

# A Shetland Woodland Strategy



Shetland Amenity Trust  
Garthspool  
Lerwick  
ZE1 0NY



Tel: 01595 694688  
email: [info@shetlandamenity.org](mailto:info@shetlandamenity.org)

# **SHETLAND AMENITY TRUST**

## **A SHETLAND WOODLAND STRATEGY**

### **PREFACE**

This Shetland Woodland Strategy was prepared in draft consultation form in March 2001, and sent out to key partners identified in the document. Responses were gratefully received from the following:

Forestry Commission, Highland Conservancy.  
Shetland Islands Council, Community Services, Infrastructure Services.  
Scottish Natural Heritage, Northern Isles Area.  
Shetland Crofting and Farming Wildlife Advisory Group.  
Shetland Enterprise.  
Association of Shetland Community Councils.  
Millennium Forest for Scotland Trust.  
Orkney Native Tree Group.  
Forestry Service of the Faroe Islands.  
Lea Gardens.  
Plantiecrub Growers Ltd.  
University of Abertay Dundee.  
University of Central Lancashire, Newton Rigg, Cumbria.  
SAC, Department of Plant Biology, Auchincruive.  
BTCV Scotland.

This final version has been drawn up taking account of as many of the responses as possible. In addition several developments have occurred – for example new projects coming “on-stream” - since the draft was circulated, and these changes have been accommodated. Inevitably further changes will occur, and organisations and individuals will alter their perception of needs and desires. It is recommended therefore that the strategy is reviewed annually, and comments and suggestions from key partners and other interested parties are welcome at any time.

## **INTRODUCTION**

### **AIM**

The aim of the Shetland Woodland Strategy is to encourage the use of trees and shrubs and other woodland flora in the Shetland landscape, both urban and rural, so that they enhance the environment, and are of positive value to people and wildlife, for both present and future generations.

### **PRINCIPLES**

The strategy is intended to adhere to the guiding principles of The Scottish Forestry Strategy prepared by the Scottish Executive. These are:

- Sustainability
- Integration
- Positive value
- Community support
- Diversity
- Local distinctiveness

It will therefore be possible to follow those strategic directions identified within the Scottish Forestry Strategy which have relevance to Shetland's economy and environment.

### **INDICATIVE FORESTRY STRATEGY (IFS)**

Guidelines for preparing Indicative Forestry Strategies were issued to local authorities by the Scottish Office in 1999, to allow them to influence forestry activities, as part of a Structure Plan. An IFS would be expected to identify priorities for forestry development in a local authority area, and identify land suitable for forestry. Given the lack of tree-cover in the Shetland Islands, it is not surprising that the local Structure plan contains no IFS, although tree and shrub planting is supported as a means of farm/croft diversification and conservation based land management regimes in agriculture, and for environmental enhancement. Tree Preservation Orders are recognised as a means of protecting woods as well as individual or groups of trees, and the desirability of applying them to specific locations is mentioned in the Structure Plan's Written Survey.

The issue of land suitable for forestry within the Shetland context is a complex one, and is dealt with below. While this strategy document is not intended to be an IFS, it is hoped that it may be useful to Shetland Islands Council when it is required, for example, to consider Woodland Grant Scheme applications or projects that require environmental enhancement. At the same time it is hoped that the Shetland Woodland Strategy will be of positive value to the Scottish Executive and the Forestry Commission in the delivery of the Scottish Forestry Strategy and the review of the Woodland Grant Scheme and Farm Woodland Premium Scheme.

## **FORESTRY AND WOODLANDS – DEFINITIONS**

The term “Woodlands” was chosen for this strategy document in preference to “Forestry” because the public perception in Shetland of a “forest” is irrelevant to the local landscape in its present, historic past and probable future forms – a forest generally being thought of as a large area of ground with continuous tree-cover. It is however important to recognise that “forestry” is the management not only of large forests but of small woodlands; urban forestry includes the maintenance of individual street trees, for example, and the paradoxical but useful term “forestry beyond the timberline” has been applied to regions where, whether due to climatic or land-use reasons or both, woodlands are marginal.

If therefore the word forestry is used in this document it is in the context of woodland or tree and shrub management, and is practically synonymous with another term: arboriculture.

## **BACKGROUND**

The Shetland Islands, at latitude 60 degrees north the northernmost archipelago of the British Isles, are characterised by their rugged landscape, in which woodlands and trees are for the most part notably absent.

The wet, windy and salt-laden climate is widely held to be responsible for an apparently natural absence of trees, and with no place on the islands further than 5 kilometres from the sea, such a view is not surprising.. It does not, however, take account of those small areas of trees which have successfully been planted over the past 200 years or so; nor does it explain the presence of scattered “relict” survivors of woodland tree species, which indicate the possibility of an alternative landscape. Even if these relict trees, so few and far between, are dwarf or stunted in appearance, they are often to be found on exposed cliff-faces and on holms (small islands) in lochs, and they are always vulnerable to browsing by sheep.

Other indicators that woodland once existed in Shetland include the common presence of twigs, branches, stems and roots of trees buried in peat, and pollen found in extracts from loch and mire sediments. The latter reveals to scientists that woodland, composed predominantly of birch, did indeed exist in Shetland over a wide area – until about 3000 B.C. The present flora of the islands also contain examples of native herbaceous and shrubby plants associated with woodland.

