



Presentation by
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2006 Nuffield Scholar

What is the Economic and Ecological importance of Native Vegetation and Biodiversity in Rice and other farming systems?



THE AUSTRALIAN RICE GROWING REGION



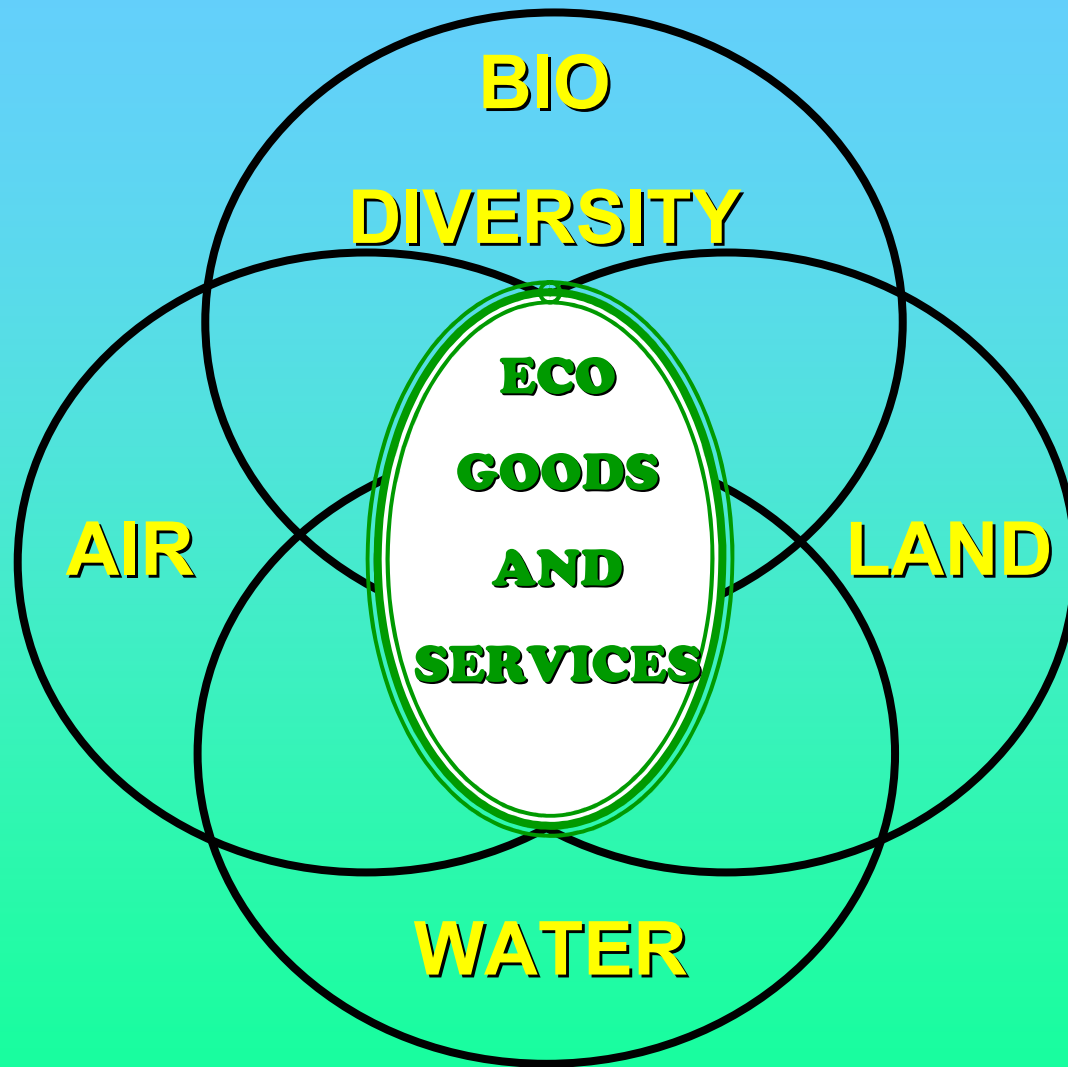
BINYA

What I do

- 2016 ha dryland farming
- 806 ha irrigation
- Rice, winter cereals and beef cattle production
- Small advisory business with native plants



