

Climate Adaptation Activities

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Greening Australia

- One of Australia's leading non profit environmental organisations
- Over 200 staff located across all states
- Established in 1982
- Strictly apolitical
- Practical and partnership focused
- Commercially oriented



A busy organisation

But..... We need to keep asking "What is our impact?"







To achieve a sustainable future for Australia we need to plan beyond the cost effective protection and management of "the best of what's left" and invest in long term national resilience





Climate change increases the URGENCY of this agenda



Greening Australia's National Goal

By 2025, Greening Australia will measurably improve the ecological health and function of <u>50 landscapes</u> across Australia GreeningAustralia

Transforming our landscapes





Greening Australia's Strategic Outcome

Transforming Our Landscapes = Short hand for:

Tangible improvements in biodiversity, river health and sustainable livelihoods at the <u>landscape</u> scale (100 km²)







Case study - River Recovery, Boorowa NSW







Now over 80 km



Small pieces make a large quilt over 5 years

- •Lachlan Catchment Management Authority
- •Boorowa Community Landcare Group
- •TransGrid Ltd
- •Australian Government
- •Alcoa Ltd
- •Café Brindabella Ltd
- •Boorowa landholders
- •Land and Water Australia (ex)
- •NSW DPI Fisheries
- •Boorowa Council •CSIRO



Whole of landscape Connectivity-Whole of community approaches Remnant Protection (dry forest) Windbreaks and corridors Peri-urban **WOPR** Carbon farming Riparian Pasture cropping

restoration



WOPR – Whole of Paddock Restoration







12 years ago



- Minimum 10 hectares (usually 20-40 ha)
- Widely-spaced direct seeding belts on the contour (4 rows with 40-50 m gap)
- Broad range of native trees and shrubs (≤ 25 species)
- No Fencing!
- \$750/ha







Research underpins and improves our work

- Improvements to seed survival and germination in direct seeding through use of seed coatings
- Measurement of sequestration in plantings across 12 landscapes funded by CS Energy
- Assessment of sequestration potential at specific sites for mining industry and water utilities
- Environmental performance of Eucalypt and Acacia genetic provenances across environmental gradients (UTAS ARC Linkage,(Neil Davidson) and CSIRO Plant Industry (Linda Broadhurst)



Funding - the key constraint

- Government programs
- Philanthropic donations
- Corporate Social Responsibility grants
- Ecosystem service markets (e.g. carbon)



The Carbon Market Opportunity

- Bio-sequestration a legitimate offset/credit generating option
- Inclusion of reforestation has capacity to deliver huge resources to Australia's existing government-funded programs
- Could deliver multiple environmental and social outcomes





Carbon market potential

Australia emits about 600 M t/yr CO_2 = 30 t/yr/person

- Reduce by 10% = 60 M t/yr = 3 t/yr/person
- At \$25/t for tree sinks = \$1.5 B/yr = 250,000 ha/yr @ \$6000/ha* Or 500,000 ha/yr @ \$3000/ha*

*price of land and revegetation



GA's Biodiverse Carbon Standard

Our carbon plantings aim to restore selfreplacing communities of native vegetation on land cleared prior to 1990

Key elements

- At least 100ha in size
- Actively managed for 100 years and not harvested
- Seed sourced in the bioregion
- Include the full range of structural species
- Well connected habitat for many species of wildlife
- Fully accredited
- Designed to deliver multiple environmental benefits





Significant capitalisation is required

We are focusing on:

- Plantings in G-Link and H141
- Securing a large "base-load" customer
- Joint venture arrangements
- Government R&D
- A business/philanthrophy "hybrid"



'Colour of biodiverse carbon'