. The GMMB has the power to designate national monuments, thereby giving them statutory protection².

Construction and real estate can potentially pose a threat to cultural heritage if building requires the demolition of tangible cultural monuments, or threatens intangible cultural heritage such as national parks. This may generate negative press coverage and ill will from members of the public.

Risk Management

Client companies should implement the following risk management practices:

- Ensure that construction complies with statutes relating to building and cultural heritage.
- Seek to minimise disruption to cultural heritage during the planning phase of construction operations.
- In cases where construction is deemed to put cultural heritage at risk, develop a management plan for the preservation of cultural heritage which includes:
 - Information gathering on the cultural heritage on question
 - Assessing the significance of this cultural heritage
- Develop a 'chance find' procedure to outline steps that should be taken in the event that unexpected cultural heritage is identified during the construction project.

¹https://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES
²<http://www.ghanamuseums.org/functions-activities.php>

Visual Impact

Construction work can have negative visual impacts. The level of disturbance depends on the characteristics of the land and surrounding area (for instance if construction is in an area of natural beauty then the visual impact will be more severe) as well as the associated new infrastructure.

The National Building Regulations 1996, (LI 1630) contain provisions for areas of scenic attraction and landscape beauty to be earmarked for protection¹. Moreover, the Ghana Building Code 2012 states that “Various activities having impact on health, safety and the environment need to be identified with their likely effects and proposed preventative and corrective interventions, together with the concerned statutory obligations”².

Risk Management

Client companies should implement the following risk management practices:

- During planning phases, ensure that sufficient consideration is given to the landscape and how changes to it could impact the nearby environment and local communities.
- For all new projects, ensure that all potentially affected parties are given the opportunity to communicate their views to regulators and planners.
- Revegetate disturbed areas with native flora, helping to rehabilitate unsightly landscapes.

¹ [http://www.townplanning.gov.gh/files/NATIONAL%20BUILDING%20REGULATIONS%201996,%20\(LI%201630\).pdf](http://www.townplanning.gov.gh/files/NATIONAL%20BUILDING%20REGULATIONS%201996,%20(LI%201630).pdf)

² <https://www.scribd.com/document/266325649/Ghana-Building-Code-Part-11>

Key E&S Opportunities

There are also a variety of opportunities for construction and real estate clients to deliver positive E&S impacts which can benefit their financial bottom lines and engender good will.

In turn, these benefits to construction and real estate sector clients can also lead to benefits to banks in the form of:

- **Increased revenue and profitability from working with clients that have strong, sustainable financial positions;**
- **Increased business opportunities for work with new clients that arise as a result of working in strong sustainable, affluent communities; and**
- **Improved reputation from working with clients who effectively manage E&S issues.**

In order to benefit from these opportunities, banks must first encourage their construction and real estate sector clients to pursue the opportunities specific to their sector, which are detailed below.

Opportunities that may improve a client's profitability include but are not necessarily limited to:

- Optimizing construction designs to maximise usage of purchased materials to avoid waste.
- Promoting the development of rent-to-own housing schemes to facilitate early access to housing properties for low income earners.
- Upgrading and transforming of existing housing stock into apartments to save on demolition and/or land conversion costs.
- Investing in rehabilitation of abandoned properties in rental housing units to save on demolition and/or land conversation costs.
- Investing in quality construction materials to save costs associated with poor quality materials (e.g. costs of fixing structural issues from use of poor quality materials)
- Adopting a robust talent management systems, focused on recruiting and retaining the individuals who will add most value to businesses.
- Installing smart technology can improve on building efficiency and save operational costs.

Opportunities that may strengthen communities and lead to improved reputation:

- Constructing and making accessible affordable housing units to the low income earners.
- Providing spaces for active and passive recreation in neighbourhoods and communities.
- Consulting, training and involving communities and households to offer services in development, maintenance and monitoring of infrastructure projects in their localities.
- Encouraging the participation of women, youth, and the unemployed in community-based infrastructure development programmes using labour intensive methods where appropriate
- Climate proofing assets against flooding or avoiding construction in flood plains, integrating renewable energy and exploring the green code for buildings could increase resilience of assets and help improve the brands association with environmental consciousness and integrity.

Due Diligence Questions for Clients

- Do you have non-zero accident targets for workers?
- Do you offer health and safety training to workers?
- Do you have emergency response procedures in place in the case of any accidents?
- Have you conducted hazard assessments in line with international standards and methodologies such as the Hazardous Operations Analysis (HAZOP)?
- Do you have a board member dedicated to addressing E&S issues?
- Does your company have any links between E&S performance and executive compensation?
- Do you have a code of conduct?
- Have you had an environmental impact assessment, if so how did you perform, if not then why not?
- Do you operate in a stable ecosystem or one with biodiversity risks?
- Are you aligned with the Voluntary Principles for Security and Human Rights?
- Are you compliance with Ghana's *Labour Act, 2003*?
- Have you had any local community opposition?
- Do you have a system in place to respond to community grievances?
- Do you have a management plan for the preservation of cultural heritage?
- Have you incurred any environmentally or socially related fines in the last 5 years?
- Do you have recognized certifications of your operating system e.g. ISO 14001 (environmental management) and/or OHSAS 18001/ISO 45001 (health and safety management)?

Key Performance Indicators

- Release of sulphur oxides (SOx), nitrogen oxides (NOx) and volatile organic compounds (VOCs)
- Presence and performance on environmental impact assessment(s)
- Water consumption
- Number of incidents
- Number of injuries
- Number of fatalities
- Number of near misses
- Cases of employee opposition
- Cases of local community opposition and complaints
- Number of fires and explosions
- Release of hazardous waste
- Human rights incidents
- Adherence to Voluntary Principles for Security and Human Rights
- Fines incurred in the last 5 years

Sources for Additional Information

For further reading banks may find resources from the following organisations useful:

- IFC Environmental, Health and Safety Industry Sector Guidelines (http://www.ifc.org/wps/wcm/connect/Topics_Ext_Content/IFC_External_Corporate_Site/Sustainability-At-IFC/Policies-Standards/EHS-Guidelines/)
- IFC Performance Standards on Environmental and Social Sustainability (https://www.ifc.org/wps/wcm/connect/c8f524004a73daeca09afdf998895a12/IFC_Performance_Standards.pdf?MOD=AJPERES)
- EBRD Sub-sectoral Environmental and Social Guidelines (<http://www.ebrd.com/who-we-are/our-values/environmental-emanual-toolkit.html>)
- Ministry of Water Resources, Works and Housing (<http://www.mwrwh.gov.gh/>)
- Ghana Real Estate Development Association (<http://www.gredaghana.org/>)
- Ghana Green Building Council (<http://www.ghgbc.org/>)