Ecological Goods & Services (EG&S)



Goods

- Wood and fibres
- Food
- Genetic resources
- Pharmaceuticals
- Drinking water
- Minerals

Services

- Climate regulation
- Water purification
- Waste treatment
- Erosion control
- Pest and disease control
- Pollination
- Soil formation
- Photosynthesis

Environmental Stewardship Payments

- **Already exist in US and Europe**
- **Environmental outcomes based**
- **Govt policy sometimes in conflict with outcomes**
- **Australia starting to change**

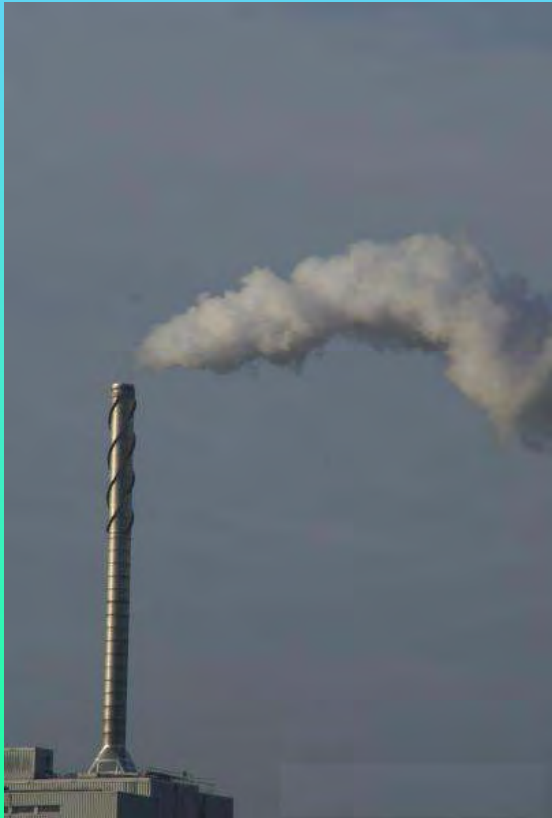


Soil Biota

- Enhancing microbial activity
- Increasing water retention
- Nutrient accessibility
- Build soil organic matter



Carbon Credits



- **Soil potential carbon sink**
- **Keeping carbon in soil**
- **No till farming**



Integrated Pest Management

- **Increase biodiversity – decrease pests**
- **Predators of pests provide opportunity**
- **Too little known**
- **Greater research needed**



Biodiversity and Agri-Tourism

ACTIVITIES

- ✓ Farm Holidays
- ✓ Horseback riding
- ✓ Mustering
- ✓ Bird watching
- ✓ Hunting
- ✓ Fishing
- ✓more

- Highly valued around the world
- Undervalued in Australia
- Bridge the gap between urban and rural communities
- Receive an economic return.

Agro-Forestry

- **Integrated approach protects crops**
- **Deliberate combination of**
 - **Trees and shrubs with**
 - **Crops or livestock**
- **Highly beneficial to environment if well placed and well targeted**
- **Can combat salinity problems**

Real Estate Values

- In Mississippi
36% increase in
land value if used
for recreation
- Political
environment
governs value
- This can take
place here



