Basics of Sustainability

4

Environmental Legislation and Incentives in the UK
Aims

By reading this section, you should be able to:

- Understand the various types of legislation that govern UK law.
- Know how environmental legislation is brought into force in the UK.
- Understand the main environmental legislation and incentives that concerns the UK construction industry, as well as the support and financing options that are available.
- Recognise what Corporate Social Responsibility (CSR) is and what its benefits are.
Introduction

The regulatory framework in the UK recognises that the environmental issues that are encountered daily, and in the future, are not limited to this country alone. The environmental impact of our daily work and social practices has a global effect and, to that end, the regulatory framework is very much influenced by policy decisions made by the United Nations (UN) and the European Union (EU) at international forums that lead to international legislation.

This module aims to set out the process of legislation and regulation within the UK, alongside prominent examples, and the laws that seek to protect and enhance the environment that applies to the UK construction industry. In addition, the module explores the incentives, financial or otherwise, that exist to influence and/or mitigate environmental impacts.

The Kyoto Protocol (adopted in 1997 and enforced in 2005) and the Stern Review on the Economics of Climate Change (2006) pushed the environmental impact of businesses to the forefront of the sustainability agenda, and to the attention of governments, subsequently leading to an increase in legislation. However, there is not always a clear business case to be sustainable, and there is also scientific and political debate over the cause(s) and effect(s) of climate change.

Either way, legislation is in place to ensure that there is a base business case (i.e. meet legislation or face monetary fines/other penalties) and it is recognised that most, if not all, resources are finite and, as they become progressively harder to extract or recycle, their cost will go up. Therefore, even with the environmental impact pushed aside, it is in the best interests of business to achieve the minimum baselines set by legislation, and often beneficial to exceed them.

There is therefore a ‘stick’ in the form of legislation and the rising cost of resources, and the ‘carrot’ – the positive incentives to be more sustainable. These vary from direct incentives such as feed-in tariffs for electrical generation, indirect incentives such as better yield on properties due to the high environmental specification, through to reputational gains for businesses from being a responsible and sustainable organisation.

International Legislation

When laws are made by the UN they can be identified as being ‘hard law’ or ‘soft law’. Hard law is when a country agrees formally to become a party to a protocol, convention or a treaty, thereafter that party is bound legally to keep to that which is stated within it. An example would be the UN Framework convention on Climate Change (New York, 1992). This is an international treaty that states that the countries involved must co-operatively consider actions to limit global average temperature increases and, to date, it has 195 members. This treaty led to the Kyoto Protocol (1997). The Kyoto Protocol legally binds developed countries to greenhouse gas emission reduction targets. The Protocol’s first commitment period started in 2008 and ended in 2012, while the second commitment period is between 2013 and 2020.

Soft law is not enforceable, with parties having no obligation to comply; these types of laws seek to influence the actions of states by means of charters, declarations, agendas or recommendations.

The International Court of Justice (ICJ) can enforce a breach of international law. However, within the UK, this is only possible if legislation has been passed within the UK to enable it to become enforceable.
European Union (EU) Legislation

EU law is divided into ‘primary’ and ‘secondary’ legislation. The treaties (primary legislation) are the basis or ground rules for all EU action, and can be considered as the overarching principles to the powers the EU have. Secondary legislation consists of the regulations, directives and decisions that make up the laws that filter into, or even override, UK legislation.

There are three main types of EU secondary legislation:

**Regulations**

EU Regulations are directly applicable to all EU member states and are enforceable by law, for example, Regulation 261/2004, which covers the rights of passengers on flights in the event of delays, cancellation or denied boarding. Regulations are one of the most powerful forms of EU law. When an EU regulation comes into force it overrides all national laws that deal with the same specific subject matter(s), and any subsequent national legislation must conform to any related EU regulations.

**Directives**

Directives are binding, but not necessarily immediately applicable, as they are required to be implemented by each member state to achieve the desired effects stated in that directive. Environmental legislation is usually introduced into the system by way of an EU Directive. UK law generally ratifies these Directives as either primary legislation (Acts) or secondary legislation (Statutory Instruments or SIs), subject to how significant the change to UK law is. Directives normally allow some leeway within the wording as to the exact rules to be adopted by all member states. Examples of Directives that affect construction can be found later in the module.

