



Getting the best from our land

A land use strategy for Scotland

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Ministerial foreword



This is Scotland's first Land Use Strategy and we believe it is the first of its kind anywhere in Europe. The scale and complexity of the issues around land use are challenging and the agenda for change which the Strategy sets out is equally challenging. Scotland's land is a fundamental asset; without it we can neither prosper as an economy nor function as a nation. Our land resource is finite and in some cases fragile. We have a responsibility to future generations to care for our land and ensure that we do not compromise the choices they may wish to make in the future.

This Strategy is based on our recent research and stakeholder participation as well as a considerable body of wider work undertaken since the Climate Change (Scotland) Act was enacted in August 2009. Although the timescale for the production of the Strategy has been driven by the Act, its publication is only the beginning. The Strategy is the first stage in a process of change. It provides a focal point for all of us to consider and agree upon what our land can deliver for Scotland, and as such it represents the Government's statement of policy on land use. It is a document that sets a high-level, national policy agenda. This is clearly articulated in our Principles for Sustainable Land Use which we believe will help guide all those involved in planning the future use and management of land. The Strategy contains Objectives for improving the benefits we can get by making wise choices about the use of our land. It also contains clear Proposals for action, and we will publish an action plan shortly after publication. It quite deliberately does not propose detailed policies for different parts of Scotland because these are matters which need local engagement and local decisions.

We consulted widely on the Draft Strategy, and many stakeholders gave us their views – detailed and constructive comments which helped to shape this final Strategy. Some stakeholders told us that the Draft Strategy needed to go further, to be bolder and more ambitious. This response is heartening because it tells us two things: firstly that the Draft has fired the imagination and stimulated debate, and secondly that Scotland is ready to contemplate change to the way it values and manages its land resources. This is important because we must travel along this path together, building mutual awareness of diverse and multiple uses of land and working in partnership for the benefit of Scotland's people and Scotland's rich land resources. A signal has been given to the Government that the great majority of those with an interest in land use see the need to move from a position where plans and decisions are made in isolation to an integrated – and hence more productive – approach to planning for the future uses of land. This is an exciting prospect and we all relish the challenge.

But it is important that we do not rush headlong into irreversible decisions. Although we need to have Objectives for the long term, our first Land Use Strategy is about setting the agenda for the first five-year period. Some of our Proposals tackle knowledge gaps, some

propose further work. Our desire for reasonable caution has received criticism from some quarters. Yet we believe it is justifiable: to put it simply, we cannot afford to get this wrong.

This Strategy reflects a shared agenda and will lead to the realisation of our Vision for sustainable land use across Scotland. There is very wide agreement on the high-level Objectives in this Strategy. We must all try to ensure that we do not lose sight of them as we develop our response to the Strategy and as we reflect on the implications for each of us in our industry, on our farm, in our town or village, or as we use land for recreation.

We expect that the Land Use Strategy will quickly become an important part of the decision-making process. We expect all public bodies to have regard to it as they carry out their functions. The Principles for Sustainable Land Use should be at the heart of all significant decisions which impact upon land. We also expect that other land managers will have regard to the Strategy when making decisions about the future deployment of effort and resources.

We will work with key public-sector partners on delivery of the Strategy – Forestry Commission Scotland (FCS), Scottish Natural Heritage (SNH), the Scottish Environment Protection Agency (SEPA) and our two National Park Authorities – to build on the mechanisms they already use to work constructively with local partners on local land-use issues.

Once we have set out on the route towards a better integrated strategic approach to land use there will be no turning back. We have a long way to go – but this is a journey worth making. Together we can ensure that our use of Scotland’s land secures increased benefits which will provide us with a sustainable future.

Richard Lochhead MSP, Cabinet Secretary

1 A land use strategy for Scotland's future

1.1 Our agenda for sustainable land use

The ways in which we use Scotland's land resources in the future will be critical to our economic performance, to our environment, to our sense of place and community, and to our quality of life.

This Strategy sets out a long term Vision towards 2050 with three clear Objectives relating to economic prosperity, environmental quality and communities.

In order to secure these Objectives, the Strategy identifies key Principles for Sustainable Land Use which reflect Government policies on the priorities which should influence land use choices. The Principles are relevant for everybody involved in planning the future use of land or in taking significant decisions about changes in land use.

Our Vision

A Scotland where we fully recognise, understand and value the importance of our land resources, and where our plans and decisions about land use deliver improved and enduring benefits, enhancing the wellbeing of our nation.

Our Objectives

- **Land based businesses working with nature to contribute more to Scotland's prosperity**
- **Responsible stewardship of Scotland's natural resources delivering more benefits to Scotland's people**
- **Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use**

Principles for Sustainable Land Use

The Principles below are in line with the principles of sustainable development. They also reflect Government policies on the priorities which should inform land use choices across Scotland. We expect that they will be used by public bodies when making plans and taking significant decisions affecting the use of land. We also strongly encourage individuals, businesses and organisations who have significant land management responsibilities to have regard to them.

- a) Opportunities for land use to deliver multiple benefits should be encouraged.
- b) Regulation should continue to protect essential public interests whilst placing as light a burden on businesses as is consistent with achieving its purpose. Incentives should be efficient and cost-effective.
- c) Where land is highly suitable for a primary use (for example food production, flood management, water catchment management and carbon storage) this value should be recognised in decision-making.
- d) Land use decisions should be informed by an understanding of the functioning of the ecosystems which they affect in order to maintain the benefits of the ecosystem services which they provide.
- e) Landscape change should be managed positively and sympathetically, considering the implications of change at a scale appropriate to the landscape in question, given that all Scotland's landscapes are important to our sense of identity and to our individual and social wellbeing.
- f) Land-use decisions should be informed by an understanding of the opportunities and threats brought about by the changing climate. Greenhouse gas emissions associated with land use should be reduced and land should continue to contribute to delivering climate change adaptation and mitigation objectives.
- g) Where land has ceased to fulfil a useful function because it is derelict or vacant, this represents a significant loss of economic potential and amenity for the community concerned. It should be a priority to examine options for restoring all such land to economically, socially or environmentally productive uses.
- h) Outdoor recreation opportunities and public access to land should be encouraged, along with the provision of accessible green space close to where people live, given their importance for health and well-being.
- i) People should have opportunities to contribute to debates and decisions about land use and management decisions which affect their lives and their future.
- j) Opportunities to broaden our understanding of the links between land use and daily living should be encouraged.

1.2 Why do we need a Land Use Strategy?

We should aim to make the best use of our land resources while also increasing the benefits that they can provide. Scotland's land resources provide us with a wealth of benefits – food, timber, clean water, energy, employment, transport links and recreation opportunities. In addition they form a key component of our national identity. Although land and the use which we make of it affects almost every aspect of our lives, there is scope for it to deliver wider, increased and more enduring benefits.

There will always be difficult choices to be made about how best to use land. Increasing demands and expectations often exert considerable and competing pressures. In the relatively recent past we have witnessed: changing consumption patterns; a growing acceptance that we need to adapt our lives and the way we use resources in order to reduce greenhouse gas emissions; pressures on productive land from built development; changes to weather patterns which impact on productivity and which increase flood risk.

At the same time we demand more from Scotland's land – more produce, more recreation, more carbon storage, more biodiversity. However our land resource is finite. That means we have to optimise the ways in which we use land and maintain the good health of the land so that it can continue to provide both the essential services we require and the other benefits we want. To achieve this we must increasingly think strategically about the capabilities and potential of our land resources and the way they are used now and in future.

The Land Use Strategy therefore has a crucial role to play in achieving sustainable land use across Scotland which will contribute to making us a prosperous and successful nation. It sets the long-term directions we need to pursue to get the best from Scotland's land. It is sensible that the Strategy should evolve over time and in dialogue with stakeholders so that it continues to reflect changing circumstances and improved mutual understanding. It will in any case be subject to review at intervals of not more than five years.

1.3 How does it relate to other Government strategies?

The Government's purpose is to create a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth. The Land Use Strategy provides a key element in support of this. In order to achieve the full benefits that can be secured from sustainable land use the Government will ensure that its own policies are aligned with the Strategy's Objectives and Principles.

This Strategy will sit alongside other Government plans and strategies – notably the *National Planning Framework*¹, strategies for biodiversity, forestry, marine, soils and other resources, and for infrastructure such as transport and waste – all working to support the Government's purpose. It is fully integrated and aligned with our recent reports *Low Carbon Scotland*:

¹ <http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/npf>

Meeting the Emissions Reduction Targets 2010-2022² and Low Carbon Economic Strategy for Scotland: Scotland – A Low Carbon Society³

The Land Use Strategy provides a broad context for planning authorities on Government policies relevant to all land use. We therefore expect planning authorities to have regard to the Strategy in preparing their development plans. However, the principal policy framework for development plans continues to be provided by the *National Planning Framework* and *Scottish Planning Policy*⁴. Planning decisions should continue to be made in accordance with the development plan unless material considerations indicate otherwise. The question of what is material will depend on the circumstances of each case.

The policy framework for management of the marine environment is provided by the marine planning system. Future reviews of the Strategy will have regard to marine plans developed under the Marine (Scotland) Act 2010⁵ and marine plans will similarly have regard to the Land Use Strategy as a statement of relevant Government policy.

1.4 How will it work in practice?

The Land Use Strategy sets out the changes we need to make in our thinking, our decision-making and our actions to make our Vision a reality. It sets the agenda for public, private and third sector alike, guiding our approach to land use and ensuring that we remain focused on achieving sustainable land use across Scotland; optimising the way we use land and ensuring that it continues to provide us with the benefits we need, now and in the future.

The key to this lies in achieving a more integrated approach which enhances our capability to derive wider benefits from the land whilst also ensuring that fundamental resources are cared for and continue to provide for current and future generations. Most land already has multiple functions and delivers multiple benefits, but there is considerable scope for improvement. The most significant gains will be made by first ensuring that we are as clear as possible about Objectives for land use at the national level. It is right that detailed plans and decisions about land use should continue to be made at a local level to reflect local needs and circumstances. The Strategy sets a framework which will inform these local processes.

The Strategy has three Objectives relating to the economy, environment and communities – the three pillars of sustainability. For Scotland to prosper these Objectives must be given equal weight at the national level, and the Strategy provides this context. At a more local level the balance between these considerations in relation to given situations can quite properly vary.

²: the Report on Policies and Proposals: <http://www.scotland.gov.uk/Publications/2011/03/11161520/0>

³: <http://www.scotland.gov.uk/Publications/2010/11/15085756/0>

⁴ Scottish Planning Policy: <http://www.scotland.gov.uk/Publications/2010/02/03132605/12>

⁵: <http://www.scotland.gov.uk/Topics/marine/seamanagement/marineact>

This first Strategy sets out Objectives at a national scale. It also provides broad Principles to guide policy and decision making. The Government's role is to assist land managers to make choices about how they use their land so that those decisions are more likely to contribute to the achievement of the national Objectives. The Strategy is not the place to define which parcel of land should be used for which purpose in a prescriptive way and it does not seek to do that.

The Strategy recognises that different individuals may have different legitimate interests and priorities for the use of individual areas of land and also that the main factors influencing land use and land use choices can vary considerably from area to area. This is why decisions are generally best made by those closest to the land – by individuals, land managers, communities and businesses.

The Government already has clear policies across major land use sectors, for example through the statutory planning system and in relation to flood management or forestry. The Principles for Sustainable Land Use reflect Government priorities and should guide and influence land use choices.

Clearly some of the Principles will be more relevant than others in certain circumstances or parts of Scotland, but it is not an option to continue to look at a narrow range of interests when making decisions about land. In order to optimise the benefits we get from use of our land resources we must think and act holistically in making plans and decisions about land use. The Principles set out in this Strategy are the key to achieving a better integrated approach which will secure real benefits in practice.

We expect that these Principles will be used by public bodies and by the private sector when they take significant decisions about the future use of land and we strongly encourage all others who have land management responsibilities to have regard to them as well. We expect the public sector to lead the way in demonstrating through their plans and decision-making how the Strategy can be delivered and in considering whether and what changes to existing systems are needed.

1.5 What will the Strategy achieve?

The Strategy will help us all get more from the land. It will build the capacity of land managers to increase and sustain their returns, of communities to understand and enjoy the land and its benefits, and of the natural environment to thrive and adapt to a changing world.

This first Strategy is the beginning of a process. It paves the way for a significant shift towards a more integrated approach to land use. It will take time for the results of the changed approach set out in the Strategy to become fully apparent. However, neither the Strategy nor the Government alone can deliver sustainable land use.

There is wide consensus that we are not yet getting the best from our land. By building common goals, mutual understanding, recognition of diverse objectives, and corresponding alignment of public sector policies, this Strategy helps us all play our part in achieving more benefits today whilst maintaining the future capacity of Scotland's land.