The pollen record shows a quite rapid disappearance of trees and their replacement by grasses, sedges and heather. Whether climate change or settlement by humans was the prime cause is a matter of debate. There can be no doubt, however, that 5000 years - first, of clearance by cutting and burning, and, secondly, of continuous grazing and trampling by animals – has had a profound effect on Shetland’s landscape, and on its culture too. Not only are there very few trees to be seen, it is even thought by some that they do not deserve to be seen!

Mild wet winters and cool, cloudy summers, which are the staples of Shetland’s climate, do not favour optimal tree-growth, and certainly the choice of tree species

that can grow is limited. Frequent high winds and salt blown off the sea are further obstacles to growth. Yet in relatively sheltered and fertile locations, several species of both broadleaved and coniferous trees have grown to heights above 12 metres, and on more exposed and infertile ground an increasing number of species is being tested and proved tolerant of such conditions. Recent concentration on the seed origin of trees to be planted in Shetland has been important in this respect.

Efforts have also been made to bring species of relict trees in to cultivation, with some of these becoming available on the horticultural market. Gardening in Shetland is an increasingly popular activity, and with diversification in agriculture proving an added incentive to crofters and farmers to create shelterbelts and small areas of woodland, tree-planting is set to continue and expand.

There are, however, considerable losses of young trees incurred in woodland or garden establishment, which is unfortunate for the trees, and the people who purchase and plant them. It is also unacceptable if public funds have been used in woodland establishment, and if the losses are avoidable by good forestry or arboricultural practice. Effective advice is crucial, and it needs to be efficiently disseminated. At the same time the public must have the ability to acquire trees that are of good quality and suitability for their chosen location.

## **WOODLANDS IN SHETLAND – THE EXISTING RESOURCE**

### **1. NATIVE WOODLANDS.**

There is no natural or semi-natural native woodland in Shetland, such as is found in Orkney, at Berriedale in the island of Hoy, which contains the most northerly natural (i.e. not planted by human hand) woodland in the British Isles. Berriedale is predominantly composed of downy birch, but also has aspen, rowan, hazel and willow. Dogrose and honeysuckle make up its shrub layer, while woodrush, fern and bracken, primrose and bilberry adorn the field layer.

All these species are, however, found in Shetland. The trees, where they exist “in the wild”, are known as “relicts” and occur in isolated inaccessible locations such as ravines, cliff-faces and holms in lochs, as individuals or groups. Most have been reduced by grazing pressure and exposure to shrub or scrub form. Juniper and crab-apple also exist, and the past discovery of woody remains of common alder allow this species to be added to the list of native Shetland trees. Pollen deposits of ash, elm and oak, found in mire and loch sediments, indicate that these larger species of tree may also have been present in Shetland’s original post-ice age woodland.

An extensive survey of relict trees was undertaken by Shetland Amenity Trust in 1994. Some sites have been fenced to protect them from sheep, and several aspen, willow, rowan and juniper have been brought into cultivation. This has enabled the planting of new native woodlands with genuine Shetland stock. A hazel conservation project is shortly to be undertaken (see below, under Indicative Projects). Scottish nursery suppliers have recently responded to the demand for native trees by selecting and specifying the origin of their seed sources, so that it is now possible to plant trees

originating from similar climates and latitudes to Shetland. Links with the Orkney Native Tree Group and with Nordic forestry services and arboreta have also been invaluable in this respect. Four hectares of native woodland have been planted since 1998 by Shetland Amenity Trust.

## **2. ESTABLISHED PLANTATIONS**

Plantation woodland that has formed canopy can be estimated to have been planted prior to 1980, and extends to approximately fifteen hectares in total, excluding private gardens. The largest and most impressive cluster of such woodland is in the fertile valley of Weisdale, at Kergord. Comprised of shelterbelts of mixed coniferous and broadleaved species, they were first planted in the early twentieth century, and canopy height averages fifteen metres. Sycamore, ash, elm and whitebeam are notable among the broadleaves, while Sitka spruce, Japanese larch, and a few noble fir make up most of the conifers. New shelterbelts and extensions were added in the 1950's and 1970's; these are almost entirely coniferous and reflect current Forestry Commission policies of upland woodland establishment using Sitka spruce and lodgepole pine.

Other plantations of the mid-twentieth century were mostly experimental coniferous shelterbelts set up by the Forestry Commission and Department of Agriculture on farm or crofting land, while those of the 1970's were instigated by the Professor of Forestry at Aberdeen University, Jim Henderson. These plantations demonstrate the potential of these conifers in exposed conditions and on relatively poor soils. Published records and the continued survival of certain species also reveal the significance of correct provenance selection.

The oldest, and most northerly, plantation, however, is composed entirely of broadleaves. Halligarth, at Baltasound in the island of Unst, dates from at least the mid-nineteenth century, and in 1867 was already noted for its attraction of passerine birds – a significant contribution to Shetland wildlife made by all woodlands. Although surrounded by a drystone wall, Halligarth is by no means in a sheltered location.

## **3. RECENT PLANTATIONS**

A large number of plantations have been established since the 1980's, often with the aid of agencies such as: the Nature Conservancy Council, the Countryside Commission, and their successor, Scottish Natural Heritage; the Forestry Commission; Shetland Crofting and Farming Wildlife Advisory Group (SCFWAG), and Shetland Amenity Trust. Restoration of older plantations also resulted in extensions, especially where narrow shelterbelts had fallen into neglect. Shetland Amenity Trust has either planted or grant-aided approximately fourteen hectares of new woodland since 1985, while a so far unquantified area has been planted with the aid of SCFWAG, or by individuals on their own initiative. The plantations are of a relatively small size – for the most part between 0.25 and 2.00 hectares, and a safe estimate of the average increase in woodland area would be two hectares per annum at least, up to the present day.