**Decisions**

A decision is only binding to those whom it is addressed, such as a particular EU country or an individual company. For example, the European Commission issued a decision on 4 March 2009 that Microsoft was abusing its dominant market position, and fined Microsoft for this. Very few decisions result in amendments or changes to UK law.
UK Legislation

There are two elements to law in the United Kingdom, Criminal & Civil.

Fig. 1: The Distinct Features of Civil and Criminal Law

<table>
<thead>
<tr>
<th>Criminal Law</th>
<th>Civil Law</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crimes</td>
<td>Torts</td>
</tr>
<tr>
<td>Offences against society</td>
<td>Offences against the individual</td>
</tr>
<tr>
<td>Mainly statute law</td>
<td>Mainly common law</td>
</tr>
<tr>
<td>Action brought by State</td>
<td>Action brought by individual</td>
</tr>
<tr>
<td>Intended result is punishment</td>
<td>Intended result is compensation (‘damages’)</td>
</tr>
<tr>
<td>Punishment cannot be insured against</td>
<td>Insurance can be obtained</td>
</tr>
<tr>
<td>Action can be taken regardless of loss</td>
<td>No action is possible without a loss</td>
</tr>
<tr>
<td>Proven guilty beyond reasonable doubt</td>
<td>Proven liable on the balance of probabilities</td>
</tr>
</tbody>
</table>

Criminal Law

Criminal law consists of laws made by Parliament that are called Acts, Regulations or Statutory Instruments. The main body of environmental legislation in the UK is criminal law, and the contravention of these laws can result in fines, sanctions on business trade or even prison.

Examples of environmental legislation in the UK are:

- Conservation of Habitats and Species Regulations 2010
- Control of Pollution (Oil Storage) (England) Regulations 2001
- Environment Act 1995
- Hazardous Waste (England and Wales) Regulations 2005
- Hazardous Waste (Wales) Regulations 2005
- Land Drainage Act 1991
- Nitrate Pollution Prevention Regulations 2008 (England only)
- Producer Responsibility Obligations (Packaging Waste) Regulations 2007
- Site Waste Management Plans Regulations 2008
- Water Industry Act 1991
- Water Resources (Environmental Impact Assessment) (England and Wales) Regulations 2003
- Water Resources Act 1991

(Source: Environment Agency, 2011)
Civil Law

Civil law covers such areas as contracts, negligence, family matters, employment, and land law. The Environment Agency was given the power to impose civil sanctions on businesses in England and Wales in 2010. Unlike criminal law and the prospects of prosecution, civil sanctions are imposed by the Environment Agency. The EA could still choose to prosecute environmental offences, but civil sanctions give them more flexibility on the way they enforce regulation. There are six types of civil sanctions:

- **Compliance Notice** - a Regulator's written notice requiring actions to comply with the law, or to return to compliance, within a specified period;
- **Restoration Notice** - a Regulator's written notice requiring steps to be taken, within a stated period, to reverse the harm caused by non-compliance, so far as possible;
- **Fixed Monetary Penalty** - a low-level fine, fixed by legislation, that the regulator may impose for a specified minor offence;
- **Enforcement Undertaking** - an offer, formally accepted by the regulator, to take steps that would make amends for non-compliance and its effects;
- **Variable Monetary Penalty** - a proportionate monetary penalty, which the regulator may impose for a more serious offence;
- **Stop Notice** - a written notice that requires an immediate stop to an activity that is causing serious harm or presents a significant risk of causing serious harm.

Environmental Legislation in the UK Construction Industry

This is not an exhaustive list, but does cover the primary and most prevalent types of legislation that affect the construction industry.

Examples of EU Directives

  
  The European Directive on the Energy Performance of Buildings (EPBD) took effect from 4 January 2006. A recasting of the requirements, which will be more demanding, was approved in May 2010 and came into effect in early 2013. The EPBD aims to promote the improvement of energy performance in buildings by encouraging owners and tenants to choose energy efficient buildings when seeking new premises, and to improve the energy efficiency of buildings that they already occupy. In the UK, the EPBD was implemented through major changes to the Building Regulations 2006 and the introduction of energy certification (DECs and EPCs) for both domestic and non-domestic properties.

