Scottish Forestry
Coilltearachd na h-Alba

The Scottish Government's strategic approach to restoring and expanding Scotland's rainforest

Scottish Forestry is the Scottish Government agency responsible for forestry policy, support and regulation
Is e Coilltearachd na h-Alba a' bhuidheann-ghnìomha aig Riaghaltas na h-Alba a tha an urra ri poileasaidh, taic agus riaghladh do choilltearachd

Scottish Government
Riaghaltas na h-Alba

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Executive Summary

The Scottish Government is committed to restoring and expanding Scotland's temperate or Atlantic rainforest. This is a policy priority set out in Scotland's Forestry Strategy and the 2023 Programme for Government.

This strategic approach aims to accelerate delivery in tackling the challenges facing these iconic native woodlands and identify the practical steps the Scottish Government and its partners can take to help the rejuvenation of Scotland's rainforest. Recognising funding constraints, it sets out how this will be implemented over the next three years and sustained over the longer term.

There is a need to work co-operatively at a scale which addresses local populations of the key threats, often referred to as working at a landscape scale. The approach builds on the work of the Alliance for Scotland's Rainforest (ASR) and is based on partnership working and co-operation.

Delivery of restoration and expansion of Scotland's rainforest will make a significant contribution to the priorities in Scotland's Forestry and Biodiversity strategies. The priority areas and actions in this document will be reviewed after three years and actions embedded into future updates and reviews of the biodiversity and forestry strategy implementation plans.

Scottish Forestry will work with partners to implement this strategic approach, monitor progress and report regularly to Ministers.

Geàrr-chunntas Gnìomhach

Tha Riaghaltas na h-Alba an geall air coille-uisge mheasarra no Atlantaigeach na h-Alba ath-stèidheachadh, ath-nuadhachadh agus a leudachadh. Is e prìomhachas poileasaidh a tha seo a chaidh a stèidheachadh ann an Ro-innleachd Coilltearachd na h-Alba agus ann am Pròram airson Riaghaltais 2023.

Tha an dòigh-obrach ro-innleachdail seo ag amas air lìbhrigeadh a luathachadh ann a bhith a' dèiligeadh ris na dùbhlain a tha mu choinneamh nan coilltean dùthchasach suaicheanta sin agus comharrachadh nan ceumannan practaigeach a dh'fhaodas Riaghaltas na h-Alba agus na com-pàirtichean aca a ghabhail gus cuideachadh le ath-bheòthachadh coille-uisge na h-Alba. Ag aithneachadh nan cuingealachdan maoineachaidh, tha e a' mìneachadh mar a thèid seo a chur an gnìomh thar nan trì bliadhna ri teachd agus a chumail suas san fhad-ùine.

Tha feum ann air obair gu co-obrachail aig sgèile far a bheilear a' dèiligeadh ris na prìomh chunnartan do chòmhnaichean ionadail, no obair aig ìre cruth-tìre mar a thathar ag ràdh ri seo gu tric. Tha an dòigh-obrach a' togail air obair Caidreachas Coille-uisge na h-Alba (ASR), agus tha i stèidhichte air obair com-pàirteachais agus co-obrachadh.

Le bhith a' lìbhrigeadh ath-stèidheachadh, ath-nuadhachadh agus leudachadh coille-uisge na h-Alba, bithear a' cuideachadh gu mòr leis na prìomhachasan ann an Ro-innleachd Coilltearachd na h-Alba agus ann an Ro-innleachd Bith-iomadachd na h-Alba.Thèid ath-sgrùdadh a dhèanamh air na raointean is gnìomhan prìomhachais san sgrìobhainn seo às deidh trì bliadhna, agus bidh na gnìomhan air am fìghe a-steach ann an ùrachadh agus ath-sgrùdaidhean san àm ri teachd air planaichean buileachaidh airson nan ro-innleachdean bith-iomadachd agus coilltearachd.

Bidh Coilltearachd na h-Alba ag obair le com-pàirtichean gus an dòigh-obrach ro-innleachdail seo a chur an gnìomh, sùil a chumail air adhartas agus aithris a dhèanamh gu cunbhalach do Mhinistearan.

Introduction

Scotland is home to its own temperate rainforest boasting a variety of rare species and habitats. The Alliance for Scotland's Rainforest (ASR) has defined Scotland's rainforest as any native woodland within the "hyper-oceanic "zone of the west coast of Scotland (map 1) based on precipitation and temperature range and where the woodlands are rich in oceanic bryophytes and lichens[1]. The rainforest is recognised as an extremely valuable habitat as the high levels of rainfall and relatively mild, year-round temperatures provide just the right conditions for an abundance of ferns and rare bryophytes and lichens. All woodlands within the zone play an important role with the largest and some of the highest quality areas of rainforest located around the sea lochs and Atlantic coast of Lochaber, Lorne, and Mid Argyll.

Scotland's rainforest is part of our Gaelic heritage and has been valued and utilised by west coast communities for centuries.

Map 1 Scotland's rainforest zone - the Alliance for Scotland's Rainforest

However, the remaining areas of rainforest are often small, and fragmented with little regeneration and face some significant challenges to their future condition, health, and capacity to deliver local and national benefits.

There is broad agreement on the key challenges or threats to the future condition and health of the woodlands which make up Scotland's rainforest. These are:

- fragmentation, including plantations on ancient woodland sites (PAWS);
- herbivore impacts, predominately by deer;
- invasive non- native species (INNS), particularly Rhododendron ponticum;
- pests and diseases, including ash dieback and Dutch elm disease; and
- climate change.

The key and most pressing challenges to address are invasive non-native species (INNS), fragmentation and herbivore impacts.

[1] *A provisional definition of temperate rainforest in Britain and Ireland. Ben Averis 2023

The State of Scotland's Rainforest report published in 2019 by Alliance for Scotland's Rainforest (ASR) sets out why the rainforest is so important, the extent and threats to it and summarises what needs to be done. It estimates that within the rainforest zone there are approximately 30,000 hectares of rainforest woodland which is mainly ancient woodlands with known populations of lichens and bryophytes Two other recent reports by Scottish Environment LINK and the Woodland Trust provide more detail on the impacts of deer and Rhododendron ponticum in the rainforest estimating that at least 12,000 ha of rainforest needs cleared of rhododendron and protected from overgrazing. In 2021 ASR estimated the cost of restoring and expanding the rainforest ecosystem at £500M. This included £234M for rhododendron control over 150,000 ha, £78M for 30,000 hectares of expansion and £40M for PAWS restoration and deer management.

The Alliance for Scotland's Rainforest (ASR) brings together many partners committed to collaborative action for the benefit of the rainforest. The ASR vision is that Scotland's rainforest will thrive once again and by 2045 all of Scotland's rainforest to be restored and its size doubled, so that it becomes a better functioning and more resilient ecosystem. The ASR has a rolling three-year strategy. The delivery partners of the Alliance are focusing restoration on landscape scale focus projects led by the Woodland Trust, RSPB Scotland, Argyll and Isles Coast and Countryside Trust (ACT) and Loch Lomond and the Trossachs National Park Authority. These projects include a focus on delivering community benefits from work in the rainforest including supporting tourism, rural jobs, skills and training, health, and wellbeing. The ASR has also produced best practice guidance including the recently published guidance for land managers setting out how to deal with the main threats to Scotland's rainforest and community engagement guidance.

Objectives

Restoring and expanding Scotland's rainforest is a long term activity. This strategic approach aims to learn from past experience and focuses on tackling the key threats co-operatively at a population or landscape scale. This will improve the condition and health of the rainforest, enable it to regenerate and expand and better withstand climate change impacts. The approach also seeks to ensure community benefits are delivered and activity is sustained into the long term. The approach aims to co-ordinate Scottish Government activity and funding, strengthen partnership working, to improve complementarity of funding and assist in blending funding and attracting private finance. Implementing the enhancements to Forestry Grant Scheme will help to accelerate and sustain delivery. With limited funding and people a phased approach is proposed with initial priority areas which are able to deliver co-operatively at a landscape scale.

The following two objectives have been set for this strategic approach.

1. To accelerate action to restore, regenerate and expand the rainforest
2. To produce and implement a funding framework which aligns Scottish Government funding and support.

