



# Environment, Planning & Countryside Committee

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### Bioenergy

#### Summary

The RSPB vision is for bioenergy to be a commercially profitable and environmentally sustainable option, which will both contribute to UK renewable energy targets and benefit biodiversity.

#### Background

Bioenergy is a term used to describe energy derived from organic materials, including conventional combinable crops, dedicated energy crops such as short rotation willow coppice and forestry products. These crops can act as a source of energy either by being converted to liquid fuel for transport or by being burnt in power plants. Because they are derived from biological material that is then re-grown, the carbon released on combustion is reabsorbed by plant material making them theoretically 'carbon neutral.' However, in reality, there are greenhouse gas emissions from the production, processing and transportation stages.

Furthermore, there are considerable risks posed from the change in land use that would be required for dedicated production for bioenergy. These changes have to be managed if bioenergy is to be sustainable and if it is to play a role in the fight against climate change. The RSPB is calling for the sensitive development of bioenergy so that care is taken to avoid adverse impacts on wildlife through poor siting of developments, unsustainable management and the introduction of certification for bioenergy to ensure minimum environmental standards are met and greenhouse gas savings are delivered. Without safeguards, policies to promote bioenergy could be worse than useless, failing to deliver greenhouse gas savings while undermining biodiversity. Monocultures by their nature provide little habitat diversity and are generally poor for wildlife.

#### 1. Impacts on birds

The overall impact of producing biomass for bioenergy will depend on a combination of effects:

1.1 The intrinsic value of the crop itself, dependent on crop species, vegetation structure and crop management. The large-scale cultivation of new crops including woody crops and perennial grasses, represents a large ecological shift from the conventional farmland habitats that are critical to the health of farmland bird populations and biodiversity.

- Miscanthus and other perennial grasses

Little is known of the potential impact that perennial grasses could have in the UK and Europe. They are unlikely to provide seed food and are not suitable habitats for open ground species. They may provide suitable habitats for species characteristic of reedbeds, such as reed warbler and reed bunting. Plantations are likely to host a diversity of invertebrates unless widespread cultivation leads to known pests causing a problem and results in increased pesticide use. More research is required on impacts of these crops and to develop best practice guidelines.

- Short Rotation Coppice (SRC)

This has been found to host a higher density and variety of bird species than is usually seen on arable land or improved grasslands. This has been seen during studies of relatively small commercial SRC plantations. The benefits will largely be dependent on management and many may be lost in excessively large plantations, homogenous ages of crops in a plantation and harvesting during the breeding season. Good management guidelines that deal with some of these issues exist and should be followed.

## Forestry

Wood as a feedstock for bioenergy represents an opportunity as well as a risk. Traditional management techniques within semi natural woodlands to provide biomass may have biodiversity benefits, traditional coppicing of woodlands create open space in which a range of plant and insects species can thrive. However there is a risk that commercial unsustainable forestry becomes economic in the short term because of a growing bioenergy market. The RSPB would like to see the UK woodland assurance scheme used to certify the sustainable management of forestry and woodland management for biomass, including agricultural short rotation coppice, with linked use of Forest Stewardship Council (FSC) Chain of Custody traceable certification of the resultant wood and timber products.

1.2. The biodiversity value of the crop relative to the land-uses it replaces.

The loss of high value habitats such as wetlands, wet meadows, extensively managed semi-natural grassland and scrub through conversion to bioenergy crops will have a negative impact on some bird species and other aspects of farmland biodiversity. This could well be of particular concern in Wales, where marginal farmland of high wildlife value may well be promoted for bioenergy crops when farm incomes are under pressure. Another threat posed is the loss of set-aside to bioenergy crops as this land is known to provide important feeding and nesting sites for many farmland birds.

### 1.3. Landscape scale effects – the geographical location, scale of development and spatial distribution.

The scale and spatial distribution of energy crops will greatly determine their impact on birds and the wider environment. The level at which bioenergy is produced will determine these factors.

Guidelines aimed at ensuring diversity within bioenergy crop areas may help offset the negative impacts of block cropping around processing plants. Currently these are best developed for conventional crops. Of the new crops, only short rotation coppice has recognised guidelines. These have the specific aim of increasing the biodiversity value of the crop by including features such as rides, headlands and stands of different age-class to increase habitat heterogeneity

## 2. Policy Recommendations

There is currently considerable political momentum behind bioenergy. This is translating into policies designed to boost bioenergy production and market share, but as yet not enough is being done to ensure this development is not at the expense of birds and other wildlife.

The RSPB is therefore calling for:

- A strategic plan to be established for the incremental development of bioenergy that prioritises the delivery of greenhouse gas savings, sensitive siting of plantations and processing plants and good management of bioenergy crops and plantations. The plan should be based on a spatial plan for land-use and a thorough understanding of biodiversity impacts.
- Certification for biofuels and biomass heat and power that ensures that producers who benefit from Government measures such as the Renewables Obligation, tax differentials, grants and the Renewable Transport Fuel Obligation, meet minimum environmental standards and that these benefits are linked to the greenhouse gas savings delivered.
- Policy support for bioenergy to be demand based, with the aim of building a thriving energy market that rewards low carbon fuels through appropriate incentives, grants and differential taxation. Supply based support, such as direct subsidies for energy crop production, should not be used. Our experience with the Common Agricultural Policy has shown that the use of similar subsidies for food production has had a detrimental impact on biodiversity and the wider environment.
- Support for win-win bioenergy developments such as those that use sustainably harvested reeds, which would support wetland maintenance and creation, and forestry products where this would help put traditionally coppiced woodlands back into good management.
- No further increases in targets for bioenergy until the safeguards described here are in place.
- Further research to develop good environmental management guidelines for new crops such as Miscanthus, to horizon scan for new risks and opportunities as the market develops.

**For more information please contact Ruth Lovell, Policy Advocate, or Jeff Davies, Agriculture & Rural Policy Officer on 029 2035 3000**