1.6 Next steps

There are a number of Proposals throughout the Strategy and the Government with its SEARS⁶ partners will lead on their delivery. The Proposals will take effect over the five-year period following publication, and we will develop an action plan to show how they will be taken forward. Wider delivery of sustainable land use across Scotland will require improving our approach to land use and working in partnership – further detail on delivery is set out in Chapter 5.

1.7 Proposals

Proposal 1

Publish an action plan following publication of the Strategy. *Before end 2011.*

We propose to publish an action plan as soon as reasonably possible after publication of the Strategy. This will set out further detail regarding how and when the Proposals identified in the Strategy will be delivered. The involvement of stakeholders is important to the implementation and delivery of the Proposals. Following publication of the action plan we will examine how best to further involve stakeholders, and what form that involvement might best take.

Proposal 2

Provide an annual progress statement on the Land Use Strategy. *Mid 2012 and annually thereafter.*

We also propose to publish an annual statement which will monitor and record progress against delivery of the actions. This statement will provide an opportunity to take stock of the success of the policies and Proposals set out in the Strategy. In doing so, it will enable us to consider whether we need to supplement or refocus our actions.

The Strategy represents a new approach and we therefore consider that the first annual statement should be used as an opportunity for stakeholders to engage in a broader debate about the Strategy and the progress achieved, for example through a national conference or similar event.

⁶ Scotland's Environmental and Rural Services

2 Land use and business

Objective: Land-based businesses working with nature to contribute more to Scotland's prosperity

Scotland's land-based businesses make a significant contribution to sustainable economic growth. They provide jobs and income, often in areas where other commercial opportunities are limited, and they support other industries which further contribute to our economy. Land-based businesses are the cornerstone of many rural communities, they manage many of our natural and cultural resources and they help to shape our landscapes and heritage.

We need to build on the many successes of our land-based businesses in delivering a wide range of benefits and in providing stewardship of the environment around us, while recognising the many competing pressures faced by individual land managers and their dependence on our natural resources. Key policies in support of this Objective are set out in 2.1 to 2.5.

2.1 Managing key resources strategically

Some types of land have particular value in delivering benefits of key strategic importance, helping to ensure that we continue to meet our long-term needs. For this reason we have policies in place to safeguard such types of land against inappropriate use.

For example, in support of our goals on food security⁷, we should continue to ensure that our prime agricultural land retains its capacity for food production. The importance of this land is already recognised in planning policy and, as explained in the *Rationale for Woodland Expansion*⁸, the main focus of woodland creation will be away from prime agricultural land.

The Government has committed to increasing the rate of woodland expansion, so as to realise a range of benefits such as carbon sequestration. Such expansion would take Scotland's woodland cover to 25 per cent by 2050. In achieving this, we must continue to ensure that the right trees are planted in the right places – avoiding, for example, areas of deeper peat soil where the carbon losses from soil disturbance could outweigh the gains in climate change mitigation⁹. In addition, it is important to protect the woodlands that we already have, and so woodland removal will only be permitted where it will result in

⁷ *Recipe For Success – Scotland's National Food and Drink Policy*:

<http://www.scotland.gov.uk/Publications/2009/06/25133322/0>

⁸ *Rationale for Woodland Expansion*, Scottish Government (2009),

<http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-7unjy3#woodexp>

⁹ Forestry Commission Scotland publication *The right tree in the right place*, provides guidance to local authorities on preparing forestry and woodland strategies,

<http://www.forestry.gov.uk/website/forestry.nsf/byunique/infd-7unjy3#woodexp>

significant additional public benefit. In some cases, new trees may need to be planted on site or elsewhere to compensate for those removed, as described in our *Policy on Woodland Removal*¹⁰.

Renewable energy is another key resource in Scotland. We have recently raised our targets for renewable energy generation to 80 per cent of the demand for Scottish electricity and 11 per cent of Scotland's heat by 2020¹¹. Hydro-electric and onshore wind power are currently the main sources of renewable energy supplies, but as other technologies become commercially viable these will increasingly be part of a wider renewables mix including biomass, solar, energy from waste and landfill gas, and offshore wind, wave and tidal power generation.

Through Scottish Planning Policy, the Government promotes the development of wind farms in locations where the technology can operate efficiently and environmental and cumulative impacts can be satisfactorily addressed¹². Planning policy requires that the design and location of any wind farm development should reflect the scale and character of the landscape, with the location of turbines being considered carefully to ensure that the landscape and visual impact is minimised. Development plans must set out spatial frameworks for onshore wind farms generating over 20 MW, identifying potential constraints such as the effects on landscapes, natural heritage and historic environments as well as any cumulative impacts likely to arise.

The Government gave financial assistance to establish these frameworks; has published online renewables planning advice with a section devoted to spatial frameworks¹³; and is working with SNH to build a national picture of the areas of search, areas with potential constraints and areas requiring significant protection identified in individual frameworks. SNH provides locational and impact assessment guidance for siting wind farms of all scales¹⁴. Research is being undertaken to refine the carbon calculator method of calculating the impact of wind farm developments¹⁵ on the carbon held in peat.

2.2 Integrating different land uses

Many land managers integrate multiple uses of the land already, finding that the different uses to which land is put often complement and reinforce one another, building their businesses' capacities to deal with change and manage risks. However, others are not necessarily aware of the opportunities to make the most of their land. Initiatives such as the

¹⁰ <http://www.forestry.gov.uk/woodlandremoval>

¹¹ <http://www.scotland.gov.uk/Topics/Business-Industry/Energy/Energy-sources/19185/17612>

¹² <http://www.scotland.gov.uk/Publications/2010/02/03132605/8>

¹³ <http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/renewables>

¹⁴ <http://www.snh.gov.uk/planning-and-development/renewable-energy/onshore-wind/>

¹⁵ <http://www.scotland.gov.uk/Publications/2008/06/25114657/0>

*Whole Farm Review Scheme*¹⁶ help farmers and crofters to take a fresh look at their business and consider how it might be improved and developed in order to maximise all its assets. In some cases, incentives can help land managers to realise opportunities, for example by providing grants towards the costs of developing on-farm tourist accommodation. Many such grants are provided through the Scotland Rural Development Programme (SRDP), a programme of economic, environmental and social measures designed to develop rural Scotland from 2007 to 2013.

There are already many excellent examples of where land managers optimise the use of land for a range of different purposes, all of which contribute to improving the overall success of the business. Historic and cultural environments often give an added dimension to ecotourism businesses; outdoor recreation is often pursued alongside productive agriculture or forestry. Integrated land use improves our urban as well as rural areas; for example in towns, local energy and food production can be integrated into green spaces and buildings, providing land-based resources at the heart of our urban communities.

2.3 Promoting good decision-making

In traditional policy-making, individual sectors such as agriculture, forestry or renewable energy have often been considered in isolation. A strategic approach, considering land use as a whole, gives us a wider range of opportunities to optimise land use.

Public bodies are increasingly working to integrate their thinking and action on land use through mechanisms such as single outcome agreements, development plans and river basin management plans. The Land Use Strategy's long-term, strategic approach and Principles for Sustainable Land Use help promote and demonstrate this joined-up thinking. Mainstreaming the Land Use Strategy's approach and Principles for Sustainable Land Use will mean that Government policies can better support the long-term development of land-based businesses.

The *Farming for a Better Climate*¹⁷ initiative is an example of where a clearer understanding of farmers' needs has already allowed us to provide advice to farmers on how to achieve the policy aim of reducing greenhouse gas emissions, whilst at the same time reducing business costs. The *Skills Development Scheme*¹⁸ is another example of broader support available to land managers. Under this scheme, the Government helps land managers to set up workshops and training programmes that improve business and land management skills, supporting them to make the right decisions for their land.

¹⁶ <http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/grants/BDandM/WFRS>

¹⁷ Farming for a Better Climate: <http://www.sac.ac.uk/climatechange/farmingforabetterclimate>

¹⁸ <http://www.scotland.gov.uk/Publications/2007/12/10103119/12>

2.4 Improving regulations and incentives

As well as produce and products for the consumer, land-based businesses deliver a wide range of other benefits, both now and for future generations, for which the market may not pay fully. The Government helps to support those who are managing the land to deliver public goods, for example through the SRDP.

As well as incentives for desired outcomes, we also have regulations to prevent adverse impacts and unintended negative consequences from land use. The consequences of certain land management practices can be significant; for example, where inappropriate application of fertiliser leads to diffuse water pollution and contributes to greenhouse gas emissions. However, we recognise the importance for regulations to be proportionate to the requirements of the public interest. Cross-compliance¹⁹ is an example of attaching suitable conditions to financial incentives associated with land use, with land managers who wish to receive Single Farm Payments being required to comply with existing statutory requirements and a code of Good Agricultural and Environmental Condition.

The Scottish Government continues to actively manage this incentive and regulation regime. It is a complex framework, and we rely on many sources of expertise and research²⁰. Other public sector partners assist in this regard, such as SEPA in its ongoing work on better regulation²¹. This continuing work on developing regulations and incentives will follow the Principles in this Strategy.

2.5 Responding to climate change

In *Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022*, we set out a package of proposals and policies for delivering reductions in greenhouse gas emissions. We explain that a significant proportion of emissions from rural land use come from nitrogen fertiliser use, which produces nitrous oxide and from livestock's digestive systems, which produce methane. We also address how changes in the way land is used impact on the release, or sequestration, of carbon dioxide into soils and vegetation.

There are significant opportunities for land use to adopt practices which reduce emissions and increase sequestration of greenhouse gases, while at the same time supporting a broader move to a low-carbon economy. Our *Farming for a Better Climate* initiative targets five key aspects, many of which potentially qualify for grant funding and which can help develop and diversify businesses. These include using energy and fuels efficiently; developing renewable

¹⁹ Cross Compliance Guidance:

<http://www.scotland.gov.uk/Topics/farmingrural/Agriculture/grants/Schemes/ccompliance>

²⁰ for example, *Overview of Costs and Benefits Associated with Regulation in Scottish Agriculture*:

<http://www.scotland.gov.uk/Publications/2009/01/08100107/0>

²¹ http://www.sepa.org.uk/about_us/what_we_do/regulating.aspx

energy; locking carbon into the soil and vegetation; optimising the application of fertiliser and manures; and optimising livestock management and storage of waste.

As described in our *Rationale for Woodland Expansion*,²² without additional plantings by 2020 the net amount of carbon sequestered by forestry will fall. To sustain the contribution from forestry we need to increase woodland creation rates to at least 10,000 hectares per year and to sustain this rate thereafter, ensuring that new planting is sympathetic to the local landscape and wider environment, as described above.

A thriving timber industry will play an important part in the contribution that the woodland and forestry sector can make to reducing greenhouse gas emissions, while using wood for fuel has a part to play in meeting our renewable heat targets. Our *Scottish Forestry Strategy*²³ describes the actions that we are taking in support of these aims. To further reduce the environmental impact of timber harvesting the Strategic Timber Transport Fund supports projects to mitigate the impact of timber transport, and the Timberlink Public Service Contract ships timber between Argyll and Ayrshire instead of using rural roads.

Scotland's *Climate Change Adaptation Framework* considers a range of different land based sectors including agriculture and forestry and provides a number of targeted actions to assist with adaptation. These include the development of programmes to assist farmers and foresters in dealing with threats from changing or increasing pests and diseases, in planning and managing extreme weather events and their consequences such as land slip, and in taking advantage of the opportunities provided by climate change through advice on changing crops.

2.6 A shift in approach – delivering multiple benefits

Although our land area is fixed, that does not mean the level of benefits it delivers is fixed. Many land managers are already good at delivering multiple economic, environmental and social benefits from their land. But others are not taking the opportunities to broaden their focus and benefit accordingly.

Through understanding, innovation and appropriate support, we can better exploit the land's capacity – in sustainable ways. For example, woodland on farms can provide livestock shelter, but also provide wider benefits such as wildlife habitats, recreation opportunities and carbon retention. Crofting combines agricultural production with environmental stewardship and helps to maintain community cohesion in more remote areas. Sometimes the land manager sees little of the benefit they provide – for example where hill and mountain ecosystems moderate the water cycle to the benefit of people in lowland areas. We need to be smarter about how we encourage land managers to deliver these benefits.

²² *Rationale for Woodland Expansion*:

[http://www.forestry.gov.uk/pdf/ForestExpansion.pdf/\\$FILE/ForestExpansion.pdf](http://www.forestry.gov.uk/pdf/ForestExpansion.pdf/$FILE/ForestExpansion.pdf)

²³ <http://www.forestry.gov.uk/sfs>

The Scottish Government can make direct decisions only for the land for which it is responsible. The great majority of Scottish land is in private ownership; the Government's role is to exert positive influence upon the management of land to deliver wider public benefit. We will work in partnership with land managers to enable them to deliver the produce, the goods and the services that the country needs. Correspondingly, we will continue to develop the policy framework to facilitate multiple uses of land.