Whilst pursuing these objectives there is a need for all partners to ensure continued community engagement and community wealth building to ensure local community benefits are generated from the rainforest.

Table 1 sets out short term actions to deliver these objectives and accelerate delivery. These will be led and co-ordinated by Scottish Forestry. Recommendations are made for medium term actions and reporting on progress to build and sustain delivery.

Objective 1: To accelerate action to restore, regenerate and expand the rainforest

This objective aims to rejuvenate the rainforest improving its condition, robustness, health and regeneration. It seeks to overcome barriers to delivery and accelerate action.

Past experience has shown that to effectively tackle the key challenges of invasive non-native species (INNS), fragmentation and herbivore impacts cooperative working with coordinated activity at a scale which addresses local populations is needed, often referred to as working at a landscape scale. This strategic approach aims to strengthen working at landscape scale.

There is broad consensus amongst stakeholders that to address the threats or challenges and deliver the community, biodiversity and climate benefits from restoring the rainforest there also needs to be sustained long term, commitment and support and a proactive and targeted approach.

Working at a landscape scale

Delivering at a population or landscape scale is not straightforward and takes time and co-ordinated effort. Projects seeking to work in this way can group action into three main phases of:

- development and engagement,
- delivery of initial interventions to tackle the key challenges or threats
- ongoing long-term management, follow up and monitoring.

As projects develop and move to delivery these phases often run in parallel or overlap, however it should not be underestimated how long each phase can last. Development and engagement can take several years with at least 10 years needed to significantly address the three key threats or challenges of INNS, fragmentation and overgrazing. It is also important to seek to address these challenges together for each area.

Working at a landscape scale will include a range of owners, tenants, crofters and householders and a range of land uses. To be successful there needs to be strong engagement and support from local stakeholders and landowners and managers, including tenants, crofters and householders. Productive conifer woodlands will usually form part of the landscape and serve an important role in producing timber and supporting jobs. As they are restructured there are opportunities for strengthening rainforest habitat networks through PAWS restoration within these forests and ensuring deer management and INNS are managed in a co-ordinated way. Therefore it is important to engage the owners of these conifer woodlands when developing projects.

Defining a landscape scale area often comes from local owners or communities. Assessing rainforest and INNS extent within catchments is a useful way to define sensible boundaries for addressing threats or challenges at a population scale. The Native Woodlands Survey of Scotland and the Plantlife Important Plant Area networks for bryophytes and lichens are two useful datasets for such assessment.

Phasing and initial priority areas

There is work already being undertaken throughout the rainforest zone. It is important to build activity from key sites and work at a population or landscape scale. With limited funding and people there is therefore a need to phase and prioritise delivery of initial interventions which can be high cost. Scottish Government funding and support will be targeted at areas working co-operatively at a landscape scale where the greatest results can be delivered.

Landscape scale areas need to be able to coordinate long term delivery at scale. They should contain important rainforest woodlands and demonstrate the following:

- have undertaken a development phase including engagement and survey;
- demonstrate that co-operative working is possible and that it is feasible to deliver reduced herbivore impacts and control of invasive non-native species, particularly rhododendron, at a population level;
- have strong support for action amongst local communities, landowners and crofters and delivery partners including Forestry and Land Scotland (FLS);

- have a manageable number of participating owners, tenants, crofters and householders to ensure activity can be co-ordinated and delivered;
- for rhododendron control the area should encompass a definable local population, with appropriate buffers from adjacent seed sources that is manageable to control; and
- identify resources and people to implement delivery and ongoing management.

Ideally areas should also have opportunities for expansion through PAWS restoration, regeneration and/or planting of native woodlands.

The initial priority landscape scale areas listed in annex 1 are those either already in delivery phase or are expected to go into delivery phase in the next three years. Development and engagement work has already been done or is well underway and there is a strong local willingness to deliver at a population or landscape scale. They include those identified as landscape scale projects by ASR, which have adopted the ASR best practice guidance. The priority areas also reflect the Deer Management Strategic Board regional priorities and public and ENGO land clusters.

To extend this approach across Scotland's rainforest it is anticipated that partners and communities will bring new areas into the development and engagement phase. As set out in table 2 this phase is eligible for grant funding. It is expected that some of these emerging landscape scale areas will become priority areas and can be supported as resources become available and as the initial interventions are completed on other areas. Examples of such areas in development include West Loch Tarbert, Moidart, Kintyre, Balmacara, Glen Nevis and Sunart. Gradually this will spread landscape scale working across the rainforest zone.

The initial priority landscape scale areas are those upon which Scottish Government support for delivery will be focused. This support will be from Scottish Government staff across the agencies who will facilitate and encourage activity and grant funding. NS, L&TNP and FLS have appointed lead officers for Scotland's rainforest. Scottish Forestry will identify rainforest leaders in the appropriate Conservancies and from the work of the deer management strategic board Nature Scot wildlife management teams are aligned to these priorities. Forestry Grant Scheme (FGS) and Nature Restoration Funding (NRF) will use these priorities when assessing and encouraging applications, particularly for rhododendron control.

FLS begun work in the rainforest in the 1980's and are significant contributors to delivery in most of the priority areas. FLS are working in cooperation with partners to co-ordinate delivery and will also undertake important work elsewhere on Scotland's national forest including continuation of PAWS restoration throughout the rainforest zone.

Out with these initial priority landscapes there will still be the need for action on designated woodlands and in some sites to follow up on previous investment, particularly in rhododendron control, but the limitations of working at a site rather than landscape or population scale need to be recognised.

A co-operative long term plan including commitments to monitoring and follow up should be developed for each landscape area to ensure delivery can be sustained and long-term benefits secured before moving onto other areas. A local co-ordinator is needed, and a leadership group can be helpful to co-ordinate effort over many years.

The national approach to rhododendron control has been updated to reflect this approach to phasing and priority areas.

Community benefits

Whilst pursuing these objectives there is a need for all partners to ensure continued community engagement and local community benefits from the rainforest. Local support and engagement are essential for sustaining delivery at a population or landscape scale. Some identified benefits include rural jobs in restoration and expansion, timber, training and skills, health and wellbeing, arts, access and recreation, interpretation and tourism. The challenge of accessible and affordable housing is acutely felt in west coast communities. Knoydart have successfully established rural housing plots sold to local people to live in work in the rainforest zone and innovative examples are emerging seeking to providing affordable housing linked to rainforest projects at Torridon and Tayvallich (Knapdale).

Funding bodies will ensure project plans include community engagement and identify community benefits and there is agency support for the ASR Rainforest community capacity building bid to National Lottery Heritage Fund.

Rhododendron ponticum

Control of R. ponticum from the rainforest has proved particularly challenging. The 2013 Parrot and MacKenzie report "A critical review of work undertaken to control invasive rhododendron in Scotland" and the 2017 publication "An approach to prioritising rhododendron control in Scotland" advocated targeting populations at a landscape scale and highlighted the lessons learned from smaller scale R. ponticum control projects. This highlighted that re-seeding occurred from untreated mature bushes and follow up control was not sufficient to ensure reinvasion did not occur. The quality of control and follow up work is seen as being crucial to success and relies on skilled labour, good and appropriate control methods and correct timing. The 2013 review included four case studies which highlighted these learning points. Annex 2 includes new case studies for Glen Creran, Knoydart and Torridon which show how co-ordinated action can successfully be delivered at a population or landscape scale and demonstrate the key factors for success and barriers to overcome.

To control rhododendron it is recommended that the control area is geographically separate or buffered from another/adjacent seed sources by 500m. In exceptional cases e.g. transport corridors or a large seed source on adjacent open land it may be necessary to increase this buffer. Tackling rhododendron on open ground and transport corridors should be part of local population control. It is also important to practice good biosecurity to prevent seed being brought into cleared areas from elsewhere.

The 1981 Wildlife and Countryside Act makes provision for Scottish Ministers to enter into species control agreements or serve orders on landowners to control INNS on their land. The approach being adopted to restoring and expanding the rainforest is one of partnership and cooperative working and has been effectively demonstrated in areas like Glan Creran, Knoydart and Torridon. For most projects this is likely to produce effective control however when all funding and cooperation avenues have been exhausted, and as a last resort agreements or orders will be used following a proportionate and risk-based approach to ensure control of seed sources in a landscape otherwise cleared of INNS.

