RESPONSIBLE BUSINESS BEST PRACTICE TOOLKIT
FOR THE
LAND, CONSTRUCTION AND REAL ESTATE SECTOR

Consultation Document
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1. ABOUT THE BEST PRACTICE TOOLKIT

1.1 Definitions

In the context of this publication the terms listed below are defined as follows:

**Corporate Sustainability:** Refers to a company’s delivery of long-term value in financial, social, environmental and ethical terms

**Global Compact:** Refers to the United Nations Global Compact

**Global Compact Principles:** Refers to the United Nations Global Compact's Ten Principles in the areas of human rights, labour, the environment and anti-corruption derived from The Universal Declaration of Human Rights, The International Labour Organization's Declaration on Fundamental Principles and Rights at Work, The Rio Declaration on Environment and Development and The United Nations Convention Against Corruption

**Guiding Principles (GPs):** Refers to the UN Guiding Principles on Business and Human Rights

**Issue Areas:** Refers to the four UN Global Compact issue areas which form the basis of the UN Global Compact Principles: human rights, labour, environment and anti-corruption

**Life Cycle:** Refers to the Land, Construction and Real Estate life cycle comprising three phases: Development, Real Estate Use and Recovery & End of Life

**Sector:** Refers to the Land, Construction and Real Estate Sector

**Toolkit:** Refers to this UN Global Compact / RICS Best Practice Toolkit for the Land, Construction and Real Estate Sector
1.2 Context: challenges facing the Land, Construction and Real Estate Sector

Companies operating in this sector face both challenges and opportunities when implementing the UN Global Compact Principles and, there is a varying degree of engagement with the Global Compact Issue Areas. In connection with the preparation for the development of this Toolkit, desk research was carried out to identify gaps and opportunities for the sector. The findings indicated that environment issues featured most prevalently in the policy priorities of companies in the Sector, while human rights issues and social issues were given less attention. This is not surprising as not only is the natural environment vital to people’s health and prosperity, but in recent years an increasingly stricter policy framework has led to greater engagement of companies on environment issues.

However the aforementioned desk research underlying this Toolkit and conversations with sectoral stakeholders clearly indicated that human rights, labour and anti-corruption also present major challenges. In particular, corruption-related issues which often impact the other issue areas warrant significantly more attention than they currently receive. This Toolkit acknowledges regional and national differences between companies as to the particular issues they face and the type and level of their engagement in each issue area. It demonstrates how all four of the Global Compact Issue Areas, and the practical measures for addressing them as set out in this Toolkit, are of universal relevance. The aim therefore is to illustrate the importance of the Global Compact Principles to every company operating in the Sector irrespective of its stated corporate policy or the geographical location of its operations.

The individual critical issues that are listed under each phase in the Toolkit are based on an extensive issue mapping and issue prioritisation with the Toolkit project’s sectoral Steering Group, comprising Global Compact participants from the areas of real estate, development, finance, investment, construction, research and training, and a dedicated RICS member expert group working in Land, Construction and Real Estate. This guide seeks to feature some of the most high-impact and critical issues facing the sector. However, the list of issues is not to be taken as a comprehensive or exhaustive one. While the issues identified are particularly relevant to the sector in general, other risks may be more salient in specific operating contexts. Therefore companies in the sector should have processes and systems in place to identify potential or actual impacts across social and environmental issues, before narrowing down on the most salient risks in the specific context.

1.3 Purpose of the best practice Toolkit

The Best Practice Toolkit has 5 key objectives:

1. To identify sectoral challenges (risks) and opportunities around (non-)implementation and (non-)application of the Global Compact Principles by embracing a holistic approach through the linkage of all Global Compact issue areas and highlighting the cumulative impact of these issue areas across the entire Life Cycle.
2. To highlight the business case of implementing and applying the Global Compact Principles by building on operational aspects such as brand management, marketing sales and risk mitigation through awareness raising of actors who currently lack knowledge on the issues or on the impact their activities yield within the property life cycle.

3. To define risk identification and corporate sustainability management in terms of the Sector and develop a set of best practice action items for implementing and applying the Global Compact Principles by adopting a ‘practical user-friendly life cycle’ approach that can serve as a filter to corporate functions, operations and risk assessment processes by answering the question of ‘how can companies within this Sector implement the Global Compact Principles (e.g. integration into risk management processes, operations, KPIs, etc.).

4. To provide a comprehensive overview of existing sector relevant UN initiatives and deliver a corresponding holistic set of practical resources by drawing on existing key sectoral initiatives that are adopted at a global scale.

5. To showcase selected and balanced best practice examples to appropriately illustrate the diversity of issues and priorities based on geographic and social differences.

1.4 Toolkit target audiences

The aim of this Toolkit is to appeal to all actors across the value chain by drawing from the business case and value proposition of integrating sustainability into operations and strategies. It reflects an understanding of different key actors’ varying priorities, interests, opportunities, challenges and risks at different points in the life cycle. It is meant not only for those companies directly operating in land and real estate development, planning, design, construction, real estate management, demolition and remediation but also for downstream users, namely those companies that either use, commission, occupy or invest in real estate assets throughout the life cycle and those who act as the sector’s advisors and materials suppliers. The key issues highlighted in the three Life Cycle chapters refer both to residential as well as commercial and public sector buildings and their respective stakeholders.

1.5 How to use this Toolkit

This Toolkit fully acknowledges that depending on size, location and available resources, companies may be at different stages with regard to engagement with the Global Compact issue areas. Some companies might be at the beginning of their journey to implement the Global Compact Principles. Others, might have been early adopters or sectoral champions, having already implemented a number of the recommended action items in their daily business routines and may use this Toolkit to identify further improvement opportunities with regard to their corporate sustainability performance.

Against this background, actions companies can take have been graded accordingly: ‘should’-action items would be those that are considered necessary for all companies to meet their social and environmental responsibilities and to adhere to the Global Compact Principles; ‘could’-action items signal practices that today may be considered as leading or even pioneering, but that
may become mainstream over time. This might include practices that because of their complexity, technologically advanced nature or the required skill sets might still be considered not applicable in all settings or because of their current high cost be prohibitive for small and medium sized enterprises or companies located in developing countries.

The approach taken with this Toolkit is rooted in the **UN Global Compact Management Model**\(^1\) (the **Model**), a practical yet comprehensive tool to help companies evolve their sustainability efforts. Comprised of six management steps, it guides companies of all sizes through the process of formally committing to, assessing, defining, implementing, measuring and communicating a corporate sustainability strategy.

The Model is flexible and should be used to guide annual strategy planning and execution efforts in relation to integrating the Global Compact Principles, forming a response to ad hoc issues, or a combination of these elements. The Model is developed to be adaptable to these different usage scenarios.

While each of the Model’s steps (see figure 1) provides an essential piece to support a company’s corporate sustainability efforts, companies might benefit from customizing the order of steps to meet their specific needs. For example, a company might communicate the findings of its assessment to stakeholders, prior to defining its initial sustainability strategy. In addition, companies can also work through two or more of the Model’s steps at the same time.

**Figure 1: UN Global Compact Management Model**

The Model has been developed in the context of the Global Compact Principles, which are also the focus of this Toolkit. However, companies should also refer to other authoritative global standards for particular issues. For example, in the area of human rights, the UN Guiding Principles on Business and Human Rights define the corporate responsibility to respect human rights, which applies to all companies regardless of size, sector, location, ownership or structure. This framework sets out a due diligence process to identify, prevent, mitigate and account for
potential and actual human rights impacts. The due diligence process can be linked to steps of the Management Model but is also a separate responsibility of all companies. Companies in OECD countries should furthermore look to the OECD Guidelines for Multinational Enterprises\(^2\), which set out a due diligence approach to all social and environmental issues. Depending on the national and regional context, companies may also need to look to additional standards.

**Box 1: Respect and Support for Human Rights**

Corporate sustainability – defined as a company’s delivery of long-term value in financial, social, environmental and ethical terms – entails both **respect** for universal principles and baseline standards in these areas, as well as proactive **support** for a sustainability agenda. For social issues, including human rights and labour rights, the respect and support notions are illustrated below.

**Respect and Support for Human Rights:**

**THE CORPORATE RESPONSIBILITY TO RESPECT** The UN Guiding Principles on Business and Human Rights\(^3\) establish the responsibility to respect human rights as the minimum global standard of expected conduct for all business enterprises wherever they operate. The Guiding Principles provides that all businesses have a responsibility to avoid causing or contributing to adverse human rights impacts through their own activities and to address such impacts when they occur, as well as to seek to prevent or mitigate adverse impacts that may be “directly linked” to their operations, products or services through a business relationship, even if they have not caused or contributed to those impacts. This responsibility applies to all internationally recognized human rights. Implementing the Guiding Principles will help companies to meet their commitments to respect human rights and avoid complicity in human rights abuses as per Global Compact Principles 1 and 2, but the responsibility also applies independently of such commitments.

**THE CORPORATE COMMITMENT TO SUPPORT** In addition to the corporate responsibility to respect, the UN Global Compact Principles encourage businesses to take additional voluntary actions that seek to support the promotion of human rights, that is, to make a positive contribution to the realization of human rights especially in ways that are relevant for their business\(^4\). Such efforts can be through core business activities, social investment and philanthropy, public policy engagement and advocacy, and partnerships and collective action. Global Compact companies commit to both respecting and supporting human rights.
2. THE LAND, CONSTRUCTION AND REAL ESTATE LIFE CYCLE

2.1 The Life Cycle phases

For the purpose of this Toolkit, the Land, Construction and Real Estate Life Cycle (the “Life Cycle”) has been divided into three key, interlinked phases: (i) Development, (ii) Real Estate Use and (iii) Recovery & End of Life (each of which contain their own individual processes within the supply chain). As illustrated at Figure 2 below, land should rightly be considered the source of all development, resources, security and wealth and is not only where the Life Cycle originates, but also where it concludes.

Globally, the process of land development takes on a very wide range of characteristics, depending on political and geographically varying factors. The presence of a land reform programme, of indigenous people’s rights and of different planning and building codes may all impact on how land development is approached. In regions of the world where there are extensive areas of natural resources (such as Brazil and Indonesia) it may also influence how land development is implemented and which types of institutions are involved. Thus it may be organised by a specialized company, sometimes with its own financial resources and completely different from the real estate developer conventionally involved with the built environment aspect of development.

Figure 2: The Land, Construction and Real Estate Life Cycle
Each of these three phases consists of individual interlinked stages. Despite the close links between the individual stages of the Life Cycle, in practice due to the fragmented and complex nature of the Sector, each phase and stage will typically involve stakeholders with very different interests and concerns who often do not interact and communicate directly with each other and are often focused only on the issues impacting their individual stage of the Life Cycle. This is particularly true in the case of downstream real estate users who may occupy a building without having detailed knowledge of, and access to, information about that building such as, how the land was acquired, which suppliers and materials were used in its construction, or whether any human rights or labour rights were violated in the process of its development.

This ‘silo-thinking’, for which the Sector is often criticized, also makes the challenges facing it with regard to the practical application of the Global Compact Principles within day-to-day business all the more challenging.

2.2 Individual stages of the Life Cycle phases

Within the Development Phase:

**Land** is a generic term for an area of ground, particularly where used for the purposes of farming or building. The unique characteristics of land compared with other resources: it is fixed/immobile; highly varied in nature/quality/use; it is the base from which all other resources stem; it is often subject to rent/tenure arrangements (unlike other resources which are often only bought & sold); and comes with particular emotional attachments for people as property/territory/etc. Land that has never been developed or used before is often referred to as a greenfield site (typically former agricultural land). Land that previously has been developed or used, typically in an industrial or commercial context, is referred to as a brownfield site.

**Land Status Change** is the process by which the status and use of land is altered through the operation of an official registration/cadastral procedure and a spatial/land-use planning system. One example is the transformation of a greenfield site into farming or development land.

**Land Acquisition** describes the formal procedure of acquiring a site typically either through a process of private negotiation, between a consenting buyer and seller, or through a process known as ‘compulsory purchase of land’ by a public authority following a fair valuation of the land and its assets (such as standing crops).

**Planning/Design** comprises the preparation of a design brief for a development involving the client and future users in consultation with the building design team (typically including an architect, engineer and/or surveyor). The process starts with preparing preliminary design proposals, which are then developed in detail by the building design team. This stage involves the preparation of drawings, cost estimates and tender documents, and ends with the tendering process.

**Approvals** refer to the formal approval documents that are required to be issued under the applicable approvals process in the relevant jurisdiction before development/building can
commence. Approvals typically required include planning consent, environmental impact assessments and conservation certifications, approvals of the project to ensure compliance with land use planning requirements construction codes/building regulations warrants and fire regulation certifications. It is usually the building design team that obtains the official documentation.

**Construction** is a term that describes the process of erecting a building and usually also includes the tendering process that leads to the procurement of a new development contract. This is often undertaken by a main contractor and an associated supply chain of sub-contractors and suppliers, under the supervision of the building development or design team, an independent project manager and health and safety and building inspectors.

**Within the Real Estate Use Phase:**

**Occupancy** refers to the use or intended use of a building. It typically begins at the point where the building is handed over at the completion stage to the owner and/or user(s) and ends when it is vacated.

**Use** is a generic term that describes the utilisation of a building and its associated services on a day-to-day basis by its intended users, normally guided by a facilities management system.

**Operation/Maintenance** refers to the process of servicing buildings so that they continue to operate in a safe and comfortable manner (including cleaning, repair work and other maintenance).

