Appendix 2. Forest Principles from 1992 Rio Conference

1a. States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies and have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States of areas beyond the limits of national jurisdiction.

1b. The agreed full incremental costs of achieving benefits associated with forest conservation and sustainable development requires increased international cooperation and should be equitably shared by the international community.

2a. States have the sovereign and inalienable right to utilise, manage and develop their forests in accordance with their development needs and level of socio-economic development and on the basis of national policies consistent with sustainable development and legislation, including the conversion of such areas for other uses within the overall socio-economic development plan and based on rational land-use policies.

2b. Forest resources and forest lands should be sustainably managed to meet the social, economic, ecological, cultural and spiritual human needs of present and future generations. These needs are for forest products and services, such as wood and wood products, water, food, fodder, medicine, fuel, shelter, employment, recreation, habitats for wildlife, landscape diversity, carbon sinks and reservoirs, and for other forest products. Appropriate measures should be taken to protect forests against harmful effects of pollution, including air-borne pollution, fires, pests and diseases in order to maintain their full multiple value.

2c. The provision of timely, reliable and accurate information on forests and forest ecosystems is essential for public understanding and informed decision-making and should be ensured.

2d. Governments should promote and provide opportunities for the participation of interested parties, including local communities and indigenous people, industries, labour, non-governmental organisations and individuals, forest dwellers and women, in the development, implementation and planning of national forest policies.

3a. National policies and strategies should provide a framework for increased efforts, including the development and strengthening of institutions and programmes for the management, conservation and sustainable development of forests and forest lands.

3b. International institutional arrangements, building on those organisations and mechanisms already in existence, as appropriate, should facilitate international cooperation in the field of forests.

3c. All aspects of environmental protection and social and economic development as they relate to forests and forest lands should be integrated and comprehensive.

4. The vital role of all types of forests in maintaining the ecological processes and balance at the local, national, regional, and global levels through, *inter alia*, their role in protecting fragile ecosystems, watersheds and freshwater resources and as rich storehouses of biodiversity and biological resources and sources of genetic material for biotechnology products, as well as photosynthesis, should be recognised.

5a. National forest policies should recognise and duly support the identity, culture and the rights of indigenous people, their communities and other communities and forest dwellers. Appropriate conditions should be promoted for these groups to enable them to have an economic stake in forest use, perform economic activities, and achieve and maintain cultural identity and social organisation, as well as adequate levels of livelihood and well-being, through, *inter alia*, those land tenure arrangements which serve as incentives for the sustainable management of forests.

5b. The full participation of women in all aspects of the management, conservation and sustainable development of forests should be actively promoted.

6a. All types of forests play an important role in meeting energy requirements through the provision of a renewable source of bio-energy, particularly in developing countries, and the demands for fuelwood for household and industrial needs should be met through sustainable forest management, afforestation and reforestation. To this end, the potential contribution of plantations of both indigenous and introduced species for the provision of both fuel and industrial wood should be recognised.

6b. National policies and programmes should take into account the relationship, where it exists, between the conservation, management and sustainable development of forests and all aspects related to the production, consumption, recycling and/or final disposal of forest products.

6c. Decisions taken on the management, conservation and sustainable development of forest resources should benefit, to the extent practicable, from a comprehensive assessment of economic and non-economic values of forest goods and services and of the environmental costs and benefits. The development and improvement of methodologies for such evaluations should be promoted.

6d. The role of planted forests and permanent agricultural crops as sustainable and environmentally sound sources of renewable energy and industrial raw material should be recognised, enhanced and promoted. Their contribution to the maintenance of ecological processes, to offsetting pressure on primary/old-growth forest and to providing regional employment and development with the adequate involvement of local inhabitants should be recognised and enhanced.

6e. Natural forests also constitute a source of goods and services, and their conservation, sustainable management and use should be promoted.

7a. Efforts should be made to promote a supportive international economic climate conducive to sustained and environmentally sound development of forests in all countries, which include, *inter alia,* the promotion of sustainable patterns of production and consumption, the eradication of poverty and the promotion of food security.

7b. Specific financial resources should be provided to developing countries with significant forest areas which establish programmes for the conservation of forests including protected natural forest areas. These resources should be directed notably to economic sectors which would stimulate economic and social substitution activities.

