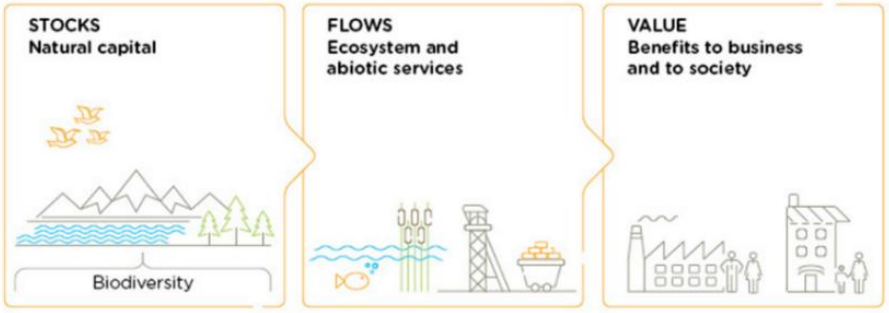
What do we mean by a natural capital approach to policy and planning decision-making in Scotland?

1. What is natural capital?

Natural capital is defined as *"the renewable and non-renewable stocks of natural assets, including geology, soil, air, water and all living things, that combine to yield a flow of benefits to people"*. It is a concept that enables us to think of our natural environment as an **asset** that provides flows of **ecosystem services** which **benefit** our society and economy. Framing the natural environment in this way can help us understand the need to **invest** in and **manage** this asset, so that we can continue to enjoy these benefits. This relationship is shown on the diagram below:



Box 1: Natural capital assets – peatland as an example

Natural capital assets come in many different forms – from populations of wild species (e.g. birds, fungi, animals) to soils, minerals and habitats. One helpful way of thinking about natural capital assets is in terms of different **ecosystems** (e.g. woodland, peatland, coasts, farmland). Ecosystems can generally be **measured**, **mapped** and assessed in terms of their **condition** (i.e. whether they are healthy or degraded). They also provide different combinations and amounts of **ecosystem services**, depending on the characteristics of their **living** (i.e. plants, animals etc) and **non-living** (e.g. geology, temperature, elevation) components.

Peatlands are **terrestrial wetland ecosystems** where waterlogged conditions prevent plant material from fully decomposing. They are an important part of the landscape in Scotland accounting for nearly **a quarter of the land area**. Historically, peatlands have been subject to various **pressures** including draining for forestry, grazing, burning and extraction for horticulture and energy. This has affected their **condition** and a majority of Scotland's peatlands are currently degraded.

Healthy peatlands provide a range of important **ecosystem services**, especially **carbon storage**, as the decomposition of plant material is extremely slow. This results in a gradual **net accumulation** of carbon rich peat over many hundreds of years. In a degraded condition peatlands release carbon, resulting in **net emissions** of greenhouse gases. They are also important for **water quality**, **flood storage** and **aesthetically** as part of our landscapes and cultural identity. Because of their importance as one of Scotland's key natural capital assets, especially in terms of **climate change mitigation**, the Scottish Government has committed £250M over ten years for peatland restoration.

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2. What is a natural capital approach to policy and planning decision-making?
The main aim of a natural capital approach is to ensure that decision-making processes view natural capital as an asset that underpins our economy and society rather than as a constraint or distraction. This requires recognition of both the value of the natural assets affected and the impacts and dependencies on these assets associated with the decision being made. The approach should also show how investing in the better management of natural capital can provide greater benefits for our economy and society.

Historically, natural capital has been overlooked in decision-making. This has resulted in the degradation of our natural capital assets, limiting their ability to provide the ecosystem services that underpin our society and economy. The Scottish Government is committed to embedding natural capital into decision-making as part of a **"four capitals"** approach to economic recovery from COVID-19. This means placing natural capital on an equal and interlinked footing with social, economic and human capital, recognising natural capital's importance in building a wellbeing economy.

The wider and more consistent use of a natural capital approach will improve the sustainability and effectiveness of the policy choices taken by national and local government, of the investment decisions made by the private sector and of the land management decisions made by landowners and tenants. It leads to a focus on:

- Delivering **multiple benefits** (e.g. carbon storage, water quality, flood mitigation and biodiversity from healthy peatlands);
- Minimising **harmful impacts** on the asset and the services they provide; and
- Increasing **resilience** (e.g. to climate change, economic variability).

The Natural Capital Coalition has developed a one-page guidance note on the natural capital approach, structured around six **key features** (see Table 1 below). Not all these features will be relevant (or as relevant) in a given decision context, and there are different ways that decision-makers can interpret them.

Table 1: Key features of the natural capital approach and practical examples

Features of natural capital approach	Practical examples
Focusses on **stocks** of natural capital assets (quality and quantity) as well as **flows** of benefits	Crown Estates Scotland applied the Natural Capital Protocol to two land based businesses in Moray. This included assessment of natural capital stocks and flows to help inform management strategies. The Natural Capital Asset Index (NCAI) tracks changes in the capacity of Scotland's terrestrial (land based) ecosystems to provide benefits to people, based on changes in habitat quantity and quality over time.
Incorporates both **biotic** (living) and **abiotic** (non-living) natural resources	Scotland's Natural Capital Accounts cover both biotic (e.g. fish capture, timber) and abiotic (e.g. fossil fuels, minerals) aspects of natural capital. The accounts document the flux of biotic, abiotic, renewable and non-renewable stocks of natural assets, informing policy and management.

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Features of natural capital approach	Practical examples
Assesses how both stocks and flows are likely to change in the **future**	Fisheries management includes explicit consideration of fish stocks and the future benefits / risks of different management strategies when setting quotas etc.
Considers both **dependencies and impacts** of an economic activity on natural capital	The Scottish Whisky Association recognises its dependency on the use of peat and a supply of high quality water, and is producing a Peat Use Action Plan to address its future impact on peatlands.
Uses **valuation** of impacts and dependencies[1]	A refresh of the management plan for the Pentland Hills Regional Park elicited stakeholder preferences for different ecosystem services as an approach to valuing the impacts of different management scenarios. NatureScot undertook a pilot project to test a natural capital approach on NatureScot land. This included monetary valuation of benefits where possible.
Makes the links between all of the above to support **systems-based thinking**	The Scottish Government commitment to the "four capitals" approach to economic recovery provides a framework for wider systems thinking across natural, social, economic and human capitals.

[1] Valuation of natural capital can use a variety of monetary and non-monetary approaches to capture the range of values people derive from nature.

3. Further support and guidance

Scottish Government Natural Capital Policy will support stakeholders and organisations by developing and promoting guidance, case studies and best-practice that helps embed the natural capital approach (e.g. the role of private and other forms of innovative finance for investing in natural capital).

4. Contact information

Questions or comments on this note can be directed to the Scottish Government Natural Capital Policy team:

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