It is also important to identify and address any other INNS as treatment of rhododendron can give them an opportunity to expand. Also the regeneration of non-native conifers, particularly on cleared PAWS sites, needs to be monitored and addressed. FLS are doing significant work on the public estate to remove this, and FGS supports clearance.

Climate change

Climate change is and will impact on the rainforest. Predictions are that the rainforest zone will contract in its eastern extent which would reduce the suitable habitat for lichens and bryophytes. For tree species the ecological site classification models indicate a general increase northward in suitability for key tree species but does not indicate big changes in the rainforest zone, nevertheless, changes in the east need to be considered. Trees from more southerly provenances are likely to become more suited to planting and with the disease threats to ash and elm there is a need to investigate and consider whether other tree species such as small leaf lime, wild service tree and sycamore have a future role to play. Forest fire is also a growing threat that needs to be planned for and measures put in place to minimise the risk, particularly to expanding woodland.

In a changing climate restoration work needs to be forward looking expanding and regenerating the rainforest, improving its condition, robustness and health. It will be important to revisit climatic modelling and further consider the impacts this could have on the rainforest and the adaptive capacity of key species.

Monitoring

It is essential that activity and impacts are effectively monitored across the priority landscape areas and wider rainforest work. This must be used to inform ongoing management actions and engagement. It is particularly important for rhododendron and herbivore impacts. Regular monitoring enables a quick response for example to the presence of new rhododendron bushes before they flower and produce large quantities of seed. It is also important to monitor and adjust herbivore impacts on bryophytes and lichens.

When a co-operative long-term plan is developed for a landscape scale area this should include a ten-year monitoring programme.

Remote sensing must be assessed and deployed at a landscape scale in a consistent and affordable way to ensure monitoring picks up changes. Monitoring is required into the medium

term and a local project coordinator will be needed to deliver sustained and co-ordinated effort over many years.

Research

The ASR have established and host a research working group which is scoping out a range of research needs. This group engages across the UK rainforest network. Prioritisation of knowledge gaps is being undertaken and the group will seek funding to take forward collaborative research projects.

One identified area is to compare and improve mechanical, manual and herbicide techniques for rhododendron control, to improve long term effectiveness and to publishing comparative data for stem injection.

Also being actively investigated is the use of remote sensing technology (satellites, planes or drones) including LIDAR to provide a replicable, affordable methodology for accurately monitoring rhododendron and herbivore impacts at scale. The potential for emerging technologies to instigate action and following up rhododendron control should also be scoped out.

As much of the rainforest remains free from Dutch Elm Disease research is needed to establish if this can be maintained and populations of Wych elm sustained. It would also be useful to revisit climatic modelling and further consider the impacts this could have on the rainforest.

FLS are working with the James Hutton Institute on rainforest PAWS restoration efficacy and biodiversity recovery.

Forest Research are engaging with the ASR research working group and could assist across a number of areas if funding is available. Scottish Forestry will feed any specific research priorities identified to Forest Research and the GB science and innovation strategy.

Barriers and risks to delivery

In order to accelerate and sustain delivery it is important to build and sustain progress from priority sites. This means investing time in engagement and partnership working and having a pipeline of projects in development whilst other areas deliver significant landscape scale interventions to restore and expand Scotland's rainforest.

Some of the main issues to overcome to accelerate delivery include:

- Limited survey and herbivore impact data
- Limited labour availability with the skills and capacity to undertake the work at the scale needed, and lack of affordable housing
- Accessing necessary funding for each of the phases of delivery including the time and resource for engagement,
- Cooperation and collaboration with land managers working across ownership boundaries
- Mechanisms and methods for monitoring and follow up

Key risks to delivering this objective include a lack of sustained funding, a continuation of site based rather than landscape scale approaches, lack of effective engagement and co-operation, continued limits on labour availability and a lack of monitoring and follow up.

Whilst recognising the limited Scottish Government funding this strategic approach and the short-term actions set out in this document aim to help to overcome barriers and counter these risks but there is also a need to address some of the mid-term recommendations to build and sustain delivery into the longer term.

Table 1: Actions to address key strategic issues and challenges/threats

Strategic Issue	Commentary	Actions: Short term 2024-2026
Project development, planning, engagement and accessing funding.	Working collaboratively at a landscape scale takes time and energy. Community engagement and wealth building are essential. Locally based co-ordinators are needed to consult, engage, advise, survey and bring forward projects and applications to access capital funding. The ASR projects and croft woodlands project are successful demonstrations of this approach. Scottish Forestry, Nature Scot, Forestry and Land Scotland (FLS) and Loch Lomond and the Trossachs National Park have lead officers for Scotland's rainforest A co-operative long term plan including commitments to monitoring and follow should be developed for each area.	To implement this strategic approach SF will continue to provide a policy lead and identify rainforest leaders in appropriate Conservancies. Align NatureScot, Scottish Forestry and FLS strategic support and work with partners to proactively encourage co-ordinated delivery in the priority landscape areas. Contribute funding to the Croft Woodlands project to incorporate a rainforest advisor. Target Scottish Government funding to areas which can deliver co-operatively at a population/landscape scale. Raise awareness of, signpost and deploy NRF and FGS grants for project development, planning and survey (see funding framework). Through NRF and FGS funding support development, engagement, survey and planning in emerging areas. FLS on national estate. Ensure specialist advice (including on lichens and bryophytes) and surveys can be obtained when developing

		native woodland plans by extending the use of the Scottish Forestry designated site planning grants to priority sites.
Delivery. Fragmentation	Increased woodland creation by regeneration and planting is needed to support the expansion and connection of rainforest woodlands. FLS are leading on the removal of conifers from PAWS and the regeneration of rainforest species on sites cleared of conifers.	Within funding constraints implement the enhancements to FGS (increased regeneration grant; the small woods supplement for planting native broadleaves; extending the native woodland target area for Argyll and increased support for manual or mechanical bracken control). Ensure the existing Scottish Government funding through NRF, FGS and FLS delivery are aligned and complementary and NRF and FGS are clearly signposted in support for rainforest work (see funding framework). Promote the use of the Woodland Carbon Code to draw in additional finance for native woodland expansion, particularly for regeneration. Ensure appropriate funding is targeted to controlling non-native conifer regeneration- led by FLS. Through felling permissions and forest plans ensure conifer restocking includes adequate regeneration buffers to rainforest remnants and connectivity of rainforest sites. To encourage production of native broadleaves of west coast provenance e.g. aspen, oak, hazel, implement changes to the FGS eligibility criteria for new and small-scale nurseries. Support the Future Woodlands Scotland small native tree nursery workshop to share learning and

		experience and promote networking between nurseries.
Delivery. Deer management	There is a need to reduce herbivore impacts to enable regeneration within native woodlands, on PAWS sites and to enable expansion. Deer impacts are the focus, but other herbivores will also need to be managed. Herbivore impacts need to be carefully managed to avoid shading of oceanic lichens and bryophytes. Cattle grazing can help here.	Ensure the existing Scottish Government funding through NRF, FGS and FLS delivery are aligned and complementary and NRF and FGS are clearly signposted in support for rainforest work (see funding framework). Within funding constraints implement the enhancements to FGS (reducing the eligible area threshold for proposed native woodland expansion without new fencing and providing funding of co-operative deer larders). The deer management priority sites will help target the work of NatureScot wildlife management officers and other Scottish Government agency staff to priority rainforest areas facilitating joint working and coordinated deer management. Joint working action plans will be produced for each area. Pilot collaborative FGS and NRF funding of deer management in priority areas targeting support to deer management without using fencing enclosures.
Delivery. Rhododendron and invasive non-native species	There is a high capital cost to clear INNS and regular long term follow up work is needed to control and eradicate. The scarce contractor resource a limiting factor on scale of work. Prioritise areas where population control is feasible.	Ensure the existing Scottish Government funding through NRF, FGS and FLS delivery are aligned and complementary and NRF and FGS are clearly signposted in support for rainforest work (see funding framework). Produce and disseminate case studies to show the factors which lead to successful control at a population or landscape scale.