8a. Efforts should be undertaken towards the greening of the world. All countries, notably developed countries, should take positive and transparent action towards reforestation, afforestation and forest conservation, as appropriate.

8b. Efforts to maintain and increase forest cover and forest productivity should be undertaken in ecologically, economically and socially sound ways through the rehabilitation, reforestation and re-establishment of trees and forests on unproductive, degraded and deforested lands, as well as through the management of existing forest resources.

8c. The implementation of national policies and programmes aimed at forest management, conservation and sustainable development, particularly in developing countries, should be supported by international financial and technical cooperation, including through the private sector, where appropriate.

8d. Sustainable forest management and use should be carried out in accordance with national development policies and priorities and on the basis of environmentally sound national guidelines. In the formulation of such guidelines, account should be taken, as appropriate and if applicable, of relevant internationally agreed methodologies and criteria.

8e. Forest management should be integrated with management of adjacent areas so as to maintain ecological balance and sustainable productivity.

8f. National policies and/or legislation aimed at management, conservation and sustainable development of forests should include the protection of ecologically viable representative or unique examples of forests, including primary/old-growth forests, cultural, spiritual, historical, religious and other unique and valued forests of national importance.

8g. Access to biological resources, including genetic material, shall be with due regard to the sovereign rights of the countries where the forests are located and to the sharing on mutually agreed terms of technology and profits from biotechnology products that are derived from these resources.

8h. National policies should ensure that environmental impact assessments should be carried out where actions are likely to have significant adverse impacts on important forest resources, and where such actions are subject to a decision of a competent national authority.

9a. The efforts of developing countries to strengthen the management, conservation and sustainable development of their forest resources should be supported by the international community, taking into account the importance of redressing external indebtedness, particularly where aggravated by the net transfer of resources to developed countries, as well as the problem of achieving at least the replacement value of forests through improved market access for forest products, especially processed products. In this respect, special attention should also be given to the countries undergoing the process of transition to market economies.

9b. The problems that hinder efforts to attain the conservation and sustainable use of forest resources and that stem from the lack of alternative options available to local communities, in particular the urban poor and poor rural populations who are economically and socially dependent on forests and forest resources, should be addressed by Governments and the international community.

9c. National policy formulation with respect to all types of forests should take account of the pressures and demands imposed on forest ecosystems and resources from influencing factors outside the forest sector, and intersectoral means of dealing with these pressures and demands should be sought.

10. New and additional financial resources should be provided to developing countries to enable them to sustainably manage, conserve and develop their forest resources, including through afforestation, reforestation and combatting deforestation and forest and land degradation.

11. In order to enable, in particular, developing countries to enhance their indigenous capacity and to better manage, conserve and develop their forest resources, the access to and transfer of environmentally sound technologies and corresponding know-how on favourable terms, as mutually agreed, in accordance with the relevant provisions of Agenda 21, should be promoted, facilitated and financed, as appropriate.

12a. Scientific research, forest inventories and assessments carried out by national institutions which take into account, where relevant, biological, physical, social and economic variables, as well as technological development and its application in the field of sustainable forest management, conservation and development, should be strengthened through effective modalities, including international cooperation. In this context, attention should also be given to research and development of sustainably harvested non-wood products.

12b. National and, where appropriate, regional and international institutional capabilities in education, training, science, technology, economics, anthropology and social aspects of forests and forest management are essential to the conservation and sustainable development of forests and should be strengthened.

12c. International exchange of information on the results of forest and forest management research and development should be enhanced and broadened, as appropriate, making full use of education and training institutions, including those in the private sector.

12d. Appropriate indigenous capacity and local knowledge regarding the conservation and sustainable development of forests should, through institutional and financial support, and in collaboration with the people in local communities concerned, be recognised, respected, recorded, developed and, as appropriate, introduced in the implementation of programmes.

Benefits arising from the utilisation of indigenous knowledge should therefore be equitably shared with such people.

13a. Trade in forest products should be based on non-discriminatory and multilaterally agreed rules and procedures consistent with international trade law and practices. In this context, open and free international trade in forest products should be facilitated.

