

Landcare and Citizen Science: Are they the same?

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What is Landcare?

Landcare is a very broad term that is essentially about enabling change to support the economic, ecological and social health of an area and achieving sustainable management of natural resources in a joint grassroots and top-down approach.

Locally, Landcare is about community groups forming to address a local issue occurring over a large area on different properties.

What is Citizen Science?

Citizen Science is characterised by scientists designing projects with varying levels of involvement of community volunteers in design, equal collaboration, and co-creation of projects to collect data and new knowledge or understanding for future management decisions. It is characterised by 10 principles (Australian Citizen Science Association).

Citizen Science Project & Outcomes

In 2011, 5000,000 native trees were planted on unused, cleared land in outer Brisbane as part of Brisbane City Council’s Two Million Trees (2MT) project. The Hut Environmental and Community Association (THECA) won a state Citizen Science grant to monitor the health and condition of this native tree plantation.

Twenty volunteers were recruited and a workshop was held to ‘train’ them in identification and survey techniques for trees, birds and reptiles.

Environmental Outcomes

- Over 3,000 trees identified in 13 (50 m x 50 m plots) for canopy health & condition.
- Average of 1/3 tree numbers survived after 9 years – 40 of 60 species planted recorded as surviving.
- 21 fauna species recorded by motion cameras.
- 49 bird species frequenting site (209 individuals recorded) and 60% of these species from canopy or small canopy group.
- Three reptiles recorded under structures (roof tiles, corrugated iron sheets, sleepers, tree wraps) including high numbers of Green Tree Frogs, Cane Toads and invertebrates.

Social Outcomes

- Increase in scientific knowledge, understanding & skills with volunteers involved in collecting and presenting data.
- Increased awareness of science and project with data available at open access sites.
- Cost effective scientific collection of data.
- Joint approach between scientists and volunteers in conducting project after framework of project determined by scientists.
- Volunteer numbers dropped from 20 to 16 after 12 months – good retention and motivation. No political involvement.



Image 1: Learning how to set hair traps



Image 2: Looking for reptiles under structures

Landcare Project General Outcomes



Environmental Outcomes

- Focus on land management issues and outcomes compared to recording species.
- Often targeting issues such as weeds, soil erosion or sustainable economic production.
- Environmental focus gradually adopted since program initiated but more emphasis in urban areas.
- Landcare projects either completed or developed into long-term management strategies across properties.
- Lists of identified native species a small part of projects.



Social Outcomes

- “Landcare” adopted at federal, state and local government levels with 10 years of initial funding (1990-2000) and national funding & marketing organisation formed.
- Landowners become more engaged in land management outcomes.
- Coordinated approach involving paid facilitators and involving ethical considerations about land tenures & laws.
- Increased sense of achievement in learning new skills because of on-site involvement and improvements in well-being of participants.
- Results available but not a priority.



Image 3: 2MT Project Citizen Science participants

Selecting a Landcare or Citizen Science Approach

- Both offer social improvements if all stakeholders, subsidiary people and organisations involved from concept planning through to end of project.
- Both useful for creating broad community awareness and understanding of issues being addressed.
- If major land management changes need to occur then Landcare approach is more suitable compared to collection of biodiversity data for input into land management decisions.
- Citizen Science projects attract people and organisations with interest in one issue and a focus on biological items but Landcare involvement attracts vested interests who have more holistic approach.

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