Production Enhancements

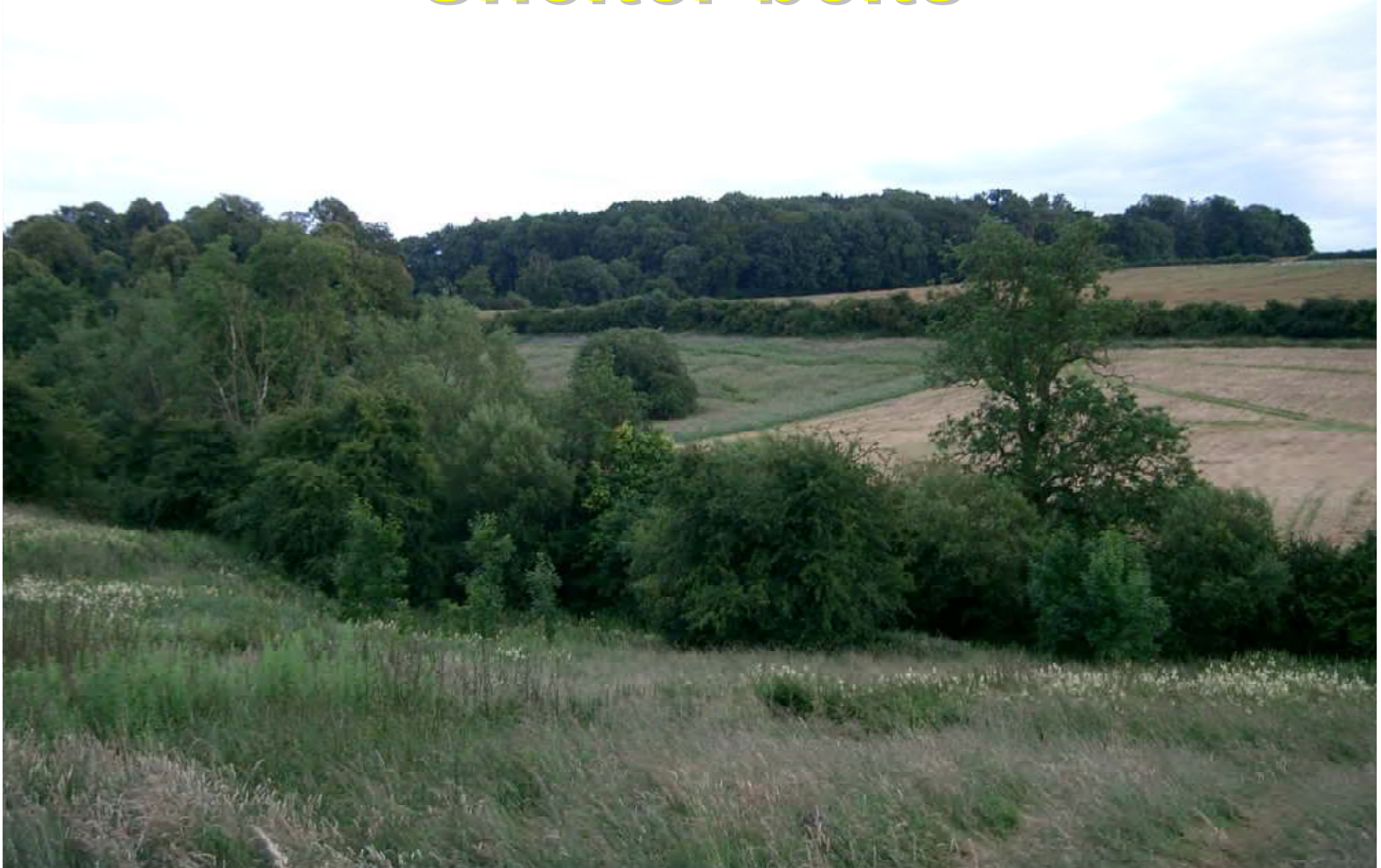
- **Native Grasses**
- **Shelter belts**
- **Pollination**
- **Crop Rotations**



Native Grasses



Shelter belts



Pollination



Crop Rotations





The Question

What is the Economic and Ecological importance of Native Vegetation and Biodiversity in Rice and other farming systems?

The Answer

Native Vegetation and Biodiversity = Opportunity

- **New income streams**
 - Agri-Tourism
 - Carbon Credits
- **Reduced Costs = Better Returns**
- **Better living environment**
- **Increase property value**

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Thank You