13b. Reduction or removal of tariff barriers and impediments to the provision of better market access and better prices for higher value-added forest products and their local processing should be encouraged to enable producer countries to better conserve and manage their renewable forest resources.

13c. Incorporation of environmental costs and benefits into market forces and mechanisms, in order to achieve forest conservation and sustainable development, should be encouraged both domestically and internationally.

13d. Forest conservation and sustainable development policies should be integrated with economic, trade and other relevant policies.

13e. Fiscal, trade, industrial, transportation and other policies and practices that may lead to forest degradation should be avoided. Adequate policies and practices, aimed at management, conservation and sustainable development of forests, including, where appropriate, incentives, should be encouraged.

14. Unilateral measures, incompatible with international obligations or agreements, to restrict and/or ban international trade in timber or other forest products should be removed or avoided, in order to attain long term sustainable forest management.

15. Pollutants, particularly air-borne pollutants, including those responsible for acidic deposition, that are harmful to the health of forest ecosystems at the local, national, regional and global levels should be controlled.

Appendix 3. Key principles from 1993 Helsinki conference

Resolution 1: general guidelines for the sustainable management of forests in Europe

1. Human actions must be avoided which lead, directly or indirectly, to irreversible degradation of forest soils and sites, the flora and fauna they support and the services they provide. Efforts should be increased to keep the emissions of air pollutants and greenhouse gases below the expected tolerance level of forest ecosystems, taking into account the long term cumulative and/or synergistic effects of pollutants. Forest fires and the pollution of soils must be strictly controlled and could dictate overall policy and management objectives and practices in particularly sensitive parts of Europe.

2. Forestry policies, as adapted to local laws within the framework of national traditions and constitutional processes, should recognise the long term nature of forestry by having an appropriate level of continuity in legal, institutional and operational matters and should strongly encourage practices in state and private forests which facilitate multiple functions and sustainable management, including the conservation and appropriate enhancement of biodiversity. Forest owners who provide multiple use benefits to the community should be encouraged and supported by society or other beneficiaries, as appropriate, when such provision involves them in excessive costs.

3. Forest management should be based on stable and long term land use policies and regulations, which, *inter alia,* are aimed at conserving functional forest ecosystems, and take account of the ownership structure in Europe, and which are based on the general presumption that forest land, particularly land considered natural or semi-natural, will remain dedicated to that use.

4. Forest management should be based on periodically updated plans or programmes at local, regional or national levels, as well as for ownership units, when appropriate, and on forest surveys, assessments of ecological impact, and on scientific knowledge and practical experience.

5. Forest management should provide, to the extent that is economically and environmentally sound to do so, optimal combinations of goods and services to nations and to local populations. Multiple use forestry should be promoted to achieve an appropriate balance between the various needs of society.

6. Forest management practices should have due regard to the protection of areas of ecological fragility, to the conservation of primary and climax forests, areas with cultural heritage, and the landscape, to safeguarding the quality and quantity of water, and to maintaining and developing other protective functions of forests such as the protection of aquatic and agricultural ecosystems and protection against floods, erosion and avalanches.

7. Forest management practices should aim at maintaining and, if possible, improving the stability, vitality, regenerative capacity, resistance and adaptive capacity of forest ecosystems towards stresses, including their protection against fire, pests, diseases, game and other agents of damage such as overgrazing and unregulated browsing. The prevention and control of large-scaled biotic and abiotic damage should be supported. Special attention should be paid to maintaining and, if needed, to improving the quality of forest soils. Silvicultural practices emulating nature should be encouraged. Practices contrary to sustainable management should be actively discouraged.

8. In the management of existing forests and the development of new forests, the chosen tree species should be well suited to local conditions and be capable of tolerating climatic and

other stresses such as insects and diseases, and potential climatic changes, throughout the growing period. Genetic selection, which is commonly practised in Europe, should not favour performance traits at the expense of adaptive ones except in particular cultures where intensive care may protect them against damage. Afforestation should be conducted in a manner that does not negatively affect ecologically interesting or noteworthy sites and landscapes.