It must be admitted that there have been failures. Some sites were ill-advised, species choice was often haphazard or limited by lack of knowledge or market availability, and the necessity for aftercare was not sufficiently appreciated. In the last ten years, however, there has been a considerable improvement in arboricultural knowledge, through a combination of professional training, public awareness, and information exchange and dissemination. At the same time a wider range of plant material has begun to become available, enabling more selective choices to be made by tree planters.

Shetland Amenity Trust maintains records and management plans of those plantations for which it is responsible, and plant accession records.

#### **4. TREES OF PARKS AND GARDENS**

Many private gardens throughout the Shetland Islands boast fine specimens of trees, in both rural and urban situations. Trees in urban public places, however are singularly lacking. Large gardens created by lairds and merchants contain the oldest planted trees in Shetland, with ages up to 200 years, for example at Westshore in Scalloway, and at Busta House near Brae, where impressive sycamore, ash and elm may be found. Surprising examples of beech, oak and holly can be found in smaller gardens.

Surveys of both urban and rural trees were undertaken by Shetland Amenity Trust in 1994.

#### **LAND SUITABLE FOR WOODLAND IN SHETLAND**

Several factors must be taken into account when determining the suitability of land for woodland establishment.

1. What type of woodland? i.e., shelterbelt (narrow or broad), native, exotic, broadleaved, coniferous, mixed, coppice, silvopastoral, urban, amenity, community, garden, small or large, etc., etc.
2. What species of tree (and shrub)? And crucially, of what seed origin?
3. What type of site? Exposure, aspect, geological, and soil conditions; flora and topography.
4. Statutory conditions and environmental and archaeological considerations, e.g., designated conservation sites.
5. Local authority and national (e.g., agricultural) policies on land-use.
6. Local community aspirations.

The first three factors involve geographical, physical and botanical analysis, while the other three deal with the human interaction with the environment. Factor 1 is extremely important as the type of woodland may influence the criteria used in Factor 2. For example, a woodland intended to produce a crop of trees for timber extraction would need more careful consideration of topography than an amenity woodland – the requirements for access being quite different. Factor 3 also influences Factor 2: some species of tree will grow on wetter ground than others, for example, while one species of alder may tolerate exposure better than another, depending on their seed origin. And even within one species there may be significant differences of exposure tolerance.

It is therefore very difficult to produce a set of “rules”, or a map, that categorises land into “unsuitable, preferred or potential” areas for woodland in Shetland, when only these first three factors are taken into account. Factors 4 to 6 complicate matters further, as policies, aspirations, and statutory designations, are subject to change. Moreover the scale of forestry in Shetland, both physically and numerically, is unlikely to be so large as to require strategic categorisation.

Nevertheless reference should be made to past and present recommendations and designations that affect the capability and availability of land for woodland development in Shetland. Most relevant of the former is the Forestry Commission’s Field Book on Land Capability for Forestry in Northern Scotland, produced by the Macaulay Land Use Research Institute in 1989.

The criteria used for assessing such land capability – and classifying it into seven types – are; climate, windthrow, nutrients, topography, droughtiness, wetness and soil. Accordingly most of Shetland falls into Class F7 – “land unsuitable for producing tree crops”, for both climatic and topographical reasons. Low accumulated temperatures in the growing season on exposed and higher hill ground, and high mean annual wind speeds even on arable or crofting ground, exclude most of the interior as well as the coastline of the islands. The presence of extensive hagged peat is the main topographic limitation.

In all, just 76 sq. km., or 5.3% of the total land area of 1433 sq. km., is classified as F6: - “land with very limited flexibility for the growth and management of tree crops.” Soils (podzols, peaty gleys and peats) and risk of windthrow, combined with difficulties likely to be encountered in establishment (ploughing) or extraction, restrict all capable land to this class. Appendix 1 shows these areas together with areas of woodland that have been established in Shetland.

The use of the term “tree crops”, however, implies that commercial forestry is what is being considered in this Forestry Commission document. Indeed “the species choice in Class F6 is limited to lodgepole pine and Sitka spruce and to amenity broadleaves such as birch and alder.” The scale of commercial forestry such as has been practised on the Scottish mainland using the aforementioned coniferous species is unlikely ever to be a practical economic prospect in Shetland, nor is it presently considered desirable for environmental reasons. Their use for shelterbelts also requires review, precisely because of the limitations imposed by the risk of windthrow. Birch and alder, moreover, are generic terms. As stated above, research and trials of different species and seed origins, in different locations, may well reveal that a wider range of



trees can grow on a wider range of ground than was previously thought. Much also depends on the type of forestry – or woodland – proposed. There is, furthermore, a dynamic element to woodland: certain species or genera of trees can act as “pioneers” and, by improving the structure and fertility of the soil and providing shelter, enable other species to grow.

