



The Ian Potter
Foundation

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Grantee Key Learnings

Environment & Conservation
Science

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Key learnings from Environment & Conservation and Science recipients

Introduction

This document is intended for future applicants and grant recipients in The Ian Potter Foundation's Environment & Conservation and Science program areas. It contains the summarised learnings of all Environment & Conservation and Science grantees over the past five years.

The information documented here has been taken from the final reports of Environment & Conservation and Science grantees, which were submitted to The Ian Potter Foundation following the completion of their projects. As such, the views expressed here do not necessarily represent the views of The Ian Potter Foundation.

Awareness and advocacy

Actively engaging with smaller NGOs can be challenging, especially in the context of collaborative attempts to raise awareness around a specific issue. For instance, one grantee found that engaging local plastics campaigners was more difficult than initially estimated as limited resources meant their existing campaigns consumed them entirely. The grantee overcame this challenge by creating and sharing campaigning resources via their webpage.

When promoting awareness of an issue online, leverage pre-existing resources to spread your message where possible. This ensures your resource will reach a wide and receptive audience immediately. However, be mindful that changes and/or delays to the host website will affect your online resource.

Do not underestimate the time required to tailor messages and information for a specific audience or community.

Collaboration

Community groups

Engage with as wide a variety of groups and stakeholders as possible – go beyond farmers and landholders to those that work closely with them and are in regular contact, e.g. agronomists, to aid the dissemination of tools and information.

Use local services and find local solutions where possible. There may be community groups who offer services at a lesser cost, or even as in-kind contributions, e.g. one grantee garnered the involvement of the Men's Shed Association to greatly increase the in-kind contributions to the project and double the number of nest boxes installed.

Industry and sector engagement

Engaging industry stakeholders around their contribution to environmental issues (e.g. habitat degradation) is a highly sensitive process which requires a significant time investment. Creating positive, honest and trusting relationships can be challenging. One grantee found that holding a workshop with industry stakeholders proved extremely beneficial in terms of raising awareness and getting them

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involved, whilst creating a valuable network of relationships within government and industry that proved instrumental to the success of the project.

Be sure to engage with industry representatives, rather than solely engaging with the NGO sector. This may include creating industry specific material, such as a webpage tailored to industry sector representatives. Don't just expect industry to sign up to your resource or service without prompting.

Multiple partnerships

Collaborative projects involving multiple partners (e.g. between universities, government agencies and/or NGO's) are more complex to organise than those involving bilateral relationships and face unique risks. In particular, look out for problems arising from:

- overriding structure
- prioritisation and coordination
- financial contribution, and
- limited skill base.

Pre-emptively address these challenges with a framework outlining governance, stakeholders, communication and business plans. This should *precede* a uniform project strategy, to ensure sustainability and integrity. Consider seeking core funds for such a framework to be developed.

Research projects

Collaboration can be particularly helpful for research projects during which changes in methodology and approaches are required. Collaborators can provide project assistance, subject expertise and additional perspectives.

One grantee found collaborators useful in terms of leveraging her research project, which resulted in future work opportunities within the field as well as in-kind contributions to her project.

Strong interpersonal skills are key to successful collaboration. Communication, listening, patience and flexibility are essential for a strong collaborative relationship.

Community engagement

The success of site-specific conservation, habitat restoration and species reintroduction programs is often dependent upon community interest and engagement. For instance, engaging landholders to take up and implement habitat restoration techniques, such as building ponds to maintain frog populations in farming communities.

Workshops and other forms of environmental education can be an effective way of encouraging community participation in conservation and restoration activities.

Consider employing a professional to communicate project details and outcomes to communities, to achieve further local engagement.

Consider engaging with local communities before undertaking specific projects, so as to identify mutual interests and priorities. This can help ensure community involvement and highlight potential challenges before they arise. For instance, engage with Indigenous communities to identify rock art and heritage

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projects that are important to the community, before committing to conservation projects which may not align with community interests.

Web-based community resources

Some tips provided by our grantees for organisations developing online community resources (such as a wiki, community page, information hub, etc) include:

- Tailor the information to your audience – this might mean having separate pages for different stakeholders.
- Engage the community (e.g. via a community reference group or Twitter hashtag) during the development phase - This can help foster a sense of community ownership before the project even starts.
- Ensure your user interface design is intuitive, easy to use and accessible to all – don't assume users have a pre-existing knowledge of things like web-browsing or email, and familiarise yourself with the Web Content Accessibility Guidelines when designing a new site.
- Where relevant, consider providing an instruction sheet or video – this can save a lot of phone calls and emails from frustrated users.
- Build momentum by assisting and encouraging participants to contribute content from the beginning.