9. Native species and local provenances should be preferred where appropriate. The use of species, provenances, varieties or ecotypes outside their natural range should be discouraged where their introduction would endanger important/valuable indigenous ecosystems, flora and fauna. Introduced species may be used when their potential negative impacts have been assessed and evaluated over sufficient time, and where they provide more benefits than do indigenous ones in terms of wood production and other functions. Whenever introduced species are used to replace local ecosystems, sufficient action should be taken at the same time to conserve native flora and fauna.

10. Due to the high level of human consumption and waste common in many areas of Europe, recycling and use for energy of forest products should be encouraged both to alleviate the problem of waste disposal and to increase the potential of forest products to substitute for products from non-renewable sources.

11. Because of the expanding European forest resource, the use of wood and non-wood forest products should be encouraged on a basis compatible with the sustainable management of forests, thereby providing and increasing the potential for traditional and new forest products, sales of which can provide, for both the owner and society, a ready means of financing forest management.

12. As knowledge, skills and public opinion will affect forestry policies in Europe, public awareness and understanding of sustainable management should be promoted, and the provision, through appropriate research, of information and training to forestry practitioners and forest owners on the concept and on methods of implementing it should be intensified. To ensure the sustainable management of forests, a sufficient number of adequately trained and competent staff are essential.

Resolution 2: general guidelines for the conservation of the biodiversity of European forests

1. The conservation and appropriate enhancement of biodiversity should be an essential operational element in sustainable forest management and should be adequately addressed, together with other objectives set for forests, in forestry policies and legislation.

2. The conservation and appropriate enhancement of biodiversity in forests should be based both on specific, practical, cost-effective and efficient biodiversity appraisal systems, and on methods for evaluating the impact on biodiversity of chosen forest development and management techniques.

3. Where possible, the size and degree of utilisation of forest compartments and other basic management units should take account of the scale of variation of the site, in order to better conserve and manage the diversity of habitats. Management should aim at increasing the diversity of forest habitats.

4. Where possible, the establishment of taxa which are naturally associated with those that occur most frequently in the forest should be encouraged, and a variety of structure within stands should be favoured where the natural dynamics of such associations permit.

Appendix 4. Results from a questionnaire

Participants at the meeting were given a simple questionnaire (blank copy at the end of this Appendix) to help stimulate thinking on sustainable forestry and provide ideas and issues that might be worth following up.

A summary of the 25 responses completed is set out in the following pages. The responses come from a mixture of EN staff and others - the latter including representatives of voluntary conservation bodies, the Forestry Commission and private timber sector. No attempt has been made to separate out responses according to their affinity for forestry or conservation. The results can in no way be considered as a representative sample but given the wealth of experience amongst those present I strongly suspect they include many of the attitudes and comments that will come up in other discussions on sustainable forestry.

It must be stressed that the following are not necessarily EN's views.

Expanding England's woodland cover

1. There was general support for a substantial increase in England's woodland cover, but some people recorded the following reservations.

   - Expanding other habitats (heathland, parkland, unimproved grassland) is a higher priority.
   - Expansion must be in the right place and managed with attendant other habitats.
   - Quality of new woodland must be much higher than the expansion that has taken place since 1919, not just subsidies for timber production.
   - Expansion should only take place once the current resource is managed effectively.
   - Expansion target should be such as to reduce our dependence on imports to, say, 50%.
   - Expansion should be what is economically justified.
   - Expansion should only be on 'improved' land.
   - Expansion should be to the level of European average.

   These can for the most part be accommodated in the way that the Rural White Paper 'target' is being developed through discussion among interested parties.

2. The expected distribution between different land categories of new forests averaged across the respondents is shown below. The 'preferred' distribution would see more to arable and lowland pasture and less in the uplands (not surprisingly).

   Expected balance (mean % of total) of where new forest might go):

Upland	16%
Upland fringe	20%
Lowland arable	14%
Lowland pasture	12%
National & Community Forest	26%
Other urban/derelict land	12%

   Comments on new forest location were:
   - Widen community planting to all urban and sub-urban fringes.
   - Important if public money being spent to link planting to people.
   - Lowland and arable planting depend on agro-economic policies.
   - Should go on Grade 3 agricultural land.
   - Not economic in lowlands.