		Extend the rhododendron control priorities set out in the 2017 "An approach to prioritising control of rhododendron in Scotland" to the initial priority landscape scale areas of rainforest. Within funding constraints implement FGS enhancements to target and improve access to FGS grants for rhododendron control and follow up treatment (see funding framework). Ensure rhododendron and other INNS control is considered in developing new agriculture support. Promote and extend the use of the NTS Community Garden scheme offering to remove R. ponticum and replace with alternative plants. Engage with professional foresters and through learning by experience events, raise awareness of best practice for clearance and follow up treatment promoting the use of stem injection. Work with the ASR research working group to investigate alternative methods of control. Support and encourage training and skills programmes to increase the labour available to undertake the work and provide community benefits. Including projects building local rainforest teams, FLS work to build a contractor base and apprentices including in deer management and the Woodland Trust NLHF bid for skills and community engagement.

		Produce guidance on a risk based approach to the use of species control agreements and orders.
Delivery. Climate change, pests and disease.	Work focused on improving the health and condition of existing woods and regenerating and expanding to make rainforest more robust to face climate change impacts. Expansion, regeneration and increased age structure would increase robustness, resilience and genetic variation. Particular threats to ash and elm which could have consequences for lichens and bryophytes. Regeneration of other native tree species suited to hosting lichens and bryophytes is a priority.	Working with ASR, the University of the Highlands and Islands and Forest Research raise awareness and encourage reporting of ash dieback and Dutch Elm Disease and participate in the partnership projects to explore elm resilience and ash resistance breeding work. Encourage owners, crofters and partners to take action to regenerate woodlands, particularly where mature ash is dying and leaving gaps in the canopy. Produce a case study and promote the use of small temporary regeneration enclosures.
Ongoing management, monitoring and follow up.	Implementing long term plans including monitoring and follow up. A local project coordinator will be needed to deliver sustained and co-ordinated effort over many years.	Explore mechanisms for coordinated follow up management of INNS and deer such as management agreements or contractual licences. Subject to funding availability use FGS management grants for monitoring and follow up action (see funding framework). Develop a remote sensing methodology for monitoring in priority areas. Where possible contribute funding to project co-ordinators.

Recommendations for medium term (2026-2036) and ongoing actions to sustain delivery over the longer term:

- Ensure policies across forestry, biodiversity, agriculture, deer and land reform are aligned to support co-operative landscape scale working.
- As relevant Government strategies and implementation plans particularly the forestry and biodiversity strategies, are reviewed and updated embed the objectives and actions from this strategic approach.
- Ensure future forestry (FGS), agricultural and nature restoration (NRF) grant support post 2025 is aligned and can better support co-operative delivery at a landscape scale. This would include engagement and project development, survey, deer management, rhododendron and other INNS control, regeneration, ongoing management and monitoring.
- Support project co-ordinators delivering at a landscape scale.
- Deploy mechanisms for blending private finance support with the limited Scottish Government funding.
- Following research and development implement any new techniques for effective INNS control.
- Develop and deploy cost effective remote sensing technology to aid effective monitoring of rhododendron control, herbivore impacts and tree regeneration at a landscape scale.
- Promote community wealth building, including where appropriate the provision of affordable housing, access and woodland crofts.

Objective 2: To produce and implement a funding framework which aligns Scottish Government funding and support

Delivering rainforest work at a landscape scale will need co-operative and partnership working with long term, multi annual funding for ongoing management, follow up and monitoring. Many of the actions related to funding in table 1 will be delivered through partnership working with the ASR. However Scottish Government funding is very constrained and in the absence of a single rainforest restoration fund there is a need to blend together various funding sources to deliver such work. Developing landscape scale projects which deliver restoration and expansion will provide coordinated project packages to attract private finance.

Some of the barriers around accessing existing Scottish Government grant funding include: - costs and complexity of survey and applications; cashflow; costs in excess of grant; concerns over long term liabilities; constraints on funding small private pieces of ground and gardens and accessing funding for follow up and long-term management. Some of these barriers are addressed in the actions in table 1.

Current Scottish Government funding

The Scottish Government has committed significant funding to rainforest work through Forestry Grant Scheme (FGS), the Nature Restoration Fund (NRF) and Forestry and Land Scotland (FLS) on Scotland's national forest. This funding plays a key part in this blended approach and in attracting NGO, private and new funding sources. Loch Lomond and the Trossachs National Park Authority (L&TNPA) are also an important funder of the Loch Lomond project.

Out with the national forest, FGS and NRF provide the core of Scottish Government grant funding for rainforest restoration and expansion. This includes contributions for survey and project development, cooperation, deer management, woodland expansion, INNS control and monitoring. To date NRF has committed £3.6M to rainforest work. Since 2015 Scottish Forestry has committed £6M of FGS funding for the management of existing native woodlands within the rainforest zone, with £1M made available in 2023. This FGS funding includes £2.8M for rhododendron control and 446 ha of natural regeneration. Currently 2,785 ha of native woodland is receiving FGS Sustainable Management of Forests grant and so is being actively managed and monitored. In addition 7,021 ha of native woodland planting has been approved.

Scottish Government funding for rainforest has increased over the last few years with £4.5M allocated in 2023 through these three mechanisms of FLS, NRF and FGS. However funds are very constrained and given the limits on available Scottish Government funding there is a need to carefully target and prioritise to ensure effective use of available funds. The focus will be on the initial landscape scale priority areas.

FLS are significant deliverers of rainforest restoration. This is focused on deer management, control of INNS, PAWS restoration and helping to build a local contractor base. In 2023/24 rhododendron was treated across 930 hectares and 250ha of PAWS safeguarded.

FGS mainly offers standard cost contributions and is tied to land parcels and so funds individual woodland owners or tenants through their Business Reference Numbers (BRNs) and Single Application Form (SAF). FGS can only fund actual costs for work on SSSI/SAC woodland sites. However FGS has a key role to play in funding woodland expansion (planting and regeneration) and providing longer term (5-year contracts) contributions for ongoing management, follow up and monitoring.

NRF is in place until 2026. It is not tied to land parcels and thus is a more flexible mechanism than FGS for delivering landscape scale projects working across ownership boundaries. It can fund actual costs and lead partners such as NGOs to deliver action across a range of ownerships. It offers funding over 2-3 years and can fund survey and project development.

The blended approach to funding proposed in this objective is complex but necessary to accelerate delivery within the current funding availability and ensure work is done co-operatively at a landscape scale. There are several existing examples of blending Scottish Government funding such as the use of FGS and NRF to support rhododendron control, PAWS restoration, deer management and native woodland regeneration and planting at rainforest sites in Loch Arkaig, Knoydart and Morvern.

Table 1 and the medium-term recommendations set out actions and recommendations to target and accelerate the deployment of funding and expand on a blended approach to funding projects. This includes some significant enhancements to FGS.

FGS 2023 enhancements

To aid delivery of objective 1 a series of enhancements were made to FGS in 2023. These can be summarised as:

- Extending the Highland native woodland target area to all of Argyll-this is an increase of 12.5% for planting new native woodlands within the rainforest zone in Argyll.
- Doubling the payment for expanding native woodland through natural regeneration to £600/ha.
- Encouraging co-operative deer management without fencing by reducing the eligible threshold for annual deer reduction grants from 1000ha to 300ha of new native woodland.
- Funding community or shared use deer larders in the rainforest priority areas and Caledonian pinewoods -funding at up to 40% of cost up to £50,000.
- Targeting and improving access to grants for rhododendron control and follow up treatment; - extending the rhododendron control priorities to include the rainforest priority areas, enabling clearance and initial follow up control in one application and funding survey and several follow up treatments.

Complementarity of funding

Discussions between NatureScot and Scottish Forestry have developed a framework (Table 2) to increase complementarity between FGS and NRF and, subject to available funding, to aid signposting to applicants for different phases of action.

Current grant options from FGS and NRF has been mapped to the phases for action; development and long-term planning, delivery of interventions and the ongoing long-term management and engagement, follow up and monitoring.