Conservation and land management

[Conservation Action Planning](#) (CAP) is a very useful tool for incorporating all ecological values in a landscape plan and involving all stakeholders in the planning process.

For projects involving habitat restoration, do not generalise habitat requirements across species. Landscape modelling should reflect different habitat requirements for a range of species.

Restoration of dynamic ecosystems (e.g. tropical seagrass meadows) may require a readjustment of expectations. Rather than permanently revegetating an area, shift goals to emphasise enhancing resilience of transient plant species and embracing dynamism.

Continually review national delivery of conservation services. Especially when staff are predominately working on remote properties and are faced with the associated challenges – poor internet connection, dispersed personnel, attracting and retaining staff, etc.

Revegetation

Take measures to shield restoration plantings from wild animals, such as protecting them with cages. One grantee found that widely spacing caged plantings (50 trees/ha) not only prevented damage by stock and feral deer, but were also very attractive to farmers because they could use the paddock immediately following restoration. This also had the benefit of weed reduction as stock could graze between the trees.

Technology from the commercial plantation forestry industry can be successfully adapted for the purposes of restoring and rebuilding native vegetation connectivity.

Riparian restoration can form a major element in rebuilding native vegetation connectivity. River systems provide high value corridors for revegetation which do not interfere with high intensity

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agriculture because frequent disturbance on rivers by flood prevents intensive use of these areas for farming. This can mean reducing or circumventing altogether the need for negotiating and/or developing legal agreements with landowners.

Weed control

Begin weed control spraying programs early and have contingency plans in case of weather delays. One grantee's spraying program was meant to commence in spring/early summer but was pushed into summer/autumn due to wet and windy weather.

Species management

Working with wildlife invariably involves delays, take this into account when planning. For instance, one grantee experienced delays in conducting captures of wild wallabies to take biannual samples as part of their disease management program.

Trust and ongoing commitment from groups involved in captive breeding programs is vital.

Consult with Subject Matter Experts and key organisations when developing species recovery plans. For instance, one grantee revised a recovery plan after input from Taronga Zoo.

Monitoring

For community-based monitoring programs, ensure at least one person has a permit to handle animals. One grantee reported difficulties with their community monitoring program as some species were unable to be properly identified due to their habit of escaping quickly or burrowing into the ground. They reported this problem could have been solved by someone having a permit.

The cooperation of local landholders is instrumental in the success of pest control programs that require a tenure-blind approach to monitoring. Consider how you will connect with them from the initial stages of your project.

Be mindful when monitoring cross-regional bird species that trend flight patterns may indicate movement, rather than population decline. This is particularly important in the case of highly mobile species such as nomads or migrants.

Pest control

Implement an array of different pest control methods (e.g. baiting, specialist dogs, monitoring, trapping, prevention of migration, etc) when conducting integrated programs. This helps account for individual animals which may have adapted their behaviour to avoid a particular method of capture.

Although fences are effective at keeping certain pests out of protected areas, don't assume they will keep native threatened species contained. One grantee explored the idea of releasing captive-bred Tasmanian devils into a protected area for a short period of time to improve their fitness, however this was not approved by the relevant authority due to the proximity of the fence to the public road, even with the addition of electric wiring to prevent devils escaping.

Plan and monitor for the possibility of animal proof fences being damaged by falling tree limbs due to storms or high winds. A monitoring program can ensure these events are detected and managed accordingly.

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Reintroduction

Place importance on site selection for the release of animals, and quickly invest time and finances accordingly.

Release programs should incorporate extensive and ongoing invasive species predator baiting.

Consider the volume of animals to reintroduce at any one time, and how this may impact results. One grantee found that small numbers followed by supplementary introductions resulted in poor assimilation overall, with the supplementary populations disturbing extant populations. They also found that larger numbers meant the local population was disturbed and scattered, rendering the animals vulnerable to predation. They found a hybrid of the two worked best: larger numbers with supplementary populations added but in a variety of locations, not a single location.

Consider the timing of animal releases. One grantee found effective practice contradicted theory: the theory had been that spring release was best, but this is when fox cubs are born and fox families are on the hunt for food. This meant released animals were more vulnerable to predation. It was also found that releasing their animals at 6 months of age provided better results, as they were more 'streetwise' and physically adept for survival.

Consider cross breeding animals from different regions to combat low levels of genetic diversity. Breeding from a narrow genetic pool can negatively impact on the survival rates of animals after release into the wild.

A welcome by-product of species reintroduction programs may be the reappearance of other natives. Consider if this may be the case when pitching your project to funders and stakeholders.

Research and evaluation

Trust from communities and partners is essential in order to apply research successfully. Trust requires validity. Validity requires proof. Proof requires applied research. Understand how your project is going to engage with this cycle from the beginning and consider strategic community partners.