- Location of new woods should be targeted to improve connectivity of existing woodland habitats, without reducing connectivity of other semi-natural habitats.
- Unless agricultural support changes, no substantial planting will occur outside special project areas.
- An even spread across land types may be the most easy to sustain in the long term.
- Avoid important upland sites but could plant areas that were woodland in recent historic times.
- Forestry offers a key opportunity to sustain remote rural communities.
- Care needed that new planting does not damage existing interest.
- Plant within commuter range.

The difficulties of achieving a 'shift down the hill for new forests' is recognised in the comments. There does, however, seem to be an unrealistically high assessment of the contribution that the National Forest and Community Forests could make to the RWP 'doubling' target. If the plans for these are fully realised they will contribute only about 10% (not 26%) of the total.

3. There is a recognition (even among a conservation-biased audience) that much of the new woodland is likely to be mainly conifers or mixed woodland, although the 'preferred' balance was generally more towards broadleaves.

Mean 'expected' composition of new woodland:

Mainly conifers	32%
Mainly broadleaves	33%
Mixed conifer-broadleaves	25%
Short rotation coppice (SRC)	10%

Additional comments on future composition were:

- More use of mixtures to give future flexibility and don't bother with SRC.
- Mixtures will be better for biodiversity provided they are well-designed and managed.
- Where public money used their views should affect the composition.
- At present incentive rates conifers still rule.
- A reasonable proportion of 'mainly conifers' is needed from a production point of view.
- Would more broadleaf woodland be planted if foresters did not think that environmentalists would always want to coppice it?
- Woodland must provide long term value to those who create it.
- Short rotation coppice is not woodland.

4. The overwhelming expectation was that new woodland would continue to be created by planting, but greater use of natural regeneration, particularly next to existing woods was thought to be desirable. Other comments were as follows:

- Target natural regeneration next to existing woods and educate people that woods can be self sustaining.
- Natural regeneration has a generally higher success rate, is much cheaper and produces more diverse woodland.
- Management should seek to work with nature, not against it.
- Continue to rely on planting for most part but with compulsory use of native genetic stock.
- Concern to see instant returns mitigates against use of natural regeneration.
- Planting necessary because new woodland generally remote from a seed source.
- Both planting and natural regeneration will require protection.

- The current 'low grade' plantings are not a good advert for this type of silviculture.
- Existing natural regeneration on valuable unwooded habitats needs to be cleared.
- More should be made of the potential for regeneration from existing ancient woods on to adjacent farmland.
- Natural regeneration next to existing woods could create valuable scrub-type habitats.

Existing woodland management

5. Expectations for coppice restoration were (no. of respondents):

< 50,000 ha	10
50-100,000 ha	8
100-150,000 ha	3
> 150,000 ha	2

Comments included:

- Coppice restoration only has potential in deer-free areas unless successful deer management can be achieved.
- Develop semi-commercial coppice (leisure crafts) more.
- Restoration needs to be market-led.
- The country cannot afford the cost of non-economic coppicing.

There is support for an increase in coppice, but not everywhere, and the overwhelming view was that any substantial increase had to be market-led.

6. People were asked to rank (top five) a series of features.

The most important (from a nature conservation point of view) to include in high forest management (outside of SSSIs) were judged to be:

No. of ticks	
5	Continuous Cover Forestry should be adopted
6	Weed control is non-chemical
6	Ground disturbance during extraction should be minimized
8	Re-stocking is by natural regeneration only
8	Clear-fells should not be more than 2 ha
8	Only local genetic stock should be used if planting
11	Drainage is restricted to the minimum necessary for access
16	At least 10% of open space is kept
18	Reasonable amounts of dead wood are left after felling
21	Tree species used are native to the site
22	4-5 trees left to grow on indefinitely

The above suggest that along with ensuring that the composition of the wood is composed of locally native species, fallen dead wood and trees left to grow on indefinitely should be given more attention than at present in high forest management.

7. In the Natural Area profiles recreation was regularly raised as an 'issue' by local team members. Amongst the seminar group the compatibility of game and recreation with maintaining nature conservation values was judged to be as follows:

	Always	Usually	Sometimes	Never
Game management				
High intensity			11	12
Low intensity		11	11	
Recreational use				
High intensity		2	15	8
Low intensity	4	16	5	

Other comments:

- The right guidelines must be complied with.
- 'Sacrifice' areas may be needed if high intensity game management is to be carried out.
- It depends on the situation and type of recreation.
- Some woodland types are more robust than others.
- Zonation may be necessary.
- Some use may be more desirable than neglect.
- Game management can generate income to pay for conservation work.