The research branch of the Forestry Commission, Forest Research, has, in co-operation with Scottish Agricultural Colleges (SAC) prepared a Farm Shelter Audit, by means of which any farm in Scotland can be assessed for potential shelterbelt provision. The audit includes mean wind speed maps which can be a useful desktop tool for woodland advisers. Such technical aids, however, should not preclude actual site visits whereby surprising local features of climate, topography, exposure and aspect may be discovered, and the all-important needs and aspirations of the client be taken into account, before recommendations are made.

Similarly, statutory and other land designations may be represented in map form; indeed a whole array of site data can be accessed through software such as Global Information System (GIS), which will be of use in preliminary site assessment, and will prove invaluable for recording and monitoring of woodland development.

Such designations as National Nature Reserves or Sites of Special Scientific Interest, or areas, for example, of active blanket bog which may not be protected must be taken into account, as must the presence of archaeological sites. Nor should local community aspirations be neglected. The development of the Local Biodiversity Action Plan – “Living Shetland” – will be of crucial importance in this respect

What is therefore required to determine whether land is suitable for woodland or not, is available professional advice, combined with full public consultation as appropriate to any particular development, on both a general and an individual basis. Such advice can be provided locally by Shetland Amenity Trust or Shetland Crofters and Farmers Wildlife Advisory Group, nationally by the Highland Conservancy of the Forestry Commission, or by any combination of these organisations, which already co-operate closely in woodland matters. If any proposed woodland is submitted to the Forestry Commission for funding through the Woodland Grant Scheme, public consultation is undertaken as a matter of course.

Applications for shelterbelt grants under the Crofting Counties Agricultural Grant Scheme, however, may satisfy the agricultural criteria required for approval, but lack the professional forestry advice that may make the difference between success and failure. Co-operation between relevant agencies, such as the above-named, and the Scottish Executive Environmental and Rural Affairs Department can be improved by information being readily available for applicants in published format.

## **DEVELOPMENT OF A SHETLAND WOODLAND STRATEGY**

Since 1985 **Shetland Amenity Trust** has taken a lead role in managing and developing a high percentage of woodland. At present its responsibilities cover approximately 23 hectares of mature and recently established plantations. It has also taken measures to conserve species of relict trees, and introduced species of trees and shrubs well-suited to grow in Shetland's climate and soils. The trust is well-placed to develop a strategy which will ensure:

- That good quality native and exotic species are available through the local horticultural trade for the public to plant;
- That advice is available, in co-operation with other agencies, for tree-planters;
- That co-operation in research that maximises the potential for woodland development is undertaken.

The **Scottish Forestry Strategy**, recently published by the Scottish Executive, provides a useful framework in which to set out a Shetland Woodlands Strategy, which should:

- Follow its guiding principles, i.e. sustainability, integration, positive value, community support, diversity and local distinctiveness;
- Adhere to those strategic directions within the Scottish Forestry Strategy which have relevance to Shetland's environment and economy.

At the same time, Shetland's geographical location and culture should be recognised in the strategy, in particular its links with Orkney and other peripheral maritime areas in the UK, such as the Western Isles; also its links with Nordic countries such as Norway, the Faroe Islands and Iceland. Relevant forestry and woodland initiatives within the context of land-use conservation and local economies in Shetland's neighbouring countries and counties, can therefore be usefully blended with UK mainland initiatives and can provide a fruitful, practical example of international partnership and co-operation.

## **THE SCOTTISH FORESTRY STRATEGY - ITS APPLICATION IN THE SHETLAND CONTEXT**

The five strategic directions identified in the Scottish Forestry Strategy are as follows:

- **To maximise the value to the Scottish economy of the wood resource becoming available over the next 20 years.**
- **To create a diverse forest resource of high quality that will contribute to the economic needs of Scotland throughout the 21st Century and beyond.**
- **To ensure that Scotland's trees, woods and forests make a positive contribution to the environment.**
- **To create opportunities for more people to enjoy trees, woods and forests in Scotland.**
- **To help communities benefit from woods and forests.**

Each of these strategic directions has **Priorities for Action** which identify the reasons for prioritisation, benefits and costs, what needs to be done, who needs to be involved and examples of indicators of progress.

To apply the strategic directions and priorities for action to Shetland, it is necessary to relate them to the local environment and economy and to current woodland development and initiatives; it is then necessary to select relevant priorities for action. Finally we need to assess how these strategic directions and priorities for action can be delivered within a Shetland context.

### **Strategic Direction 1**

**(To maximise the value to the Scottish economy of the wood resource becoming available over the next 20 years).**

There is little economic benefit either to Shetland or Scotland in the local wood resource as timber except as a by-product of thinning of shelterbelts, conversion of wind-blow, or tree-surgery operations. There is however a local craft industry that utilises Shetland and imported timber for quality products and there are at least two portable saw-mills in operation.

Research opportunities exist in co-operation with the Forestry Commission and through the Nordic Arboretum Committee, to identify species capable of producing usable timber in Shetland and cognizance should be made of initiatives such as the Farm Afforestation Projects in Iceland where eroded and over-grazed land is invested in forestry for shelter, soil conservation, amenity and timber production. Relevant priorities for action include the following:

- i. Promote more use of timber;**
- ii. Develop products that meet market needs.**

### **Strategic Direction 2**

**(To create a diverse forest resource of high quality that will contribute to the economic needs of Scotland throughout the 21<sup>st</sup>. century and beyond).**

Five priorities for action have been identified here.

