

Rt Hon. Elizabeth Truss MP  
Secretary of State for Environment, Food and Rural Affairs  
Defra  
17 Smith Square  
London  
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January 14<sup>th</sup> 2016

Dear Secretary of State

We the undersigned welcome your statement in December on the need for *“tree-planting that can both reduce flood risk and improve the environment at the same time”*. Your statement at the Jan 2016 Oxford Farming Conference, that *“In the past, the department and its agencies have been accused of operating in silos – looking just at flood protection, just farming or just the environment. This is going to change”* is also refreshing.

Following these statements, we are writing to collectively request that you review your department’s position on the adoption of Pillar I & II agroforestry measures within England, which if adopted could make a positive contribution to climate change mitigation, flood prevention and agricultural productivity. For the reasons set out below, we ask that you review the department’s position as soon as possible.

We believe that the environmental benefits, not least in relation to the prevention of flooding and water management generally, and the potential uptake of agroforestry have been underestimated. In our view, the premature rejection of agroforestry options by your predecessor was at least in part, based on lack of familiarity (on the part of officials and of the limited number of stakeholders consulted by Defra) with the subject itself, with the evidence for its benefits and with current levels of stakeholder interest.

Natural England have previously commissioned the Organic Research Centre to collate the available evidence and make proposals for possible options. As research and advisory organizations who are involved in a developing UK and EU-funded research and advice on agroforestry, we therefore have an interest in the outcome, but this is one shared by the many other organisations that are concerned about the lack of support for agroforestry measures and options in England.

#### **What is agroforestry?**

Agroforestry is the practice of integrating the cultivation of trees, crops and livestock on the same agricultural area for greater productivity and biodiversity. Trees are the greatest land-based contributor to climate, through production of oxygen and water vapour together with carbon dioxide exchange. In addition, tree cover provides many other services including shade and shelter, purification of air and water, production and maintenance of soil, and enhancing biodiversity. Agroforestry integrates these benefits with agricultural productivity, but currently falls between the traditional separation of land uses into forestry and agriculture which also governs much of the policy support framework.



The current 12% tree cover in the UK (about 30,000 sq km of the total land area) represents a major improvement over the last century, but is far short of the European average of 44%. By integrating trees with crop and livestock production as agroforestry, the tree cover can be expanded considerably with the major advantages that the trees themselves provide resilient sources of food, materials and carbon-neutral energy while helping to increase the yields of field crops and livestock. Land use as agroforestry, combining trees with agricultural production, could also be more palatable to farmers than land use change to woodland.



### **Water quality and flood protection**

Trees have the potential to influence water quality, infiltration and drainage, through slowing run-off and capturing water and silt, through micro-climate effects and by purifying water by filtering nutrients and potential pollutants that might otherwise escape into ground and surface waters. In the light of the recent and increasingly severe flooding in England, enhanced integration of trees as agroforestry is strongly urged in water catchment areas and uplands as well as within valley areas.



### **Soil conservation**

2015 has rightly been the international year of soils. Soils store and filter water, improving our resilience to floods and droughts and help combat and adapt to climate change by playing a key role in the carbon cycle. Trees integrated with crops have the potential to support soil conservation, including reduced erosion risks, improve water infiltration and enhance nutrient conservation/recycling through leaf litter. The leaf litter is also an important additional to soil organic matter, supporting soil biological processes and soil structure formation.



### **Biodiversity**

The mixing of cropped species, the different growth habits, the leaf litter generated by the perennial species, and the understorey all contribute to a diversification of habitat and biodiversity benefits, from soil organisms through to bird populations. Where trees are grown in rows between cropped areas, these also act as wildlife corridors, breaking up crop monocultures. The biodiversity benefits of agroforestry can be enhanced through appropriate understorey management prescriptions, including the use of grass/legume and pollen/nectar mixtures, which was a feature of the establishment of agroforestry options developed by Natural England based on the research ORC, supported by Abacus Organic Associates, conducted for them.



### **Climate change**

Agroforestry systems provide a simple direct way to mitigate climate change and instability, through carbon capture and storage in timber and soil organic matter from leaf litter depositions.

### **Productivity**

The environmental benefits of agroforestry systems are not gained at the expense of productivity, although the potential for competition among the different components does need to be managed. The more effective capture of solar energy by trees through longer periods of the year than would be the case for annual crops such as wheat, and other complementarities in land use and exploitation of water and nutrient resources, can lead to significant increases in productivity. This may be enhanced by reductions in the spread of pests and air-borne disease pathogens. Research has identified that total

productivity can be increased by 30-40% when trees and arable crops are grown in combination, compared with growing the crops separately. Defra-funded research carried out by FAI at Oxford, as well as other research, has also shown direct economic benefit in poultry and other livestock systems where agroforestry has been included, leading to changes in industry standards.