8. English Nature's position is that there is considerable scope for restoring plantations on ancient sites to native broadleaves. We are less clear at the moment on the extent of such restoration that is desirable/feasible. The views from the respondents were as follows:

	Area to be restored	
	Over next 10 years	**Over next 60 years**
>100,000 ha (ie virtually all)		4
50-100,000 ha		15
10-50,000 ha	12	5
<10,000 ha	13	2

The current rate of restoration is probably a few hundred hectares per annum at most. There was clearly a feeling that a much more ambitious programme is desirable among most of the respondents, although it may not be realistic at present.

Other comments were:

- An accelerating process as current conifer crops mature.
- Only probably justified where semi-natural elements survive.
- Retention of some conifers is beneficial.
- Realistic only if FC grants go this way.
- Needs evaluation of current interest and future prospects.
- Restoration sooner rather than later to give seed bank a chance to recover.

- Restore replanted sites in preference to creating new woods where better nature conservation benefits.
- Grants/incentives are the key factor - pay more, get more.
- Would need considerable shift in market usage of wood.
- There should be no restoration?
- Areas to develop 'old growth' conditions.
- Shining examples of good woodland conservation.

Not surprisingly perhaps, the above contain no real surprises.

11. Outsiders often presume that the majority of ancient semi-natural woodland is within SSSIs - only about 21% is and this figure is unlikely to change significantly in the foreseeable future. There were, however, 12 responses that did want a large increase which must imply a persistent feeling that other mechanisms are not yet delivering the special management that ancient semi-natural woods deserve to meet the policy aims.

As a counter-weight to the desire for more SSSIs there were also the following comments:

- No increase in SSSI area, but improve protection (via local plan policies) for non-SSSI ancient woods.
- How much of the SSSI system is currently under threat or poorly managed?
- No increase in SSSIs, as such restrictive policies are far less popular and more expensive to implement than creative policies.
- The difference in management between SSSI and non-statutory sites is often not that great so EN's resources should go more towards the wider countryside.
- Are the conservation benefits worth the 'lost revenue' of premature conifer felling?

Conservation in recent conifer plantations

9. There is a limited budget available for conservation work. How should it be allocated, particularly in relation to work in recent conifer forests? The idea of going all out for production on the existing plantation area (and putting the conservation budget elsewhere) was not favoured (20 against, 4 for); instead most felt that the plantations themselves should be developed along with some restoration of open habitats (21 for, 1 against).

Role and extent of SSSIs, NNRs etc

10. The roles for protected sites were considered to include:
    - Demonstration of experiments in management for conservation.
    - Conservation of endangered species.
    - Sources of species for spread back through the countryside.
    - Bench marks for comparison with commercial woodland.
    - Research into species and habitat ecology.
    - Sites for genetic conservation.
    - Maintenance of species populations generally.
    - Reservoirs for species within a network of more intensively managed areas.
    - Representation of key communities.

Constraints and obstacles

Both this and the next section should be treated as brain-storming exercises. No order or priority has been given to the comments.

- Pheasant shooting.
- Need for short-term cash returns to forest owners.

- Lack of markets.
- Deer.
- Relative economics of conifers versus broadleaves.
- Forestry policy needs to acquire some political clout as agricultural policy.
- Lack of experienced foresters.
- Agricultural land prices and support.
- Lack of recognition/acceptance of non-market values of woods.
- CAP reform needed.
- Lack of targeting in forestry resources.
- Entrenched attitudes (all sides!).
- Cheap timber imports.
- Excessive influence of timber industry on FC.
- Short-termism in forestry policy.
- Securing EU support for policy shifts.
- Lack of forestry skills among farmers.
- Global warming.
- Lack of Government vision for forestry.
- Sustainability must be looked at in the wide sense, before narrowing down to forestry.
- Disunity amongst forestry/woodland interests.
- Lack of national framework.
- Lack of competitiveness compared to Scandinavia.
- Lack of public support.
- Erratic market shifts.
- Need to fund land of minimal conservation interest where high production can occur.
- Lack of strong lead by FC.
- Mis-match of markets to products from home-grown sources.
- Lack of recognition of owners needs by policy makers.
- Inflexible policies on replacing broadleaves with broadleaves.
- Conservationists' pre-occupation with coppice.
- Low percentage cover of forests.