2.7 Proposals

Proposal 3

Align land-use regulations and incentives with Land Use Strategy Objectives. *Ongoing.*

As we build on current policies to influence and support land-based businesses, such as those referenced above, we will ensure that regulation places as light a burden on businesses as is consistent with achieving its purpose, and that incentives are as efficient and cost-effective as possible. We will also keep policies under regular review to maintain a governance framework that is suitable, stable and clear.

Proposal 4

Further encourage land-based businesses to take actions that reduce land-based greenhouse gas emissions and that enable adaptation to climate change threats and opportunities. *Ongoing.*

To achieve our challenging climate change targets, including to reduce greenhouse gas emissions by 42 per cent by 2020, all sectors must play their part. Our key policies for reducing emissions are planting additional woodland to sequester carbon and measures under the *Farming For a Better Climate* initiative. *Low Carbon Scotland: Meeting the Emissions Reduction Targets 2010-2022* provides further details, and our challenge is to work with land-based businesses to ensure adoption of these measures. The *Climate Change Adaptation Framework* and its *Sector Action Plans* also set out ways to adapt to climate change impacts.

Proposal 5

Use the Land Use Strategy Objectives to influence negotiations on CAP reform. *From 2011 onwards, timing dependent on EU processes.*

The approaching revision of the EU Common Agricultural Policy (CAP), and correspondingly of the next SRDP, provides an opportunity to build the Strategy's Objectives and the Principles for Sustainable Land Use into the next round of incentive schemes for land managers.

Proposal 6

Use demonstration projects to determine the best means by which land use and land management practice can contribute to climate change objectives. *Ongoing.*

These can include building on existing initiatives such as the livestock and woodland focus farms and other cross-sector collaborations that both showcase improved approaches and provide learning through monitoring these.

Proposal 7

Identify more closely which types of land are best for tree planting in the context of other land-based objectives, and promote good practice and local processes in relation to tree planting so as to secure multiple benefits. *Further development of partnership approach through Forestry and Woodland Strategies, 2011 onwards.*

We need to continue to demonstrate to land managers how they can best contribute to climate change targets. One important way is to plant trees, and we need to reassure stakeholders and land managers that our afforestation targets can be achieved while respecting the other requirements that we have for our land. We will look to use and develop existing delivery mechanisms such as Forestry and Woodland Strategies and to seek willing partners to work out local responses.

3 Land use and the environment

Objective: Responsible stewardship of Scotland’s natural resources delivering more benefits to Scotland’s people

Our economy and society are supported and sustained by natural resources and the services that ecosystems provide. We sometimes take these services for granted, and assume that whatever we do to our environment it will still provide for us. But our ecosystems are fragile and their resources finite.

We are already working hard to care for the environment in Scotland, recognising the importance of the natural and cultural heritage of the country we live in. Our successes attract international interest from other nations and from overseas visitors. We are also at the forefront of showing what can be done in the global fight against climate change. Increasingly our land use must also integrate the conservation of natural resources with social and economic goals, and help to sustain the health of the ecosystems on which we depend. Such an approach is particularly important as our natural systems are put under strain as the climate changes. Key policies in support of this Objective are set out in 3.1 to 3.4.

3.1 A quality land environment

Many of us take pleasure in our wildlife, landscapes and green spaces, enjoying and appreciating them for their own sake. We also value the goods that the environment supplies – food, timber, energy, water. Moreover, we increasingly appreciate that the natural environment services our needs in even more fundamental ways. The food we eat, the water we drink and the air that we breathe are only available to use because the natural environment cycles nutrients, purifies water and generates oxygen.

Scotland is renowned for its high quality environment, and the Government recognises the importance of safeguarding what we have. Our land, freshwater and marine environments continue to face threats from current practices, such as diffuse pollution from agriculture. As well as maintaining the regulatory regime²⁴, we provide incentives for pre-emptive and remedial measures, such as the planting of riparian woodland to prevent run-off from fields entering watercourses, or woodlands in and around towns which absorb air pollution and trap particulates.

We also have a legacy of land contamination from past industrial and military activities, and we manage the regulatory²⁵ and development management²⁶ regimes to help ensure that

²⁴ http://www.sepa.org.uk/water/diffuse_pollution.aspx

²⁵ http://www.sepa.org.uk/land/contaminated_land.aspx

²⁶ <http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/themes/dev-man>

risks to human health from historic contamination are minimised and that regeneration opportunities are realised.

The capacity of land to regulate water supplies is increasingly valued as the climate changes and extreme weather events become more frequent. We are increasingly recognising that human interventions have affected flood risk, and that reinstating natural features in the landscape such as flood plains, wetlands and forests can help to restore run-off patterns and reduce flooding. Restoring these natural features can also provide a wide range of coincident benefits, including improved biodiversity, and increased amenity and recreational opportunities. Our *Flood Risk Management Act (2009)*²⁷ puts sustainable approaches to the management of flooding at its heart, signalling a move away from reactive management of flooding towards a proactive and catchment-focused approach; and we are working with stakeholders to provide evidence of where natural flood management approaches are successful. This approach will work alongside more traditional solutions, and is about looking across catchments and coastlines to see what opportunities exist to deal with flooding at source, while also delivering coincident benefits to the environment and rural businesses.

3.2 Recognising the link between us and our environment

We can think of our natural environment as a series of living, interacting systems – ecosystems – of which people are an important part and biodiversity is a critical aspect. Ecosystems provide the natural services, or ecosystem services, that we need: goods such as food, timber, energy; services such as the purification of water and the regulation of the climate; and less tangible benefits such as opportunities for recreation, exercise, inspiration and reflection.

Well-functioning ecosystems provide these services very cost-effectively compared with other alternatives. It has been estimated that the annual value of Scotland's ecosystem services is over £20 billion²⁸. Although remarkable, this figure still may not be comprehensive, as many benefits such as enjoyment of landscapes cannot be valued readily in monetary terms. Despite this increasing recognition and understanding, the value of various ecosystem services is often not fully taken into account in decisions about land use. It will therefore be helpful to explore further how better recognition of ecosystems and their services might be built into decision-making so as to improve and sustain the benefits we receive from our land.

Our *National Planning Framework* recognises that sustainable social and economic development depends on a healthy environment, and sets out supporting policies accordingly.

²⁷ Flood Risk Management (Scotland) Act (2009):

<http://www.scotland.gov.uk/Topics/Environment/Water/Flooding/FRMAct>

²⁸ from research commissioned by SEPA, updating an earlier published estimate of over £17 billion at 2001 prices (Williams et al, *The Value of Scotland's Ecosystem Services and Natural Capital*, Journal of European Environmental Policy Volume 13 No 2, March-April 2003)

3.3 Protecting and enhancing our natural assets

Our network of protected areas represents some of our most precious natural resources. Some of our environments are recognised around the world for their special qualities such as the World Heritage Site at St Kilda which is one of only 24 World Heritage Sites across the globe to be awarded World Heritage status for both its natural and cultural significance. Scotland has many sites of European significance which are protected under European law as Special Areas of Conservation and Special Protection Areas. We also have a range of national designations including Sites of Special Scientific Interest and National Nature Reserves protecting the best of our diverse plants, animals and habitats, rocks and landforms; National Scenic Areas which protect special landscapes.

Our two National Parks are of outstanding national importance because of their natural and cultural heritage. They were established to promote all three pillars of sustainable development – economy, environment and community.

All public bodies in Scotland have a legal duty²⁹ to protect wildlife, biodiversity and natural habitats. The *Scottish Biodiversity Strategy* co-ordinates the actions of a wide range of partners in the public, private and third sectors, all seeking to achieve broader action on biodiversity. Co-ordinating with this national strategy are Local Biodiversity Action Plans organised by local authorities and local partnerships. The partners also provide advice to help ensure that Government provides the best possible support, for example through the SRDP which includes grants targeted at incentivising land management practices which support a range of important habitats and species.

Soils are vital assets which cannot be fully replenished in the short or medium term: soil formation can take thousands of years and so soil is effectively a non-renewable resource. As described in our *Scottish Soil Framework*³⁰ we need to maintain and enhance our existing soils and their capacity to perform valuable functions such as filtering water and retaining carbon, as well as supporting agricultural production.

Through the Wildlife and Natural Environment (Scotland) Bill³¹ we introduced new measures to tackle the problems caused by invasive non-native species. The Bill also introduced measures to improve the management of wild deer, a major land-use consideration in many parts of the country, providing for a statutory code of practice and revised powers of intervention for SNH to support sustainable management of Scotland's wild deer population. The Bill also introduced a requirement for public bodies to publish reports on compliance with the biodiversity duty.

²⁹ The biodiversity duty under the Nature Conservation (Scotland) Act 2004.

³⁰ Scottish Soil Framework: <http://www.scotland.gov.uk/Publications/2009/05/20145602/0>

³¹ The Bill was passed by the Scottish Parliament on 2 March 2011: see <http://www.scottish.parliament.uk/s3/bills/52-WildNatEnv/index.htm>.

3.4 Responding to climate change

Locking up carbon from the atmosphere for the long term is an important action to help minimise further changes to the climate. In Scotland, as well as locking up carbon in forests, as described in Chapter 2, we have important opportunities to retain and enhance the significant store of carbon in our soils and vegetation.

Scottish soil contains around 3 billion tonnes of carbon, of which some 1.6 billion tonnes is within peatlands. This represents the majority of the UK's soil carbon. But this carbon can be released by processes which dry or disturb the soils (for example, peat extraction, drainage and ploughing, or removal of vegetation) and, importantly, by the warmer and drier summers associated with climate change. We can also have a positive impact, for example by restoring formerly drained peatlands (particularly where this will re-create valuable peatland habitats) and by adopting lower-impact agricultural and forestry practices on carbon-rich soils.

The *Scottish Soil Framework* promotes the sustainable management and protection of soils consistent with the economic, social and environmental needs of Scotland, and we are funding research which will help us to understand how this carbon stock may have changed under different land uses in the past, and to predict how it may change in the future. The United Nations Framework Convention on Climate Change (UNFCCC) has agreed in principle to include the emissions and sequestration of carbon from both degraded and restored peatlands in the international greenhouse gas emissions reporting structure, and the Scottish Government is engaging with stakeholders to examine how it may be incorporated into emissions reporting for the Net Scottish Emissions Account. The Government is also working with interested parties, both public and private, to promote the management of high carbon soils in ways that mitigate climate change.

As set out in our *Climate Change Adaptation Framework*, we also need to adapt to the changes in the climate that are now inevitable. Rising sea levels, for example, are responsible for increasing coastal flood risk³². Recent rates of sea level rise appear to be quickening, which is expected to increase erosion and flood risk. Flood Risk Management Plans will help address this, while SNH advises on the wider implications for landforms, habitats and species³³.

As the climate changes we need to develop an approach that helps biodiversity to thrive in Scotland as a whole. Ecological pathways are important to form ecologically coherent

³² SNIFFER, 2008. Scoping Review of Coastal Flooding, Final Report. FRM10. Scottish and Northern Ireland Forum for Scientific Research.

³³ <http://www.snh.org.uk/pubs/detail.asp?id=1421>

networks, and the *National Planning Framework* carries an action to develop a National Ecological Network³⁴.

In parts of Scotland such networks are already in development. The Central Scotland Green Network³⁵, for example, is developing a green infrastructure, including woodlands, allotments, orchards, gardens. The aim is to make it a more attractive place to live, work and visit. At the same time, this green infrastructure is providing essential ecosystem services such as flood prevention, improved air quality and a reduction in noise and visual pollution, and the interconnected nature of the network is creating better habitats for wildlife. In other parts of Scotland, landscape-scale habitat restoration projects are being developed, for example in the Borders, the Trossachs and Glen Affric.

3.5 A shift in approach – partnerships with nature

We increasingly realise how valuable nature's services are to us all. We therefore need to develop our approaches to recognise that people are part of ecosystems and rely upon their functioning. We need a more holistic approach to decision-making with a better understanding of how our decisions impact upon nature's functions and processes into the future.

Working more positively with nature will help land managers respect the limitations of the environment, whilst making sure people's longer-term interests are at the heart of decisions. The Scottish Government will help to facilitate a wider adoption of this approach, providing information, case studies and support. SNH has a particularly significant role in the development of a whole ecosystem approach and providing the landscape-scale context for important land use decisions. This will help everyone involved in land-use decision-making to take good decisions which respect the future capacity of our natural resources to deliver the services we need.

3.6 Proposals

Proposal 8

Demonstrate how the ecosystem approach could be taken into account in relevant decisions made by public bodies to deliver wider benefits, and provide practical guidance.

