

## GreenScapes & Urban Sustainability *Setting the Scene*



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Josh Byrne

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## Presentation Outline



- Green life and the climate change debate
- Sustainable urban landscapes – an integrated definition
- Challenges and opportunities for increasing green life in urban environments
- GreenScapes - environmental services and social benefits

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## Green Life and the Climate Change Debate...



- Topical issue and the science is still evolving
- Common misconceptions:
  - What is genuinely achievable in terms of sequestration activities for our industry
  - What is feasible when it comes to generating potential revenue from those activities

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- Intentionally managed long-term tree plantations have been created for explicit sequestration purposes
- The bulk of landscape biomass forms part of the current carbon cycle and so cannot be considered as sequestration

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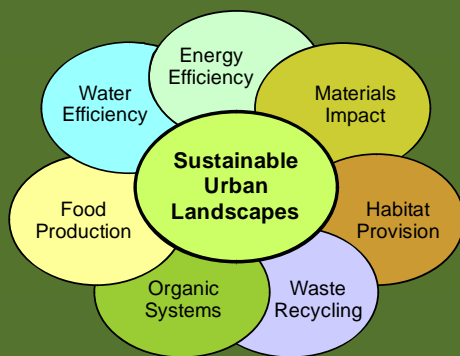
- Strict monitoring and auditing requirements that must be satisfied to gain accreditation under a reputable greenhouse offsets/carbon credits scheme
- The costs associated with measuring, monitoring, reporting and auditing may outweigh offsets and carbon credit revenue

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## Defining 'Sustainable Urban Landscapes'



The way we design and manage our urban landscapes can make a major contribution to pressing environmental challenges

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## Energy Efficiency



- Improve thermal performance
- Urban cooling effects
- Transport savings through local food production and on-site recycling

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## Materials Impact



- Source impact and environmental footprint
- Embodied energy
- Lifecycle assessment

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## Create Habitat



- Leaf litter
- Native plants
- Refuges nesting sites
- Water features

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## Waste Recycling



- Composting
- Vermiculture
- Fermenting

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## Grow Food



- Vegetables & herbs
- Fruit trees & vines
- Poultry
- Aquaculture

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## Water Efficiency



- Plant selection
- Soil conditioning
- Microclimate
- Irrigation efficiency
- Stormwater harvesting
- Wastewater reuse

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## Health & Wellbeing



- Exercise
- Reduced stress and anxiety
- Crime reduction

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## Benefits of School Gardens



- Connection to food
- Development of coordination and fine motor skills
- Development of social skills and team work

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## Benefits of Community Gardens



- Local food security
- Environmental awareness
- Social benefits through increased connection to community

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## Greenscapes in Sustainable Urban Landscapes



### Key Challenges:

- Water shortages
- Increased urban density
- Emergence of an 'indoor techno culture'

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## Innovative Solutions

- Emerging water technologies
- Water sensitive urban design (WSUD)
- Holistic systems-based planning and economics

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## Concluding Remarks

There are a number of important benefits that can flow from incorporating green life into urban landscapes:

- Increases in urban biodiversity
- Reduction of the urban heat island effect (cooling)
- Improvements in the thermal performance interface with the built form
- Stormwater retention, delay of peak flows and stormwater treatment/filtration
- Local food production
- Community development and social wellbeing

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## Questions?



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