How do we move forward?

Again, treat this as a brain-storming list. No order or priority has been given to the list.

- Increase the area of reserves managed entirely for nature conservation.
- Push for more alternative to 'banal' silviculture.
- Grant aid more careful assessment and monitoring of SSSIs and research into the impact of standard forestry operations.
- Encourage less tidiness in woods.
- Sort out a sound, workable coppice policy.
- Encourage more creation of new woods by natural succession.
- Encourage integrated deer management.
- Provide coppice payments.
- Improve advice/guidance on dead wood and veteran tree management.
- Improve monitoring of management and condition across the whole ancient semi-natural woodland resource.
- Promote economic benefits of conservation-friendly management.
- Clarify function of SSSI series.
- Move to thinking on a landscape scale (rather than a site scale).
- Help build consensus.
- Open up the debate to more ambitious goals for woodland conservation.
- Work towards certification of EN's woodland.
- Import and demonstrate good ideas in forest management from the Continent.
- Develop a 'sustainability' index for evaluating woodland work.

- Secure support in private sector for Biodiversity Plan targets and goals.
- Push for 'rural' policies, rather than planning.
- Develop work on networks of woods and other habitats.
- More demonstration management on SSSIs/NNRs.
- Collaborate more with partners in forestry sector.
- Promote vision of forestry which has a grip on reality.
- Develop more muscle!
- Support independent certification.
- Promote wood as a quality product.
- Incorporate true 'environmental costs' into product comparisons.
- Advocate woodland expansion.
- Lead by example.
- Support local woodland initiatives.
- Talk 'serious forestry' to woodland owners.
- Develop new conservation evaluation criteria based more on natural forest dynamics.
- Network of demonstration sites.
- Set sustainable objectives and policies for Natural Areas.
- Assist FC in discussions on forest conservation at an international level.
- Work up case studies to show how far sites have been sustainably managed in the past.
- Greater promotion of ecological benefits from specified woodland management practices.
- Collaborative research between EN and woodland owners on management practices.
- Push for more coordination between agencies and NGOs on forestry issues.
- Improve survey information for woodland resource.
- Give more support to preventing losses from development.
- Be more pro-active in woodland management.
- Be more involved with Community Forest and urban schemes.
- Re-vitalise local markets.

The above are the views from among the 25 respondents - not those of any organisation and are not those of English Nature.

Sustainable forestry and nature conservation in England - what do you think?

English Nature is holding a seminar on sustainable forestry on December 4th. To complement the ideas that will be raised and discussed there we would be grateful if you would give us your views in terms of the questions below. These will then be summarised and used in our deliberations. We may also include them as an appendix to the proceedings of the meeting which will be sent to all participants. The replies are anonymous - if you want to add your name that is up to you - no-one will be identifiable in the questionnaire summary!

1. The Rural White Paper proposes that there should be a doubling of the area of woodland in England over the next 60 years or so.
(a) Do you agree with this idea of expanding the area of woodland in England? YES/NO
(b) If YES what level of expansion would you like to see by 2050? .....
(c) If NO what is you principle objection to forest expansion in England?

.....

2. Assuming that there will be about another 1million hectares of woodland created over the next 60 years there is the question of where it will go. Listed below are some broad categories of land. Indicate in column (a) what percentage of this new woodland you think is likely to go into each broad category eg 60% upland fringe, 20%upland 10% urban fringe etc.; indicate in column (b) what you think would be a preferable distribution (try to be reasonably realistic in the level of shift that you would like!).

	(a) Likely distribution	(b) Preferred distribution
%new woodland created in:		
Upland.....		
Upland fringe.....		
National and community forests..		
Other lowland, arable.....		
Other lowland, pasture.....		
Other urban fringe/derelict land....		

Comment.....

3. Assuming that there will be about another 1million hectares of woodland created over the next 60 years what composition will it have? Again in column (a) indicate what you think the breakdown of the new woodland is likely to be; and in column (b) what sort of composition shift you would prefer to see.