Information note to be published 2011. Additional guidance available 2012.

As we make decisions about how to use land, we should take into account the true costs of different options by reflecting how they might impact on the ecosystem services we need. The ecosystem approach to decision-making allows us to recognise the important

³⁴ <http://www.scotland.gov.uk/Topics/Built-Environment/planning/National-Planning-Policy/npf/EcologicalNetwork>

³⁵ <http://www.centalscotlandgreennetwork.org/>

connections between the natural systems of the land, water and air and the needs of people and business. This approach to informing land-use decisions is currently attracting increasing interest and support. It will help us to understand how to continue to benefit from our natural assets without depleting them, as we seek to adapt to a changing climate and minimise adverse impacts.

Proposal 9

Develop a methodology to take account of changes in soil carbon for carbon accounting purposes; improve understanding of potential benefits from conservation and management of carbon-rich soils; and deliver measures to help secure long-term management of all land-based carbon stores. *Develop accounting methodology in parallel with final UNFCCC decision on inclusion of this measure in reporting; 2011-2013. Improve understanding; ongoing. Deliver measures; dependent on CAP Reform, see Proposal 5.*

Not all losses of carbon from soils are currently accounted for in the Greenhouse Gas Inventory under international emissions reporting rules, but given their potential to abate – or contribute to – emissions, we must protect and manage soil carbon stores wherever possible.

Proposal 10

Investigate the relationship between land management changes and ecosystem processes to identify adaptation priorities. *Emerging findings from Scottish Government 2011-2016 research programme.*

We realise that we do not have enough information about the link between the way that the land is managed and the benefits that it provides us, especially in the context of changes in the climate. It may be that to continue to receive the benefits that we currently do, we will need to adapt the way that we manage the land.

4 Land use and communities

Objective: Urban and rural communities better connected to the land, with more people enjoying the land and positively influencing land use.

The land provides places for us all to live, work and enjoy. Land use is the physical basis of our communities, and it is also a core component of our identity.

Scotland's land and its communities depend on each other. Yet in today's predominantly urban society many people have become disconnected from the land and from land-use considerations which tend to be seen as a concern for the rural minority. We need to address this disconnection.

We also need to address the disconnection between urban and rural communities. Urban and rural communities support and rely upon each other, each needing what the other provides and land use is a key component of this. Rural land use delivers vital resources such as food and clean water to everyone, wherever they live, while the consumer demand and financial capital generated in urban areas help to sustain rural businesses and support rural communities.

Everyone has an opportunity to influence how land is used and managed in Scotland. We can contribute to planning processes, choose elected representatives and join interest groups or community projects; we can also positively influence land use through our consumption and lifestyle choices. Where we source our food, water and energy and how we live, work and spend our leisure time all have a considerable influence on Scottish land use.

It is true that land owners and managers make most direct decisions about land use, but public influence strongly affects their decisions. This may be expressed through the market, the policies of elected representatives or wider community opinion.

In short, the vital importance of land use to society needs wider recognition and understanding, and building people's capacity to influence land use positively will greatly assist in achieving a more sustainable use of our land resources in the future. Key policies in support of this Objective are set out in 4.1 to 4.4.

4.1 Land and livelihoods

For Scotland's communities, one of the strongest links to the land is through the livelihoods that it supports – particularly so for rural communities, where many people are involved with land-based businesses and rely upon them for income. Many people working on the land are conscious of continuing a cultural tradition, and have a strong interest in sustaining that tradition, the land itself and the living that it provides.

Crofting is part of this heritage. The Government has improved its governance through the Crofting Reform (Scotland) Act 2010, addressing absenteeism and land speculation and establishing a Crofting Register. The *Economic Condition of Crofting* report offers a national overview and outlines support measures being taken by the Government and the Crofting Commission³⁶.

Traditional mixed estates combining farming, forestry and field sports also shape many of our best known landscapes – landscapes that are appreciated by locals and visitors alike. Estates engage with their local communities to varying degrees, and the Government welcomes the progressive approaches increasingly adopted by estates around the country, such as through the Wildlife Estates Scotland initiative, which aims to engage communities and collaborate towards more sustainable land use.

More widely, Scottish farming plays a major part in sustaining rural community networks, as employers, consumers and producers. Forestry also contributes to communities, in employment and commercial terms, as well as in terms of recreation opportunities. Other industries such as tourism and renewable energy provide further jobs and opportunities in rural areas. Together with their ancillary industries, they underpin often fragile local economies across the country. This role for land-based industries is widely recognised in Government policy, for example in the Scottish Forestry Strategy.

Land use is also closely bound up with other dimensions that sustain communities. For example, the long-term viability of many rural communities is heavily dependent upon the ability of people to find work and a place to live. Yet in many rural communities there remains a lack of affordable housing. This often has a knock-on effect on schools and other community facilities, compromising the demand for and provision of services and infrastructure. The need for affordable housing is already recognised in the *National Planning Framework*, while under the *National Forest Land Scheme* forest land can be used to provide for the needs of communities, offering places for affordable housing, woodland crofts and more.

Wider rural development considerations are addressed in *Our Rural Future*³⁷, the Government's response to the recent consultation *Speak Up for Rural Scotland*, and are supported financially through the SRDP, particularly through its LEADER element. The Government will develop the land-use elements of these policies having regard to the Principles for Sustainable Land Use and the Objectives set out in this Strategy.

³⁶ <http://www.scotland.gov.uk/Topics/farmingrural/Rural/crofting-policy/reform-programme/Act/crofting/Q/EditMode/on/ForceUpdate/on>

³⁷ <http://www.scotland.gov.uk/Publications/2011/03/08135330/0>

4.2 Enjoying the outdoors

Access to the outdoors, whether urban greenspace or the wider countryside, makes a fundamental contribution to our health and wellbeing, while at the same time helping to connect people with the land and broaden understanding of issues relating to land use.

Outdoor recreation has increasingly well-recognised benefits for physical and mental wellbeing³⁸. We are also now much more aware of the importance of outdoor play in children's development, and the corresponding need to provide proper space for play, sport and recreation. Accessible urban greenspace, including parks, gardens, urban woodland and community orchards, green transport corridors and allotments, provides many people with opportunities to get close to nature, become more active and improve their quality of life. *Scottish Planning Policy* states that planning authorities should support, protect and enhance open space and opportunities for sport and recreation.

The Government wants to see vacant and derelict land brought back into productive use for housing, for economic purposes and to create attractive environments, and our aims for such land are described in the *National Planning Framework*. Even without remediation work, vacant, derelict and even contaminated land can often have greenspace and natural heritage value, while initiatives such as the Central Scotland Green Network are enhancing such land as part of a strategic approach to improving the environment, increasing biodiversity and providing a variety of forms of public access.

Wide access to the outdoors is already facilitated through the statutory right of access (accompanied by the *Scottish Outdoor Access Code*³⁹), comprehensive path networks (there are over 20,800 km of signposted or waymarked paths and tracks, many of which are identified in adopted core path plans⁴⁰), the *Woods In And Around Towns* initiative⁴¹, and initiatives to promote active travel and community growing.

Land use and landscapes are an integral part of Scotland's tourism industry, providing a range of opportunities for ecotourism, outdoor pursuits and visiting historic sites, with economic benefits to the industries and the areas concerned. Outdoor recreation and landscapes underpin much of our successful tourism industry. And recent research has confirmed the high value of nature-based tourism to Scotland's economy⁴². Well-designed visitor facilities also encourage people to visit the outdoors, and to understand it better. The importance of providing recreation opportunities and public access to land is highlighted in the Principles for Sustainable Land Use.

³⁸ For example, *Good Places, Better Health: a new approach to environment and health in Scotland*, Scottish Government, 2008; <http://www.scotland.gov.uk/Publications/2008/12/11090318/0>

³⁹ <http://www.outdooraccess-scotland.com/>

⁴⁰ <http://www.scotland.gov.uk/Topics/Environment/Countryside/16328/AccessAuthorities>

⁴¹ <http://www.forestry.gov.uk/wiat>

⁴² <http://www.snh.gov.uk/docs/B720765.pdf>

People also value their familiar local environments. The European Landscape Convention defines landscapes as areas perceived by people⁴³, and for many people their most direct connection to the land is through their local landscapes. All of our landscapes have to a greater or lesser extent been shaped by people over centuries, and this re-shaping continues through land use today. Landscapes also contribute to our sense of identity and to our feeling of wellbeing. Some of our wildest land has an elemental quality from which many people derive psychological and spiritual benefits. Impacts upon landscapes need to be given due weight in land-use decision-making.

4.3 People making a difference

Everyone can play a part in influencing land use, but to make this happen, people need to understand and take an interest in the land. The challenge is to recognise our own connections to the land and use our influence accordingly, even on simple matters such as sourcing our food, water and energy.

The public sector recognises this and is leading by example in its approach to food procurement, as described in *Recipe for Success – Scotland’s National Food and Drink Policy*⁴⁴. Farmers’ markets give individuals the chance to become aware of what is being produced locally, while giving producers direct contact with consumers.

There should be opportunities for all communities to find out about how land is used, to understand related issues, to have a voice in debates, and if appropriate to get involved in managing the land themselves. Re-connecting young people to the land should be the first place to focus effort. Through the *Curriculum for Excellence* and initiatives such as *Eco-Schools* and the *Forest Education Initiative* we have the opportunity to explain concepts of sustainability to school children, and to put these in a Scottish context to show how our actions affect our environment. More widely, urban greenspace projects, recreation, community allotments and awareness-raising campaigns such as the Fife Diet⁴⁵ or the Government’s *Eat in Season* campaign can help connect people to the land and the seasons.

There are already many opportunities for communities to participate in and influence land-use decisions that fall within the scope of the statutory planning system, both in development planning and in development management. To supplement these existing opportunities, the Government promotes innovative means of community engagement such as the Charrette Series for the *Scottish Sustainable Communities Initiative*⁴⁶. More broadly, information provision, such as through the Government’s Scotland National Rural Network, allows people to know about important decisions that affect their communities and local land, and signposts opportunities to shape these decisions.

⁴³ European Landscape Convention, Council of Europe, 2000

⁴⁴ <http://www.scotland.gov.uk/Publications/2009/06/25133322/0>

⁴⁵ <http://www.fifediet.co.uk/>

⁴⁶ <http://www.scotland.gov.uk/Topics/Built-Environment/AandP/Projects/SSCI>

Ownership is an important influence on land use and on the ways that people think about the land. Scotland has a diverse mix of landowners from the private, public and third sectors. The community right-to-buy provision in the Land Reform (Scotland) Act (2003) has helped to make communities an increasingly significant category of landowner.

Community woodland ownership under the *National Forest Land Scheme* has helped to build community participation and capacity, while forms of tenure such as crofting and community land ownership help to sustain local skills and expertise, strengthen community networks and enrich our cultural heritage. Though the Land Use Strategy does not deal directly with issues of land tenure, it is clear that tenure arrangements which empower people and communities and help to connect them to the land around them can support our Objectives.

Community ownership is augmented by other community projects that are land-based, some of which have the potential to generate income for communities – for example new renewable energy generation supported by the *Climate Challenge Fund* and the opportunities that have been supported by SRDP community development options.

4.4 Responding to climate change

As the climate changes, we can expect more extreme weather events such as storms, floods and droughts, as described in our *Climate Change Adaptation Framework*. These will have impacts on the way that land can be used, and that in turn will have knock-on effects on the way that we live.

Flooding, for example, is likely to be more widespread and more frequent, affecting more of us in the future. The collaborative approach to flood risk management planning that the Government advocates⁴⁷ will help communities to deal with these risks, and help ensure that the potential contribution from favourable upstream land use and management practice is realised most effectively.

Wider participation in land use decision making through existing processes will help us to resolve some of the tensions that will arise; for example as we determine where to site new development or where to locate our infrastructure. We will continue to draw on the UK Climate Change Risk Assessment and other sources as we decide how best to adapt to changing conditions. Increasingly, communities are also coming together to work out how they themselves can make the transition to a more sustainable low-carbon model – supported by initiatives such as the Transition Network⁴⁸.

⁴⁷ demonstrated by the Government's legislative proposals which led to the Flood Risk Management (Scotland) Act 2009 and by its subsequent approach to statutory guidance under the Act

⁴⁸ <http://www.transitionnetwork.org/>

Our response to climate change brings with it opportunities for communities, for example in the generation of renewable energy. We are committed to maximising the opportunities for local ownership of energy as well as securing wider community benefits from renewables. Communities have benefitted from initiatives such as the *Communities and Renewable Energy Scheme (CARES)*, which has enabled 300 community projects to be delivered in the past year alone. The new Feed-in Tariff (FIT) and the proposed Renewable Heat Incentive (RHI) both implemented at a UK level, should make small scale generation projects by communities more lucrative as these provide a guaranteed fixed income over a period of time. The new *Communities and Renewables Loan Fund* will provide funding for the high-risk pre-planning costs of renewables projects, thus ensuring communities, land managers and local businesses continue to reap the benefits from renewables.