**Within the Recovery & End of Life Phase:**

**Refurbishment/End of Life** is the final stage in a building’s current life cycle. If the building no longer fulfils its economic and/or physical function, there are two fundamental choices:

(a) to refurbish or replace the building, possibly in order to accommodate a change of use; or

(b) to decommission and demolish the building, ideally returning the site to its previous natural or cultural use.
3. THE DEVELOPMENT PHASE

3.1 Introduction

The Development Phase constitutes the first phase of the Life Cycle from the point of land use status change, through the design stage and up to the conclusion of construction. This chapter is aimed primarily at those companies operating in the Development Phase. However, all companies should pay close attention to the issues set out in this chapter, as any material departures from best practice during the Development Phase (such as failing to perform social, economic and environmental impact assessments in respect of the whole Life Cycle, especially with regard to supply chain choices) can potentially have serious implications for those involved in later stages of the Life Cycle. Bad planning and design are very difficult or even impossible to correct at later stages.

Figure 3: The impact of the Development Phase on the individual issue areas
While Figure 3 illustrates the impact of the individual stages within the Development Phase on the four Global Compact issue areas (a dark colour indicates a high impact; a lighter colour means less impact); Figure 4 highlights the 5 key issues identified by sectoral stakeholders as critical for the Development Phase due to their significant impact on the four Global Compact issue areas.

**Figure 4: Development Phase – Five key issues and main Global Compact issue areas impacted**

<table>
<thead>
<tr>
<th>1. Land governance</th>
<th>Human rights, anti-corruption and environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Transparency</td>
<td>Anti-corruption</td>
</tr>
<tr>
<td>3. Fair treatment of workers and abolition of child labour</td>
<td>Labour and human rights</td>
</tr>
<tr>
<td>4. Environmental stewardship</td>
<td>Environment and human rights</td>
</tr>
<tr>
<td>5. Quality of design and construction</td>
<td>Human rights and environment</td>
</tr>
</tbody>
</table>

### 3.2 Five key issues explained and associated benefits and opportunities for business and society

#### 3.2.1 Land governance

Land is the basis of all development and land governance is often one of the most contentious areas, both in the location of sites for development and in the manner in which those sites are then obtained and used. Many of today’s challenges such as climate change, urbanisation, gender inequality, increased demand for natural resources, food, water and energy insecurity, as well as natural disasters and violent political conflict have a clear land dimension.

Developed land refers to real estate with fixed structures and/or infrastructure. With any development, the key issues that need to be addressed relate to present and future ownership and use of land and whether the development is on a greenfield site (i.e. undeveloped land) or a brownfield site (i.e. a site previously developed and used for another purpose). Other major issues to be considered are: expropriation, slum evictions and community relocation; wildlife habitats and biodiversity; and mining extraction.

The voluntary guidelines on the “Responsible Governance of Tenure of Land, Fisheries and Forests in the Context of National Food Security” were developed by the UN Food and Agriculture Organization (FAO) with the aim of reducing poverty and securing basic human rights to occupy, use and own land and other resources in the developing world.
The following cross-cutting issues are crucial with regard to land governance:

a. Acquisition: Appropriation of land, either through acquisition of a formal title or as a right to use land, requires a fair and equitable process to be adopted. The FAO estimates that over the past decade, 227 million hectares of land — an area the size of Western Europe was sold or leased to international investors (mostly within developing countries). Tenure is considered one of the most central and controversial issues in the land acquisition process. Tenure can range from informal intermediate customary forms of ownership through to leasehold and freehold titles. Where the ownership is unclear (frequently because the land is unregistered) and the use of the land is uncontrolled land conflicts can arise. Examples of such “conflicts” include the contentious issues of ‘land grabbing’ and gender-based land ownership discrimination which affects the local community’s access to shelter and to basic resources, on which they are dependent for food security and subsistence.

Companies that are not directly involved in the acquisition of land but depending on their contractors to manage it are nevertheless also responsible in ensuring that this process is fair, equitable and in alignment with national and international standards.

b. Indigenous peoples: There is no single definition to identify indigenous peoples. The United Nations estimates that there are roughly over 370 million indigenous people living in over 90 countries. Their traditional knowledge is an invaluable resource. It is estimated that, while indigenous peoples occupy only 20% of the world’s land surface, they steward 80% of the planet’s biodiversity.

The international standards set by the UN Declaration on the Rights of Indigenous Peoples (UN Declaration), the International Finance Corporation’s (IFC) Performance Standard 6, and ILO Convention 169 all have provisions relating to the customary rights of indigenous peoples to lands, territories and resources.

In particular, the concept of free, prior and informed consent (FPIC) is a fundamental measure adopted by the UN Declaration to ensure that the rights of indigenous peoples are protected. FPIC implies a decision-making right of indigenous peoples to either permit, agree to a modified version, or to withhold consent to a project or activity in relation to certain development projects.

These rights are often put at risk by land development and, in particular, the construction of large infrastructure projects such as dams, ports and major road projects through inadequate engagement and consultation with the affected stakeholders, businesses and local communities. Negative social consequences can include the forced displacement of communities from their traditional lands, and related to this the potential security risks of displaced women and their dependents.

c. Right to shelter: Shelter fulfils physical, psychological, social and economic needs, including the provision of a place to work. As recognised under Article 25 of the
Universal Declaration of Human Rights, every person “has the right to a standard of living adequate for the health and well-being of himself and of his family”.19 Conflicting land interests (often resulting from population growth or intensified economic development) put pressure on this basic right. The negotiation of land agreements in particular can prove challenging when determining how development of the land is likely to affect existing settlements or shelter. Evictions and relocations can result in individuals being rendered homeless or vulnerable to the violation of human rights. Adequate financial compensation or provision of suitable alternative land may satisfy the main owner, but unless formal title to the land is also provided, will not protect the occupants’ rights to shelter.

Box 1: Benefits and opportunities in relation to good land governance

Land is increasingly recognised as an important governance issue. It is also a productive asset for which there are many uses, some of which may involve the protection and conservation of existing traditional uses as well as creating reserves for future development of land.

Good land governance creates secure title, which protects the interests of existing owners while, creating secure opportunities for real estate investment by businesses.

Good land governance also offers reputational benefits and fosters the long-term value of social stability.

The social benefit derives from the acquisition of land based on the fair and equitable negotiated value.

3.2.2 Transparency

Corruption often is defined as “the misuse of entrusted power for private gain.” This convenient shorthand, encompassing myriad illegal and illicit acts, recognises the breadth of the concept, but does not attempt to enumerate acts or precisely delimit their scope. During the negotiations of the UN Convention against Corruption, UN Member States carefully considered the opportunity for the global anti-corruption treaty to provide a legal definition of corruption. Concluding that any attempt at a comprehensive definition inevitably would fail to address some relevant forms of corrupt behaviour, the international community reached global consensus on a large number of manifestations of corruption while leaving each state free to go beyond the minimum standards set forth in the Convention.
The Convention calls for ratifying states to outlaw, at a minimum: bribery of public officials; embezzlement; trading in influence; abuse of function; illicit enrichment by public officials; bribery and embezzlement in the private sector; money laundering; and obstruction of justice. These corrupt actions are spelled out under the chapter of the Convention devoted to criminalization and law enforcement, which explains that corruption is a crime that is wider than bribery and extortion. In accordance with this approach, the 10th Principle of the UN Global Compact calls for companies to work against corruption in all its forms, including extortion and bribery.

According to Transparency International, corruption in the construction industry results in projects which are unnecessary, unreliable, dangerous, and over-priced. This, in turn, can lead to loss of life, poverty, economic damage and underdevelopment.

Transparency International, OECD and the American Society of Civil Engineers estimate that losses due to corruption during the construction process on public infrastructure projects, can range between 10-30% of overall contract values. Globally, the economic cost of corruption and mismanagement is equivalent to 5% of total global Gross Domestic Product (GDP).

Securing a particular contract through corrupt practices (such as bribery) in the context of a tender for example might benefit the winning company in the short term (to the detriment of other, potentially more deserving companies), but once such corrupt practices become commonplace in the industry they will ultimately pose a disbenefit to all concerned, as bribes begin to constitute one of the many ‘costs of business’ associated with the tendering process. Furthermore, these sums will continue to escalate as companies inevitably raise the value of their bribes when competing for new business.

While corruption is a cross-cutting issue that can occur in all phases of the Life Cycle, it is during the Development Phase (whether at the crucial stage of land-use status change or during construction) where heightened attention should be paid to this critical issue. The UN Convention against Corruption (UNCAC) defines specific acts of corruption that should be considered in every jurisdiction covered by the convention. Amongst these are: bribery, embezzlement, money laundering, concealment, obstruction of justice.

The following are some of the more common bribery and collusion issues affecting the sector:

a. **Bribes/Facilitation payments:** A bribe is an illegal payment from one party to another, usually in return for a legal or financial favour or other service. In the practical context of development this may include so-called ‘gifts’ to officials. Potential conflicts of interest may include activities such as police road blocks, charging illegal site entry gate fees and tacit complicity in the minor theft of materials delivered onto construction sites. Although these activities may occur on a small scale, they can have a substantial impact on the costs of construction. They also can cause delays to contract completion.

Corruption frequently starts with the bribing of local officials responsible for issuing planning and construction consents. The making of such bribes (or “facilitation payments”, as they are sometimes known) is particularly damaging where it induces local officials to circumvent the rights of local communities or to permit the misappropriation
of bio-habitats or protected natural resources (e.g. fresh water sources and forests), to facilitate a land sale or lease. Based on a survey of more than 114,000 respondents in 107 countries, Transparency International’s “Global Corruption Barometer 2013” reported that one in five respondents stated that they had paid a bribe related to land administration services.

b. **Bid-rigging**: Bid-rigging refers to the placement of bids for a construction contract based on the use of illegal insider information. The incorrect structuring of the tendering process for construction contracts can create a situation where bid-rigging can occur, including by officials taking ‘kickbacks’ in exchange for confidential information on competing bids or giving certain bids preferential consideration. Bid-rigging can also occur through potential contractors colluding to fix rates before tendering.

Corruption can also lead to the use of substandard building materials or construction techniques, resulting in an unsafe or substandard structure.

**Box 2: Benefits and opportunities in relation to transparency**

Proactively fighting corruption provides both strategic and reputational advantages for a company. Any action taken may be outwardly viewed as a tangible example of a company’s commitment to corporate and social responsibility.

Commitment to adopting anti-corruption practices may provide further benefit, as third party stakeholders such as investors, non-governmental organisations, regulators, clients and downstream users will recognise a company’s emphasis on positive and sustainable business behaviour.

When viewed in this way, adopting anti-corruption practices not only helps to create a level playing field amongst competitors but also avoids unnecessary additional business costs, encourages innovation (as companies seek other ways to stand out from their competitors), keeps costs down for all concerned and avoids putting additional pressure on poor communities to pay bribes for basic services and rights.

Given the extent to which corruption hinders economic development, especially in developing countries and those living in poverty, all corners of all society stand to gain from increased transparency in the Sector and better land governance generally.

In addition, the World Bank CoST (Construction Sector Transparency) initiative lists the following benefits:
- greater confidence that a 'level playing field' exists,
- the potential to invest in new markets based on fair competition,
- a more predictable business environment and improved levels of trust, and
- reducing reputational risk and improved access to financial markets.
3.2.3 Fair treatment of workers and abolition of child labour

According to the International Labour Organization all workers, male and female, have the right to be treated in accordance with international labour standards.24 This can prove challenging in the context of construction where there are an estimated 110 million formal construction workers across the globe and an equivalent number of those working informally, most vulnerable to human rights abuses.25 The construction sector is also characterized by unskilled or semi-skilled workers who learn mainly through on-the-job training. Many workers are paid below minimum wage and are forced to work beyond standard work hours. Given the inherent risks involved in certain parts of the Development Phase, particularly construction, all businesses operating in this phase should take action to ensure the fair treatment of all workers, and in accordance with the Decent Work Agenda set forth by the International Labour Organization, provide opportunities for decent work.26

The following issues identified in international labour standards are the most relevant for the Development Phase.

a. **Freedom of association and collective bargaining**: Workers should have freedom of association and the right to collective bargaining.27 Freedom of association “implies a respect for the right of all employers and all workers to freely and voluntarily establish and join groups for the promotion and defence of their occupational interests.” An essential element in freedom of association is collective bargaining which is defined as “a voluntary process through which employers and workers discuss and negotiate their relations, in particular terms and conditions of work.”28

The treatment of unionised workers is an area of particular concern in the Sector, especially the practices of ‘blacklisting’ of unionised workers and ‘double-breasting’. These practices can infringe on the ability of workers to exercise these rights. ‘Blacklisting’ involves the naming of persons who are involved in trade unions or who have actively raised concerns about a company’s operations on a list shared with other companies to prevent such persons from gaining employment. Businesses found to be guilty of blacklisting have faced being barred from public contracts, being prosecuted under data protection legislation and have had to pay into compensation schemes set up to help the victims of such practices.

In cases of ‘double-breasting’ a multi-establishment employer runs both unionised and non-unionised operations and is often used, to the detriment of workers, to side-step agreed labour contracts especially in the construction industry.

b. **Non-discrimination**: Discrimination is defined as “any distinction, exclusion or preference made on the basis of race, colour, sex, religion, political opinion, national extraction or social origin, which has the effect of nullifying or impairing equality of opportunity and treatment in employment or occupation”29.

Particularly in terms of gender equality, the construction sector remains male dominated, due largely in part to the “mainstream notion of it being an industry appropriate only for men”30. Gender discrimination, within the sector, results in low labour force participation...
rates for women due to significant barriers, including gender biases and unequal pay. For example, in the US only 9% of the construction workers are women and this figure is even lower on a global scale.

