

## Module 5: Climate Change Planning for Green Infrastructure

### Activity 1: Task

On your table you have one of three plans – Upland, coastal and post industrial land

1. Identify what is green infrastructure on the plan and mark it with different colour pens (based on the definitions below). This could include GI corridors and interlinking areas. The plans may include footpaths.
2. Consider and conclude which of the types of GI that you have identified would have the highest number of benefits? (using the information below regarding different GI benefits).
3. Be ready to feed back in discussion.

### Activity 1: Definition of Green Infrastructure

A network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities  
*(NPPF, 2011)*

A network of multi-functional greenspace, both new and existing, both rural and urban, which supports the natural and ecological processes as is integral to the health and quality of sustainable communities.  
*(PPS12 & Natural England)*

Green infrastructure is the physical environment within and between our cities, towns and villages. It is a network of multi-functional open spaces, including formal parks, gardens, woodlands, green corridors, waterways, street trees and open countryside. It comprises all environmental resources and thus a green infrastructure approach also contributes towards sustainable resource management.  
*(Green Infrastructure Planning Guide, North East Community Forest (PAS accredited), 2006)*

A network of multi-functional greenspace provided across a region. GI consists of the core network of protected sites, assets and ecological functional landscapes and linkages. "The open environment within urban areas, the urban fringe and the countryside. It is a network of connected, high quality, multi-functional open spaces, corridors and the associated linkages which provide multiple benefits for people and wildlife everywhere.  
*(East Midlands Development Agency)*

GI includes both public and private assets and ranges from inner urban areas to remote rural parts of a region. Its function depends on its scale, form and location, with many elements having multi-functional purposes.  
*(North West Green Infrastructure Think Tank)*

## Activity 1: Benefits of Green Infrastructure

### Examples:

**Managing surface water** – green infrastructure can help to manage surface water and sewer flooding by reducing the rate and volume of water runoff; it intercepts water, allows it to infiltrate into the ground, and provides permanent or temporary storage areas.

**Managing high temperatures** – particularly in urban areas, where evaporative cooling and shading provided by green infrastructure can ensure that towns and cities continue to be attractive and comfortable places to live, work, visit and invest.

**Carbon storage and sequestration** – storing carbon in soils and vegetation.

**Managing riverine flooding** – green infrastructure can provide water storage and retention areas, reducing and slowing down peak flows, and thereby helping to alleviate river flooding.

**Food production** – providing environmentally sustainable food production that delivers food security.

**Material substitution** – replacing materials such as concrete and steel (which involve high fossil fuel consumption in their production) with sustainably managed wood and other natural materials.

**Providing low carbon fuels** – replacing fossil fuels with lower carbon alternatives, including bioenergy, wind and hydro.

**Reducing the need to travel by car** – providing local recreation areas and green travel routes to encourage walking and cycling.

**Helping other species adapt** – providing a more vegetated and permeable landscape through which species can move northwards to new 'climate spaces'.

**Managing visitor pressure** – providing a recreation and visitor resource for a more outdoors lifestyle, and helping to divert pressure from landscapes which are sensitive to climate change.

**Reducing soil erosion** – using vegetation to stabilise soils that may be vulnerable to increasing erosion is maintained.