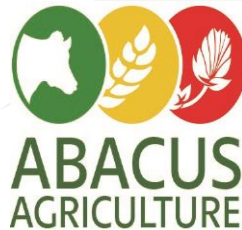


Development of agroforestry at the Landscape and County scale in England

**Prof. Steven M Newman Ph D and
Stephen Briggs**

BioDiversity International Ltd



ABACUS

Abacus is a farmer practitioner platform providing a practical, low risk approach to integrated land use. Our Agroforestry services focus on profitable and sustainable approaches that follow best practice for nature soils and the environment.



BIODIVERSITY INTERNATIONAL LTD

BioDiversity International Ltd is recognised as a global leading company dedicated to the provision of high-quality services in relation to global sustainability and poverty elimination. The company has developed a unique competence in agroforestry as a nature-based solution at the national scale in Asia



ACKNOWLEDGEMENT

I would like to thank Hampshire County Council's (HCC) initiative, The Hampshire Forest Partnership, set up in 2022 as a delivery mechanism for Hampshire's Tree Strategy.

Disclaimer

None of the views in this presentation represent those of HCC





HAMPSHIRE FOREST PARTNERSHIP

a legacy in leaves

DETAILS

STRATEGIC PRIORITIES

Six in number covering environmental social and economic aspects

ENVIRONMENTAL

1. *Nature Recovery*
2. *Climate change mitigation and resilience*
3. *Landscape character improvements*

OPPORTUNITIES

SOCIAL

4. *Public benefit, amenity value and wellbeing*
5. *Learning, awareness, and educational opportunities*

ECONOMIC

6. *Sustainable development of the rural economy*

OVERVIEW

SWOT AIMS TO IDENTIFY:

1. Special landscape opportunities
2. Special County level governance opportunities
3. General constraints agroforestry as of today

LANDSCAPE SCALE: FIRST THOUGHTS

1. Wide linear features
2. Buffer zones
3. Inter cluster Bridges

COUNTY SCALE OPPORTUNITIES

1. Compulsory purchase
2. Own land and farms
3. Structure plans and key diagrams
4. Biodiversity Net Gain
5. Procurement and Pension funds

GOVERNANCE CONSTRAINTS

Results based management

1. Confidence and entrepreneurship?
2. Broken planning system not fit for purpose?

AGRONOMIC CONSTRAINTS

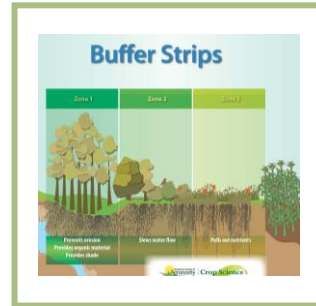
1. Blocking/incompetent advisors
2. Subsidy (reduces farmer agency)

AGROFORESTRY LANDSCAPE FORMS



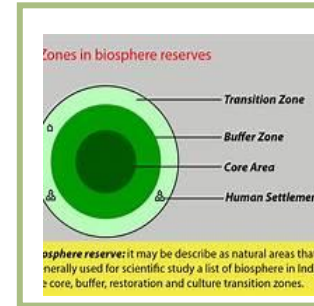
ROADSIDE

Up to 1km wide



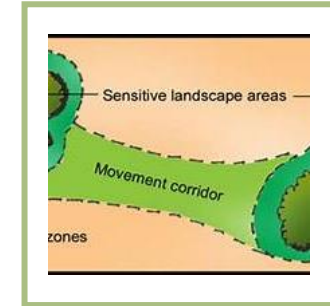
WATERSIDE

Up to 1 km wide



BUFFER ZONE

E.g. around the new forest



CLUSTER BRIDGES

E.g. between farm clusters



FOREST VILLAGES

endowed land betterment value



SENTINEL LANDSCAPES

Planetary boundaries and
policy labs



FOOD FOREST MONITOR COMPANIES

Triple bottom line accounts



PERI URBAN FOOD FORESTS

Land sparing

BARRIERS

ADVICE

Still chronically dominated by (1) “NGO experts” with little practical experience and (2) risk averse “agents” in the private and state sectors

COSTS

Profitable agroforestry requires £40-£60 per tree on average plus fencing and most grants will not cover this.

EXEMPLARS

Still too few examples of profitable agroforestry partnerships at scale (especially linear features) with a clear price taker (food entrepreneur) leading the way.

SUBSIDIES (MENTAL HEALTH WARNING)

ELMS

BNG

Public payment for public goods is a good *principle*

PROCUREMENT

Government procurement (FSC/EU FLEGT) broke the uneven playing field in the use of unsustainable timber.