In addition, construction workers particularly face discrimination based on their race, social origin or national extraction as seen with migrant workers who are more vulnerable to human rights abuses.

c. **Occupational safety and health:** Companies should establish practices to ensure a safe and healthy work environment in accordance with international labour standards. More GDP is lost globally in work-related injuries and diseases than that of the entire GDP of Africa, the Arab States and South Asia combined and is more than all official development assistance to the world's developing countries. According to the ILO, at least 60,000 people are killed globally every year on construction sites. The construction industry accounts for almost one in five of all fatal workplace accidents. The main causes of death and injury are falls, crushes, impacts and electrocution. Common health problems caused by working in construction for example through exposure to hazardous substances such as solvents and asbestos include deafness and musculoskeletal disorders. This issue is exacerbated in countries where construction workers represent a large portion of the overall workforce. The treatment and conditions of workers involved in the construction supply chain, such as in the extraction and production of construction materials, especially overseas, is often difficult for developers to monitor.

Failure to provide safe working conditions and the resulting subsequent injuries to, and deaths of, employees is an issue that gains great attention from the press and from international lobbying groups. There is also the immeasurable human suffering caused by death and injury, and the economic costs of absenteeism, work stoppages, construction delays, and turnover of workers.

d. **The rights of migrant workers:** International labour standards provide for the specific protection of migrant workers. Migrant workers in the construction sector are at particular risk of human rights violations, including those involving forced labour where people are working against their will or bonded labour as a means for the repayment of a debt. Particular areas of concern are excessive working hours, poor living conditions, threats of non-payment and deportation, the illegal retention of identity documents and the withholding of salaries, the charging of recruitment fees to workers, the exploitation of women, and the procurement of workers from recruitment agencies engaged in bonded labour or human trafficking.

The plight of construction and material extraction site workers (particularly migrant workers) suffering such inhumane treatment are coming under increasing legal and media scrutiny around the world. These practices not only impact the affected workers and the reputation of the companies involved (including those companies working with, or obtaining supplies from, companies that inadequately protect their migrant workforce) but also the international reputation of the Sector generally.
e. **Child labour:** Child labour is work that is harmful to the physical, social, mental, psychological and spiritual development of children, often depriving them of education and exposing them to work that is likely to endanger their health and safety. Child labour is another significant issue in the Sector, particularly in relation to raw material sourcing and procurement within the supply chain. Child labour is illegal in most countries. Companies that employ child labour or transact with those that do along the supply chain will become implicated in allegations of complicity in human rights abuses. The responsibility to “respect” human rights, as highlighted in the Guiding Principles, entails companies to ensure that there is no child labour in their supply chains.

**Box 3: Benefits and opportunities in relation to fair treatment of workers and the abolition of child labour**

Providing fair working standards for construction workers and generating financial profit for construction companies and developers should not be seen as incompatible objectives. Prioritising the health and safety of its own workers has a number of obvious benefits to a company, including improving employee productivity, reducing staff turnover, improving recruitment rates, reducing insurance premiums and the legal costs associated with accidents, and improving the reputation of both the company and the Sector generally.

Good human rights practices can help attract new business, including public sector procurement contracts. There is an increased consumer demand for buildings that have been constructed in a socially responsible manner. Land and property users will increasingly seek assurances from developers that workers’ welfare was properly protected during the relevant development works and that children’s rights have been respected.

In addition to ensuring that company policies, practices and operations respect the human rights of workers and other stakeholders, the development industry should also consider opportunities to advance human rights and support marginalised groups such as women, children and indigenous peoples. In particular, women’s empowerment should be supported by creating greater employment opportunities. Doing so can result in positive business impacts by broadening the pool of the potential workforce, including key specialists. International companies can also have a direct impact on child welfare by refusing to engage with businesses that employ child labour, thereby exerting influence and promoting change in areas where child labour is not yet adequately policed.

Training and capacity building of its workers offers companies the benefit of having a better skilled and more knowledgeable workforce which can also lead to higher motivational levels.
3.2.4 Environmental stewardship

According to a Global Compact strategic guidance document for corporate leaders ‘environmental stewardship is defined as the comprehensive understanding and effective management of critical environmental risks and opportunities related to climate change, emissions, waste management, resource consumption, water conservation, bio-diversity protection and ecosystem services.’

Natural resources include not only air, fresh water, land, bio-habitats and living organisms that can be found within the environment, but also non-renewable resources such as metal ores, crude oil and gas.

The physical development of land (and water) resources has the potential to cause a wide range of direct and indirect effects on ecosystems and bio-diversity. Examples include over-exploitation of resources and toxic pollution, causing flora and fauna habitat damage and contributing to climate change. The mismanagement of natural resources also negatively affects families, communities and countries. Marginalized groups such as women and indigenous people, who heavily depend on natural resources, are often most severely affected.

The construction sector is both one of the largest natural resource consumers and one of the largest global contributors of waste. Among 27 of the EU member countries, for example, construction activities account for around 37% of the total amount of waste generated in those countries, and when combined with mining and quarrying, accounts for 66% of the total. In contrast, household waste accounts for less than 10% of the waste generated. Accordingly, successful resource management and waste reduction processes are critical during the whole Life Cycle, but especially during the Development Phase.

The following are some key underlying issues to take into account:

**a. Fly-tipping or illegal dumping:** Illegal dumping, also known as fly-tipping, is the depositing of waste materials onto private or public land which is not licensed to accept waste. Minimising instances of such illegal dumping should be the responsibility of those that produce the waste as well as of the landowners of sites where the waste is dumped. Illegal dumping not only results in harm to the environment and to public health, but also results in damage to the companies engaging in illegal dumping, through the risk of substantial fines and, in some countries, the imprisonment of those involved.

**b. Natural resources consumption:** Over 90% of non-energy minerals (such as stone, sand and gravel) extracted in the UK are used to supply materials for the construction industry. In the UK this is equivalent to more than 400 million tonnes of construction materials each year, making it the nation’s largest consumer of natural resources.

**c. Choice of design and construction materials:** Important choices need to be made during the design phase of any development project regarding use of materials. Inappropriate decisions here can result in significant waste, carbon emissions and pollution.
Furthermore, as more and more green land gets developed, the way rainwater maintains landscapes gets fundamentally altered as well. Increased levels sealed soil through impermeable hard standing areas, such as paved surfaces and roof intercept and redirect surface water run-off before it has a chance to infiltrate naturally into the ground. This creates a number of problems, which are likely to get worse as global development continues, such as flooding and water pollution caused by pollutants being transported into surrounding water courses. An additional and often overlooked problem created by increased drought risk resulting from water being diverted away from its intended course or being prevented from entering the water table. And finally, the choice of materials can also impact the development of urban heat islands that can potentially affect human thermal comfort, urban air and water quality, and the energy use of nearby buildings due to increased need for air-conditioning.

Material selection usually requires a balance to be struck between renewable materials (such as sustainably-sourced timber, natural oils and renewable energy) and non-renewable construction resources (such as aluminium, copper and zinc) and is also influenced by functional needs. The long-term asset value of a building depends on its longevity and on, its ability to satisfy user needs, to cope with the changing environmental conditions and survive the evolving expectations of design quality. Any such analysis should reflect the interaction between design and material choices (i.e. the potential trade-offs between design/development and use phases). Ideally this analysis should be based on a Life Cycle Assessment (LCA) over the full building life cycle.

d. **Supply chain effects:** Around half of all non-renewable natural resources are used in land development and construction, either as manufactured materials or in associated transportation. Many construction materials are extremely energy and water intensive in their production, and are becoming exceedingly scarce.\(^{40}\) The choice of construction materials should accordingly take into consideration supply chain requirements with respect to fuel, water and resource use. Issues such as whether the relevant material needs to be transported long distances and whether there are prescribed targets by the supplier for minimising its environmental impact are relevant to such supply chain considerations.\(^{41}\) An LCA would take this into account.

e. **Energy conservation:** This is an essential pillar of resource management and an integral part of development assessment processes. Energy conservation efforts are affected by the choice of materials and the level of energy consumed due to location, transportation and density of development and design.\(^{42}\) Project design ultimately affects energy use, e.g. typically more than 80% of all energy consumption occurs in the use phase, but design and construction largely define that use phase energy efficiency.

f. **Water conservation:** This is a consideration when choosing construction materials as significant quantities of water are used, for example, in the mixing of concrete and plaster. Disposal of grey and black water, consumption of potable water on site and potential flood risk management are also key issues. These issues are typically given inadequate consideration during the design stage resulting in a failure to maximise conservation benefits or minimise the potential future impact of the relevant development. Project
design decisions relating to the building and its grounds also affect ongoing water use and storm water management.
Box 4: Benefits and opportunities in relation to environmental stewardship

Environmental stewardship that treats natural resources as assets that need to be carefully managed (e.g. by applying LCA to minimise environmental impact) has the following benefits:

- Compliance with existing and foreseeable regulatory frameworks
- Reputation and image gains
- Contribution to intergenerational equity
- Resource protection and security
- Disaster risk reduction
- Contribution to health and well-being of communities
- Climate change mitigation

3.2.5 Quality of design and construction

Lack of existence or enforcement of safety standards and use of poor construction materials or practices represent a critical issue for development companies. When problems with dangerous structures come to light (such as a building collapse) the resulting impact on human life can be devastating and often receives international attention, causing reputational damage to the companies involved, including downstream users. Additionally, if materials used in construction are toxic, local communities can be negatively affected, particularly the elderly, children and childbearing women. These incidents often result from conflicts of interest between regulatory responsibilities of public authorities as independent and credible regulators, their land development powers and the private sector developer’s interests.

a. Construction materials: Cases usually involve the use of poor quality (and cheaper) construction materials. This issue is particularly important to construction companies but also is relevant to those organisations operating in the planning and approvals stages.

b. Safety testing reports: One such example is the falsification of safety testing reports typically of tests of concrete strength and geotechnical/soils data (indicating whether the soil upon which the building will be built is sufficiently strong to take the load of the structure).

c. Building codes: To achieve construction quality, adequate and effective building codes are necessary. The issue behind inadequate building practices is not necessarily the lack of codes, but their being out of date and/or not being enforced. Regulatory approval systems often lack clear processes for ensuring compliance with building standards at key points in the development process, such as foundation excavation and practical completion of projects. In addition, mechanisms requiring a formal ‘hand over’ process upon completion rarely exist. Most constructors walk away from a project once completed without ensuring that the building functions as intended. Therefore, while the
design solution may have been certified, the performance during occupation (the Use Phase) has not.

Other common issues include the lack of appropriate accreditation standards for many construction industry professions to ensure that those who commit malpractice or grant approvals which exceed their professional competency cannot continue to practice. Many countries face a shortage of practicing building inspectors and those building inspectors that do work with local authorities may have little practical site experience, may be employed in roles unsuitable for their qualifications or may lack opportunities for obtaining ongoing continuing professional development.

**Box 5: Benefits and opportunities in relation to quality of design and construction**

Adhering to best practice procedures in construction provides companies with the opportunity to tender on a level playing field. The cost of insurance will also likely decrease through quality construction and the use of ethically-sourced materials. This has economic and environmental advantages for construction companies, developers and downstream users. Not only will it ensure that buildings are safe for future occupants and users, it will also ensure the longevity of an extremely expensive investment.

A well-constructed building is also likely to be a more sustainable building by attracting prospective buyers or tenants. It will also defer the building’s obsolescence and may determine whether it will be rebuilt, rehabilitated or demolished at the end of the Life Cycle. Good architecture and aesthetics also carries a value both to business and communities both at the individual building and the public space level.

It should therefore be in the interests of not only those companies operating in the Development Phase but also those active in the Real Estate Use Phase to bring about positive change in this area.

### 3.3 Practice examples and case studies

[To be completed after the public consultation of this document]
3.4 Five action items

Businesses are encouraged to:

I. Carry out an adequate environmental impact assessment at the point of land status change and at the design stage

Envisaging responsible resource management measures at the planning and design stage and subsequently implementing these measures during the construction process is easier and more cost-effective than implementing such measures post-project completion.

Companies should carry out a full LCA over the building’s life cycle.

Companies should carry out early environmental impact assessments during the planning and design process to develop adaptation strategies, particularly an adequate analysis of expected in-use energy consumption and related GHG emissions.

Environmental impact assessments should:

- explore measures aimed at the minimisation of embodied carbon emissions of construction elements
- investigate the potential of energy conservation
- consider the installation of renewable energy sources
- consider sustainable material selection
- analyse how recycled/bio-degradable content can be maximised
- take into consideration water management principles (e.g. rainwater harvesting, grey water treatment and reduction in potable water use).

Companies should adopt land development practices that protect existing bio-diversity, promote regeneration of bio-diversity and facilitate sustainable natural resource management, whether of land, fisheries or forests.

Companies should seek to ensure that their own responsible resource management practices extend to their suppliers and contractors and should confirm that the entity taking receipt of their waste is properly licensed to do so.

Companies should implement environmental stewardship strategies to mitigate climate change and to address the impacts of climate change in planning and resource allocation and optimisation, while integrating adaptation strategies.

Companies could provide appropriate training to workers especially to those in small- and medium-scale enterprises to consider the environment in their daily working practices.
Box 6: Relevant UN resources and tools

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
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</table>

II. Enter into an open dialogue with local stakeholders at the point of land status change and at the design stage

Companies should carry out a thorough social impact assessment which covers the protection of human rights, including those of indigenous peoples. The first step companies should take is effective consultation with all stakeholders. This should involve the development of grievance mechanisms/complaint processes that seek to fairly resolve the concerns and disputes of individuals, workers or communities. Any decisions with regard to land development ought to be based on free, prior, and informed consent.

Companies should take extra care to ensure this consultation adequately addresses the concerns of women, children and other commonly marginalised groups.