Table 2: NRF and FGS funding for phases of action[2]

Phases	Funding lead/focus
Development (survey, engagement, co-operative working and skills)	NRF FGS (co-operation) can assist with engagement
Long term plans (developing and agreeing appropriate site and collaborative area plans)	FGS (long term forest plans, co-operation)
Delivery (rhododendron control, deer management, community benefits, regeneration and expansion etc)	***Rhododendron clearance***: - NRF (across ownerships) FGS* (individual BRNs) ***Deer:-*** FGS** including fencing. NRF enclosures alongside long term herbivore management. ***Woodland creation****:* - FGS (including regeneration) ***Other; -*** FGS (woodland grazing; tree nurseries and timber processing).
Ongoing long-term management/follow up/monitoring	***Rhododendron***: - FGS follow up control treatment. ***Deer***: - FGS (annual management grant) ***Monitoring***: - FGS (herbivore impacts)

[2] A project leader/coordinator (usually NGO funded) is needed to progress the phases of action. NRF has flexibility as not tied to land parcels so can fund actual costs on all ownerships/types and work undertaken by third party. FGS can provide 5-year tranches of annual payments for deer management and monitoring through the SAF and regular rhododendron follow up grants.

*FGS contributions targeted to the initial priority landscape areas but may support clearance on other designated sites.
**FGS contribution to deer larders limited to initial priority landscape areas.

Other funding sources

Given the scale of the task and the limited Scottish Government funding it will be necessary to draw in other sources of funding. A mix or blending of funding is not new. For example forestry grants tend to be a contribution to costs, in the expectation that landowners will contribute as there is an environmental or amenity benefit to their property. However for restoration work such as controlling rhododendron there are limits to these landowner contributions that can be expected and some owners or tenants do not have ready access to capital contributions.

For woodland expansion the woodland carbon code is well established and already attracting significant private funding for carbon sequestration from new native woodland planting. Regeneration can also be registered under the code providing an important potential funding source for rainforest expansion.

Future Woodlands Scotland provides funding for regenerating "ghost" woodlands, relics of native woodlands, and this includes a package covering the costs of FGS applications, topping up FGS grants to actual costs and registering and validating under the woodland carbon code with the carbon units staying with the landowner. This is likely to be a useful source of funding for deer management and regenerating the rainforest.

The National Lottery Heritage Fund (NLHF) Heritage 2033 strategy seeks to support strategic and landscape scale environment projects and active involvement and participation of people and so could become a significant source of funding. This could be useful as NRF and FGS do not currently fund community capacity, skills and training. This is to be further explored in the ASR rainforest community capacity building bid, led by the Woodland Trust.

The NGOs are already deploying considerable funds they have raised to employ project staff and deliver activities both in the ASR landscape projects and also across the wider rainforest woods through outreach work. The work of ASR and the profile of Scotland's rainforest helps with this fundraising and should attract further philanthropic donations from wealthy individuals.

Additional private finance is being actively explored by a number of partners, for example the NatureScot Memorandum of Understanding with Hampden & Co, Lombard Odier Investment Managers and Palladium. Also there are several Facility for Investment Ready Nature in Scotland (FIRNS) projects being taken forward by ACT and others. These are important exploratory projects as at present private investment is focused on carbon sequestration which is a challenge to fit with the timescales and activities of rainforest restoration and regeneration and does not recognise the high biodiversity and other values that can be delivered on rainforest sites. These projects aim to include restoration work delivering wider biodiversity gains and assemble packages of funding around landscape scale projects.

Blending public and private funding to deliver rainforest objectives needs further development to produce collaborative models and examples. The FIRNS projects will help inform this and tease out some of the issues such as incentives and risks for landowners, and how to fit carbon related finance to rainforest projects. This collaborative development work should enable blending

together these funds and better signposting to guide applicants towards appropriate funding sources.

Risks
Key risks to delivering this objective are constraints on initial funding to tackle the threats in the landscape scale priority areas, failure to blend in private finance and the lack of sustained funding for ongoing management and monitoring.

Ensuring the limited Scottish Government funding is targeted and complementary and addressing the short-term actions set out in table 1 aim to help to counter these risks but to build and sustain delivery into the longer term there is also a need to address some of the mid-term recommendations, particularly to deploy mechanisms for blending private finance.

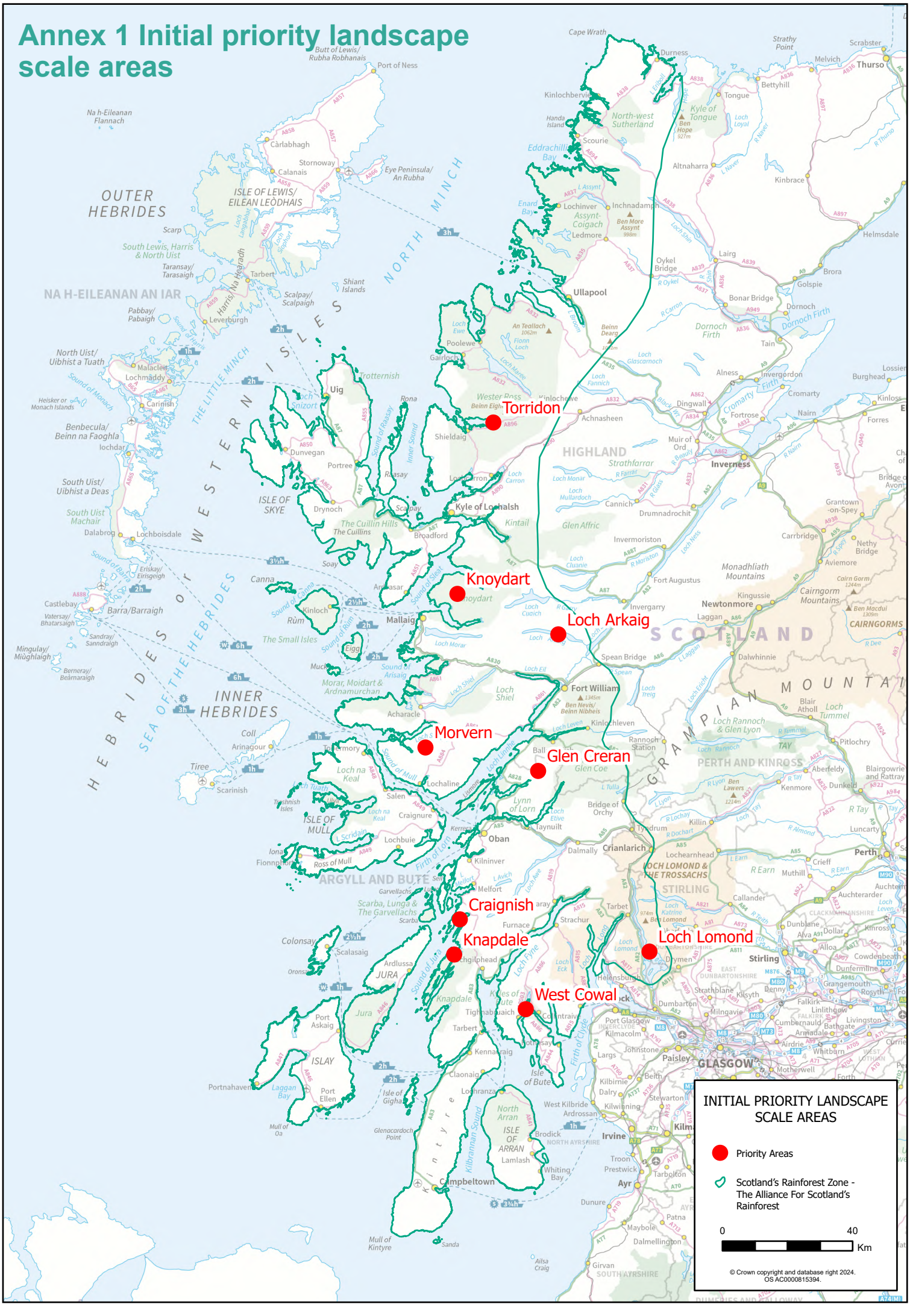
Reporting progress on the strategic approach actions

Scottish Forestry will continue to provide a policy lead on rainforest. Officials from Scottish Government, Scottish Forestry, Forestry and Land Scotland, and NatureScot will need to work together to provide oversight and coordinate delivery across Government. The progress on delivery of the actions contained in this strategic approach will be monitored by Scottish Forestry and partners, particularly ASR, with annual Scottish Government funding and outputs summarised for Ministers.