- i. Expand the area of well designed productive forest.** In the Shetland context, this depends on:
  - researching species of trees suitable for the climate, and varying soils and degrees of exposure;
  - availability of land;
  - land-use initiatives (cf. the above-mentioned Icelandic Farm Afforestation Projects).

Unlikely as it may seem that 'productive forest' has a place in Shetland, current trends in agriculture, particularly diversification, allow an opportunity for development in this priority. Examples of well-grown conifers such as Sitka spruce and Japanese larch can be demonstrated in a number of Shetland sites, and the ability of sycamore, elm and ash to grow is well known. Selection of

seed origins compatible with Shetland's climate will play an important part of this priority.

- ii. **Improve timber quality by following good forest practice.** Shetland Amenity Trust can do much in this priority by demonstrating good practice and advising in selecting suitable species for site, planting and thinning densities.
- iii. **Develop more mixed forests.** This has environmental benefits, and also expands the number of uses to which timber can be put. Larch, for example, could be used for fence posts, strainers and for boat-building. Sycamore may have potential in furniture and in musical instruments. Elm has good wood-turning properties. Other tree species have further applications (see below). However, choice of the species best suited to the site must remain a priority,
- iv. **Exploit non-timber outputs and benefits of woods and forests.** This has more relevance to Shetland than timber outputs and covers such woodland as short rotation coppice (SRC), which has potential for croft diversification in terms of provision of a renewable energy source, value added product, (e.g. for smoking fish), craft industries (e.g. basketry), composting, and also as wildlife habitats, which can benefit the community and open up tourism opportunities.

The use of trees for shelter for livestock, crops, and housing can also bring economic benefits, by contributing to reductions in feeding, fertiliser and fuel costs. Research into effective shelterbelts that do not significantly reduce grazing or arable ground areas – as have been pioneered in Iceland – may prove of great value, especially given current trends of climate change.

The use of trees to enhance the landscape in urban/industrial development, and in soil improvement programmes, on eroded or contaminated land, should also be explored.

- v. **Tackle deer problems.** This obviously has no relevance to Shetland but other mammals such as rabbits, sheep and goats contribute to costs of woodland establishment, especially given the added expense of fencing and other protection required for successful tree establishment, caused by transport costs.

### **Strategic Direction 3**

**(To ensure that Scotland's trees, woods and forests make a positive contribution to the environment).**

Three of the Priorities of Action have particular relevance to Shetland:

- i. **Extend and enhance native woodlands by developing Forest Habitat Networks.** Even though there are no 'native woodlands' in Shetland such as those in Orkney (e.g. Berriedale in Hoy), there are isolated individuals and groups of native tree species in Shetland. Agricultural incentives such as the Environmentally Sensitive Area Scheme can be aided by making available true Shetland native species, e.g. of willow, aspen, birch and hazel to consolidate and extend areas of relict woodland, or to create areas of new native woodland.

- ii. **Increase diversity of farmed landscape.** There is much that can be achieved in this priority. Issues such as shelter for livestock and crops, short rotation coppice, timber production, habitat and soil conservation, community and tourism involvement, all have a part to play. Croft diversification in woodland terms and its economic benefits to the crofting community in Shetland should be researched and encouraged.
- iii. **Contribute to a radical improvement in the quality and setting of urban areas.** Examples of urban woodland can be found in Harris (Lews Castle), the Orkney Islands (Glaitness), Faroe (the Gundadal park in Torshavn), Iceland (Reykjavik and Akureyri Forestry Society initiatives) and Shetland itself (the Burn of Brae Community Woodland Project and Clickimin project in Lerwick). Those that have already been established such as in Harris, Faroe and Iceland should be promoted as examples to be followed, and local aspirations to create such woodlands should be encouraged and advised, and suitable stock of trees made available to aid their establishment. The use of trees for landscaping urban development, whether as shelter and ornament for housing or as industrial screening should be encouraged.

#### **Strategic Direction 4**

**(To create opportunities for more people to enjoy trees, woods and forests in Scotland).**

Priorities for action:

- i. **Provide recreation opportunities near towns.** This is similar to 3 (iii) above, and emphasis should be laid on the involvement of Scottish Natural Heritage, Shetland Islands Council, Community Councils and Shetland Amenity Trust to fund and enable this. Again examples of Nordic and Scottish island neighbours can be utilised to realise this priority.  
  
Improvement of access to existing woodlands is of crucial importance, particularly where public funding is involved. Co-operation of landowners and tenants must be sought where land is privately owned. Car-parking, footpaths and signage should be developed, and participation in national events such as “Tree Week” promoted, as well as local woodland demonstrations and visits organised.
- ii. **Improve information about availability of opportunities.** Publicity in the form of leaflets and signage, press releases, publication of reports, and the use of information technology, will all help the development of woodlands as an amenity to be enjoyed by Shetland residents and visitors.
- iii. **Increase forestry’s contribution to tourism.** Woodlands with well-advertised public access will prove a popular visitor attraction, particularly in a landscape generally regarded as being ‘tree-less’.

## Strategic Direction 5

### (To help communities benefit from woods and trees)

Priorities for action:

- i. **Create wider employment opportunities.** It would be unrealistic to expect woodlands in Shetland to contribute much in this respect. However, as part of the wider fields of horticulture and croft diversification, training in arboricultural skills will help to respond to the growing demand for good quality advice, plant material, landscaping and maintenance.
- ii. **Increase opportunities for community consultation.** Not everyone within a community may be pleased by a proposal to plant trees in the neighbourhood. Alteration of the landscape may be resented by those who value its open-ness. Concerns may be held about the wildlife that woodlands may support. In urban situations tree-planting close to houses can lead to issues of danger, nuisance and light deprivation. Planting on prime agricultural land, which is extremely restricted in Shetland, requires careful deliberation.