Companies should ensure equitable land acquisition. Compensation for any land that is acquired should be based on the market value of the land (which may also include special ex gratia payments, such as for the loss of value of crops).

Companies should explore whether the land is actually required for the purposes of the development before progressing to negotiations and potentially displacing current inhabitants. In many cases a sustainable alternative may be available, such as negotiating a right of access with the existing owners or providing adequate compensation to owners and occupiers where land is acquired. Providing employment opportunities for local communities is another common means of providing adequate compensation.

Companies could to the extent possible, hire local labour from nearby settlements to bring benefits to the local community, with multiplier effects in local economic development.
**Box 7: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Women’s Empowerment Principles</td>
<td><a href="http://weprinciples.org/">http://weprinciples.org/</a></td>
</tr>
</tbody>
</table>

**III. Make responsible supply chain choices that aid the protection of human rights and the environment**

**Companies should** carry out a thorough risk assessment of the impact their own overall business activity has on human rights and the environment and the impact of those within their supply chains. Once these risks have been mapped, suppliers should then be encouraged to develop their own internal environmental and human rights policies. A responsible corporate procurement policy would include a stipulation that the company will only enter into business arrangements with other companies that have a proven track record of meeting certain standards with regard to the fair treatment of workers and protection of the environment.

**Companies should** include the protection of children in such policies and should avoid being inadvertently complicit in any engagement of child labour. In cases where a company finds presence of child labour, the company should first engage with the suppliers, and ensure that alternatives are provided for the family that potentially relies on the income that their children are bringing into the families. Companies should engage with and influence their suppliers through capacity building and empowerment. Disinvesting in a supplier for not complying with a company’s standards should only be a last resort.

**Companies should** be especially diligent when dealing with suppliers or sub-contractors who operate in jurisdictions where child labour is not illegal or is not adequately monitored.

**Companies could** ensure that main contractors make responsible supply chain choices, with regard to sub-contractors to ensure full compliance with labour rights and improper occupational health and safety regulations.
Companies could have an open dialogue with regard to contracting arrangements affecting environmental and human rights issues with their clients, investors and donors, thereby not only influencing their own direct operations but also practices within the whole Sector, at all stages of the supply chain.

**Box 8: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
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</thead>
<tbody>
<tr>
<td>Addressing the Retention of Identity Documents</td>
<td><a href="https://www.unglobalcompact.org/resources/781">https://www.unglobalcompact.org/resources/781</a></td>
</tr>
<tr>
<td>ILO Helpdesk</td>
<td><a href="https://www.unglobalcompact.org/resources/75">https://www.unglobalcompact.org/resources/75</a></td>
</tr>
</tbody>
</table>

**IV. Actively fight corruption at all levels**

The key to the prevention of corruption lies in removing the opportunities for individuals to engage in, and benefit, from corrupt practices within a system by putting in place control mechanisms through internal procedures. Corruption thrives where there is a lack of institutionalised checks on power and where the decision making process is not transparent. The UN Convention against Corruption[^43], is the underlying legal instrument for the Global Compact’s 10[^44]th Principle. Although the Convention is legally binding only on countries that have ratified it, its values and principles are applicable to the widest spectrum of society, including the business community. The principles enshrined in the Convention can serve as an inspirational tool for companies adopting or reviewing internal anti-corruption policies, strategies and measures. The 10[^44]th Principle of the Global Compact calls for companies to work against corruption in all its forms, including extortion and bribery[^44].

The Extractive Industries Transparency Initiative was launched in 2003 for the extractive industries sector (which includes some quarrying activities related to construction). The construction industry, however, has yet to establish protocol on transparency, although the World Bank - supported Construction Sector Transparency Initiative (CoST) programme[^45] is seeking to improve transparency for the construction of public infrastructure. Even in the absence of a specific protocol, there are a number of practical steps that companies can take to deter government officials, sub-contractors or suppliers from bribery.
Companies should put in place control mechanisms and systemic barriers to prevent people from having the opportunity to engage in, and to benefit from, the abuse of their power. This can be achieved by structuring bids/tenders in the form of sealed bids that are opened in public or by an online anonymous application procedure.

Companies should adopt a project-by-project process with regard to fighting corruption. Within that process Transparency International advises following their three guiding principles: build partnerships, proceed step-by-step, and stay non-confrontational.

Companies could jointly promote ‘collective action through measures such as integrity pacts, anti-corruption declarations, certified business coalitions, principle-based initiatives and education and training with representatives from government, the private sector and civil society.

Box 9: Relevant UN resources and tools

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Compact Anti-Corruption Hub resources</td>
<td><a href="https://businesspartnershiphub.org/anti-corruption/action-areas/">https://businesspartnershiphub.org/anti-corruption/action-areas/</a></td>
</tr>
<tr>
<td>Business Against Corruption – A Framework for Action</td>
<td><a href="https://www.unglobalcompact.org/resources/162">https://www.unglobalcompact.org/resources/162</a></td>
</tr>
<tr>
<td>Global Compact for the 10th Principle: Corporate Sustainability with Integrity</td>
<td><a href="https://www.unglobalcompact.org/resources/151">https://www.unglobalcompact.org/resources/151</a></td>
</tr>
<tr>
<td>Reporting Guidance on the 10th Principle Against Corruption</td>
<td><a href="https://www.unglobalcompact.org/resources/154">https://www.unglobalcompact.org/resources/154</a></td>
</tr>
<tr>
<td>UNODC-UN Global Compact anti-corruption e-learning tool for the private sector</td>
<td><a href="http://thefightagainstcorruption.org/">http://thefightagainstcorruption.org/</a></td>
</tr>
</tbody>
</table>
V. Deliver safe, high-performing and well-designed buildings

Companies should ensure that any building constructed is safe, fit for purpose and of good architectural quality.

Companies should apply local and where appropriate international building codes (and local planning regulations) incorporating best-practice structural and safety standards, particularly in areas where the technology has been subject to new developments, such as improved seismic/earthquake criteria, drainage design standards, hurricane design standards, fire safety access, and material performance measures.

Companies should check before entering into contractual agreements that the construction industry professionals they are employing are adequately qualified, that there are mechanisms in place to provide them with continuing professional development and that those who commit malpractice or grant approvals which exceed their professional competency cannot continue to practice.

Companies should seek to follow best professional practice and technical guidance.

Companies should put in place mechanisms to verify that any mistakes/poor judgement (or, in the worst cases, deliberate failings) will not go undetected.

Companies should ensure that the site is free of contaminants and other geo-technical hazards that might damage the building, affect its stability or be a health or safety hazard to occupiers, neighbours and communities in the vicinity.

Companies should ensure that the building has been constructed to safely sustain all potential loads and impacts, including ground movement, weather events, fire and seismic movements.

Companies should ensure that the quality aspect of buildings includes energy efficiency at the design and construction stage by limiting heat gains and losses through its structure, fabric and services.

Companies should bear in mind the likely uses (and abuses) of the building by future occupiers and ensure that safety standards are adequate in that context. Design and choice of materials should allow for future adaptability to accommodate changing user preferences. Typically long-life buildings are achieved by adopting a layered and modular approach, clear spans, high ceilings and easy access to building services.

Companies could adopt the so-called ‘soft-landings’ approach to deliver safe and high performing buildings. This involves a formal handover process to the owner/user upon project completion and ensures that all construction related data is available for an efficient operation of the building in the Use Phase. This process also establishes feedback mechanisms for the future occupier.
### Box 10: Relevant UN resources and tools

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greening the Supply Chain</td>
<td><a href="http://www.unep.org/sbci/pdfs/greening_the_supply_chain_report.pdf">http://www.unep.org/sbci/pdfs/greening_the_supply_chain_report.pdf</a></td>
</tr>
<tr>
<td>UNEP SBCI resources</td>
<td><a href="http://www.unep.org/sbci/resources/Publications.asp">http://www.unep.org/sbci/resources/Publications.asp</a></td>
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4. THE REAL ESTATE USE PHASE

4.1 Introduction

The Real Estate Use Phase constitutes the second phase of the Life Cycle from the point of when the building is occupied for the first time, throughout the duration of its use operation and maintenance. While this chapter is aimed primarily at those companies that operate in the Use Phase, all companies should pay close attention to the issues outlined below.

Business stakeholders within the Real Estate Use Phase include real estate investors, fund and asset managers, landlords (building owner), tenants (such as corporate occupiers), facility managers and other real estate service providers (such as brokers and valuers). The business stakeholder community within the Real Estate Use Phase is much broader with many organisations occupying and using real estate space in one form or another (i.e. as offices, retail outlets, industrial hangars, warehouses, etc.).

Figure 5: The impact of the Real Estate Use Phase on the individual issue areas
While Figure 5 illustrates the impact of the individual stages within the Real Estate Use Phase on the four Global Compact issue areas (a dark colour indicates a high impact; a lighter colour means less impact); Figure 6 highlights the 5 key issues identified by sectoral stakeholders as critical for the Real Estate Use Phase due to their significant impact on the four Global Compact issue areas.

**Figure 6: Real Estate Use – Five key issues and main Global Compact issue areas impacted**

<table>
<thead>
<tr>
<th>Issue Area</th>
<th>Global Compact Issue Areas Impacted</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transparency</td>
<td>Anti-corruption</td>
</tr>
<tr>
<td>2. Environmental stewardship</td>
<td>Environment and human rights</td>
</tr>
<tr>
<td>3. Community outreach</td>
<td>Human rights and environment</td>
</tr>
<tr>
<td>4. Health, safety and well-being of building occupants</td>
<td>Human rights and labour</td>
</tr>
<tr>
<td>5. Decent work &amp; human rights within the value chain</td>
<td>Human rights, labour</td>
</tr>
</tbody>
</table>

**4.2 Five key issues explained and associated benefits and opportunities for business and society**

**4.2.1 Transparency**

A transparent real estate market can be characterised as one that is open and operates within a clearly organized regulatory framework capable of enforcing rules and regulations as well as respecting private property rights. It is also free from corrupt practices and investment decisions are made based on readily accessible information, including comprehensive transaction, lease, and building performance data (including asset/physical building characteristics and in-use operational data).

A lack of performance data in particular can undermine investor confidence regarding the business case and may therefore lead to underinvestment in overall sustainability within the Sector.

Lack of transparency in the Real Estate Use Phase is aggravated in regions with a weak regulatory framework and ineffective enforcement mechanisms and also in countries that despite adequate legal systems in place, do not foster a transparent business culture.
In addition, transparency within the supply chain is often threatened by corrupt practices, where a company’s compliance policy does not extend to its suppliers.

**Issues arising from a lack of transparency:**

a. **Money Laundering**

Real estate is a particularly attractive target for criminals seeking to disguise or hide the proceeds of crime. A lack of transparency leaves room for corrupt practices such as money laundering, which according to INTERPOL’s definition is: "*any act or attempted act to conceal or disguise the identity of illegally obtained proceeds so that they appear to have originated from legitimate sources*"[46]. Money laundering can take place through a number of transactions, using multiple accounts, including in overseas locations, making them difficult to trace. In this way, illegal funds remain hidden and are integrated into legal business and into the legal economy.

In real estate, money can be laundered on a large scale through the acquisition or rental of a real estate asset with the proceeds of crime, such as drug-dealing, prostitution or human trafficking. Companies in violation of laws against money laundering will face criminal and penal consequences. It can also happen on a much smaller scale, where property is sold/purchased based on omissions and false disclosures (including tax evasion or mortgage fraud).

b. **Ineffective business decision-making:**

Real estate markets with a lack of accessible information, inadequate in-house data management, or misreported data can experience inefficient business decision-making at all levels, resulting in a loss of revenue and a lack of trust from internal and external stakeholders.

c. **Undermining of investor confidence:**

Poor real estate transparency hinders investment. A building or a building’s use that is not well-documented may be perceived as a potential investment risk which ultimately could mean that it becomes unmarketable.
Box 1: Benefits and opportunities in relation to transparency

Improved transparency and availability of information leads to more informed investments and policy decisions within companies.

From a business perspective, the issue of transparency is steadily rising up the agenda of investors and corporate occupiers for whom the building’s economic, social and environmental data and information is becoming an increasingly valuable asset, allowing them to assess the performance of individual companies, portfolios and buildings.

A 2014 report by the Property Working Group within UNEP FI\(^1\) noted an increased demand for performance information driven by:

- reporting and accounting obligations;
- an increasingly open data culture;
- stakeholder and peer-group pressure;
- the need to comply with sophisticated building codes and standards;
- the general prospects of ‘big data’; and
- a growing information demand by real estate valuation professionals and other analysts.

This increased demand for transparency and improved data management has the potential to reduce the scope for corrupt practices, creating a level playing field amongst companies. Furthermore, a better understanding of transaction and building performance data will make it easier to communicate the business case for ‘triple bottom line’ investments that take into account all three pillars of sustainability, thus improving overall sustainability in real estate.
4.2.2 Environmental stewardship

The Real Estate Use Phase has a significant impact on the environment and climate change through natural resource consumption, carbon emissions and waste generation. Resource consumption modelling at the design and construction stage within the Development Phase usually does not take into account the way the building will be used (e.g. operational hours and number of occupants), often leading to discrepancies between projected and real consumption.

Environmental stewardship relies on data and data management and is thus directly linked to the issue of data availability and transparency within organisations; this particularly relates to improved performance data of buildings and portfolios.

The following environmental issues are of particular significance during a building’s Real Estate Use Phase:

a. **Carbon emissions and energy consumption**: Buildings in operation essentially use two forms of energy: electricity and heat, mainly from burning fossil fuels, such as oil, natural gas and coal. The use of fossil fuels leads to the release of significant amounts of GHG, mainly carbon dioxide (CO$_2$). This happens both at the building level itself but also at the power plant where the primary energy is generated. The release of GHG emissions into the earth’s atmosphere is a major cause of global climate change.