Monitoring of progress by 2026 will include:

- number of landscape scale projects where delivery is underway
- area covered by these projects
- grant funding from Scottish Government (NRF and FGS, FLS) for rainforest work
- area of planting, regeneration and PAWS (FLS) restoration within rainforest zone
- area of rhododendron cleared and area of follow up treatment
- area of rainforest with approved deer management plans and area receiving annual deer management grants
- summary of community engagement and community wealth building.

Annex 1 Initial priority landscape scale areas



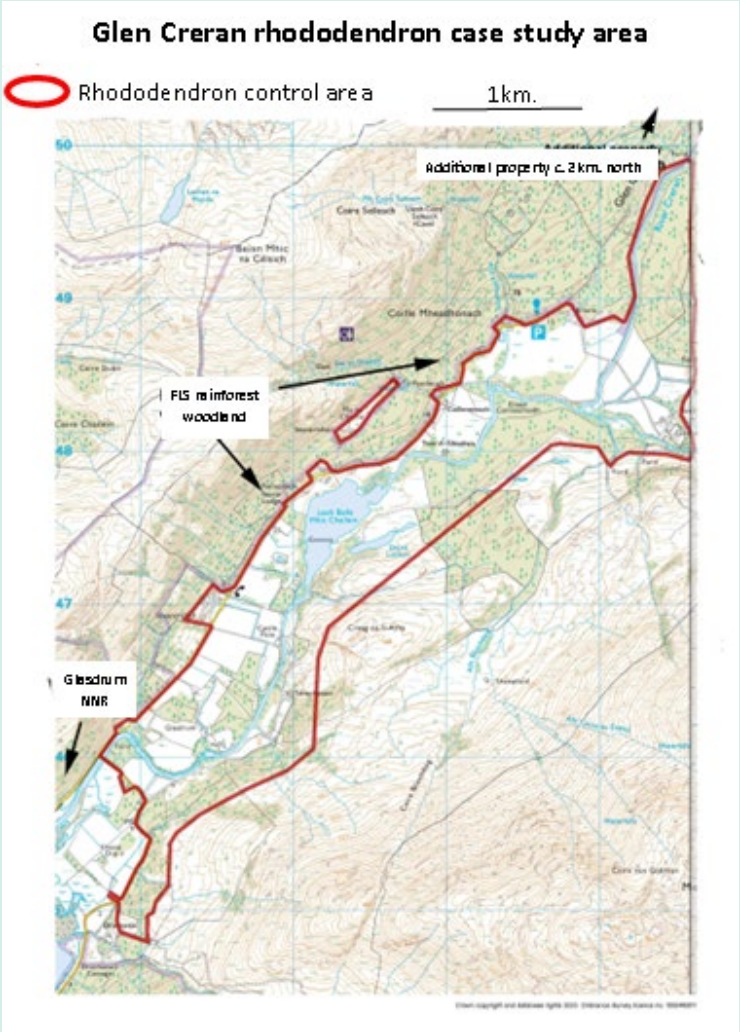
Annex 2 Case studies on control of *Rhodendron ponticum* at a population or landscape scale

Produced by Bob Black, Argyll Woodlanders December 2023.

Case study 1: Rhododendron control in Glen Creran

Glen Creran

Glen Creran is a small, sheltered glen at the head of Loch Creran in North Argyll. Houses and gardens are scattered along the public road running through the glen. Its north-western side contains an extensive band of oak and ash rainforest, mostly owned and managed by Forestry and Land Scotland (FLS) and a key part of the Glen Ceran Woods SSSI. Also within the SSSI is the adjoining Glasdrum National Nature Reserve. Most of the remaining land in the glen is a private estate, a mix of fragmented native woodland, conifer plantation and semi-improved grassland.



Rhododendron control in the glen

Rhododendron was present over several square kilometres of the glen, concentrated in areas close to habitation but with isolated bushes elsewhere. However, it is a relatively self-contained population with only very scattered bushes present along the loch-side to the south-west, in the direction of the villages of Barcaldine and Appin, whilst the rugged upland habitats enclosing the glen prevent its spread to adjacent glens.

Over 20 years ago, the Forestry Commission (now FLS) started a programme of woodland restoration and rhododendron control. FLS regard the glen as a priority area for biodiversity management, and several follow-ups to the original rhododendron treatment were undertaken. It is recognised that complete eradication is unlikely to be achieved in the foreseeable future, so a 'maintenance regime' is now in place that aims for a sweep through the forest estate every two to three years to catch any surviving rhododendron stems.

In recognition that privately owned land in the glen was a reservoir and in some cases the source of the glen's rhododendron, work to identify the extent of the problem and to propose solutions was initiated in late 1990s by some residents in the glen, supported by Scottish Forestry (SF) and NatureScot (NS). The two main issues arising were how to secure the substantial funding needed

for control operations and the complexity of securing agreement and co-ordinating work over properties that included 20 private householders as well as the private estate.

The funding problem was complicated by the lack of available grants for work on small parcels of private ground ineligible for forestry or agricultural grants, and an estate that supported the project but was unwilling to go through the challenges and commitments required for work to be funded through land-based grants. The solution was to apply for National Lottery Heritage Fund (NLHF) support for work that included in a single control programme both householder property and estate land. The application was done through the Argyll & The Isles Coast & Countryside Trust and funding of approximately £110k was secured from NLHF, SF and NS for rhododendron control over approximately 14km² of woodland and open ground.

All owners of affected property in the glen agreed to be involved in the project. This unanimous agreement was regarded as crucial and it was achieved through the actions of key members of the glen community, working steadily over several years and supported, also over several years, by those involved with the NLHFF bid. Some householders were offered replacement shrubs if their gardens would be adversely affected by the removal of rhododendron. And at an early stage it was decided to exclude a well-known woodland garden containing numerous prized, non-*ponticum* rhododendron specimens. This garden was on the edge of the control area and had an owner who was not resident, so it was decided to leave it for a future control programme.

Looking down Glen Creran with rainforest on the slopes to the right, a small lochan, grazed fields and a garden hedge of rhododendron in the centre. The hedge is now gone.

The experience of the NLHF funded control work in the glen

Control work started in late 2017 and finished in 2021. It involved three main contractors, one engaged to work on householder properties where a sensitive and tightly supervised approach was essential, a specialist team to work on rock outcrops and in the gorge of the River Creran and a general contractor to work on other land.

Methodology involved cut and either burn or stack, with stumps treated with herbicide, including the use of Ecoplugs. Two follow-up foliar spray treatments were included. Success was mixed. Most issues arose from the amount of inadequately treated rhododendron and in particular the standard of work of two of the contractors whose prior work outcomes were unknown but who were engaged through the formal procurement process required by NLHF funding. The main problems were a lack of a systematic approach and insufficient supervision. Two additional contractors were then engaged to work on problem areas. The final outcome has been satisfactory, apart from one relatively small area, though there has been no additional follow-up work since the contract work ended and there is now a pressing need to keep on top of the inevitable regrowth.

Next steps – Scottish rainforest restoration

A key part of NLHF funding was community engagement. This was very successful in the run-up to and during the contract phase of the project but has somewhat stalled since, especially the expectation that management phase work, keeping on top of regrowth, would be taken up by members of the glen community. This lack of action could be put down to the absence of a person or group willing to organise and motivate work parties and by a failure to secure ongoing funding for paid work.

One of the most significant long-term positive impacts of the project has been to act as a catalyst for community thinking about rainforest management by the glen community and, more recently, by residents in the wider Appin community. The success of the project demonstrated that an ambitious community-led approach was possible and could succeed.

This served as a model for the Appin Community Development Trust. The Trust now has a Project Officer and is engaged in raising funds, through the Nature Restoration Fund, for scoping the task of landscape-scale control of rhododendron and other INNS over the whole Appin area, hopefully including funding for the ongoing maintenance phase work in the glen.