- **1999/31/EC - EU Landfill Directive**
  
  Adopted in 1999, the EU Landfill Directive 1999/31/EC was transposed into UK law through the Landfill (England and Wales) Regulations 2002. It requires a reduction of
biodegradable waste sent to landfill. Waste is reclassified, establishing new categories of inert, hazardous and non-hazardous landfill sites.

- **2008/50/EC - Ambient Air Quality Directive**

  The 2008 ambient air quality directive sets legally binding limits for concentrations in outdoor air of major air pollutants that impact public health such as particulate matter (PM10 and PM2.5) and nitrogen dioxide (NO2). As well as having direct effects, these pollutants can combine in the atmosphere to form ozone, a harmful air pollutant (and potent greenhouse gas) which can be transported great distances by weather systems (Defra, 2011).

### Examples of UK Legislation

- **Climate Change Act (2008)**

  The Climate Change Act sets in place a legally binding agreement target to reduce carbon dioxide emissions by at least 80% by the year 2050 (based on 1990 levels as detailed in the Kyoto Protocol). The government must report every five years on progress through ‘carbon budgets’. Much of the ensuing legislation is in place to ensure the UK meets those targets, and will likely

- **Energy Performance Certificates (EPCs) and Display Energy Certificates (DECs)**

  EPCs are required when buildings are constructed, sold or rented out and when existing buildings undergo major alterations. An EPC provides residential and commercial buildings with an asset rating and is a calculation based on the Reduced Data Standard Assessment Procedure (RdSAP) software. The RdSAP methodology has, however, been shown on several occasions to be flawed, with the EPC assessment itself sometimes relying on assumptions as well, and contributes to the controversy around design versus as built compliance; the so-called ‘energy performance gap’ of buildings. EPCs show the energy demand of a building on a scale between A–G, and provide recommendations to occupants on how to improve the rating. Since 4 January 2009 every commercial building over 50m² has required an EPC for sale or letting; sellers and prospective landlords must make this available free of charge to prospective buyers or tenants before a property is viewed, or when written information is provided about the building as a result of a request by a prospective purchaser. EPCs are also required for all new construction work over 50m².

  DECs are required for public buildings with a total useful floor area of 500m² or more and were created as a direct response to the EU Energy Performance of Building Directive (above). Despite using the same A-G scale as EPCs, DECs differ as they show actual energy use of a building and the associated carbon dioxide emissions, and also provide a comprehensive Advisory Report (AR) that details how to reduce emissions from the building further. There is a penalty system in place for organisations that do not display an up-to-date DEC or have an AR.

- **CRC Energy Efficiency Scheme**

  The Carbon Reduction Commitment (CRC) Energy Efficiency Scheme is a mandatory carbon trading system designed as both a ‘carrot and stick’ to incentivise large public and
private sector organisations, which are responsible for around 10% of total UK greenhouse gas emissions, to reduce their environmental impact. It rewards businesses that adopt energy efficiency measures, and punishes those that remain passive by forcing them to buy carbon credits. The scheme works in tandem with the existing European Union Emissions Trading Scheme (EU ETS) and climate change agreements. It applies to organisations with one or more half-hourly electrical meter readings over 6,000mwh in 2008, which includes many large contractors.

The CRC contains an annual performance league table that ranks participants on energy efficiency performance. With the reputational considerations that a league table has, the scheme encourages organisations to develop energy management strategies that promote a better understanding of energy usage, as well as raise awareness of the environmental agenda and encourage behavioural change.

- **Site Waste Management Plans**

  Since 6 April 2008 all construction projects in England and Wales with a value of more than £300,000 have had a site waste management plan (SWMP). These aim to help contractors reduce construction waste and identify the by-products produced, then minimise them by using materials efficiently, utilising recycled products and ensuring waste is disposed of responsibly. On completion, the performance is checked against targets and lessons learned are carried through to the next job so that individual contractors can build up a portfolio of improvements. There is, however, ongoing debate with regard to the depth behind some of these green initiatives, and the true carbon cost of recycling materials to a plant that may be some distance from the site. SWMP are planned to be removed in England as a regulation from October 2013, but are planned to continue in Wales.