	(a) Likely composition	(b) Preferred compostion
% new woodland composed of:		
Mainly (>80%) conifers.....		
Mainly broadleaves.....		
Mixed conifer-broadleaved.....		
Short-rotation coppice (willow etc.)		
Comment.....		

4. Both planting and natural regeneration could be used to create the new woodland. What do you think the balance is likely to be (tick in column (a)) and what shift would you prefer to see achieved (be realistic) (ticking column (b)).

	(a) Likely creation balance	(b) Preferred balance
Creation balance:		
> 90% of area by planting.....		
50-90% by planting, rest regeneration		
10-50% " " " "		
<10% " " " "		

Comment.....

5. There are about 200,000 ha of ancient semi-natural woodland in England, most of which was worked by coppice 150 years ago. Only about 20-30,000 ha of these stands are still being cut. What sort of expansion of coppice do you think should be aimed for (if any)?

Tick against coppice restoration target area:
>150,000 ha .....
100,000-150,000 ha.....
50,000 - 100,000 ha .....
< 50,000 ha.....

How much of the above do you think would be market-lead (as opposed to being done for conservation/historical reasons) ?

6. Much ancient semi-natural woodland is likely to be managed for timber/wood products in future as high forest. Which of the following features do you think it is most important to ensure are included in such high forest systems from a general nature conservation point of view? (Assume that the sites are not Sites of Special Scientific Interest.) *Tick only your top five*, i.e. those that are of most widespread application.

Tree species used are native to the site.....
Any weed control needed is non-chemical.....
A reasonable amount of dead wood is left on the forest floor after felling...
Restocking is by natural regeneration only.....
At least 10% of open space is kept within the woodland.....
4-5 trees per hectare are left to grow on indefinitely.....
Drainage is restricted to the minimum needed for necessary access.....
Clear fells should not be more than 2 ha.....
Only local genetic stock should be used if planting is used in restocking.....
Continuous Cover Forestry should be adopted as the normal practice.....
Ground disturbance during extraction is minimized.....

Comment.....

7. How compatible do you think the following are with maintaining the nature conservation value of ancient semi-natural woods (outside SSSIs)?

	Always	Usually	Sometimes	Never
Wood production (small dimensions)				
Wood production (high quality)				
Game management (low intensity)				
Game managment (high intensity)				
Recreation (low intensity)				
Recreation (high intensity)				

Comment.....

8. There are about 135,000 ha of ancient woodland that is now under mainly coniferous plantations. Some restoration to native broadleaf woodland is going on, but what is a realistic level to aim for? Please tick the level to go for over (a) the next 10 years, (b) 60 years.

	(a) Over 10 years	(b) Over 60 years
Area for conversion back to native broadleaves:		
>100,000 ha.....		
50,000 - 100,000 ha.....		
10,000 - 50,000 ha.....		
< 10,000 ha.....		

Comment.

9. There are about 400,000 ha of recent, mainly coniferous plantations in England. Many are coming up to the end of their first rotation and are being redesigned to make them better for nature conservation. Usually this will lead to some , albeit often minor, reduction in the future timber production from these sites. One consequence could be therefore that a greater total area of plantations are needed in future than if there were a policy of going all-out for production in these forests. Would the resources being put into conservation in these forests be better allocated elsewhere? Different strategies need to be applied in different areas, but overall where do you think the balance lies?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
(a) Minimize conservation work to get maximum output from minimal area					
(b) Remove some plantations from former heath, bog etc, but in rest follow (a)					
(c) Develop conservation interest within the plantations as well as restoring areas to former heathe , bog etc.					
(d) Develop conservation interest within the plantations, with only minimal restoration of former habitats.					

10. What should be the role of reserves and sites of special scientific interest within a sustainable forestry programme?

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11. How much semi-natural woodland should be within reserves and SSSIs (at present about 21% of ancient semi-natural woods are within NNRs and SSSIs) :

10% 20% 50% 75% 100%

12. What do you think are the three main obstacles to moving towards more sustainable forestry in England?

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13. What are the three main things that you would like to see English Nature do in the next five years to help make forestry more sustainable?

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