### European recognition of the benefits

At a European level, these benefits are increasingly recognised and supported through policy initiatives, including under Article 23 of the new Rural Development Regulation and as a component of Ecological Focus Areas under Pillar 1 greening measures. In the case of new plantings supported under Article 23, co-financing can be up to 80%. This represents significant EU support for tree planting and management.

Scotland, Wales and Northern Ireland have integrated agroforestry options into their rural development plans. English farmers and land managers are currently denied these climate smart options.

The EU has recently funded two major projects focused on agroforestry: AGFORWARD (2014-2018), a new 20 partner European FP7 research and implementation project co-ordinated by Cranfield University, and AGRO-FE (2013-2015) a European Leonardo framework project on improving education and training on agroforestry. In October 2013, the European Parliament also adopted a pilot project to raise awareness among farmers of the multiple benefits of agroforestry.

### Stakeholder interest and potential uptake

We understand that a major reason why your department has not adopted Pillar I and II options which support agroforestry, is that Defra believe that there no interest on the part of stakeholders. While it is difficult in the case of a new option to forecast likely take up, the training and other events our various organisations have held have been very well attended, indicating significant and increasing interest in agroforestry. The existence of an agroforestry options within Pillar I greening and the Pillar II rural development programme, supported by relevant information, training and advice, and the opportunity to see working systems in practice, would further enhance this interest.

### DEFRA Countryside Stewardship Scheme

The new Countryside Stewardship scheme aims to protect and enhance the natural environment, in particular biodiversity and water quality, through a range of management and capital options for farmers, foresters and land managers. We welcome the continued Pillar II support and options through Countryside Stewardship but the scheme does not contain any mechanisms to support the establishment, management and maintenance of agroforestry systems in England. Whist the scheme contains tree planting within current forestry options, these require trees to be planted and maintained at a density of 400 trees per ha or greater. Most established and newly planted agroforestry is at densities of between 70-200 trees per ha and is therefore ineligible under any forestry options.

On the basis of the benefits outlined, we urge you to review your Department's position and to make the following options available to English farmers and land managers:



The adoption of CAP Pillar I greening measures:

- *The inclusion of agroforestry as Ecological Focus Area (EFA) option in CAP Pillar I greening*

The adoption of CAP Pillar II Article 23 measures, either:

- *by making an establishment of agroforestry option with appropriate biodiversity prescriptions available as part of the Countryside Stewardship Scheme, or*
- *by including the establishment of agroforestry in the Countryside Stewardship capital grant scheme on a similar basis to hedge planting, although this is less desirable in terms of the biodiversity prescriptions and expenditure caps, or as a stand-alone measure, or*
- *by including agroforestry establishment and maintenance in the Countryside Stewardship Forestry options at appropriate planting densities of 70-200 trees per ha, or as a stand-alone forestry measure.*

We would like to thank you for your consideration of this matter and to request an early meeting to discuss how this issue can be resolved. We would like to invite you to visit a farm in East Anglia where commercial agroforestry is practised, so as to view for yourself the merits of such systems and meet with stakeholders and farmers involved and interested in adopting agroforestry.

Yours Sincerely

Stephen Briggs & Prof Nicolas Lampkin

Together with;

Prof Tim Benton, of the UK's Global Food Security programme and University of Leeds, in a personal capacity [www.foodsecurity.ac.uk](http://www.foodsecurity.ac.uk)

Austin Brady, Director of Conservation & External Affairs, The Woodland Trust [www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk)

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Alistair Cameron, Slow Food England [www.slowfood.org.uk](http://www.slowfood.org.uk)

Russ Carrington, Executive Secretary, Pasture-Fed Livestock Association [www.pastureforlife.org](http://www.pastureforlife.org)

James Campbell, Chief Executive, Garden Organic [www.gardenorganic.org.uk](http://www.gardenorganic.org.uk)

John Channon, Estate manager, The Dartington Hall Trust [www.dartington.org](http://www.dartington.org)

Martin Crawford, Director, Agroforestry Research Trust [www.agroforestry.co.uk](http://www.agroforestry.co.uk)

Kath Dalmeny, Sustain [www.sustainweb.org](http://www.sustainweb.org)

David Diggins, Director Norfolk Rivers Trust [www.norfolkriverstrust.org](http://www.norfolkriverstrust.org)

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David Rose, Director, FarmEco Community Care Ltd [www.eco-centre.org.uk](http://www.eco-centre.org.uk)  
Prof Martin Wolfe, Waklyns Agroforestry  
Helen Woodcock, The Kindling Trust [www.kindling.org.uk](http://www.kindling.org.uk)

cc. George Eustice MP, Parliamentary Under Secretary of State, Defra  
Rory Stewart MP, Parliamentary Under Secretary of State, Defra  
Kerry McCarthy MP, Shadow Cabinet as the Shadow Secretary of State for  
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Neil Parish MP, Chair, EFRA Select Committee  
Baroness Miller of Chilthorne Domer, House of Lords  
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