Mechanisms for local community consultation should be developed to work in tandem with the consultative process undertaken by the Forestry Commission in its administration of the Woodland Grant Scheme. Information on the impact that different forms of forestry can have on the environment should be readily available, so that misconceptions can be avoided and woodland proposals wisely implemented.

- iii. **Provide opportunities for greater community involvement in forestry.** The management plans drawn up by Shetland Amenity Trust for its Community Woodland Project propose the eventual management of these plantations by local communities, with the back-up of professional advice and specialist help. Of necessity volunteer work in this priority will be essential, but training and information must be freely available. The recent creation of the Young Foresters Club (see under Indicative Projects) is an example of how this can be initiated.
- iv. **Support community ownership where this will bring local benefits.** Local community ownership of woodland, particularly on land that is publicly owned, or in crofting areas on common grazings, may be beneficial - not least in that decision-making becomes community-led. Ownership however requires additional funding, and alteration of existing support mechanisms. As most of Shetland's woodland is likely to be primarily of amenity value, community-led management may be a more realistic and achievable priority, at least in the short term. The involvement of local authority departments such as Infrastructure and Community Services and Housing, as well as Community Councils and tenants' and residents' associations is required.

## **DELIVERY OF A SHETLAND WOODLANDS STRATEGY**

Successful delivery of a Shetland Woodlands Strategy depends on co-operation and partnership between local, national, and international organisations, groups, and individuals in both the public (including voluntary) and private sector.

### **LEAD ORGANISATION**

It is proposed that **Shetland Amenity Trust** will take a lead role in delivery of the strategy. Its main activities will include the following:

- Agency management of woodlands under contractual obligation to Woodland Grant Scheme (WGS), Millennium Forest for Scotland Trust (MFST), and Future Forests.
- Advice and support for new woodland initiatives; agency management where no other alternative is practical.
- Promotion of woodlands as a community resource.
- Research into, and primary production of, trees and shrubs suited to Shetland for shelter, amenity, environmental enhancement, farm/croft diversification, timber and non-timber production.
- Promotion of value added products (timber and non-timber outputs).
- Arboricultural practices and advice (tree-surgery, etc.)

### **KEY PARTNERS**

The following organisations will have key roles to play in delivery of the strategy and in reviewing it in the context of Shetland's economic and environmental development.

#### **THE FORESTRY COMMISSION, HIGHLAND CONSERVANCY**

*Activities:* Back-up support and advice. Administration of Woodland Grant Schemes and other funding. New initiatives in forestry development.

#### **FOREST RESEARCH**

*Activities:* Back-up support and advice in research matters. Co-operation in local research, e.g. Farm Shelterbelt Audit.

#### **SHETLAND ISLANDS COUNCIL**

*Activities:* Co-operation and support for woodland initiatives in the sphere of planning, conservation and agricultural development. Funding through the SIC Charitable Trust of SAT Woodlands Team personnel and projects.

Involvement of SIC Education Department and/or schools in research and planting projects; Community and Infrastructure Services, and Housing in developing community woodland and environmental improvement schemes; Development Department in agricultural initiatives.

## **SCOTTISH NATURAL HERITAGE**

*Activities:* Advice, support and funding for woodland and other initiatives involving tree-planting. Advice on habitat networks, biodiversity and species action plans. Funding of Shetland Amenity Trust projects; co-operation in research.

## **SHETLAND ENTERPRISE COMPANY**

*Activities:* Funding of Shetland Amenity Trust projects and/or related commercial enterprises; funding of community woodlands whereby jobs may be created and tourism developed, for example by improved access and interpretation.

## **SCOTTISH EXECUTIVE ENVIRONMENTAL AND RURAL AFFAIRS DEPARTMENT**

*Activities:* Funding of woodland initiatives, e.g. Farm Woodland Premium Scheme, CCAGS shelterbelt grants, Administration and funding of Rural Stewardship Scheme (RSS). Initiatives in croft diversification.

## **SHETLAND CROFTING AND FARMING WILDLIFE ADVISORY GROUP**

*Activities:* advice and support to crofters' and farmers' woodland initiatives; supply of trees of crofters and farmers. Advice and support for ESA and RSS schemes.

## **ORKNEY NATIVE TREE GROUP**

*Activities:* Development of Orkney woodlands; conservation of native woodland areas; creation of native tree nursery network. Co-operation in research, sharing of plant material. Information exchange.

## **NORDIC ARBORETUM COMMITTEE**



*Activities:* Co-operation in research; support and advice; collection and supply of plant material; information exchange; close links in particular with Faroe Islands, Iceland and Norway. Will continue to enable the trialling of species and provenances well-suited to Shetland and the building-up of a stock of trees that can be propagated and disseminated to the public.

## **EDUCATIONAL ESTABLISHMENTS, UNIVERSITIES, COLLEGES AND SCHOOLS**

*Activities:* Research, propagation and woodland/garden establishment. Universities, further education colleges and secondary schools can participate in conservation projects utilising biotechnology and micropropagation as part of biology curricula, while primary schools can participate in school woodland/garden projects and field trips to woodlands.