The Appin area has been identified as a Deer Management Priority Area by the Strategic Deer Board. Currently deer numbers are considered too high for successful rainforest regeneration, an issue particularly relevant to the areas cleared of rhododendron. NS is actively working towards a landscape-scale approach to deer management in the area. This should combine well with the Trust's aim to control INNS in the same area.

Case study 2: Rhododendron control in Knoydart

Knoydart, an introduction

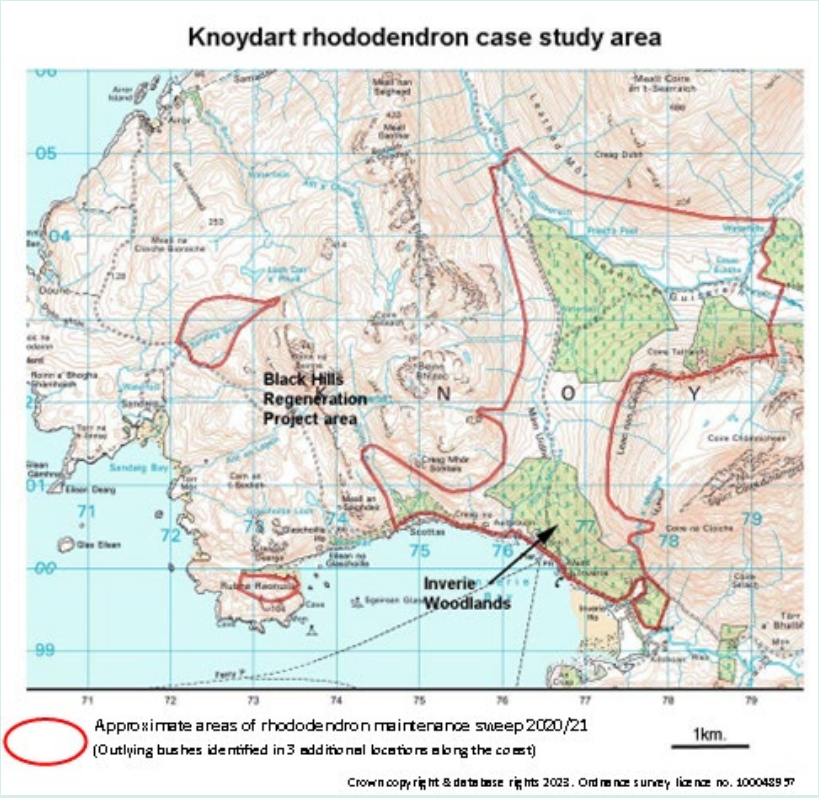
Western Knoydart is an inhabited peninsula in Lochaber, situated between Loch Nevis and Loch Hourn. The terrain is rugged, mountainous in places, and it is functionally an island, having no road connection to the rest of mainland Scotland. Most of the population of approximately 120 full-time residents live in and around the village of Inverie, with the remainder living in a scattering of houses along the coastal strip.

In 1999, the approximately 7,100 ha. of Knoydart Estate was bought on behalf of the community by the Knoydart Foundation. At the same time the Knoydart Forest Trust (KFT) was formed to manage the estate and adjoining woodlands, comprising the mixed, multi-purpose Inverie woodlands and remnant native woodland and blocks of confer plantation elsewhere.

Rhododendron control

Rhododendron control has been a feature of Knoydart woodland management since 1999. Early work focussed on the dense stands within the Inverie woodlands. These were cleared in stages, mostly by resident KFT staff, supplemented at one stage by non-resident contractors, and funded through a succession of forestry grants.

The initial plan was to remove the worst of the rhododendron but not eradicate it from the whole of the KFT management area. The west Knoydart rhododendron population is a discrete population, with no strong links to other populations, and by 2005 it was realised that complete eradication was feasible but would require its removal from all places where it occurred, including private gardens. A community consultation was launched with the aim of convincing everyone that eradication was both desirable and feasible. Nearly all came on board and in 2009 a final push by KFT staff, backed up by volunteers and Knoydart residents, removed the last of the original stands, except in one small area.



Since 2009, rhododendron control has moved to a management phase, with KFT staff sweeping through the previously cleared areas on an approximately two- to three- year cycle, removing seedlings and regrowth stems. Other INNS species, especially Japanese knotweed, are included in these sweeps. The work is combined with other woodland management operations, giving at least two residents full-time employment. They use a variety of control methods, choosing the most

appropriate one for each bush but only resorting to backpack spraying where unavoidable. They also map in detail the occurrence of regenerating bushes so that regrowth hot spots are known and can receive the most attention. Posters around Inverie still invite people to report rhododendron sightings so that these can be added to the regrowth database.

As the KFT staff are all residents of Knoydart, they have a sense of ownership of the management programme and have been able to build a range of skills associated with rhododendron survey and control techniques, enabling them to maximise the effectiveness of their efforts. Local employment also means that the money needed to maintain the programme is retained within the community.

Woodland management, rhododendron and deer

Knoydart woodland has no formal conservation designations, but it lies well within the rainforest zone of western Scotland. Both remnant native woodland and some areas within the Inverie and plantation woodlands are examples of typical Scottish rainforest. These are now under positive long-term management, whilst regenerating native woodland could be regarded as rainforest in the making.

Deer impacts are generally high across Knoydart, but deer fences protect both existing woodland and areas of woodland expansion. Within the fenced enclosures deer impacts are low or absent, allowing areas freed from rhododendron and other INNS to regenerate with trees and other woodland flora.

Now at an advanced stage of planning is the Black Hills Regeneration Project, aiming to link up some of the existing deer fences to create 3000 ha. of land where deer impacts can be managed to enhance the biodiversity of previously impoverished wooded and non-wooded habitats.

Part of Inverie village, backed by multi-purpose mixed woodland. Tree regeneration is visible on the Black Hills to the left.

The future

One property owner has not participated in the rhododendron control project. The option taken so far has been to maintain a constructive dialogue with the owner, whilst monitoring and controlling regeneration in the adjacent areas. Detailed mapping of the regeneration demonstrates the invasive potential of retained seed-producing bushes, but it has proved possible to maintain within the wider control programme a rhododendron-free cordon round retained bushes. It is an expensive option but in a close-knit community it is seen as the best way of managing the situation for the foreseeable future.

The control project has not been cheap (total costs from 2003 to date amount to over £300,000), but it has been a success. Approximately 250 ha. of land has been cleared, of which 55 ha. was dense rhododendron. The management phase has become a routine operation that is no longer onerous but still requires vigilance and ongoing funding. This funding is likely to come primarily from further woodland grants, perhaps supplemented by contributions from elsewhere and justified by the community-oriented charity status of both the KF and KFT. Though relatively short-term woodland grants have been the backbone of the project and are likely to continue to be so for the foreseeable future, assured long-term funding would be highly desirable though difficult to secure through existing funding structures.