- **EIA – Environmental Impact Assessments**


- **FRA – Flood Risk Assessments**

  It is vital that checks are carried out at an early stage of all new developments to determine whether or not they are located in areas that fall within the Environment Agency’s flood plain map (available at [www.environment-agency.gov.uk/homeandleisure/](http://www.environment-agency.gov.uk/homeandleisure/))

  The Environment Agency requires a Flood Risk Assessment (FRA) to be submitted alongside planning applications for developments over one hectare in size, and areas that are known to be at flood risk. Sustainable Drainage Systems (SuDS) are an effective technique that manages surface water and groundwater sustainability, both in areas of natural drainage, and urban areas that have been altered with drainage networks.
Fig. 2: Flood risk map of central London (Environment Agency)

- **BREEAM and the Code for Sustainable Homes**

  Both the Building Research Establishment Environmental Assessment Method (BREEAM) rating and Code for Sustainable Homes (CSH) ratings are set into local authorities planning regulations, and are therefore normally necessary for any new build. BREEAM is the world’s most widely used system for assessing, reviewing and improving a range of environmental impacts associated with buildings. BREEAM can be used on any type of building, new and existing, commercial or residential. Ratings are ‘Pass’, ‘Good’, ‘Very Good’, ‘Excellent’ and ‘Outstanding’; see [www.breeam.org](http://www.breeam.org) for more details.

  The CSH is a largely voluntary standard that acts as a pathway to Zero Carbon Homes, which are to be mandated for all new build housing from 2016. The Code awards new homes a rating from Level 1 to Level 6 based on their performance against nine sustainability criteria, which are combined to assess the overall environmental impact. Level 1 is entry level with criteria just above the building regulations, while Level 6 is the highest, reflecting exemplary developments in terms of sustainability.

**Environmental Incentives in the UK Construction Industry**

As well as the regulatory environment, there are also numerous incentives, as well as support, for businesses, communities and individuals to install/buy sustainable technologies and reduce their impact on the environment.

- **Renewables**

  In 2003, Merton Council in southwest London introduced a requirement that all new developments were required to have 10% of their energy use provided from renewable sources. Many local authorities have taken on this so called “Merton rule”, with some of them now extending to 20% as part of their planning requirements (including the Greater London Authority).

  Until recently, renewables have been imposed by the ‘stick’ of planning law, however the introduction of Feed-in Tariffs (FITs) and the Renewable Heat Incentive (RHI), as well as Enhanced Capital Allowances – a form of tax relief for installation of renewables – have provided a ‘carrot’.
A FIT is a mechanism for small-scale (<5MW) low carbon electricity generation, most prominently solar PV, but also for small-scale wind, hydroelectricity, anaerobic digestion biogas and Combined Heat and Power (CHP) installations. After an initial installation cost, an electricity supplier pays the owner for each kilowatt of electricity generated for a set period of time under terms of a contract. In addition, excess electricity can be exported back to the grid for payment, and savings are made on electricity bills.

More on FITs can be found here: www.gov.uk/feed-in-tariffs/overview

The Renewable Heat Incentive is a motivator for organisations, businesses, and communities to install renewable heat generating technologies, such as solar thermal panels and ground source heat pumps, and be paid per kilowatt in a similar manner to FITs. Domestic properties are due to benefit from the RHI in 2014.


- **Enhanced Capital Allowances**

  Enhanced Capital Allowances (ECAs) enable a business to claim 100% first-year capital allowances on their spending on qualifying plant and machinery. There are three schemes for ECAs:

  - Energy-saving plant and machinery
  - Low carbon dioxide emission cars and natural gas and hydrogen refuelling infrastructure
  - Water conservation plant and machinery

  Businesses can write off the whole of the capital cost of their investment in these technologies against their taxable profits of the period during which they make the investment.

  More information can be found here: http://etl.decc.gov.uk/etl

- **Support and finance**

  The Carbon Trust is a not-for-profit company set up by the UK government to provide specialist support to help business and the public sector cut carbon emissions, save energy and commercialise low carbon technologies. The Carbon Trust Advisory Service helps companies address issues across the climate change and sustainability agenda by developing and implementing strategies.