## **COMMUNITY COUNCILS AND OTHER LOCAL COMMUNITY GROUPS**

*Activities:* Community woodland initiatives; environmental improvement schemes; participation in woodland management; facilitating consultation.

## **HORTICULTURAL GROWERS, SUPPLIERS AND LANDSCAPERS**

*Activities:* Supply of good quality, suitable trees and shrubs to the public; participation in plant introduction schemes; training and advice.

## **LANDOWNERS/TENANTS**

*Activities:* Woodland and environmental initiatives that require the planting of trees and shrubs; co-operation in improving access to woodlands publicly funded.

## **ARBORICULTURAL ASSOCIATION**

*Activities:* Advice and information on arboricultural matters, best practice in tree surgery; publication of urban forestry development and research papers.

## **MILLENNIUM FOREST FOR SCOTLAND TRUST**

*Activities:* Continuation of funding for maintenance of MFST funded woodlands; networking with other MFST projects.

## **FUTURE FORESTS**

*Activities:* Partnership in carbon sequestration projects and creation of new native woodland; funding of such projects.

## **NORTH HIGHLAND FOREST TRUST**

*Activities:* Woodland development in the North Highland region, including Caithness and Sutherland. Research into short rotation coppice for fuelwood.

## **HIGHLAND BIRCHWOODS**

*Activities:* Research into the potential of birch and scrub or timberline woodland, in both ecological and economic terms.

## **BTCV SCOTLAND**

*Activities:* Voluntary work in establishing and maintaining woodlands; fencing, pathwork, dyke-building etc.

## **SHETLAND CONSERVATION VOLUNTEERS**

*Activities:* Voluntary work in woodland and garden creation and maintenance.

## **INDICATIVE PROJECTS**

A number of recent, current and proposed future projects, in which Shetland Amenity Trust has a lead or major partnership role will help to indicate how the strategy will be delivered in practice.

## **MANAGEMENT OF MATURE AND RECENTLY ESTABLISHED PLANTATIONS**

Currently Shetland Amenity Trust is responsible for the management of approximately 23 hectares of woodland, 20 hectares of which are under WGS and 6.5 hectares of which are also MFST funded projects. Shetland Amenity Trust will have responsibility for these for the foreseeable future, although it is intended that community woodlands under MFST contracts will pass into community-led management.

## **OTHER WOODLANDS THAT SHETLAND AMENITY TRUST WILL MANAGE**

Of mature woodlands, another 1.50 hectares (Upper Kergord) which require professional attention (clearance of windblow, thinning, drainage) and replanting and/or extension, by 2003 at the latest. This will be eligible for WGS.

New Plantations: 'Future Forests' site at Loch of Clickimin, Lerwick. Planting at this 2.00 hectare site on the edge of Lerwick began in 2001, with one hectare completed to date.

In addition it is intended to apply for WGS to cover the remaining 3 hectares of woodland, which Shetland Amenity Trust manages without external funding, and consequently without consistent application.

In all of these sites, public access is a condition of Shetland Amenity Trust's involvement and it is intended to improve access to and within them.

## **COMMUNITY WOODLANDS**

The Community Woodland Project, begun in 1998, and funded by MFST, the Forestry Commission, Scottish Natural Heritage and Leader II, has enabled 6.5 hectares of woodland to be planted, 3 hectares of which is native woodland, and the setting up of a micropropagation facility. The latter will enable the rapid bulking up of stocks suitable for use in Shetland, in particular native species which can be used in future projects.

The involvement of schools and volunteer groups has been an integral part of the Community Woodland Project; publicity has also been generated by the production of descriptive leaflets.

Shetland Amenity Trust has recently been asked for advice on three potential sites at the request of community councils and development groups. It is intended that Shetland Amenity Trust advise on site layout and design, choice of species, planting methods and help with grant applications. It is intended that Shetland Amenity Trust will build on this advisory and support role and that communities will take the responsibility for their management.

## **YOUNG FORESTERS CLUB**

Shetland Amenity Trust's Community Environmental Project Officer has initiated this 6 month pilot project, involving youth clubs, and been grant-aided by Scottish Natural Heritage. It is intended to engage the interest of children in all aspects of woodland development with a programme of events and education. This will be a means of fostering interest in existing or new woodlands as a community resource for the future. The funding enabled a part-time post for a trained co-ordinator for 6 months. If successful the project will be extended.

## **CONSERVATION AND PROPAGATION OF NATIVE (RELICT) SPECIES**

Since 1990, Shetland Amenity Trust has already taken a lead role in this sphere of activity. An extensive survey of relict tree sites was undertaken, a number of sites protected from grazing animals and propagation material collected, with the aid of ERDF funding. Stock collections of native willow, and aspen have been built up and traditional and new methods of propagation applied. A nursery and micropropagation facility have been established. The EU, Forestry Commission, Scottish Natural Heritage and MFST have provided funding for these initiatives.

Funding has recently been granted by the Esmée Fairbairn Foundation towards a project involving the University of Abertay Dundee, Orkney Native Tree Group, the Hoy Trust and Shetland Amenity Trust for conserving Shetland and Orkney hazels using micropropagation and traditional conservation measures. This project aims to bring the few remaining hazels into cultivation and to initiate a breeding strategy for their survival and introduction into selected local sites. It is an opportunity for primary, secondary and tertiary sectors of the local education department to become involved. Shetland Amenity Trust will use its micropropagation facility to bulk up the stocks of hazel which can then be made available to the public and used as parent material in a breeding programme. The skills acquired in this project can then be applied to other rare species of Orkney and Shetland flora.