National and County level **no spray procurement** remains a *missed opportunity*

COUNTY COUNCILS: POWER FOR GOOD

LAND

1. Massive land and farm assets
2. Powers of compulsory purchase

PENSION FUNDS

1. Massive funds
2. Low carbon transition

STAFF

1. High levels of talent
2. Opportunity for results based management and entrepreneurship

PLANNING

1. Key diagrams linked to spatial planning
2. Howardian economics
3. Derogation laboratories

[One planet development: practice guidance | GOV.WALES](#)

PROCUREMENT

1. Food
2. Energy
3. Timber
4. Materials



ISSUES

VISION AND CONFIDENCE

Psychological effects of austerity and failures

SCALE

Need to involve major state landowners, pension funds (£100m) and impact investors

TARGET AUDIENCE

1. Tree strategy officers (especially county level)
2. Food and beverage entrepreneurs
3. Impact investors

NEW PARTNERSHIP FORMS

Profitable:

1. Nature recovery partnerships
2. Carbon synergy partnerships

POSSIBLE COUNTY LEVEL AGROFORESTRY

KEY DIAGRAM (STRUCTURE PLAN) APPROACH.

Brown is the largest silvopastoral system in the UK (56,600 ha)

Grey represents the core areas for peri-urban food forests (health wellbeing and climate change resilience policy)

POLICY REFERENCES

Each spatial zone and linear feature has a county level policy reference linked to the council's statutory and other duties. **Linear (corridor) planting of 10 million agroforestry trees is possible with river decontamination s priority**

NATURE RECOVERY ZONES

Vertical green lines represent AONBs and other protected areas to be connected by an agroforestry matrix (no spray zone)

POSSIBLE HAMPSHIRE SPATIAL PLAN

CLIMATE CHANGE RESILIENCE MARKET ESTIMATES

£3 TRILLION

Relevant pension funds

£3 BILLION

State agency land assets

£1 BILLION

Impact and Carbon Funds



FINANCIAL TARGETS

| | CRICKET BAT WILLOW | HAZEL | FOREST VILLAGE (30 ACRE BUILT FORM ON 1000 ACRES) | |
|--|--------------------------|-------------------|--|--|
| GROSS PROFIT PER UNIT | £70,000 per ha | £70,000 per ha | £11.5 million per village | |
| PAY-BACK YEAR | 12 | 5 | 5 | |
| ANNUAL INCOME PER YEAR AFTER PAYBACK | £0 | £70,000 per ha | £11.5 million per village | |





UK RESEARCH NEEDS

Black mulberry

TOP 10 AGROFORESTRY SPECIES

Oak, mulberry, quince, elder hawthorn, walnut,
hazel, stone pine, almond, chestnut

Tree improvement (precocity and yield)

UNDERSTOREY SHADE TOLERANCE

Potato, hemp, herbs, spices nutraceuticals
etc.

NO SPRAY/FERTILISER SYSTEMS

Wild garlic, Alnus spp, Robinia spp,
Gleditsia spp, etc



Black mulberry

PRODUCT DEVELOPMENT

Nut milks, black mulberry products, nut flours especially acorn flour

NEW SYSTEMS

Agroforestry vineyards, tree enhanced rewilding, silvo aquatic systems incorporating floating gardens.

ESTABLISHMENT HARVESTING AND MANAGEMENT

Direct seeding, monkey harvesting, elephants as part of rewilding and timber harvesting

MEET THE TEAM



STEPHEN BRIGGS
Principal Consultant



IAN KNIGHT
Farm Consultant



STEVE NEWMAN
Nature Based Solutions
Consultant



BESS
Personal Assistant to Prof
Newman and Truffle
Specialist

SUMMARY

“We need to see agroforestry in a larger context. UK climate change resilience will cost £billions. UK nature recovery will cost a similar amount. Agroforestry is ideally placed to be a key nature-based solution.

I urge agroforesters to move from the plot scale and subsidy thinking to County and National Scale bankable projects (without subsidy)”



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Ian Knight
Stephen Briggs

Join the Climate Farm Demo Network today

- Free support / dedicated advisor
- Improve herd management
crops, manure management etc
- Improve efficiency / reduce costs
- Funding/carbon rewarding opportunities
- Access to climate-smart practices
- Receive the latest research results
- Participate in a six-year peer-to-peer
knowledge exchange with UK/EU farmers.



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**THANK YOU
ANY
QUESTIONS?**

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020621-2.pdf](#)
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