  The Carbon Trust Implementation Services and Siemens Financial Services provide a range of energy efficiency financing options to help businesses save energy and money. There are other bodies that can provide advice in different areas, such as the Waste & Resources Action Programme (WRAP) which focuses on waste management. Like the Carbon Trust, WRAP provides advisory services, but on efficiency of the supply chain, effective waste prevention and reduction, and recycling, among other areas.
Corporate Social Responsibility (CSR)

Business sustainability is often defined as managing the triple bottom line – a process by which firms manage the financial, social and environmental aspects of their business, as well as the risks and opportunities that these three strands impose on them. Companies that adhere to sustainable business models can create economic value and build a strong company while also creating economic value and contributing to both a healthy ecosystem and their local community.

Corporate Social Responsibility (CSR) is a business approach that ensures companies are accountable and responsible for impacts resulting from their activities in the environment they operate in. Importantly, the UK Government is committed to CSR being an integral part of all annual company accounts and, as of April 2013, has mandated quoted companies to report on their greenhouse gas emissions.

There are a number of terms that are interchangeably used with regard to CSR, such as corporate responsibility, sustainability, sustainable development and corporate citizenship. In 2002, Adrian Cadbury, former chairman of Cadbury PLC, placed CSR in the following context:

“The continued existence of companies is based on an implied agreement between business and society. In effect, companies are licensed by society to provide the goods and services which society needs. The freedom of operation of companies is, therefore, dependent on their delivering whatever balance of economic and social benefits society currently expects of them.”

What is covered by CSR?

The issues that are encompassed in CSR are driven by societal needs and, as such, both open to interpretation and liable to evolve over time. Therefore, businesses need to be alert to societal trends and react accordingly.

The following list, compiled by Zaman (2003) is representative of CSR issues:

- Corporate governance
- Health and safety
- Employee rights
- Supply chain management
- Marketing and communications
- Environmental impact
- Community and societal responsibility
- Animal rights
- Investment/shareholder activism
- Technology and data privacy
- Government intervention
- Business ethics
There are a number of best practices that foster business sustainability and help organisations move along the path from laggards to followers to leaders. These practices include:

- **Stakeholder engagement**: Organisations can learn from customers, employees and their surrounding community. Engagement is not only about pushing out messages, but understanding opposition, finding common ground and involving stakeholders in joint decision-making.

- **Environmental management systems**: These systems provide the structures and processes that help embed environmental efficiency into a firm’s culture and mitigate risks. The most widely recognized standard worldwide is ISO 14001, but numerous other industry-specific and country-specific standards exist.

- **Reporting and disclosure**: Measurement and control are at the heart of instituting sustainable practices; what you cannot measure, you cannot manage. Not only can organisations collect and collate the information, but they can also be transparent with it. The Global Reporting Initiative (GRI) is one such example of a widely used voluntary reporting standard.

- **Life cycle analysis**: Organisations wanting to take a large leap forward should thoroughly analyse the environmental and social impact of the products they use and produce through life cycle analysis. For example, using sustainably sourced timber and other construction materials.

**Benefits of CSR**

The business case for CSR has been proffered by governments, NGOs (Forum for the Future, The Natural Step, Christian Aid, Business in the Community), industry bodies (Health and Safety Executive, Chartered Institute of Personal Development, Chartered Institute of Building) and businesses themselves (Marks & Spencer, Puma, KPMG), to name but a few. Firms that are sustainable have been shown to attract and retain employees more easily and experience less financial and reputation risk. In addition, an increasing number of awards are bestowed to companies for their sustainability achievements and vision, with innovative and adaptive approaches to their environments. Companies that lead or follow the path of CSR are increasingly being recognised as part of the catalyst for change, rather than an obstacle to improvement.

**Bibliography and Further Reading**


BREEAM [www.breeam.org](http://www.breeam.org)


Environment Agency [www.environment-agency.gov.uk](http://www.environment-agency.gov.uk)

Waste and Resources Action Programme (WRAP) [www.wrap.org.uk](http://www.wrap.org.uk)