The 2014 IPCC 5th Assessment Report$^{47}$ states that in 2010 buildings accounted for 32% of total global final energy use and 19% of energy-related GHG emissions (including electricity) and approximately one third of black carbon emissions. The IPCC report also provides evidence that buildings contribute between an eighth and a third of Fluorinated GHG. According to the report this energy use and related emissions may double, or potentially triple, by 2050, making the carbon footprint of the operational phase of buildings even more significant.

The energy needed to heat, cool and generally operate the world’s buildings during the Use Phase also poses direct social risks, for example, to population health through air pollution caused by power stations generating energy. In addition, new alternative energy sources such as fracking, identified to ensure continued supply of energy to buildings, not only impact water use and water disposal but also the stability of buildings and structures in neighbouring communities.

Excessive energy consumption may also contribute to socio-political conflicts over security of supply.

b. **Water management**: The Global Compact CEO Water Mandate initiative highlights that having no access to cheap water may become a greater threat to business than the loss of any other natural resource, including fossil fuels. While there are various alternatives to fossil fuels, there are no substitutes for water.
Commercial buildings use a large proportion of municipally supplied water during their operational phase. According to the US Environmental Protection Agency (EPA), commercial and institutional users account for approximately 17% of publicly-supplied water use in the US. According to the same source, offices account for up to 9% of the total water use in commercial and institutional facilities.\(^4\)

According to Australian government figures, a moderate sized office building of 10,000m\(^2\) typically consumes over 20,000 litres per day or more than 7 million litres per year – enough to supply 40 average homes.\(^4\) The three largest uses of water in office buildings are: bathrooms and toilets, heating and cooling installations and irrigation of landscaping. Excessive consumption through such means can potentially deprive nearby communities of much needed drinking water, leading to dehydration, diarrheal diseases, pollution and failed crops.

Given the complexity of a building in operation, water supply is often inextricably coupled with energy consumption. It is therefore not only the daily use of potable and other water by the building occupants that is the problem but also the energy needed to procure, pump, treat, transport and store this water.

In addition, energy is also needed to treat waste water from buildings in the form of raw sewage, often through the use of potentially toxic chemicals.

c. **Waste management:** In the commercial building context, waste can be described as unused materials and products from maintenance and building management processes as well as materials and products discarded as part of day-to-day business activities.

According to an OECD definition\(^5\), the characteristic activities of waste management include:

- the collection, transport, treatment and disposal of waste;
- the control, monitoring and regulation of the production, collection, transport, treatment and disposal of waste; and
- the prevention of waste production through in-process modifications, reuse and recycling.

During the use/operational phase of a commercial building waste occurs in the following categories:

- structural materials and systems such as partitioning walls, electricity and HVAC installations and cables;
- fit-out fixtures and fittings such as worn carpets;
- office furniture;
- general maintenance and regular cleaning products, such as paint and detergents;
- office supplies such as stationary\(^6\);
• food (especially in the hospitality business, such as restaurants, hotels, fast food outlets, etc.); and

• healthcare products from buildings that are occupied by hospitals, doctor’s surgeries, pharmacies, laboratories and research centres, etc.

One particularly waste-intensive aspect of building operation is caused by “fit-out churn” and maintenance which may be needed when tenants are moving on. After departure of a tenant, rented premises are generally no longer in a ‘new’ condition and therefore the landlord may decide to carry out redecoration and minor interior refurbishment works to bring the premises to a condition that will attract prospective tenants. These works are often undone by the new tenant who carries out another set of redecoration and refurbishment works and service adjustments to suit his/her own requirements. The amount of waste caused between one tenant terminating and another starting occupancy is therefore significant.

Ineffective waste management during the Real Estate Use Phase can adversely affect population health through:

• a rise in respiratory diseases caused by toxic air pollution from waste incineration emissions and waste dumping;

• the contamination of soil and water supplies through illegal dumping of hazardous substances contained in cleaning and maintenance products; and

• the defacement of settlements, especially in developing countries, through the accumulation of waste (such as old discarded computers).

d. Loss of bio-diversity and ecosystem services: There is a strong link between bio-diversity, quality of life and global warning. According to UN Secretary General Ban Ki-Moon, the “conservation of biodiversity makes a critical contribution to moderating the scale of climate change and reducing its negative impact by making ecosystems (including human societies) more resilient”. 52

Any changes in the global environment will inevitably impact companies’ operating costs, the availability of raw materials, and increasingly also the reputation of those businesses carrying out their activities in an irresponsible way. Within the Use Phase this is particularly true for downstream user companies operating in the fields of finance, investment, retail and tourism. In fact, with consumer awareness and scrutiny on the rise, it is those companies occupying buildings and that have direct end-consumer interaction, such as retailers or those operating in the tourism industry, that are likely to be most scrutinised for any irresponsible business practices.
### Box 2: Benefits and opportunities in relation to environmental stewardship

In a commitment to improving energy efficiency reducing carbon emissions and meeting regional and country specific targets, a number of regulatory demands have been placed on businesses. These demands are not only targeted at disclosure of energy consumption/carbon emissions of buildings but also at committing businesses to taking active steps to make their existing buildings more efficient.

Advantages of environmental stewardship to businesses include:

- identifying cost saving potentials with regard to the building’s operational costs, thus increasing revenues (e.g. reduction of energy and water bills, cost, labour, time and storage savings as a result of waste reduction, etc.);
- attaining enhanced occupancy levels, tenant retention, rents and financial performance for leased real estate;
- reducing the risk of non-compliance with regulatory frameworks, especially with minimum resource efficiency performance standards;
- reducing the risks of potential future building obsolescence as the demand for ‘green’ buildings becomes a mainstream requirement;
- helping to ensure future resource security;
- driving innovation and creating new business opportunities and business models; and
- building a reputation as a sector leader in resource efficiency (linked to overall Corporate Social Responsibility recognition potential, amongst employees, clients and neighbouring communities). Reputational benefits may help to attract and retain employees.

Advantages of environmental stewardship to society include:

- avoiding further exacerbation and cost of climate change related impacts;
- improving air and water quality resulting in improved population health;
- inter-generational equity through safe-guarding of natural resources for the future; and
- creating new job opportunities through the development of new green technologies and products.
4.2.3 Community outreach

Community outreach can be defined as the donation of time and/or resources for the benefit of the community or the community’s institutions, such as non-profit civic or community based organisations, with the overarching aim of improving the quality of life for the community’s stakeholders and for the improvement of the local economy by hiring local labour.

The presence of any building and its occupants, users and owners regardless of the actual use of the building and its location automatically means that it is part of the community in which it is located. As part of the community, both building owners and occupants have specific responsibilities that require them to interact with the members of that community.

A lack of outreach and interaction between local stakeholders and commercial buildings operating in their area can have manifold repercussions:

a. **Isolation and feelings of lack of inclusion and belonging:** Individuals within the community may feel they can not enjoy their local social spaces leading to a sense of alienation and a lack of trust and involvement in their local community.

b. **Gentrification:** The transformation of formerly poorer areas into business districts or redevelopment into high-value residential areas may threaten local residents and the availability of affordable housing in the area.

c. **Equal opportunity to access/lease the property/building:** Members of societies are being denied access to either enter or rent a building on grounds of ethnicity, age, gender, religion or sexual orientation and social status.

d. **Security issues:** A failure to successfully interact with local communities can lead to area deprivation and criminal damage to property through burglary, tensions and discord among community members, theft and vandalism. This in turn may discourage local urban regeneration, potentially triggering a downward spiral of an area which will reduce the attractiveness of that area to prospective tenants and buyers.

**Box 3: Benefits and opportunities in relation to community outreach**

Community outreach will help to establish businesses as respected members of the local community which may help to build strategic partnerships with local residents and other businesses in the area. Good community relations may also help obtain or extend operating licences and avoid conflicts with local stakeholders.

A well-functioning community also means a reduction in local crime which may be specifically targeted at real estate located in the area. Reduced crime rates will lead to reduced damage caused by burglary, theft and general vandalism and ultimately to cost savings due to reduced need for private and public (police) security monitoring.
4.2.4 Health, safety and well-being of building occupants

The issue of the health, safety and well-being of the building’s occupants should already have been considered during the Development Phase as this is when a number of aspects such as the orientation of the building (making effective use of available light) and the choice of materials will be determined. There are, however, a number of aspects that need to be taken into account during a building’s operational phase.

a. **General health & safety at work:** According to the ILO\(^5^3\), every day, 6,300 people die as a result of occupational accidents or work-related diseases. This translates into more than 2.3 million deaths per year. 317 million accidents occur on the job annually. Many of these accidents result in extended absences from work.

b. **Access for persons with disabilities:** Many buildings present a significant amount of potential barriers to persons with limited mobility, such as steps and stairs, preventing these persons to live independently and participate fully in all aspects of life.

c. **Indoor air quality:** Over recent decades, the outdoor air quality in most industrialised countries has improved greatly. At the same time, indoor air quality in buildings has declined due to energy conservation measures (e.g. air tightness of building shells), or inadequate ventilation and the use of products and materials causing indoor pollution (e.g. solvents in glues, paint and cleaning products or biological contaminants, such as mould caused by damp).

Given that in OECD countries, people spend almost 90% of their life inside buildings\(^5^4\), the indoor environment plays a significant role in peoples’ well-being and health.

Occurrences of physical symptoms (such as skin irritation, hypersensitivity and neurotoxic health problems) generally described as Sick Building Syndrome (SBS) are on the rise, having a very significant impact on a company’s overall employee productivity and motivation. In severe cases, poor working conditions and the exposure to hazardous materials can even have a negative impact on the reproductive health of both men and women.
From a business perspective, human capital is a company’s greatest asset, and in most cases also its most expensive. Employee salaries and expenditures usually represent a large proportion of a company’s operational expenses. For example, a 2013 report on the business case for green buildings by the World Green Building Council (WGBC) estimates that over 85% of total workplace costs are spent on employee salaries and benefits. In comparison, less than 10% are spent on rent and less than 1% on energy.

Indoor environments within housing and workplaces contribute significantly to human health and well-being and offer the potential to reduce costs to societies by reducing the requirement for treatment of allergies, asthma, and Sick Building Symptoms and also reducing costs from sick leave.

It is therefore in a company’s economic interests to ensure that its employees, including subcontractors, are provided with healthy and safe workplaces.

A healthy and safe indoor environment can improve the overall business performance through:

- increased worker productivity: for example, according to WGBC, up to 10-25% better mental function and memory in the case of existing outside views; 18% productivity increase as well as 15-40% increase in retail sales in the case of exposure to daylight; 11% productivity increase from better ventilation;
- fewer workplace accidents and improved occupant health resulting in a reduction in employee absenteeism due to sickness or stress (reducing the burden on public health systems); and
- higher levels of motivation and engagement.

### Box 4: Benefits and opportunities in relation to health, safety and well-being of building occupants

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- higher levels of motivation and engagement.

### 4.2.5 Decent work and human rights within the value chain

Within the Real Estate Use Phase it is important to distinguish between: (a) the workers who work for the buildings, who are therefore part of the real estate business (e.g. repair and maintenance, security, cleaning) from (b) the workers who use the buildings for their work. The former entail specific sectors, which have specific decent work deficits. The latter include a large plethora of workers (in the different services and manufacturing sectors). The issue of labour and human rights is equally complex in the Real Estate Use Phase as it is within the Development Phase with a number of the same issues arises in both (see chapter 4, section 4.2.3: Fair Treatment of Workers & Abolition of Child Labour).
According to the ILO “decent work sums up the aspirations of people in their working lives. It involves opportunities for work that is productive and delivers a fair income, security in the workplace and social protection for families, better prospects for personal development and social integration, freedom for people to express their concerns, organize and participate in the decisions that affect their lives and equality of opportunity and treatment for all women and men.”

There are also human rights and labour rights issues that are unique to the Real Estate Use Phase such as the rights of individuals working in and/or occupying a space, the rights of persons with disabilities, the issue of equal access to real estate.

a. **Supply chain:** As with the Development Phase one of the greatest challenges lies within the supply chain and in subcontracting. For example, a retailer may have a sub-contracted workforce, such as cleaners and general maintenance workers at the administrative head office and also at its retail outlets. These contractors (often including a significant number of women and children) may or may not be covered and protected by corresponding human rights and labour and health & safety policies of the company, as often existing policies covering these workers do not extend through the value chain.

b. **Minimum wage:** The nature of the work that is carried out by the sub-contracted workforce within a building, such as cleaning or general maintenance staff, means that workers are often working below minimum wage.

c. **Migrant workers:** In many cases, migrant workers are exploited by the sub-contractor or the agency through which they have been hired. As witnessed in the Development Phase, migrant workers in the Use Phase face similar human rights violations including passport retention and other forms of bonded labour, forced labour, and physical and sexual violence.

d. **Minimum working age and child labour:** The legal minimum age varies from country to country but more often than not women, children and young people are assigned tasks that are not suitable for their age group, e.g. carrying heavy loads, handling hazardous substances or activities that may damage their psychological health.

e. **Working hours:** Increasingly, boundaries between work and private life are becoming blurred, with employees working beyond their contractual hours for which they are contractually committed. This is particularly true in the service industry and applies equally to the company’s core workforce and to subcontracted staff. The result is that these longer working hours can disrupt the lives of individuals, families and communities.

f. **Diversity and non-discrimination:** Over the past few decades, globalisation, immigration, demographic change and mobility have diversified. Consequently, decent work is based on the principles of equality and non-discrimination, regardless of gender, sexual orientation, religion, and disability, social background or ethnicity.
There are many reasons why companies should strive to incorporate the principles of decent work for men and women into their corporate policies and embed them within daily operations, including to comply with the regulatory framework and to establish a reputation as a responsible employer.

