Final Report – AFAANZ 2019 Research Grant

Name, Position, Contact Details for each applicant

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Project Title

Accounting for Biodiverse Wildlife Corridor Plantations: Measurement Matters

Updated Project Summary (500 words) including any variations between the project undertaken and the original application

The 'national balance sheet' provides experimental estimates of Australia's natural resources, but fails to measure the value of biodiversity which is problematic. In this interdisciplinary study collaboration was undertaken with the NGO Greening Australia (Tasmania) (GAT) on accounting for biodiverse wildlife corridor plantations in the Tasmanian midlands. Measurement 'matters' so we will develop appropriate valuation methods for the wildlife corridor plantations, which will help inform government policy on valuing natural resources, assist GAT in engaging with key stakeholders including landowners and government funding bodies, and contribute to the Australian Government's Biodiversity Conservation Strategy and UN's Sustainable Development Goals. This is the second cycle of an action research study, in which a qualitative approach is being used to explore methods of accounting for, and valuing biodiverse wildlife corridor plantations. In the first cycle the feasibility of the Natural Inventory Model (NIM) developed by Jones (1996; 2003) was tested, and adapted to incorporate science-based measurements. In this second cycle it was

intended that further testing of the adapted NIM would be conducted on additional sites, including a native forest remnant for baseline comparison purposes. The adapted NIM is implemented in three stages, the first involving the establishment of the acreage and habitats and undertaking a natural inventory.

The NIM assesses biodiversity through various levels of categorisation: Level 1 is by habitat type and natural capital status (measured using a structural complexity model). Level 2 is by an inventory of listed and protected flora and fauna. Level 3 is by an inventory of critical habitats' flora and fauna by species. Level 4 is by an inventory of critical habitats' flora and fauna by site cover (flora), or population (fauna). Level 5 is by a general inventory of flora and fauna by species, and Level 6 is a general inventory of flora and fauna by site cover (flora), or population (fauna). At levels 3-6 species are further classified as being either native/exotic. Due to the complexities and need for specialised equipment in assessing fauna diversity, for the purposes of the first cycle of the action research only flora was categorised. For this second cycle environmental DNA testing was used to ascertain fauna species at the sites. However, due to funding constraints we were not able to collect the flora data necessary to quantify the value of biodiverse wildlife corridor plantations (as per the original application), thus the project is ongoing.

Funds Granted

\$2,000.00

Detailed Report on Expenditure of Funds against Budget Items, with variations explained

Budget Item	\$AUD	Expenditure
Environmental DNA (eDNA) testing	\$2106.00	\$2000.00
Botanical fieldwork	\$2850.00	Nil
Lab work	\$2470.00	Nil
Total	\$7426.00	\$2000.00

Outcomes, for example, working papers, presentations and publications (give full details, including abstracts)

Due to delays associated with COVID-19, we are still awaiting the results of the eDNA testing.

Future Intentions for this Project (give full details)

a. Conference submissions

We intend to submit a paper to the ACSEAR 2021 Conference

b. Journal submissions

After incorporating the feedback received at the ACSEAR Conference, we intend to submit the paper to the journal Accounting, Organizations and Society (ABDC rating A*, FoR 1501).

c. Grant applications

Additional funding will be needed to complete the project. At this stage we are considering The CPA Australia Global Research Perspectives Program, although the application process has been delayed due to COVID-19.

d. Projects

This project was the second cycle of an action research study. The study is ongoing and future projects will involve additional cycles being undertaken.

Summary of Outcomes and Benefits

While we are yet to receive the results of the cDNA testing due to delays cause by COVID-19, an understanding of the wildlife present in our wildlife corridor plantations will help to develop a valuation method for conservation efforts, which has benefits for both the public and private sector and for conservation NGOs in particular.