4.5 A shift in approach – linking people to the land

We need to recognise the positive benefits that flow from stronger connections between people and the land, and seize opportunities to build these connections more widely through society. Having a sense of connection to the land and an understanding of the way that land use works enables us to make decisions that are in the best interests of sustainable land use.

Connection can mean many things. Land owners or managers have a clear connection with and influence over the land, but each of us is in some way connected to the land.

We each have different roles to play in shaping land use. We might consume produce, walk on paths, make or enforce policy or simply enjoy and take an interest in what is around us. By facilitating wider access to information, guidance and debates, the Scottish Government will help build people's capacity to have a positive influence on land use.

4.6 Proposals

Proposal 11

Develop the land-use aspects of our Climate Change Adaptation Framework to support communities as they adapt to change. *Adaptation Sector Action Plans will be updated on an ongoing basis.*

Sector Action Plans were published in 2011. They set out the key challenges and opportunities that each sector will face as the climate changes, and provide a focus for developing our adaptation responses.

Proposal 12

Identify and publicise effective ways for communities to contribute to land-use debates and decision-making. *Ongoing.*

There needs to be opportunities for all communities (whether rural or urban) to find out about how land is used, to understand the issues, to have an appropriate voice in debates and where possible to get involved in managing land themselves. Furthermore we will continue to encourage and give appropriate guidance on land ownership models that give local communities an opportunity to have a stake in their future, and which support sustainable land use.

Proposal 13

Provide a Land Use Information Hub on the Scottish Government website. *Establish by end 2011 and continue to develop thereafter.*

The on-line Information Hub will contain key information, guidance and other material regarding land use. Publicly available, it will be maintained and developed to reflect feedback and incorporate new material as it becomes available. It will complement other work, such as the forthcoming *Scotland's Environment* website⁴⁹, which will provide information, data and statistics designed to help informed debate and decision making.

⁴⁹ As set out in *Low Carbon Scotland: Public Engagement Strategy* (<http://www.scotland.gov.uk/Publications/2010/12/23134226/0>), SEPA is developing a new website that will provide access to Scotland's key environmental data.

5 Delivering the Land Use Strategy

Delivery of the Land Use Strategy involves improving our approaches to land use so as to benefit individuals and Scotland as a whole. We have to consider what the Government already does in terms of land use around the country; the role of the public sector more widely; the ability and willingness of individuals to contribute to our Objectives; and how to embed the Principles for Sustainable Land Use into plans, processes and decision making.

This Section focuses on what the Government and the wider public sector will do and also considers how other parties can play their part. The Strategy will not introduce new layers of complexity or bureaucracy.

Delivery has two key aspects – fulfilling the detailed Proposals set out in the Land Use Strategy and achieving more sustainable land use on the ground. Both require a partnership approach and both require the Government to take a strong lead, which it will do.

5.1 Delivering the Strategy's Proposals

The Government and its SEARS partners will lead delivery of the fourteen Proposals in the Strategy. We will start by publishing an action plan (Proposal 1), which will give more detail on each individual Proposal and how the Government plans to take it forward.

The Proposals supplement existing Government activity regarding land use, and are not the sole Government means of delivery for the Strategy. The Strategy is as much an agenda for policy-making as it is a guide for land-use decision-making and the Government will use it to shape and develop policy relating to land use.

5.2 Mainstreaming the Strategy's Principles

The Land Use Strategy, along with all other Government plans and strategies, is a key element in supporting sustainable economic growth. Section 1 explains the relationship between the Land Use Strategy and other government plans and strategies. As our various plans and strategies are reviewed and policies revised and developed, the Government will apply the Principles for Sustainable Land Use as appropriate and consider how particular policy areas can contribute to realising the Objectives of the Strategy. In this way the Land Use Strategy will become embedded into Government policies relevant to land use.

There will also be a specific focus on aligning regulations and incentives (Proposal 3) so that we have a consistent approach across Government.

5.3 Partnership approach

It is essential that delivery of both the specific Proposals in this Strategy and of more sustainable land use across Scotland is seen as a partnership. We expect the public sector to take account of the Principles for Sustainable Land Use in their plans and decision-making about the use of land. We also strongly encourage the private and third sectors, individuals and communities to use the Principles to guide their plans and decision-making and to work towards the achievement of the three Objectives.

In Scotland we already have a range of delivery mechanisms and do not need more. Rather than seek to impose a one-size-fits-all approach or to introduce new and costly delivery mechanisms, we will work with existing processes and willing partners to determine what works best and where. We may need to develop and better use certain mechanisms so as to adapt to changing conditions, and this could lead to developing new or preferred approaches with wider application in the future.

5.4 Public sector lead in the short term

The delivery of sustainable land use will require collaboration and partnership between the private and the public sector. However, we expect the public sector to take a lead and to set an example:

- By the way it manages its own land and other land which it controls directly
- By reviewing and renewing its plans and strategies in line with the Strategy
- By encouraging partnership working across land-use sectors, across land boundaries and with the private and third sectors

A range of existing mechanisms can help to achieve delivery on the ground, with SNH, FCS and SEPA all having key roles; for example:

- through Forestry and Woodland Strategies, working with local authorities and others in some areas to expand existing Strategies beyond forestry issues to incorporate a much wider range of land uses. These Strategies can then be used to assist in decisions on grant funding, development proposals and other decisions relating to land use and land-use change
- through River Basin Management Plans and Flood Risk Management Plans, utilising the Principles for Sustainable Land Use to guide all stakeholders' decisions about how land is used. This could consider catchment-scale land uses and identify where there is scope for change, especially if combined with other mechanisms such as Forestry and Woodland Strategies

- through National Park Plans (implementing current Plans and developing future ones), National Park Authorities in a collective and co-ordinated approach with other relevant public bodies can apply and put into practice the Principles and Objectives, making choices about land use and priorities across the Park areas
- through Local Authorities taking the Land Use Strategy into account as they undertake their work, if they wish involving their local Community Planning Partners in deciding how to do this.

5.5 The longer term

We strongly encourage all parties involved in land use in Scotland to consider and use the Principles for Sustainable Land Use and apply them as appropriate for their land. Integrated approaches and multifunctional land use are not just about achieving wider benefits: they make good business sense and will help land managers to improve their returns and achieve greater productivity and efficiency. Achieving a mix of uses and income streams, including taking any opportunities for diversification, will also make businesses more robust and likely to adapt successfully to changes in the market and the environment.

Land managers will continue to operate with regard to the many influences around them⁵⁰. They are governed by regulations, driven by market prices and financial incentives, and influenced in other ways by society. The Government will continue to exert its own influence by managing regulation and incentive regimes in line with the Principles for Sustainable Land Use.

5.6 Individuals making a difference

Building on its existing provision of information and guidance, the Government proposes to establish a central resource – an Information Hub (Proposal 13) – to consolidate access to new and existing information and guidance on land use. This will help build capacity to assist organisations and individuals to influence land use positively in a variety of ways; informing their understanding of what land provides and the impacts of consumption and lifestyle choices. It will also equip individuals to engage with existing debates and processes, such as development planning.

Underpinning this understanding is Scotland's high-quality research on land use⁵¹, with our research institutes playing a leading part. The Information Hub will facilitate improved

⁵⁰ Rural Land Use Study Project 1: *Changing Land Use in Rural Scotland: Drivers and Decision-making*: <http://www.scotland.gov.uk/Topics/Research/About/EBAR/RLUS/RLUSP1>

⁵¹ Scottish Government strategic research programmes 2011-16: <http://www.scotland.gov.uk/Topics/Research/About/EBAR/StrategicResearch/future-research-strategy>; Knowledge Scotland: <http://www.knowledgescotland.org/>

knowledge transfer and access to information, leading to wider translation of research findings and other expertise into informed decision-making on the ground.

5.7 The changes we want

A strategic approach to land use will make a real difference to Scotland. The Proposals set out in this first Strategy will help to set us on the right path, but the longer-term shifts in the way that we approach land use will result in the change we want. Sections 2, 3 and 4 each identify a significant shift in our thinking and our approach to land use.

- Delivering multiple benefits
- Partnerships with nature
- Linking people with the land

If we can achieve these shifts in our thinking and our approach, what will be different as we head towards the middle of this century?

Land and the environment that it supports will be recognised as underpinning Scotland's economy and society. This improved understanding will not be limited to land managers; it will extend to everyone who has an influence on decision-making: consumers, policy-makers, politicians, businesses. And land use won't be seen as just a rural issue – it will be seen as important by everyone, wherever they live.

Land-based businesses will have seized the opportunities introduced by changing circumstances, working in partnership with nature to build stronger and more sustainable businesses that provide more of the goods and services that Scotland requires. Creative and better-informed approaches to combining different uses of the land will see land managers delivering more benefits from the same land and being rewarded for doing so.

Land use will be fulfilling its potential to contribute to a prosperous low-carbon economy. Its contribution to greenhouse gas emissions will have dramatically reduced, with land managers playing an active and considerable role in helping Scotland adapt to a changing climate.

Our broader appreciation of land use will have fostered a more holistic approach to decision-making built on a mutual understanding of diverse and multiple objectives. Land managers will be factoring a wider range of concerns and values into decisions about land use, and impacts on the environment will have reduced as the costs of wasteful and damaging practices are taken into account.

We will each understand the impacts of our consumption and lifestyle choices on the land and the way it is used, and will feel a deeper sense of connection to the land, recognising that its wellbeing is crucial to our own.

Annexes

Annexes included in this Land Use Strategy

Annex A – Glossary and acronyms

Annex B – List of Proposals

Annex C – Maps

Annex D – Requirement under Section 57 of the Climate Change (Scotland) Act 2009

Annex A: Glossary and acronyms

This glossary provides a guide to terms as they are used in the Land Use Strategy.

biodiversity	The variety of life on Earth.
carbon	A chemical element which is part of many greenhouse gases, for example carbon dioxide and methane. Greenhouse gas emissions are reported in carbon dioxide equivalents – for which ‘carbon’ is often used as shorthand.
carbon sequestration	Processes that remove carbon dioxide from the atmosphere.
community	The term community includes individuals and groups, and can be based on location (for example people who live, work or use an area) or common interest (for example the business community, sports or heritage groups).
ecosystem	A dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional unit.
the ecosystem approach	A strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way, and which recognises that people with their cultural and varied social needs are an integral part of ecosystems.
ecosystem services	The benefits people obtain from ecosystems; these include provisioning services such as food, water, timber and fibre; regulating services that affect climate, floods, disease, waste and water quality; cultural services with recreational, aesthetic, and spiritual benefits; and supporting services such as soil formation, photosynthesis and nutrient cycling.
land-based businesses	Businesses which derive products and services from the management of land; for example farming, forestry, renewable energy, recreation and tourism.
low-carbon economy	An economy in which less energy and resources are used – domestically, commercially and across the public sector; where energy increasingly comes from sources that produce fewer carbon emissions, such as water, wind, wave and solar power; and where economic opportunities from efficiencies and saving carbon are realised.
prime agricultural land	Land which is capable of producing the widest variety of crops (identified as being of Class 1, 2 or 3.1 in the land capability classification for agriculture, as developed by the Macaulay Land Use Research Institute).

public goods	Goods that cannot be withheld from people, even if they do not pay for them.
sustainable development	Development which meets the needs of the present without compromising the ability of future generations to meet their own needs.
sustainable land use	Land use that makes its best possible contribution to fulfilling our Objectives, with regard to the Principles in this Strategy, whilst maintaining the land's capacity for future use
vacant and derelict land	<p>Vacant land is land which is unused for the purposes for which it is held and is viewed as an appropriate site for development. This land must either have had prior development on it or preparatory work has taken place in anticipation of future development.</p> <p>Derelict land is land which has been so damaged by development, that it is incapable of development for beneficial use without rehabilitation. In addition the land must currently not be used for the purpose for which it is held or a use acceptable in the local plan. Land also qualifies as derelict if it has an unremedied previous use which could constrain future development.</p>
CAP	Common Agricultural Policy, a system of European Union agricultural subsidies and programmes
FCS	Forestry Commission Scotland
LEADER	A European Union initiative for rural development with a particular community focus, implemented in Scotland through the SRDP – see http://www.scotland.gov.uk/Topics/farmingrural/SRDP/LEADER . LEADER stands for (in the French language) Liaison Entre Actions de Développement de l'Economie Rurale
SEARS	Scotland's Environment and Rural Services, a partnership between eight public bodies aiming to improve the experience among land managers by working together to provide an efficient and effective service – see http://www.sears.scotland.gov.uk/
SEPA	Scottish Environment Protection Agency
SNH	Scottish Natural Heritage
SRDP	Scotland Rural Development Programme, a programme of economic, environmental and social measures, designed to develop rural Scotland from 2007 to 2013 (see http://www.scotland.gov.uk/Topics/farmingrural/SRDP)