In an age of increasing globalisation, a diverse, heterogeneous, multi-cultural and equal workforce is a clear asset for companies and their corporate culture and brand. Multiple studies link diversity to innovation and resilience. Reduced levels of discrimination and more equality within a company’s workforce produces employees who are more motivated. Motivated employees are more creative and more productive. Diverse teams benefit from the individual experience of each team member. In particular, for companies wishing to expand their business internationally, ethnic diversity may offer advantages in understanding and succeeding in new markets.

4.3 Practice examples and case studies

[To be completed after the public consultation of this document]

4.4 Five action items

Businesses are encouraged to:

1. Work towards increasing transparency by improving data accessibility and management

Companies should carry out a risk assessment and due diligence related to corrupt practices, such as money laundering, to prevent engagement in criminal activities.

Companies should put in place robust internal anti-corruption compliance programmes and whistle-blower policies to help reduce corrupt practices. Anti-corruption trainings sessions should be conducted for employees and companies should raise awareness around these issues with their contractors, suppliers and clients through anti-corruption trainings sessions.

Companies should extend their anti-corruption compliance policies to their suppliers.

Companies should create a transparent framework of requirements for type, extent, format and frequency of building data/information handling. Contractual arrangements whenever real estate services, such as facility management, are outsourced should be amended accordingly.
Companies could engage in collective action including sector-wide or regional initiatives to increase transparency and collaboratively fight corruption.

Companies could be encouraged to provide open access to their building related contracts and performance data.

**Box 6: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A guide for anti-corruption risk assessment, 2013</td>
<td><a href="https://www.unglobalcompact.org/resources/411">https://www.unglobalcompact.org/resources/411</a></td>
</tr>
<tr>
<td>Business against Corruption – a Framework for Action</td>
<td><a href="https://www.unglobalcompact.org/resources/162">https://www.unglobalcompact.org/resources/162</a></td>
</tr>
</tbody>
</table>

**II. Make Environmental Stewardship an integral part of the daily operation of the building**

Companies should contractually require information from the landlord or seller and real estate professionals involved in the sale or rental of a building as to whether there any specific environmental issues affecting the property before signing contracts. While in some countries the seller or landlord may not be legally obliged to provide this type of information, if directly asked, he/she is required to provide this information truthfully. Should the landlord provide incorrect information or not respond truthfully and a problem is found at a later stage, he/she may be liable and could be charged with fraud.

Companies should make resource efficiency an integral part of facilities management, whether in-house or outsourced.
Companies should include resource efficiency as a core criterion when entering into new procurement contracts or when renegotiating existing ones.

Companies should adopt a maintenance strategy that includes modern, energy efficient lighting fittings. Motion-controlled lighting in common areas, such as hallways and toilet areas will also help reduce energy wastage.

Companies should avoid unnecessary waste from refurbishment at the time of vacating the premises at the end of a lease. Waste should be recycled and new tenants should be offered to take over the improvements of the previous tenant.

Companies should take practical steps to reduce daily waste from business activities, including:

- introducing centralised recycling stations facilitating separation of waste;
- introducing centralised ‘print on demand’ printing facilities and set double-sided prints and copies as default option;
- donate surplus used office furniture or equipment to local charities;
- maximise the use of electronic media rather than paper use;
- investigate food composting options on or off site.

Companies could, where appropriate, optimise resource consumption by capturing consumption data with the help of either: (i) a Building Management System (BMS) - a computer-based control system installed in buildings and/or (ii) a Building Information Modelling (BIM) - a process which involves the generation and management of digital representations of physical and functional characteristics of buildings. In cases where this is not possible, introduce operating procedures that conserve energy, water and waste.

Companies could adopt an overall Environmental Management System (EMS) for all of their daily operations, setting out clear targets and key performance indicators (KPIs) to measure individual departments’ and subsidiaries’ performance across the company. Indicators could include temperature, lighting levels and humidity control.

Companies could, when renting or leasing a building, investigate the possibility of integrating environmental clauses into lease contracts (‘green leases’) that provide for the sharing of data between landlord and tenant.

Companies could raise awareness about resource consumption issues by displaying real-life energy and general resource consumption and/or carbon footprint onscreen in areas frequented by employees and clients.

Companies could opt for landscaping solutions that reduce water usage (e.g. by using native plants that survive without extra watering).
**Companies could** set up resource or ‘green’ teams across departments to regularly review resource use and implementation across the organisation. This allows the organisation to evaluate progress, set new goals and continually improve.

**Companies could**, wherever feasible install meters to measure and control energy consumption by location/department and service/activity.

**Companies could**, depending on their size and the size of the building carry out regular resource consumption monitoring and where appropriate more detailed audits (for example ISO 50001 for energy and/or ISO 14001 for general resource consumption in operation) as part of their facilities management to provide the company with options, costs, savings potentials and paybacks.

**Box 7: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Stewardship Strategy – Overview and Resource for Corporate Leaders</td>
<td><a href="https://www.unglobalcompact.org/resources/331">https://www.unglobalcompact.org/resources/331</a></td>
</tr>
</tbody>
</table>

**III. Interact with local communities**

The development of good community relations requires constructive and regular interaction between members of the community and companies located within that community.

**Companies should** develop ongoing programmes to encourage communication, increase community involvement and provide an open consultation process with all stakeholders. They should ensure that all processes are properly defined, implemented and documented and available to all stakeholders.

**Companies should** respect all matters related to cultural and spiritual heritage within the community.

**Companies should** specifically support vulnerable parts of the community including indigenous peoples, ethnic minorities, women, children, the elderly, and persons with disabilities.

**Companies should** ensure equal access to the buildings by all members of the community.

**Companies could** specify ‘local sourcing’ as a target under their procurement policy.
In practical terms, community outreach by companies can take the form of:

- philanthropic activities, such as using building owners’ or occupants’ resources to strengthen educational and cultural institutions;
- assisting groups, associations and agencies that are working for the good of the community they are located in;
- facilitating the wider use of a building by the community; and
- facilitating local employment opportunities and supporting local businesses and entrepreneurs.

**Box 8: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Community Engagement and Investment to Advance Human Rights in Supply Chains</th>
</tr>
</thead>
</table>

**IV. Provide a safe and healthy work environment for employees**

**Companies should** put in place policies and processes targeted at health and safety within the building and access routes to the building.

**Companies should** ensure that statutory health and safety regulations are adhered to both by the company’s employees as well as subcontracted staff by holding regular training sessions.

**Companies should** provide access for people with mobility problems to all parts of the premises.

**Companies should** disclose potential public health risks posed by the building and its operations.

**Companies should** address potential issues of security for both men and women and implement a zero-tolerance policy towards all forms of violence at work, including verbal and/or physical abuse and prevent sexual harassment.

**Companies should** ensure adequate levels of indoor air quality by using products and materials that avoid or minimise the use of harmful toxins and chemicals such as carcinogenic substances and volatile organic compounds (VOCs), persistent organic pollutants (POPs) and hazardous chemical substances, through certified sustainable procurement of:

- office fixtures and fittings (carpets, paint, etc.);
- office equipment (furniture, IT equipment, etc.);
- cleaning products;
- ventilation and indoor climate regulation; and
• office plants that improve the air quality.

**Companies could** identify the scope for improving areas such as:

• increased exposure to natural daylight through consideration of layout and seating plans or by improving light penetration within the building;
• the provision of outdoor recreational green spaces, such as terraces on green roofs; and
• the reduction of noise pollution.

**Companies could** encourage and promote walking to work or the use of bicycles by establishing incentive schemes and by providing storage and shower facilities on the premises.

**Box 9: Relevant UN resources and tool**

|-----------------------------------------------------|------------------------------------------------------------------|

**V. Ensure decent work conditions for employees and subcontracted workers**

**Companies should** ensure that the principles of decent work are applied across their organisation, including among subsidiaries.

**Companies should** specify decent work criteria in contracts with subcontractors to ensure that the same principles apply to subcontracted workers as would apply to their own employees.

**Companies should** ensure proper ongoing maintenance and evaluation of the property for safety and health concerns.

**Companies should** pay attention to occupational safety & health and the use of appropriate protective personal equipment are important here.

**Companies should** incorporate the issue of children’s rights into their corporate policies and codes of conduct. Any policy with regard to child protection should also include issues, such as the treatment of young people undertaking internships, the behaviour of staff towards children and children’s rights in the company’s supply and value chain.
**Companies should** ensure that wages paid to their own employees and those of subcontractors are in line with minimum wage thresholds in the country they are operating in and are equal between men and women.

**Companies should** develop a diversity management strategy and promote diversity and gender equality within their own workforce and also among their subcontractors.

**Companies could** put mechanisms in place that regulate excessive overtime by their employees. With office-based activities, one practical way of doing this would be to limit email use to agreed office working hours. Should employees be authorised to work overtime they should be compensated accordingly.

**Box 10: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eliminating Child Labour – Guides for Employers</td>
<td><a href="https://www.unglobalcompact.org/resources/79">https://www.unglobalcompact.org/resources/79</a></td>
</tr>
<tr>
<td>Supply Chain Sustainability – A Practical Guide for Continuous Improvement</td>
<td><a href="https://www.unglobalcompact.org/resources/205">https://www.unglobalcompact.org/resources/205</a></td>
</tr>
<tr>
<td>The Labour Principles of the UN Global Compact – A Guide for Business</td>
<td><a href="https://www.unglobalcompact.org/resources/261">https://www.unglobalcompact.org/resources/261</a></td>
</tr>
</tbody>
</table>
5. RECOVERY & END OF LIFE PHASE

5.1 Introduction

The Recovery & End of Life Phase represents the final stage in a development’s life cycle. It is when the building and its associated facilities are at the end of their economic and/or physical life. At this point there are two fundamental choices: (i) whether to refurbish a development to give it a new lease of life (with the same existing use or a new change of use); or (ii) to decommission the building, returning the site to something close to its previous natural (biodiverse) state or cultural use, such as a traditional settlement or farming system. Both cases will need the same types of third party compliance required for a new site. With some sites, an innovative approach (such as a partial renovation and partial reversal to a former state) may be more appropriate and be more socially, economic and ecologically sustainable.

The principal stakeholders involved in the Recovery & End of Life Phase are likely to include freehold and leasehold land owners, local communities and providers of finance.

Figure 7: The impact of the Recovery & End of Life Phase on the individual issue areas
While Figure 7 illustrates the impact of the individual stages within the Recovery & End of Life Phase on the four Global Compact issue areas (a dark colour indicates a high impact; a lighter colour means less impact); Figure 8 highlights the 5 key issues identified by sectoral stakeholders as critical for the Recovery & End of Life Phase due to their significant impact on the four Global Compact issue areas.

**Figure 8: Recovery and End of Life Phase - Five key issues and main Global Compact issue areas impacted**

1. **Strategic site-use re-evaluation**  
   Environment and anti-corruption

2. **Refurbishment and retrofitting**  
   Human rights, labour and anti-corruptions

3. **Waste management, resource conservation and recycling during demolition**  
   Environment, human rights and labour

4. **Brownfield regeneration of site**  
   Environment, human rights and labour

5. **Rehabilitation of site into bio-habitat**  
   Environment and human rights

### 5.2 Five key issues explained and associated benefits and opportunities for business and society

#### 5.2.1 Strategic site-use re-evaluation

To develop a strategy for a site at the end of a development’s viable life (which may quite frequently be the end of an investment period, rather than the end of a site’s physical usefulness)
a decision has to be made on whether to: (i) continue the use of the existing building by upgrading it; (ii) redevelop the site; or (iii) restore the site to an ecologically viable original or alternative use. In most of these cases the facility will need to be de-commissioned, which may involve transferring the site to a new party.

As with the Development Phase, a lack of transparency and information-sharing with regard to land-use decision-making will re-open the opportunity for bribery and corruption, including government officials experiencing a conflict of interest and seeking illegal commissions. This behaviour will encourage inferior land use planning, providing the opportunity for environmental crimes to be committed (for example through the misuse of natural resources) and also encourage fraudulent issuing of planning and building certificates. It can also discourage potential local and foreign investors thereby adversely effecting investment in the real estate market.

In cases where buildings are demolished to make way for more lucrative developments, the displacement of residents and communities is often not taken into consideration. That means that social needs are not addressed and certain groups are marginalized, resulting in potential social unrest. If this practice is prevalent in a country, that country risks losing parts of its heritage tied to historical buildings and architecture.

By and large the same decent work deficits encountered in construction activities in the Development phase are also found in the Recovery and End of Life Phase.

**Box 1: Benefits and opportunities in relation to strategic site-use re-evaluation**

Using and managing land in a more sustainable way, can lead to economic and social opportunities and can unlock the land’s maximum value.

The benefits of adopting a strategic site-use re-evaluation process are largely indirect and clarifying what development policies and approaches are available to the current or new investors/owners should facilitate an evaluation of the most sustainable approaches available. These processes also allow for new innovations in design and technology to be investigated.
5.2.2 Refurbishment and retrofitting

Although globally the average building life is 40-60 years, commercial retail and office facilities, for example, will often be refurbished after 10 years and be demolished and replaced after 20 years. Strategic refurbishment decisions at the end of the life cycle will be dependent on the physical state of the building and its immediate building services, such as site drainage, etc. at that point in time. If it has been well maintained and consistently brought up to a modern standard then all refurbishment requirements may be minimal. At the other extreme are buildings requiring complete retrofitting, a process that will require modification of the building’s fabric and services to bring them up to current building and environmental control standards and user expectations. This may involve utilising newly developed technology and skill sets that were not available when the development was originally implemented.