Shetland Amenity Trust has also helped Scottish Natural Heritage in conservation projects by propagating non-woody species such as hawkweeds. New projects that also include the conservation and propagation of ground-flora will ensure that woodland development incorporates the whole 'forest ecosystem', and that the skills acquired can be used in other environmental initiatives.

## **RESEARCH**

The Hazel Conservation Project will involve a considerable amount of research. Shetland Amenity Trust has participated in projects initiated by Forest Research (e.g. trials of alder species, tatter flag surveys) and will be involved in Forest Research's Farm Shelterbelt Audit as applied to Shetland.

A student of SAC Auchincruive is currently researching salt and frost tolerance of Shetland-origin native trees compared to those of non-oceanic origin in co-operation with Shetland Amenity Trust. Development of a Horticultural Unit by Shetland Amenity Trust (see below) with laboratory facilities will enable research to be undertaken locally. Co-operation with universities, colleges and woodland/forestry organisations in the UK and the Nordic countries will form an important part of this field of activity.

## **COMPOSTING PROJECT**

Shetland Amenity Trust, in partnership with the SIC Waste Management Department, is currently undertaking a pilot project composting green waste from Shetland Amenity Trust's forestry/ arboricultural operations and grass-cutting service. The project is funded by the Scottish Executive. It will be possible to expand this in future into a community composting service as a means of reducing land-fill and producing a usable mulch material. The composting site will form part of Shetland Amenity Trust's new Horticultural Unit.

## **HORTICULTURAL UNIT**

Shetland Amenity Trust has purchased land on the outskirts of Lerwick adjacent to its vehicle compound and workshop for development as a recycling centre, and a horticultural unit. The latter will incorporate greenhouses and frames and sand-beds for containerised plant production, with micropropagation and laboratory facilities. A composting unit, and timber processing unit with the trust's sawmill (recently purchased with Entrust funding) will also form part of the site. The core aim of the unit will be to produce "liners" for supply to local growers, and the plants will be either true Shetland native stock, or species which research has proved to be of superior quality for growing in Shetland.

## **ARBORETUM**

It has been an aim of Shetland Amenity Trust since 1995 to establish an arboretum for educational, recreational and conservation purposes, and a wide range of plant species of known origin, accessed locally and through its links to the Nordic Arboretum Committee, are held in its nursery and await a permanent planting site. Plans were drawn up for an arboretum and winter garden and submitted to the Millennium Commission in 1995/6 as a Millennium Project. Although the bid for funding was unsuccessful, a renewed arboretum project is recommended.

In the meantime Shetland Amenity Trust can use its own limited garden properties and garden sites such as Vaxter House which Shetland Amenity Trust will manage, as "mini-arboretum" sites. It should, however, be regarded as a priority to identify an arboretum site for the valuable collection of plants that Shetland Amenity Trust has acquired.

## **IMPLICATIONS FOR SHETLAND AMENITY TRUST**

Shetland Amenity Trust's Woodlands Team currently consists of four personnel, a Woodlands Project Officer, and three arborist/gardeners, all of whom have been trained, or are undergoing training, in arboricultural operations (tree-planting, chainsaw techniques and tree-climbing) and in propagation techniques. They have also acquired skills in landscaping (e.g. dry-stone dyking, fencing and footpath construction). Two of the team have had basic training in micropropagation techniques. The Woodlands Project Officer is responsible for project management, plantation records, management plans, grant applications, reports, meetings, risk assessments, etc.). The three arborist/gardeners' activities include on-site

maintenance and development of approximately 23 hectares of woodland, propagation and nursery maintenance, garden maintenance, tree-surgery and maintenance of equipment. Vehicles allocated to the team are one van with two trailers and an ATV.

In order to deliver the strategy the team and its equipment will need to expand in order that: (1) present and future woodlands/gardens that Shetland Amenity Trust is responsible for are properly developed, maintained, monitored and recorded (with a suitable database); (2) professional advice and support is given to woodland initiatives; (3) propagation and nursery work is consistently and professionally undertaken; and (4) scientific research may be undertaken in co-operation with educational/research establishments. External funding will need to be sought to realise any expansion.

## **CONCLUSIONS**

- **This Shetland Woodland Strategy seeks to encourage the expansion of woodland in Shetland in an environmentally sensitive manner, as an integral part of Shetland land-use, and to the benefit of Shetland's economy.**
- **The strategy is intended to develop woodland flexibly, and to continue the rate of expansion at a minimum of two hectares per annum.**
- **The strategy seeks to be in accord with the Scottish Forestry Strategy where the latter is relevant to Shetland, and to interpret it in a manner that reflects Shetland's geographical location, climate, ecology, economy and culture.**
- **The strategy depends on partnership and co-operation among local, national and international bodies in both the public and private sector.**
- **The strategy is subject to review and development following consultation among key partners and in accordance with developments in Shetland's economy.**
- **Shetland Amenity Trust will have a lead role in implementing and delivering the strategy.**

# LAND CAPABILITY FOR FORESTRY

## F6 CATEGORY

"Land with very limited flexibility for the growth and management of tree crops."

Source: MLURI 1989