Annex B: List of Proposals

The Scottish Government will

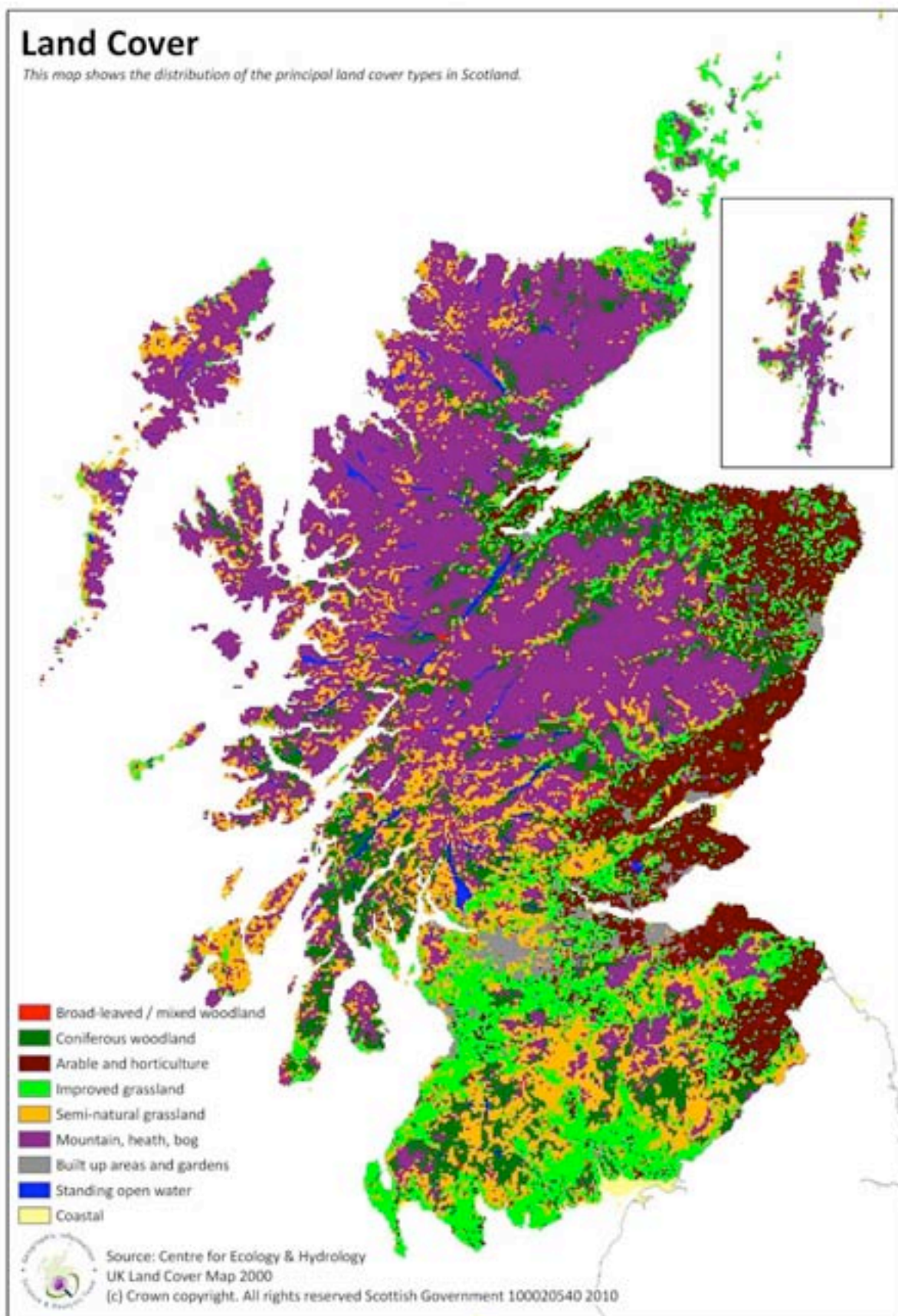
- 1. Publish an action plan following publication of the Strategy.**
- 2. Provide an annual progress statement on the Land Use Strategy.**
- 3. Align land-use regulations and incentives with Land Use Strategy Objectives.**
- 4. Further encourage land-based businesses to take actions that reduce land-based greenhouse gas emissions and that enable adaptation to climate change threats and opportunities.**
- 5. Use the Land Use Strategy Objectives to influence negotiations on CAP reform.**
- 6. Use demonstration projects to determine the best means by which land use and land management practice can contribute to climate change objectives.**
- 7. Identify more closely which types of land are best for tree planting in the context of other land-based objectives, and promote good practice and local processes in relation to tree planting so as to secure multiple benefits.**
- 8. Demonstrate how the ecosystem approach could be taken into account in relevant decisions made by public bodies to deliver wider benefits, and provide practical guidance.**
- 9. Develop a methodology to take account of changes in soil carbon for carbon accounting purposes; improve understanding of potential benefits from conservation and management of carbon-rich soils; and deliver measures to help secure long-term management of all land-based carbon stores.**
- 10. Investigate the relationship between land management changes and ecosystem processes to identify adaptation priorities.**
- 11. Develop the land-use aspects of our Climate Change Adaptation Framework to support communities as they adapt to change.**
- 12. Identify and publicise effective ways for communities to contribute to land-use debates and decision-making.**
- 13. Provide a Land Use Information Hub on the Scottish Government website.**

Annex C: Maps

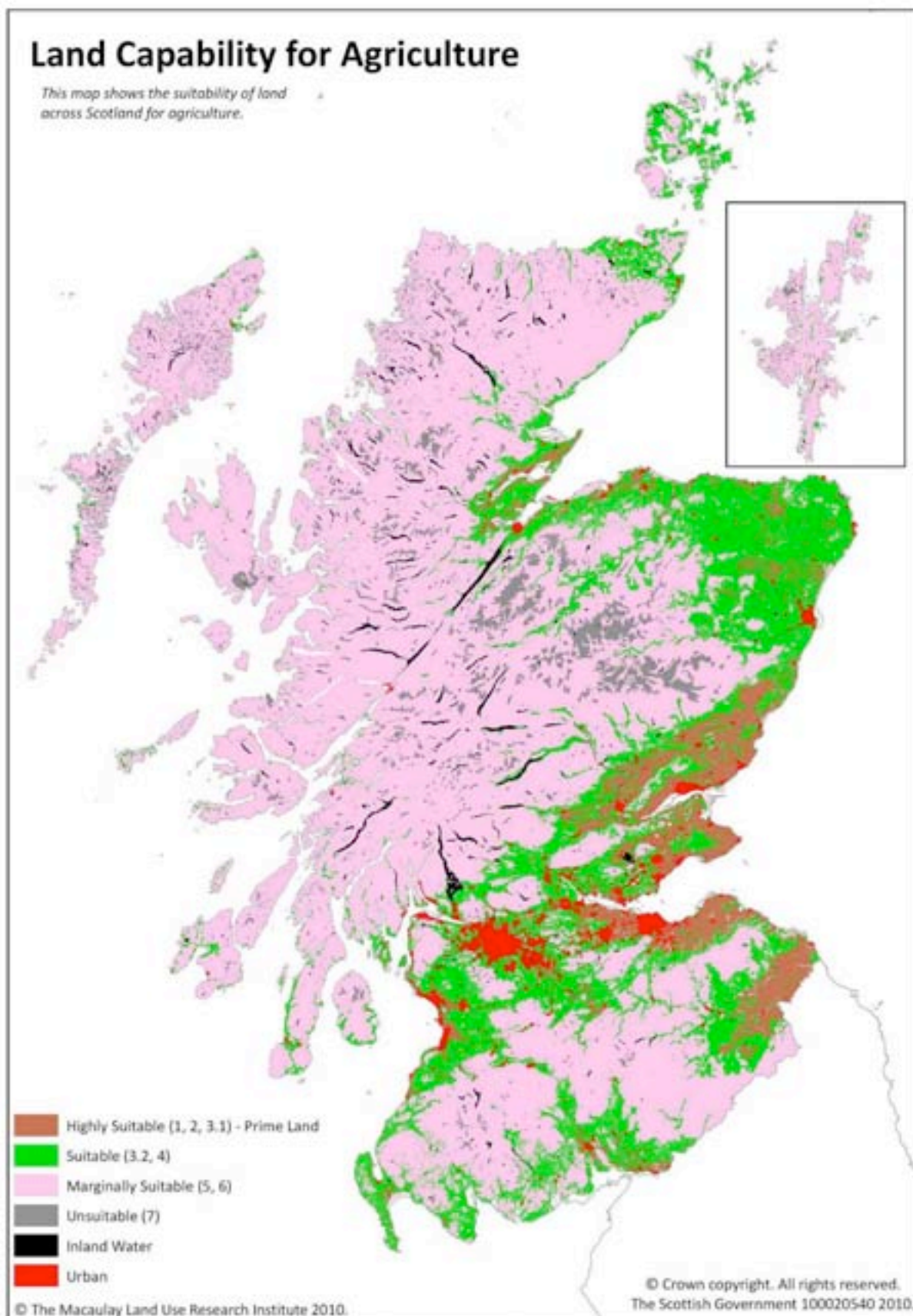
The following maps will be added to and updated over time on the Information Hub at <http://www.scotland.gov.uk/landusestrategy>

1. Land cover
2. Land capability for agriculture
3. Woodland cover in Scotland
4. Natural heritage designations
5. Suitability of land for woodland
6. Depth of peat
7. Areas of high flood risk
8. Topsoil organic carbon content
9. Water quality