High rise buildings are the most difficult to evaluate for retrofitting, requiring a trade-off to be made between difficulties of retrofitting at height versus the higher costs of demolition for tall structures.

Refurbishment and retrofitting will be subject to the same issues, regulation and challenges as new construction, including obtaining planning consent and going through the entire construction procedure (even where this is mostly a reverse engineering and demolition process), with the associated potential risks of corruption, misuse of child labour, rights infringements and discrimination as highlighted in the Development Chapter. As an example, whilst a refurbishment has significant potential to create new employment in the construction sector, it faces a pervasive problem of gender inequality.

The range of available retrofitting interventions is very wide and ideal retrofitting solutions are dependent on the characteristics and performance of existing buildings. Some of the main types of retrofitting initiatives are illustrated in the following table:

In terms of the environment, Table 1 provides examples of potential retrofitting interventions.

**Table 1: Examples of retrofitting interventions**

<table>
<thead>
<tr>
<th>Low level intervention</th>
<th>Medium level intervention</th>
<th>High level intervention</th>
<th>Very high level intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low energy lighting</td>
<td>External/ internal insulation</td>
<td>Double/triple glazing</td>
<td>Micro wind generation</td>
</tr>
<tr>
<td>Internal blinds/curtains</td>
<td>Secondary glazing</td>
<td>Double skin facade</td>
<td>Combined heat &amp; power</td>
</tr>
<tr>
<td>External blinds/awnings</td>
<td>Movement/daylight sensors</td>
<td>External louvers</td>
<td>Water source heat pump</td>
</tr>
<tr>
<td>Low-E coating on glazing</td>
<td>Heat recovery systems</td>
<td>Photovoltaic panels</td>
<td>Ground source heat pump</td>
</tr>
<tr>
<td>Stack ventilation</td>
<td>Solar thermal panels</td>
<td>Bio mass boiler</td>
<td>Geothermal piling</td>
</tr>
</tbody>
</table>
Building life extension is a strategic choice that may or may not involve replacement. Demand for low-carbon buildings is steadily increasing. The alternative uses available at the end of a development’s life cycle, from the rehabilitation of existing buildings or the recreation of former land uses, have the potential to create significant business opportunities for developers.

Extending the life of a building may involve some partial deconstruction (e.g. replacement of external glazing and utility services), but can often be faster for companies to implement and less costly than complete reconstruction. In addition, it may be more carbon efficient to extend the life of an existing building due to reduced material demand, the facilitation of material substitution/re-use and the minimisation of waste.

If the refurbishment is accompanied by site restoration, this may also involve retaining embodied carbon in infrastructure, such as kerbs and paving materials, and also indirectly, from reducing transport use by using local-sourced, discarded or recycled materials.

One of the main environmental benefits of undertaking refurbishment works or retrofitting is the gain in terms of carbon sequestration that come from retaining the carbon (in the form of CO₂) already embodied/locked into existing built assets from when it was originally assembled. Another benefit would be the saving of scarce raw materials. Refurbishment and, in particular, retrofitting also encourages the improvement of a building’s performance through more advanced energy efficient technology and the conservation of existing historic and archaeological structures. Improvement in energy efficiency itself is a crucial first step towards a sustainable energy future and is crucial in the fight against climate change. Reducing energy use through adopting efficiency measures at the refurbishment stage can also reduce dependence on imported fuels, reduce potable water demand and waste and improve air quality.
5.2.3 Waste management, resource conservation and recycling during demolition

Waste management has a hierarchy of four main principles in order of preference: (i) retention and waste prevention; (ii) re-use of materials; (iii) recycling; and (iv) energy recovery. There can be a high level of self-generated demolition waste in the civil construction industry. In fact, it is often one of the highest generators of waste\textsuperscript{57}. This is especially true with poorly managed demolition related to informal construction areas. Site clean-ups may have to accommodate high levels of inadequate and poorly maintained liquid and solid waste disposal from existing buildings. Spills and dumping of toxic waste, such as hydrocarbons, may also have occurred, resulting in the presence of hazardous materials (even where these levels may comply with local legal requirements). To ensure that these issues are correctly accounted for, laboratory testing of sample soils and site water will generally be required.

Disposal to landfill is the least preferable option, in terms of both its social and environmental impact. It is a major source of methane gas, of which a landfill gas monitoring programme may be required to assess its negative impact and potential risk. Unless it can form the basis of energy generation, the alternative of waste incineration can be an equally unacceptable disposal technology.

Recycling is one possible and often the more preferable method. However, one major challenge is that recycling has limitations and towards the end of a recyclable’s lifetime, the waste material may be of a poor quality and incapable of being re-treated. Even under optimal conditions, recycling is not always favourable and can be inefficient.

Demolition waste also invariably includes handling on-site waste water, which if not handled with care (using filters, temporary storage and cut-off drains) could potentially affect the ground water table and natural watercourses, affecting on nearby communities’ water sources.

**Box 3: Benefits and opportunities in relation to waste management, conservation and recycling**

Waste management is an area where substantial opportunities and benefits are possible for demolition contractors in particular – primarily as revenues from reuse and recycling of demolition materials. It also generates direct cost savings through reduced disposal of surplus materials and reduced transport costs.

Maximising the intensity of waste management and avoiding the use of landfill will also have significant environmental benefits to local communities including the prevention of the generation of methane.
5.2.4 Brownfield regeneration

The regeneration of previously used brownfield sites is particularly relevant in high density countries that have a history of industrial development affecting both urban and rural land use and where there is an intense shortage of greenfield sites. Viewed globally, UNEP (2013) reporting on the demand for agricultural land stated that “large areas with degraded soils are in need of restoration and better land use planning would help to avoid building activities on fertile land”. UNEP also estimates that around a quarter of global soils are degraded and “nearly 40 percent of the degraded area is thought to be ‘lightly’ degraded, with strong potential for restoration at low cost”.

The land may be underused or abandoned and often contaminated by ground contaminants (such as asbestos, lead or other heavy metals) and biological contamination (such as raw sewage and polluted ponds).

As with the Development Phase, land use regulations and zoning principles will apply, generally defined by height, bulk, population density and prescribed use. Other controls on land may also apply, including local ordinances, covenants, easements, abstraction rights and access to water courses and other resources, rights-of-way and special protected areas (such as archaeological sites and wildlife reserves).

Labour and public health issues commonly arise in reclamation work as this often becomes a variant of scavenging on informal settlements and construction sites. Frequently this involves the use of forced labour, including migrant workers and child labour, often accommodated in poor conditions in labour camps. These practices are not in accordance with the Guiding Principles or the Global Compact’s principles on labour and human rights. This can lead to reputational damage, legal penalties and public funding sanctions for the land owner.

Box 4: Benefits and opportunities in relation to brownfield regeneration of site

For the investor, owner or developer the main benefit of brownfield regeneration is that if the company already owns the land further land acquisition will not be restricted to potential expansion. Brownfield sites are also often available to new owners at a low premium due to the potential contamination and remediation costs involved. Depending on the extent and nature of contaminative substances present on the site there may be planning land value gain from the improvements, for both communities and developers, particularly if combined with parallel infrastructure investments.

The regeneration of existing development sites means that new greenfield sites do not necessarily need to be used, which can be both a financial benefit and a social gain as communities will not usually be impacted. The clearing up of contaminated sites and the remediation of soils will result in a general improvement in living conditions for local communities, particularly if the clean-up technologies can be undertaken in-situ, confining any additional impact to the original development site.
5.2.5 Rehabilitation of site into bio-habitat

Biodiversity resides in everyday surroundings and should be actively preserved. Any development can cause habitat loss, thus emphasising the important role of access to public parks, neighbourhood gardens and green spaces as they help to protect environmental benefits.

Unfortunately there is a lack of awareness of the complexity of biodiversity and the value of considering ecosystem services in future planning. Any lack of environmental stewardship will threaten biodiversity, for example, the development of biologically rich or disputed land into settlement and development land through deforestation.

Internationally there have been many initiatives focused on applying ecological principles to renovate land damaged by man’s development activities. The types of approaches that have been implemented have used a combination of approaches, some of which are outlined in the table below:

**Table 2: Examples of bio-habitat rehabilitation initiatives**

<table>
<thead>
<tr>
<th>Processes</th>
<th>Field/Farm/Site</th>
<th>Watershed</th>
<th>Regional/global</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Biodiversity, biological activity and wildlife</strong></td>
<td>Conservation tillage</td>
<td>Integrated watershed management</td>
<td>Territorial planning</td>
</tr>
<tr>
<td></td>
<td>Rotations/organic inputs</td>
<td>Agroforestry</td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Intercropping/rotations</td>
<td>Protected areas</td>
<td>Protected areas</td>
</tr>
<tr>
<td></td>
<td>Pest control</td>
<td>Corridors</td>
<td>Corridors</td>
</tr>
<tr>
<td></td>
<td>Water recycling</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy use/carbon</strong></td>
<td>Bio-mass management</td>
<td></td>
<td>Territorial planning</td>
</tr>
<tr>
<td></td>
<td>Grassland management</td>
<td>Integrated watershed management</td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Agroforestry</td>
<td></td>
</tr>
<tr>
<td><strong>Soil/air/water pollution</strong></td>
<td>Waste treatment</td>
<td></td>
<td>Territorial planning</td>
</tr>
<tr>
<td></td>
<td>Water cycling/treatment</td>
<td>Integrated watershed management</td>
<td>Protected areas</td>
</tr>
<tr>
<td></td>
<td>Invasive species control</td>
<td>Corridors/riparian strips</td>
<td></td>
</tr>
<tr>
<td><strong>Physical state</strong></td>
<td>Grassland management</td>
<td>Protected areas</td>
<td>Territorial planning</td>
</tr>
<tr>
<td></td>
<td>Irrigation</td>
<td>Corridors/riparian strips</td>
<td>Infrastructure</td>
</tr>
<tr>
<td></td>
<td>Soil protection</td>
<td>Agroforestry</td>
<td>Integrated watershed management</td>
</tr>
<tr>
<td></td>
<td>Contour cropping/terracing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Site specific management</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Socio-economic state</strong></td>
<td>Local employment creation</td>
<td>Integrated watershed management</td>
<td>Territorial planning</td>
</tr>
<tr>
<td></td>
<td>Conservation of cultural heritage</td>
<td>Corridors/riparian strips</td>
<td>Infrastructure provision</td>
</tr>
</tbody>
</table>
Box 5: Benefits and opportunities in relation to rehabilitation of site into bio-habitat

A wide range of linked climatic, social, health, wildlife habitat and economic benefits can be derived from restoring natural ecological processes within the limits permitted by planning regulations. Reinstatement of the semi-natural environment affects living organisms and can also contribute to enhancing air quality and climate change adaptation. Flood risk may also be mitigated through a holistic approach to land use planning, hydrological design and water management.

There are a whole range of both public and private business benefits flowing from this type of initiative, including water quality improvement, improved urban resilience to natural and man-made disasters, the protection/conservation of wildlife and human/animal health benefits.

5.3 Practical examples and case studies

[To be completed after the public consultation of this document]

5.4 Five action items

Businesses are encouraged to:

1. Carry out a thorough economic, social and environmental site-use re-evaluation at the point of end of life of a built asset

Companies should ensure that each potential strategy fulfils all the demands being made on land and real estate resources and that the outcomes represent good long term strategic land and real estate management in both the public and private interest.

Companies should review the strategic and long term requirements for the existing site for themselves and for their clients, to identify the extent to which these are served by the existing site facilities. This includes an assessment of the following alternative future strategies:

- a review of clients’ potential accommodation/workspace requirements and expectations taking into account demographic changes, new ways of working, etc.;
- an assessment of the possibility of extending or adapting the use of the existing building by facilitating a wider range of uses that may go beyond its original core function;
the undertaking of a survey of the current condition of the existing building and its facilities and the preparation of a schedule of dilapidations (list of disrepairs) for buildings that might be retained and retro-fitted;

- A survey of all the relevant environmental, social and financial (use value and residual site value) benefits of the existing building to assess the sustainability of continuing to use the existing site facilities;

- a cost-benefit analysis and sustainability assessment of the site through the national environmental agency or commercial assessment tools and/or methodologies to evaluate the optimal option in terms of economic, social and environmental benefits; and

- the calculation of additional costs, such as temporary accommodation for existing tenants.

The following could also be considered:

- potential termination and decommissioning costs;

- the potential ‘sustainability’ value/brand premium that could be achieved through a sustainable refurbishment;

- potential site clearance and demolition requirements and costs, including any landfill, recycling and off-site disposal requirements, by undertaking initial broad site inspections (topography and landform) and building surveys; and

- the environmental responsibilities of the interested stakeholders by making an initial environmental audit to assess the level of environmental impact study required.

Companies should pay particular attention to occupational safety & health and the use of appropriate protective personal equipment during waste management, brownfield regeneration and rehabilitation of sites.

Companies should comply with heritage and archaeological guidelines and integrate them into the reconstruction or rehabilitation evaluation process.

Companies should consider the issue of transparency as a risk that might affect a project’s strategic economic and social viability in drawing up future re-development strategies.

Box 6: Relevant UN resources and tools

Commercial Real Estate: Unlocking the energy efficiency retrofit investment opportunity

IFC Green Buildings Green Building Opportunities per Sector
http://www.ifc.org/wps/wcm/connect/4c0b16004aab9e9d9672d69e0dc67fc6/Green+Buildings+-+Opportunities+per+Sector.pdf?MOD=AJPERES
II. **Prepare a resource use action plan for material use, waste conservation and management – Create conditions for minimising carbon emissions and carbon mitigation**

**Companies should** assess the available refurbishment and retrofitting interventions related to environmental risks and select appropriate and cost effective solutions that optimise energy efficiency and minimise CO₂ emissions.