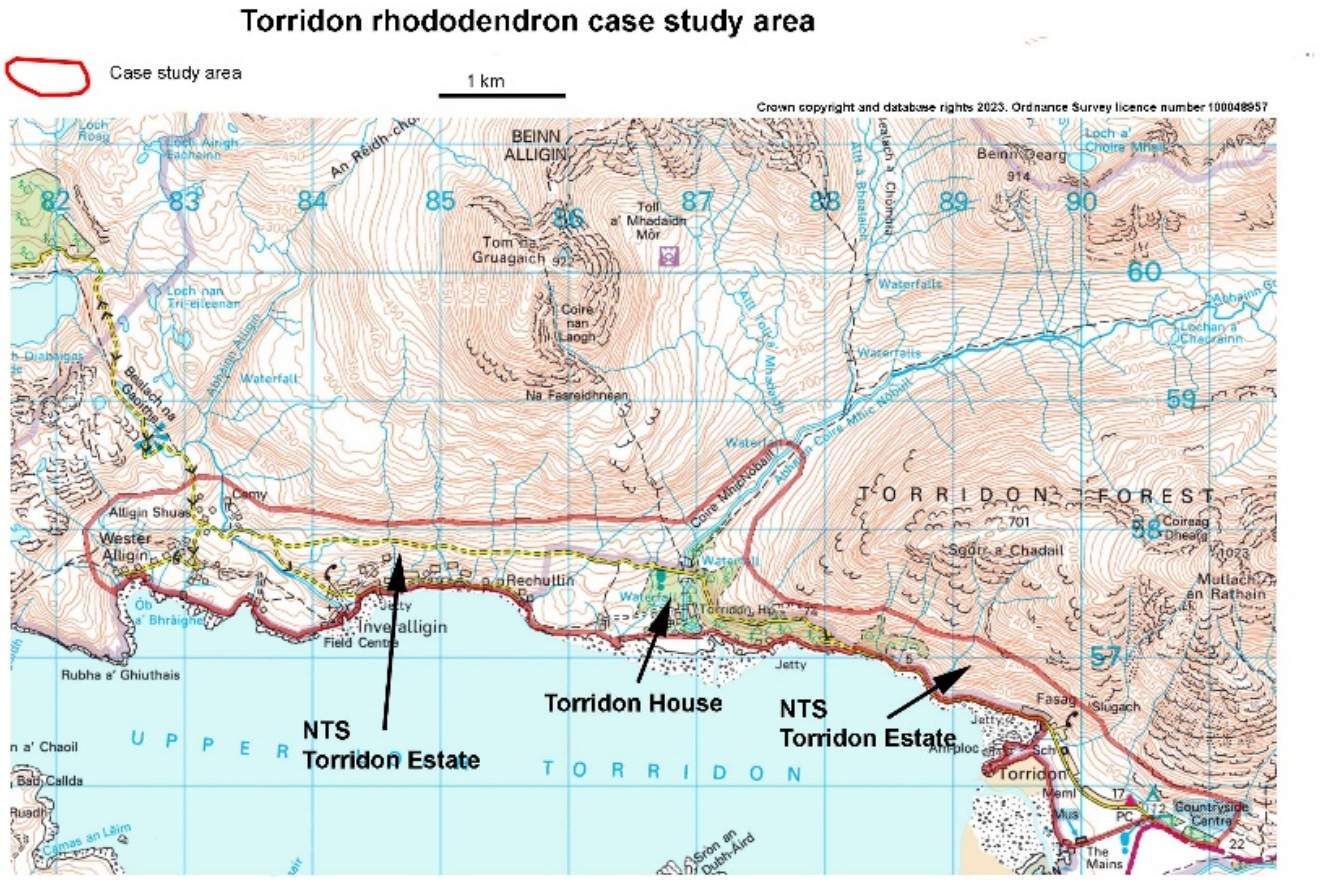
Case study 3: Torridon rhododendron control project

Torridon, an introduction

The Torridon and Loch Maree area of Wester Ross is rich in biodiversity and has a well-established and complex history of rhododendron control. This case study focusses on work in one part of this area, the northern side of Upper Loch Torridon, between the loch-side and the crags of Beinn Alligin and Liathach.

The eastern half of the case study area comprises a relatively small part of the extensive Torridon Forest SSSI, designated for its montane habitats, and of the Loch Maree Complex SAC, designated in part for its Caledonian [pinewood] Forest. A second SSSI at the western end of the area, the Abhainn Alligin SSSI, is a ravine partly designated for its native broadleaved woodland.

The rhododendron control programme here has been spearheaded by the National Trust for Scotland (NTS), the major landowner, and has included the loch-side communities of Fasag and Wester Alligan, with a total of very approximately 80 land holdings. A significant proportion of these holdings have owners who are not full-time residents.



Rhododendron control

The rhododendron in the case study area is a discrete population with only weak links to other populations on the south side of Loch Torridon or to the Loch Maree populations or to the several scattered populations to the south-east of the Torridon to Kinlochewe public road.

NTS began rhododendron control on the southern side of Upper Loch Torridon in 2007 before turning to the northern side, above Fasag village and in the Abhainn Alligin SSSI. The land owned by NTS in between was then included in a project that in total covers approximately 6 km ². The significant grounds of Torridon House are not in NTS ownership or management and have their own rhododendron control project.

A programme of intensive community consultations and workshops was undertaken by NTS and a 'plant swop' initiative launched, where residents were provided with non-invasive garden shrubs to replace their invasive rhododendron. The experience of community involvement in rhododendron control, and experimentation with various control methods, both in Torridon and at other NTS sites in Wester Ross, has been well-publicised and is a source of information and ideas for other potential landscape-scale INNS projects.

Minimising or avoiding herbicide use has been a key objective. A range of rhododendron control methods have been employed, with stem injection the preferred option for medium to large stems, and with pulling, physical removal or foliar spraying chosen for smaller stems. Ropework has been necessary in hard-to-reach places.

Initial control was carried out in stages, funded partly by NatureScot (NS) and partly by NTS using its own resources. In 2020, NTS launched Project Wipeout, with funding from NS and others. This involved further primary control and follow-up work, both of which are ongoing and mostly carried out by contractors. It also funded the creation of two INNS ranger posts. The rangers are on-the-ground NTS staff who can liaise with residents on a local basis. They carry out follow-up control work, including seeking out scattered bushes, particularly on the higher mountain slopes. Included in their remit is the control of Cotoneaster, a local INNS problem.

Steep slopes above Fasag, showing standing, dead rhododendron stems, killed by stem injection. Some natural regeneration of trees is occurring.

Where initial control has been completed the project has moved on to the management phase, where periodic sweeps to catch regrowth stems and seedlings is sufficient to prevent re-infestation.

Initial control work remains to be done in at least one area, where discussions continue with the landowner, who is not a full-time resident. And an infestation remains in the grounds of Torridon House where control work is ongoing with the help of significant FGS funding.

The total cost of the NTS control programme to date is very approximately £150,000, including the cost of contractors and a proportion of the cost of staff time and volunteers.

Future management

Tree regeneration in the areas cleared of rhododendron is naturally slow because of climate and ground conditions. NTS has a presumption against deer fencing, though there are some existing deer-fenced enclosures where supplementary planting has been undertaken. However, the deer population in Torridon is "generally low", according to a 2013 NS Herbivore Impact Assessment, and some tree regeneration is becoming established outwith the fenced areas.

Work to control rhododendron in the study area continues but action has not been limited to the northern side of the loch. There is a history of control by the estates south of the Torridon to Knlochewe public road and by NTS and a local hotel on the southern side of Upper Loch Torridon. Much but not all of this was funded through forestry grants, and more work is needed.

Recently the Glen Torridon Partnership Project has been formed with the aim of fostering collaboration between land ownerships in the wider area, in order to "Bring invasive, non-native species, particularly Rhododendron ponticum, under control…[and] Significantly increase native woodland coverage". As well as NTS, NS and the local communities already involved on the northern side of the loch, land managers include the Woodland Trust and the privately owned estates. Funding has been secured for a project officer, and an FGS co-operation grant is in the pipeline for work on a feasibility study. From this it is hoped to secure additional funding for large-scale control work, currently estimated to cost £3m.

Rhododendron regrowth due for follow-up treatment in a sensitive garden location in Fasag, with houses close by. In the distance is a promontory still awaiting rhododendron control.

Features common to all three case studies

- It is possible to control rhododendron successfully on a landscape or whole-population scale, but success is not achieved quickly, easily or cheaply.
- Large-scale control will almost certainly involve multiple land ownership, probably including household properties.
- It is essential to have the support of all or nearly all landowners and managers. This is achievable but requires a process of thorough consultation and patient advocacy, maybe over several years. A strong advocate for the project within the local community is an important asset.
- Clearing rhododendron from gardens is an intrusive activity, requiring a sensitive approach and sometimes the offer of replacement shrubs.
- Control work, and especially management phase work, may work best when undertaken by people with connections to the locality, where a sense of identification with the project can develop and where the project can deliver economic benefits to the community.
- Rhododendron control is expensive. Securing sufficient funding may be challenging, especially where properties are not eligible for mainstream land-based grants or where rhododendron has spread widely over open ground.
- Once initial control work has been completed, there must be provision for funding the ongoing management phase of the project.
- Recent changes to the FGS application process may improve access to additional land-based grants but issues of complexity and eligibility remain.
- Access to a long-term funding stream would ease recurring funding problems. This has the potential to encourage additional landscape-scale control projects.

Scottish Forestry

Coilltearachd na h-Alba