Be mindful of community attitudes towards your research. Shifting resistant or negative attitudes takes time. One grantee found that regional community partners initially demonstrated some cynicism towards research as a valid means of addressing urgent local issues. Overcoming such cynicism took time, engagement and required real-life outcomes to prove the value of applied research.

When devising timelines, take local weather conditions into consideration. For instance, surveying oceans and reefs can be compromised by high sea states and storms, which can restrict access to the reef, make diving inadvisable and/or effect underwater visibility.

The provision of research funds in addition to a fellowship salary is an effective arrangement and important in terms of allowing research to commence immediately.

Data collection

When collating data from multiple data providers, be prepared for many organisations to require substantial data security and use clauses (for instance universities and state governments). Timelines should reflect the reality that securing data and obtaining ethics clearances is a long and complex

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process which will involve meeting various legal requirements and undertaking negotiations with stakeholders.

Likewise, don't assume that under-resourced NGOs can assist with large-scale data collection/sharing projects, even if they're committed to raising awareness around the same issue area your project is seeking to address.

Equipment and outsourcing

Ensure members of your research team are trained in requisite equipment. For example, working with video monitoring technology.

Consider using universities rather than commercial companies to run analyses (e.g. stable isotope analyses). This can significantly reduce the cost per sample, as well as open up new collaborative research opportunities.

If your project relies heavily on other agencies to progress key research activities, be prepared for delays due to heavily booked pieces of infrastructure (e.g. government research vessels).

Pre-empt the need to place orders for spare parts, chemicals, etc especially if researching in regional or remote areas. One grantee in Tasmania found that the time between placing orders and receiving them was especially long compared to the mainland.

Frameworks and objectives

Ensure timelines are realistic relative to their goals. Either narrow the focus of research, or extend timelines in line with ambitious research objectives.

When undertaking policy-focused research be prepared to revisit and revise research objectives in response to changes in the research and political landscape. These contexts are constantly shifting and changing, and success may hinge on being able to adapt your project appropriately.

It's one thing to identify and define evaluation frameworks; it is another thing entirely to measure them. For instance, measuring ecological returns – e.g. the density of feral animals in large landscapes – can involve logistical challenges. Utilising technology, such as deployment of drones and the use/analysis of camera trap data, can assist in overcoming these challenges in a cost effective manner.

Recruitment and training

Consider prioritising your researchers' field of expertise ahead of their geographic proximity. For instance, one grantee found recruiting university students from non-local universities with biological/marine science degrees more useful for their research program.

When recruiting scientists to work in remote farming communities, begin recruitment early and anticipate delays and challenges. It is difficult to find scientists who excel in their field, can engage with the local community and are willing to relocate.

When working with university students, incorporate project specific training into your timeline. One grantee had to adjust their original research target due to delays in training Masters students and a change in the sampling strategy.

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Survey design

When surveying program participants in-person delivery methods are preferable, as are participation incentives if working with a large cohort.

Be consistent in survey delivery methods, as a change in delivery method can result in fewer or even incompatible responses. One grantee switched from their original plan to have tour guides deliver questionnaires before and after tours, to electronic delivery via email. Tour operators believed in-person delivery would be disruptive to the experience, however electronic delivery ultimately resulted in fewer survey responses.

Wildlife research

Be mindful of logistics involved with collecting and transporting large numbers of wildlife or marine life to and from various research facilities. A support team of volunteers and students can be helpful.

When collecting samples from large numbers of wildlife from various collection locations, set timelines to accommodate delays and the time associated with experimenting on large numbers at the one time.

Working with government

If your project is reliant on a government scheme or service to meet key goals, be mindful of how service changes may impact timelines. For instance, changes in the Western Australian heritage compliance area delayed one grantee's fieldwork.

Engage early with governmental organisations, such as Catchment Management Authorities.

Progress often relies on taking advantage of political opportunities as and when they arise, so ensure you have capacity to take advantage of this as needed.

Take the time to understand how government agencies and policy-makers see your issue area, they might have very different perspectives from an NGO. For example, the problem of invasive species is generally viewed by government through the lens of its effects on agriculture, rather than its impact on Australia's biodiversity.

Influencing public policy

While Australia has exceptional scientific capacity that is capable of contributing to good public policy outcomes, unless science maintains a strong presence in national public policy development, it can easily be ignored when politically inconvenient.

It is important to allocate resources for soft and public advocacy when seeking to influence government; and/or for a dedicated staff member to keep abreast of the political climate. Engaging with multiple levels of government (local, state and federal) as well as both sides of politics is also imperative.

Avoid politicising the 'climate change' debate, particularly close to elections and other significant political events.