**Companies should** review the level of environmental risks, such as flooding, subsidence, etc. that may be caused by projected climate change by taking into account existing and emerging standards of construction.

**Companies should** ensure that best practice ILO human rights and labour protection criteria are incorporated into specifications and all other contract documents when refurbishing a building.

**Companies should** ensure that construction employment opportunities are also offered to women.

**Companies could** prepare a resource use action plan as the basis for assessing whether the refurbished site amenities and facilities are able to maximise the retention of embodied carbon (compared to adopting a redevelopment strategy) and other materials.

**Box 7: Relevant UN resources and tools**

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ILO Helpdesk</td>
<td><a href="https://www.unglobalcompact.org/resources/75">https://www.unglobalcompact.org/resources/75</a></td>
</tr>
<tr>
<td>Eliminating Child Labour – Guides for Employers</td>
<td><a href="https://www.unglobalcompact.org/resources/79">https://www.unglobalcompact.org/resources/79</a></td>
</tr>
</tbody>
</table>
III. Prepare an independent method statement and risk assessment for safe and efficient waste management

Companies should arrange for the preparation of a pre-demolition audit and deconstruction schedule as the basis for developing the method statement.

Companies should arrange for the preparation of a risk assessment and method statement before dismantling any structure, disconnecting services or demolishing civil works. The work method statement must encompass: work sequencing; site-specific work methods; material recycling targets and specification; protective equipment and clothing; emergency accident procedures; and issuance of a completion certification.

Companies should ensure that waste management strategies encompass the entire process from demolition, disposal of the waste, waste haulage and final disposal. The approach used will be highly dependent on whether the demolition at the end of life had been considered in the original construction design and the type of waste created during the demolition process. An essential first step in developing a waste management strategy is the preparation of a pre-demolition audit and deconstruction schedule, defining how to both undertake the demolition safely and to maximise the quantity of reclamation material. Particular focus of such a strategy should be on reducing the proportion of waste going to landfill and on defining how hazardous or special waste should be handled and disposed of.

Companies should ensure that provision is made for handling site waste water to protect groundwater and existing natural water courses and drains.

Companies should ensure that all local legal requirements are complied with and certification for removal of waste materials from site is available for inspection.

Companies should ensure that the demolition process follows the decent work and labour procedures outlined in ILO mandates in terms of fair wages, payment of overtime, site safety and children’s rights.

Companies should ensure that surrounding communities are not affected by either the demolition works or the site waste disposal.

Companies should take effective measures to ensure that materials, especially those of a hazardous nature are not stored or disposed of on indigenous peoples’ lands or territories without their free, prior and informed consent.

Companies could process demolition materials for reuse and/or resource recovery. Preferably this should be undertaken on site. Reuse and/or resource recovery is highly dependent on the market that is available for selling the recyclables. Depending on economic viability the processing can be high level (e.g. reusing waste timber to create chipboard or recycling aluminium) or low level (such as using simple crushing technology to create on-site fill).
Box 8: Relevant UN resources and tools

Harmful substances and hazardous waste

IV. Engage with communities to ensure that their expectations and needs are met

Companies should as part of the process of developing a strategy for using brownfield sites, define the liabilities of the past and present parties that have been involved, in accordance with the “polluter pays” principle. The first step is to examine the current impact on local communities of previous environmental damage and spillages. The future effect on the local community of using the brownfield site will also need to be assessed, particularly with regard to the demolition process, the presence of hazardous materials and other indirect issues that may affect the site clean-up process, such as statutorily defined safety factors, working hours, and possible criminal incidents on sites arising from a lack of on-site security (including theft of recyclable materials).

Companies should review potential planning, legal and environmental restrictions that may lead to conflicts of interest in how the brownfield land was utilised and how it may be used in the future.

Companies should review balancing food production needs against the housing needs of indigenous peoples, who may have been the subject of internal displacement during the original development.

Companies should comply with the following obligations under international and national legislation and communal customs, as part of administering any demolition process:

- health and safety, including addressing perceived public health and environmental concerns;
- heritage and archaeological issues;
- nature conservation;
- bio-diversity protection; and
- considerate contractor schemes.

Companies could prepare consultation design materials which can be presented to existing communities in order to develop future proposals for the site that are acceptable to existing and indigenous communities.
Box 9: Relevant UN resources

International Examples of Community Consultation

World heritage: Benefits beyond borders

V. Undertake an environmental impact analysis before any re-development is undertaken

Companies should undertake a survey and evaluation of the condition of the field site in order to assess what clean up and rehabilitation technologies may be required to bring the site up to current and future projected environmental standards, based on assessing site development features, including natural and geological hazards and man-made factors.

Companies should review the local statutory and regulatory requirements for preparing environmental impact assessments (EIA) and, if necessary, seek legal advice and clarification.

Companies should commission specialists to undertake an environmental screening process to identify whether a full environmental impact assessment of the site is required.

Companies should identify which specialist studies (general wildlife surveys, reviews of flora, fauna, agricultural, ecological, hydrological, geomorphologic, geological, historic/cultural and archaeological) may be required to support a full environmental impact assessment if required and recruit the appropriate specialists to carry out these studies.

Companies could develop an integrated action plan creating multiple uses and benefits by taking account the following issues:

- competing demand for high quality rural land;
- forestry/water management/bio-energy/food security/areas for wildlife/livestock;
- interaction with local communities;
- policies on food and energy conservation;
- sustainable intensification of agricultural practices;
- eco-system valuation – land, forestry, water and marine resources; and
- unblocking of animal migration routes – requiring planning to create connected greenways, swales and wildlife corridors.
### Box 10: Relevant UN resources

<table>
<thead>
<tr>
<th>Resource</th>
<th>URL</th>
</tr>
</thead>
</table>
6. **KEY ELEMENTS OF A RESPONSIBLE LAND, CONSTRUCTION AND REAL ESTATE BUSINESS STRATEGY**

Figure 9 summarises the significant impact of the individual stages along the Life Cycle on the four UN Global Compact issue areas.

[To be completed after the public consultation of this document]

**Figure 9: The impact of the sectoral Life Cycle on the four issue areas**
Based on the action items regarding the individual phase of the Life Cycle, Figure 10 highlights 7 recommendations for a responsible business strategy within the sector.

[To be completed after the public consultation of this document]

**Figure 10: Recommendations for a responsible business strategy**

<table>
<thead>
<tr>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate social, economic and environmental impact assessment at the point of land status change, at the design stage and before any re-development is undertaken at the end of life</td>
</tr>
<tr>
<td>Environmental stewardship as integral part of the development, daily operation and the strategic site use evaluation of the building</td>
</tr>
<tr>
<td>Open dialogue and interaction with local stakeholders at the point of land status change, at the design stage and during use and at the end of life.</td>
</tr>
<tr>
<td>Active fight of corruption at all levels and increase of transparency by improving data accessibility and management</td>
</tr>
<tr>
<td>Decent, safe and healthy work conditions for employees and subcontracted workers</td>
</tr>
<tr>
<td>Responsible supply chain choices that aid the protection of human rights and the environment</td>
</tr>
<tr>
<td>Delivery of safe, high-performing and well-designed buildings aimed at minimisation of carbon emissions and carbon mitigation</td>
</tr>
</tbody>
</table>
Acknowledgements

Lead author

Ursula Hartenberger

Supporting authors

John Tracey-White FRICS
David Lorenz FRICS

Project team

Ursula Wynhoven (UN Global Compact)
Leimer Tejeda (UN Global Compact)
Alexandra Tarazi (UN Global Compact)
Ursula Hartenberger (RICS)
Alex Cosgrove (Latham & Watkins)
Rachel Croft (Latham & Watkins)
James Wills (Latham & Watkins)
Ayesha Waheed (Latham & Watkins)
David Lorenz FRICS (Karlsruhe Institute of Technology)

Steering Group member organisations

Acciona
BioRegional
Caisse des Dépôts
Carroll Properties Corporation
Cemex
City Developments Limited
Corio
Cushman & Wakefield
Dubai Real Estate Institute
FIABCI-Brazil
Global Compact Cities Programme
Jones Lang LaSalle
Link Management Limited
Marshalls
Real Capital Analytics
Skanska
Terre Initiative

Supporting UN agencies

RICS Member Advisory Group
General Sources of information (not explicitly mentioned in the text)

[To be completed after the public consultation of this document]
The Ten Principles of the United Nations Global Compact

**HUMAN RIGHTS**

Principle 1  Businesses should support and respect the protection of internationally proclaimed human rights; and
Principle 2  make sure that they are not complicit in human rights abuses.

**LABOUR**

Principle 3  Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining;
Principle 4  the elimination of all forms of forced and compulsory labour;
Principle 5  the effective abolition of child labour; and
Principle 6  the elimination of discrimination in respect of employment and occupation.

**ENVIRONMENT**

Principle 7  Businesses are asked to support a precautionary approach to environmental challenges;
Principle 8  undertake initiatives to promote greater environmental responsibility; and
Principle 9  encourage the development and diffusion of environmentally friendly technologies.

**ANTI-CORRUPTION**

Principle 10  Businesses should work against corruption in all its forms, including extortion and bribery.
Endnotes

1 See: https://www.unglobalcompact.org/resources/231
2 See: http://www.oecd.org/corporate/mne/
6 Note: This process is known as 'eminent domain' in the United States
10 See: http://www.fao.org/docrep/014/ma811e/ma811e00.pdf
12 Agricultural Investment And International Land Deals In Africa, Iied/Fao/Iifad, London/Rome
14 Performance Standard 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources Available at: http://www.ifc.org/wps/wcm/connect/bff0a28049a790d66b835faa8c6a8312a/PS6_English_2012.pdf?MOD=AJPERES
17 See Article 10, 28, 29, 32 of UN Declaration
20 Source: CoST, April 2011, Briefing Note 3, DFID/World Bank
21 Source: CIOB, 2013
22 In seeking to address corrupt practices in the Sector it is important to acknowledge that cultural perceptions of what amounts to corrupt practices may fall short of broader accepted norms. For example, a Corruption survey carried out by the Chartered Institute of Building (CIOB) in 2006 showed that around 25% of respondents felt that accepting or concealing bribes was either not very corrupt or not corrupt at all. Source: A report exploring Corruption in the UK construction industry, CIOB, 2013
25 The Health of Workers in Selected Sectors of the Urban Economy: Challenges and Perspectives, ILO, 2013 citing Paredes Gil et al., 2007
26 See: http://www.ilo.org/global/about-the-ilo/decent-work-agenda/lang--de/index.htm
27 See C098 - Right to Organise and Collective Bargaining Convention, 1949 (No. 98); C087 - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
29 See C111 - Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

CPWR, 2013

See: www.ilo.org

ILO estimates show that the fatality rate in advanced industrialized economies is almost half that of Central and Eastern Europe, China and India. In the Latin America/Caribbean region, the fatality rate is even higher and in the Middle East and Asia (excluding China and India), the fatality rates soar to four-fold of that in the industrialized countries. Selected hazardous jobs can be from 10 to 100 times.


C138 - Minimum Age Convention, 1973 (No. 138)


Source: UK Green Building Council, available at: http://www.ukgbc.org/content/materials

Source: Graedel and Voet, 2010

<table>
<thead>
<tr>
<th>Elemental Form</th>
<th>Production (metric tons)</th>
<th>Reserve Base (metric tons)</th>
<th>Years of Supply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium (+Bauxite)</td>
<td>190,000,00</td>
<td>32,000,000,000</td>
<td>168</td>
</tr>
<tr>
<td>Copper</td>
<td>15,600,000</td>
<td>940,000,000</td>
<td>60</td>
</tr>
<tr>
<td>Iron (+ steel)</td>
<td>1,900,000,000</td>
<td>340,000,000,00</td>
<td>179</td>
</tr>
<tr>
<td>Zinc</td>
<td>10,500,000</td>
<td>480,000,000</td>
<td>46</td>
</tr>
</tbody>
</table>

Recycling (amount of mine production that is recycled): I: Insignificant (<1% to none), L: Large (<50%), M: Medium (50-100%), S: Small (<10-1%).


The global variation in the primary energy requirements for creating materials is very wide, averaging 155 gigajoules/tonne (Gj/t) for aluminium, to 42 (Gj/t) for copper, 20.1 (Gj/t) for steel, [1.11]. (Gj/t) for concrete and 8.5 (Gj/t) for timber (excluding sequestration). Source: Hammond, G.P. and Jones, C.I. (2006) Inventory of (Embodied) Carbon & Energy (ICE), Department of Mechanical Engineering, University of Bath, United Kingdom


Reporting guidance on the 10th Principle against corruption. Available at: http://www.unglobalcompact.org/docs/issues_doc/Anti-Corruption/UNGC_AntiCorruptionReporting.pdf

See: http://www.constructiontransparency.org/home

See: www.internpol.int/Crime-areas/.../Money-laundering


Source: http://www.epa.gov/watersense/commercial


Commercial offices occupied by large financial sector companies in the UK typically produce around 500 kg of waste per employee each year, 60% of which is paper and cardboard, Source: Clark, D. CO2 emissions due to office waste, Information Paper 6, Cundall. Similar shops, hospitality, hotels restaurants, fast food outlets. Waste from

52 Secretariat of the Convention on Biological Diversity (2010) Global Biodiversity Outlook 3, Foreword by the United Nations Secretary-General


56 Based on: Sturgis Carbon Profiling, 2014

57 CIRIA, 1999

58 Based on: UNEP, 2013