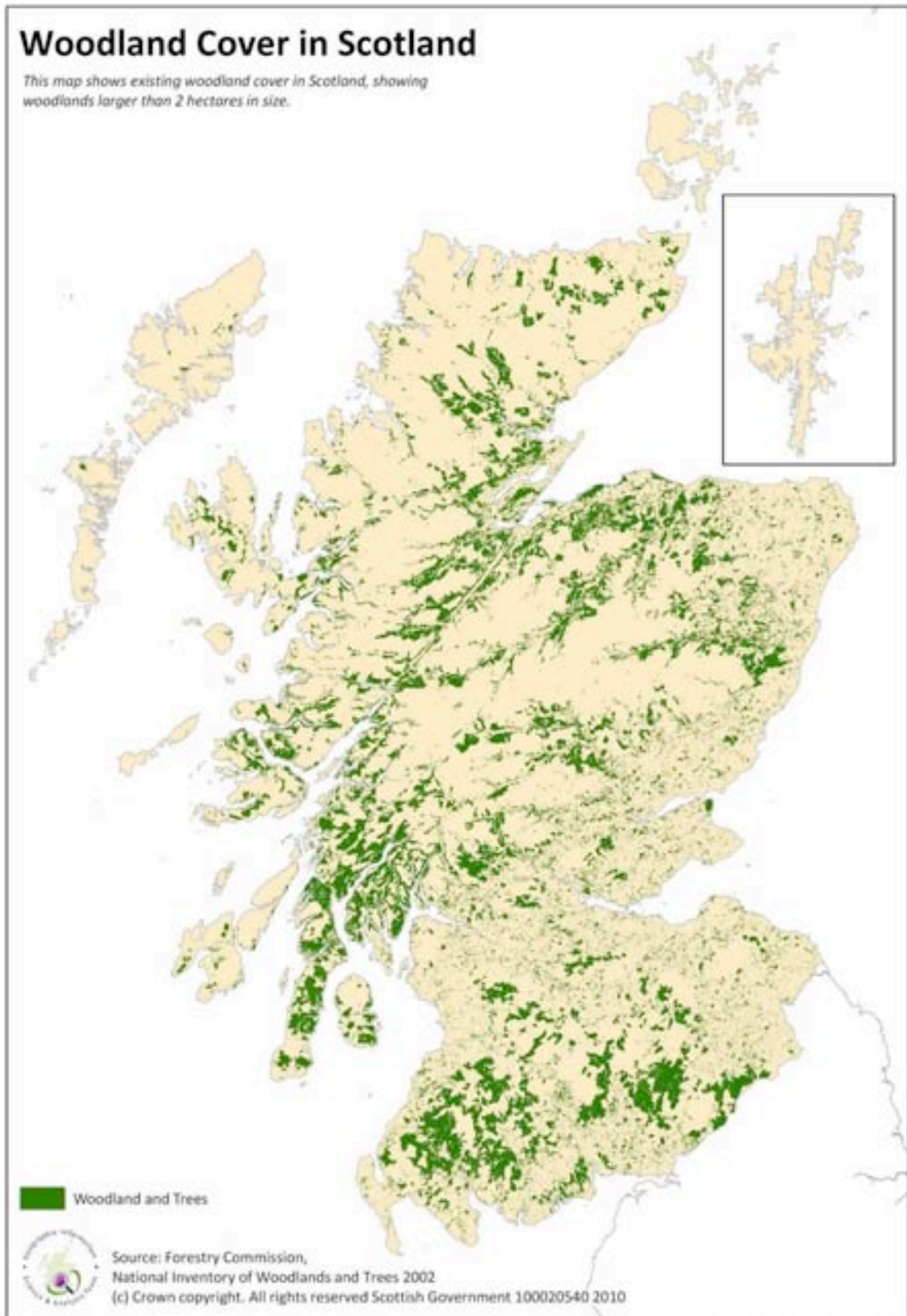
Map 1



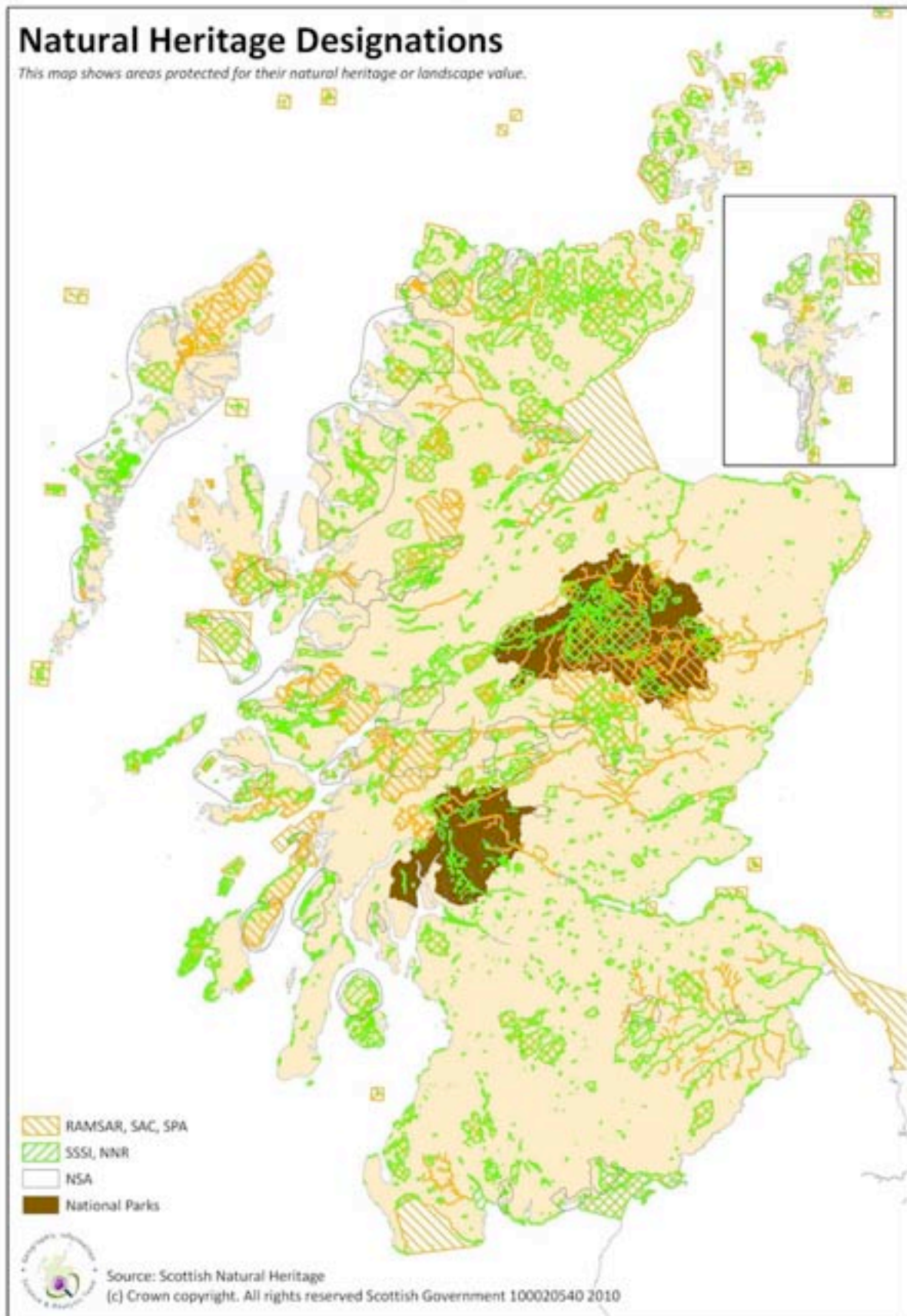
Map 2



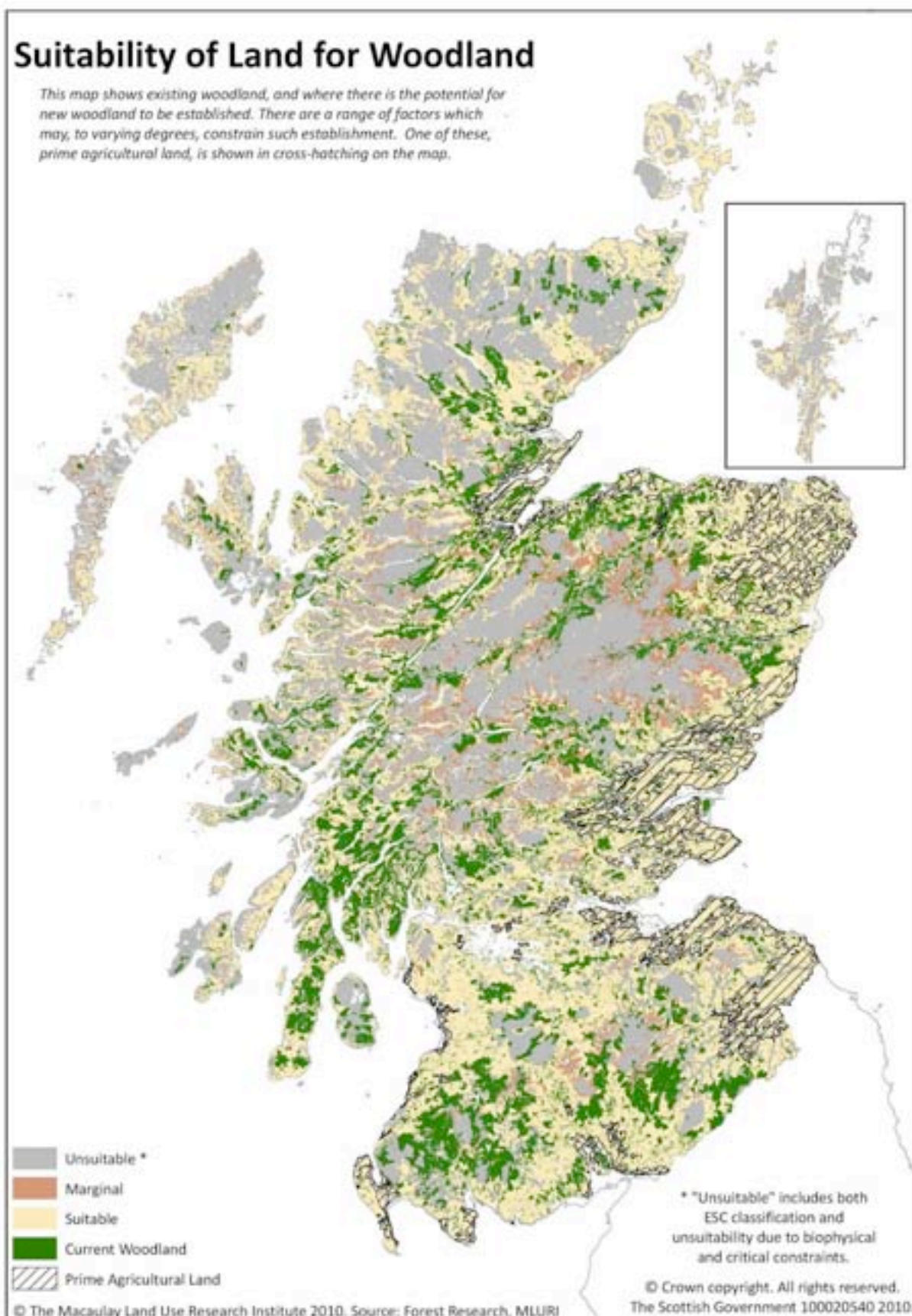
Map 3



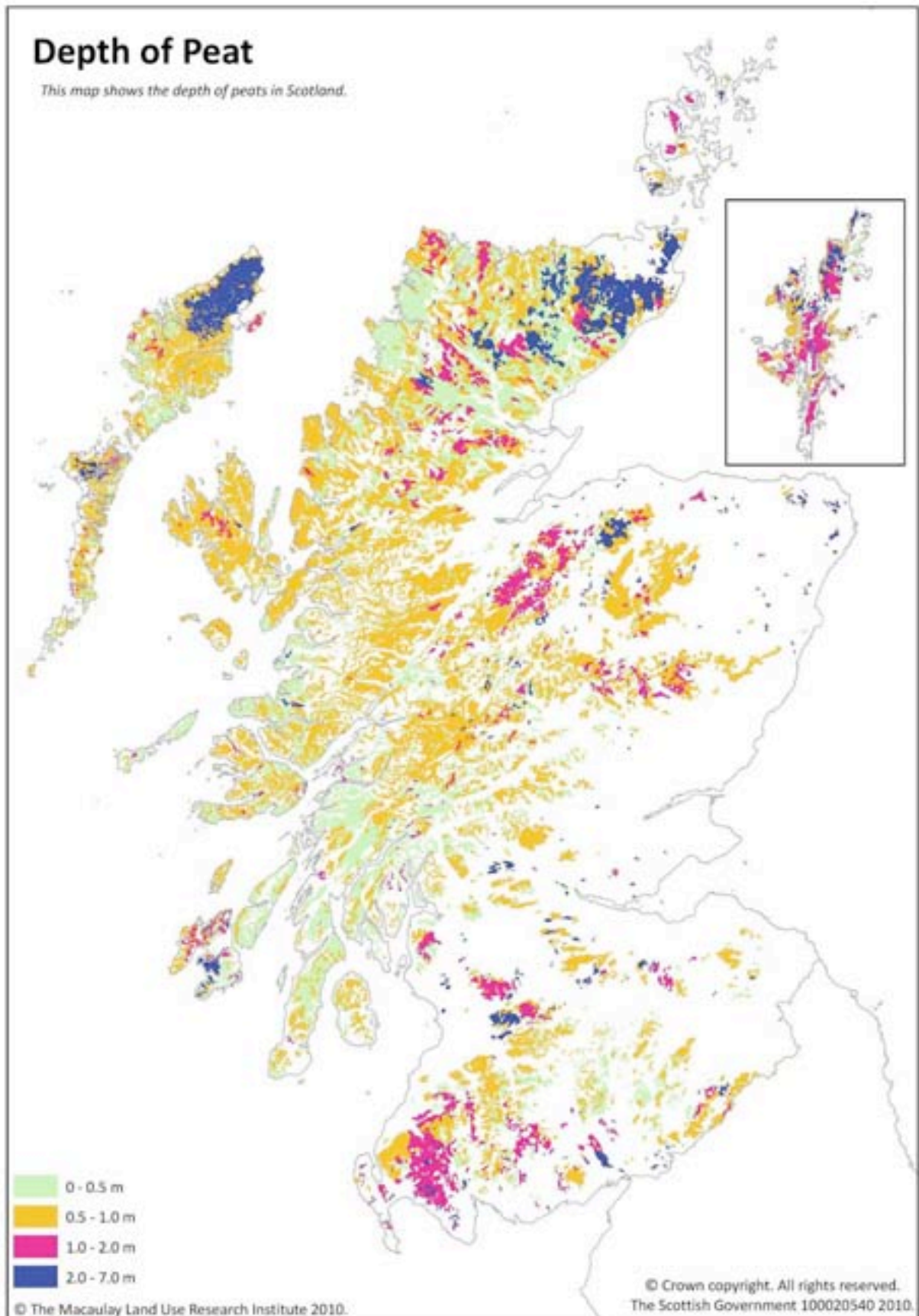
Map 4



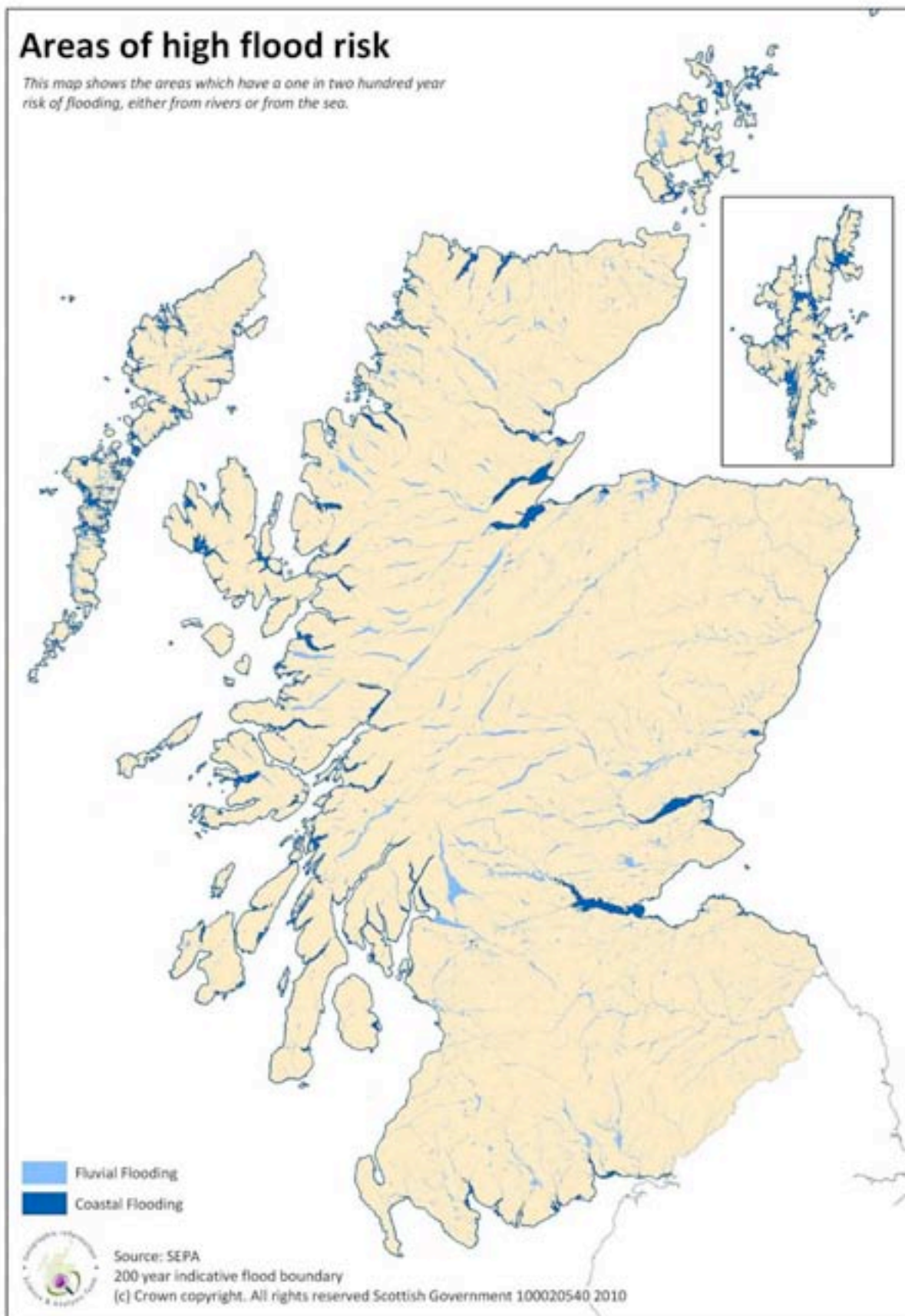
Map 5



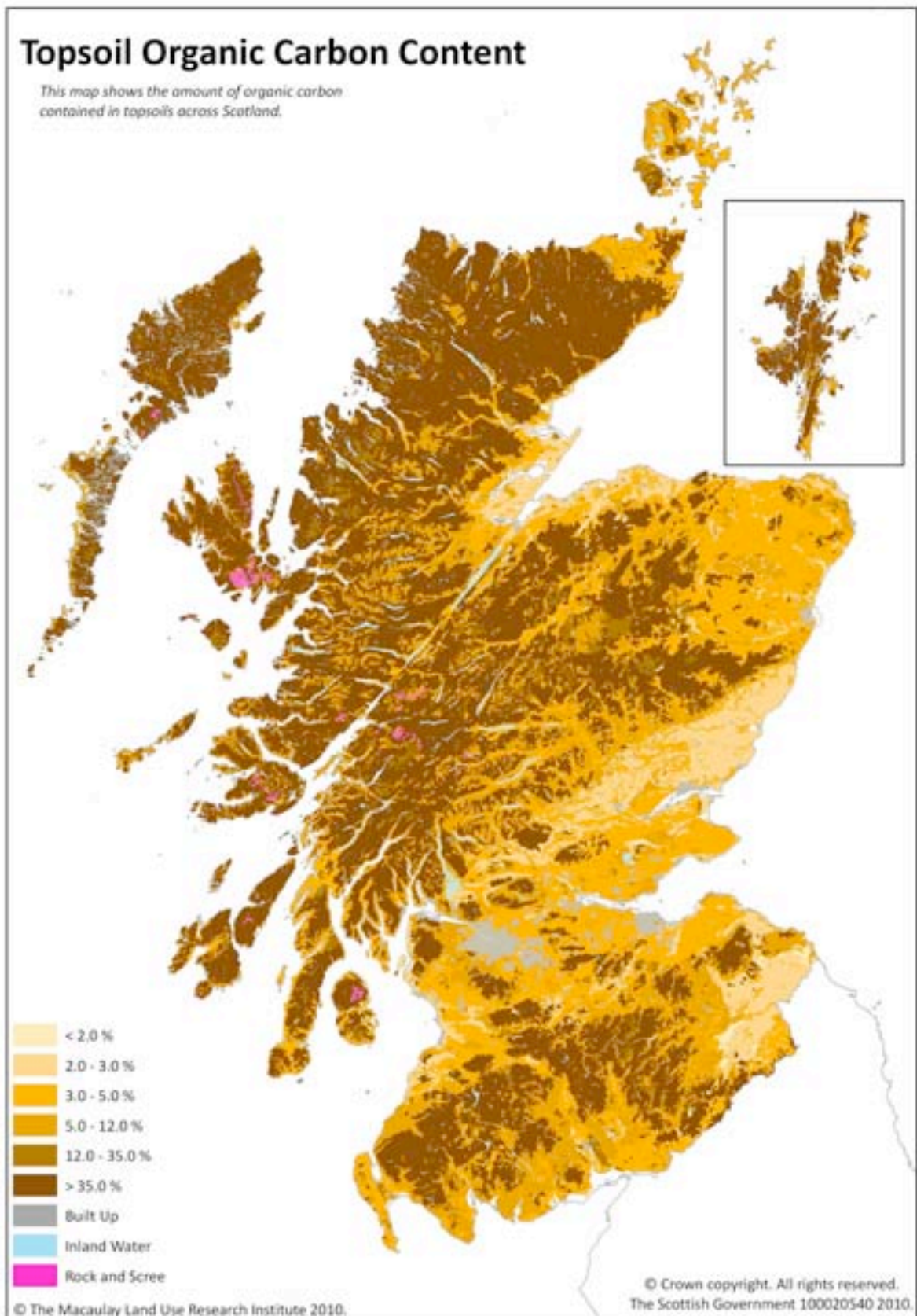
Map 6



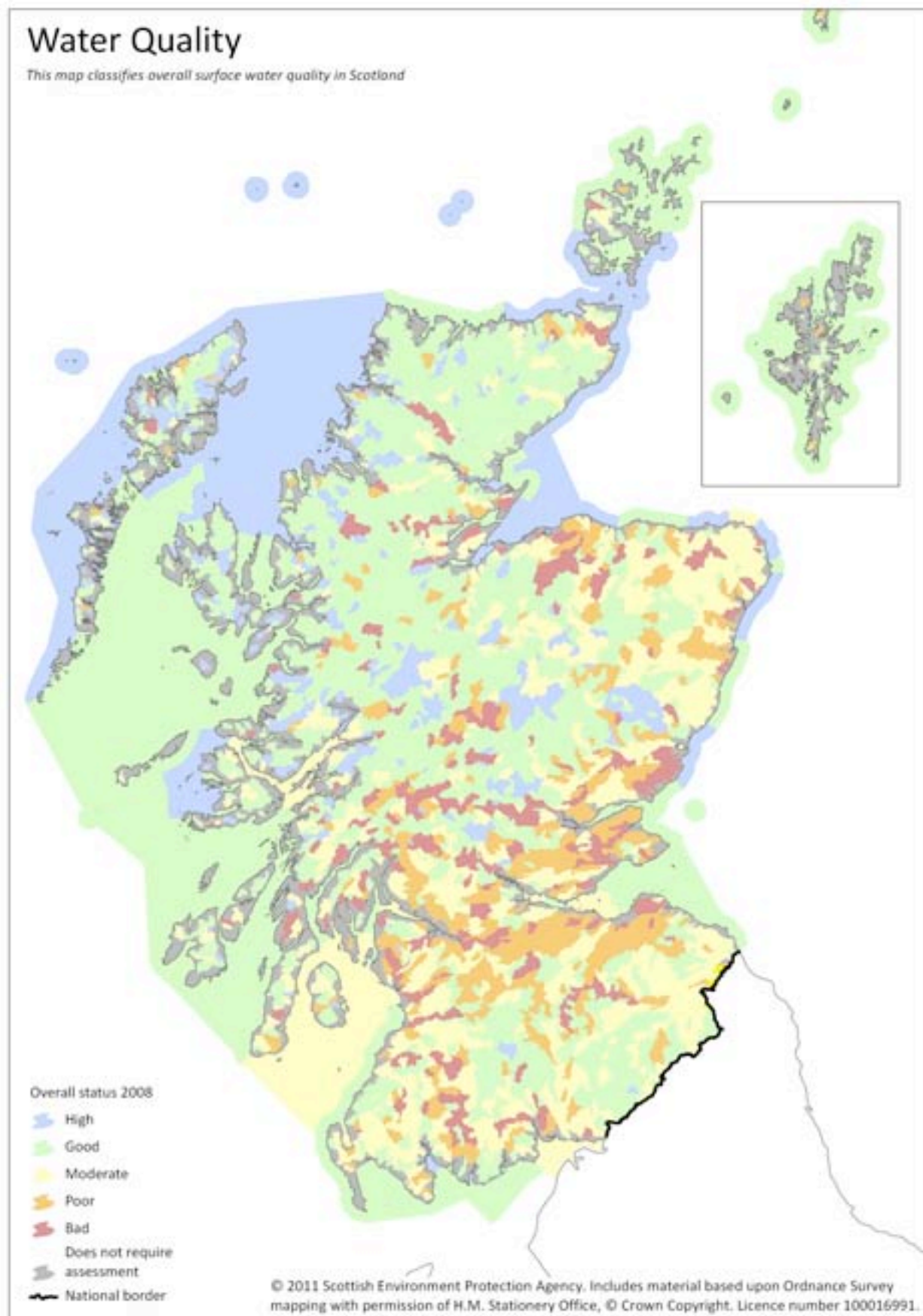
Map 7



Map 8



Map 9



Annex D: Requirement under the Climate Change (Scotland) Act 2009

Section 57 – Duty to produce a land use strategy

1. The Scottish Ministers must, no later than 31 March 2011, lay a land use strategy before the Scottish Parliament.
2. The strategy must, in particular, set out—
 - (a) the Scottish Ministers’ objectives in relation to sustainable land use;
 - (b) their proposals and policies for meeting those objectives; and
 - (c) the timescales over which those proposals and policies are expected to take effect.
3. The objectives, proposals and policies referred to in subsection (2) must contribute to—
 - (a) achievement of the Scottish Ministers’ duties under section 1, 2(1) or 3(1)(b);
 - (b) achievement of the Scottish Ministers’ objectives in relation to adaptation to climate change, including those set out in any programme produced by virtue of section 53(2); and
 - (c) sustainable development.
4. Before laying the strategy before the Scottish Parliament, the Scottish Ministers must publish a draft strategy and consult with such bodies as they consider appropriate and also with the general public.
5. The strategy must be accompanied by a report setting out—
 - (a) the consultation process undertaken in order to comply with subsection (4); and
 - (b) the ways in which views expressed during that process have been taken account of in finalising the strategy (or stating that no account has been taken of such views).
6. The Scottish Ministers must, no later than—
 - (a) 5 years after laying a strategy before the Scottish Parliament under subsection (1); and
 - (b) the end of every subsequent period of 5 years,lay a revised strategy before the Scottish Parliament; and subsections (2) to (5) apply to a revised strategy as they apply to a strategy laid under subsection (1).



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