

Transformational farming: A vision for the 21st Century.

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Introduction

In my career I have been lucky enough to have been involved at a senior level in (1) research direction and management, (2) large scale rural development projects, (3) private sector forestry/agroforestry /sustainable procurement/low carbon future initiatives and (4) optimising aid effectiveness (project, portfolio and organisational level).

I am currently Visiting Professor at Leeds where my interests are linked to agroforestry and its possible contribution to low carbon futures and food security in Europe and overseas

I am also MD of BioDiversity International Ltd.

BioDiversity International Ltd

www.biodiversity-int.co.uk

- Provides technical, management and evaluation services to poverty reduction projects involving natural resources: Biodiversity, forests etc
- Provides advisory services to the private and public sector in relation to sustainable procurement: Timber, biofuels, beverage crops etc
- Has a project portfolio spanning 61 Countries

Definitions

- Mixed cropping or intercropping is where more than one crop is grown simultaneously on an area of land by design
- Agroforestry is a form of vertical farming using trees set amongst crops or livestock in a way that does not depress yields and can in some cases enhance them.
- Permaculture draws upon the science of the above and has empowered many young people to start but appears at the present time to lack the tools to transform farming on a grand scale and pass into the mainstream

Transformational Farming

- Is about transforming the food system for major improvements in wellbeing, resilience, and biodiversity.
- Is aimed at new entrants and players and is based on the concept of “energy for change”
- Has three ideas at its core: (1) Vertical and niche space farming (2) Transformational business models and (3) Carbon synergy partnerships



Agroforestry as vertical farming

The trees do not take up any land area

Vertical farming with walnut for pickling



- Wheat gross margin improved
- Landowner gets improved asset value and biodiversity
- Transformational farmer gets a share and creates new income streams

Vertical farming with ash for hurley sticks



- Live weight gain improved
- Landowner gets improved asset value and biodiversity
- Transformational farmer gets a share and creates new income streams

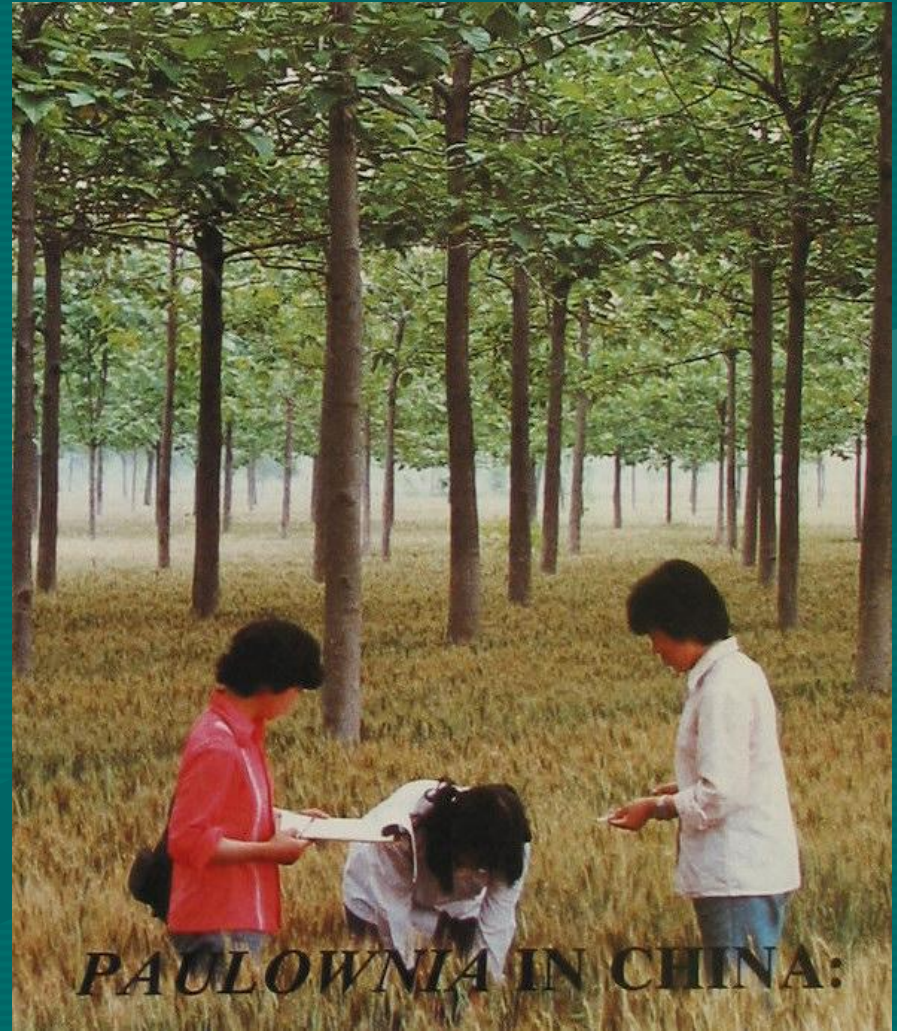
Vertical farming with poplar for bioenergy



- Rape gross margin improved
- Transformational farmer gets a share and creates new income streams

Transformational business model has more diverse income streams

1. Food and or fibre and or energy and or materials no additional cost to land
2. Payments for ecosystem services such as nitrate clean up, pollination, carbon, etc
3. Payments for social services such as health, education, poverty reduction, job creation, district heating etc
4. Share in increased company or asset value



Carbon Synergy Partnerships

- Places the work as part of low carbon opportunity approach and works over a multiple farm scale.
- Uses logical framework approaches to give clarity to the term wellbeing and promote action learning
- Uses spatial analysis to identify spatial opportunity and synergy between neighbours
- Transforms the business models of existing operations

Suggestions for new entrants

- Try to see the big picture of key players and ecological/spatial potentials
- See farming as a contract (Latin etymology) not a building with land and or expectations of the ancestors
- See climate change as an opportunity and not a problem
- See cities and peri-urban land as an opportunity and not a problem
- See involving people as the transformational power and not casual labour to be reduced

Weblinks

- *Temperate agroforestry book*

<http://bookshop.cabi.org/default.aspx?site=191&page=2633&pid=1389>

- *Temperate agroforestry research (UK)*

<http://www.agroforestry.ac.uk/>

- *Silvoarable systems in Europe*

<http://www.ensam.inra.fr/safe/>

- *Tropical agroforestry research*

<http://www.worldagroforestrycentre.org/>

- *Logical framework approaches*

http://ec.europa.eu/europeaid/what/economic-support/documents/guidelines_budget_support_en.pdf



Thank you

- Any Questions