



# Future Environmental Science Program

## Survey Feedback

### Thank you

The Department of the Environment and Energy greatly appreciates the generous and constructive feedback on the National Environmental Science Program (NESP) provided through the online survey in May-June 2019.

The feedback is invaluable to the Department in this planning phase for a future program.

A total of 239 respondents participated in the survey, representing the environmental research community and current and potential users of NESP research. All survey responses were read in their entirety and treated equally in analyses.

Survey questions were targeted at known opportunities for improvement and the feedback will inform the design and administration of a future program. The survey was not part of a program review or evaluation. A program evaluation is scheduled in the final year of the National Environmental Science Program (2020-21).

### The survey focused on:

- **NESP engagement** – researchers, research user and program manager interactions before and during research projects, from understanding needs, scoping and design, to research activities and delivering outcomes.
- **Big picture research** – multiple disciplines working together to inform environmental management challenges.
- **Indigenous inclusion** – NESP activities and other ideas for improving Indigenous inclusion in environmental research.

### Engagement in NESP research

Survey respondents provided ideas and suggestions about how to achieve effective engagement in environmental research – between researchers, research users and program managers.

The key elements were:

- building person-to-person **relationships** between researchers and research users as the basis of all stages of research, from eliciting research needs, designing and scoping projects (co-design), to delivering research outputs
- **communication** that meets the needs of all interested groups including information on how to get involved, accessible and discoverable online resources, and face-to-face events
- a **program structure** that facilitates the broad participation required to generate the highest quality and most useful science for all environmental decision makers.

### **In your words**

*Research partnership that includes development of the research questions and methodology, analysis and write-up. The ideas may come from either the researchers or the users but their subsequent development needs to be collaborative so the research meets needs.*

*[There needs to be] Trusting relationship between researcher and end user. Researchers understanding why and how research will be used. End user understanding limitations of the research.*

*[There needs to be] More democratic research design process. Better engagement with stakeholders at project and program design phase.*

*Above all, a determination to undertake and deliver research in direct collaboration with its end-users, be they on-ground ranger groups or governmental policy-makers. Second, engagement of researchers from across the institutions. Never before have I seen such intimate and effective collaboration in Australian academia.*

*Researchers need to spend time with the people with research needs, and not put their research capabilities first.*

*[There needs to be] support for the research needs of World Heritage places (natural and cultural) for best practice management and governance that fulfils Australia's research obligations under the World Heritage Convention.*

## **Research for the big environmental challenges**

Survey respondents provided feedback about multiple research disciplines working together on environmental science that addresses big environmental challenges.

The feedback indicated that transdisciplinary and broad scope environmental research requires:

- **administrative arrangements** for funding that incentivise transdisciplinary research, and
- explicit mechanisms to overcome **cultural and institutional barriers** to collaboration.

### **In your words**

*It will help to include people from multiple fields and with a large range of expertise from the start. Another promising group to include is lawyers, as well as ecologists, systematists, environmental chemists / ecotoxicologists and other environmental scientists, climate scientists, mathematical modellers, engineers, social scientists (there were some in NESP) and psychologists.*

*Institutional barriers - even when the 'will' is there, it isn't always easy for scientists to work across institutions. Large institutions may have burdensome administrative processes that make it difficult for researchers to 'just get on with it'.*

*Competing for funds is the largest barrier.*

*Longer-term programs with intimate involvement of end-users (i.e. a NESP-like initiative)... are instrumental in answering big questions. They foster a cohort of researchers experienced at working on environmental problems collaboratively across institutions and in partnership with*

end-users. NESP has, almost by itself, dramatically expanded this second capacity in the past few years.

Transdisciplinary and "big questions" need time. No "big questions" are resolvable with annual or 3 year timelines. Centres of Excellence get 7 years to answer 1-2 big questions ... NESP hubs get annual timelines, 3 year timelines etc and that forces fragmentation.

## Indigenous inclusion

Many survey respondents expressed support for targeted activities and program administrative arrangements to strengthen collaborative research with Indigenous communities in a future program.

The feedback included the following observations and suggestions for improvement:

- The NESP has included researchers with considerable experience working with Traditional Owners, others have begun to **develop cultural capacity**, and some projects have suffered from inadequate resourcing and planning for Indigenous inclusion.
- Building **trusted relationships**, with dedicated resourcing, is critical to Indigenous inclusion in environmental research.
- There is a need to **build capacity for Indigenous research** by investing in transfer of skills, Indigenous students and early career researchers.
- The structure of an environmental research program needs to incorporate explicit **ethical and intellectual property** arrangements.

### *In your words*

*There needs to be time allowed to develop meaningful relationships. This is generally not feasible or constructive on a project-by-project basis.*

*Lack of budget to do preliminary engagement and budget/time/resources to build the required relationship.*

*Programs to support young people to become leaders – scholarships, mentoring, work experience programs – to highlight opportunities.*

*I think it would be good for NESP hubs to have an imperative to support relevant training of potential Indigenous researchers at all levels from high school to university.*

*Well done to NESP – it's a great start on this road to better integration and genuine involvement of Indigenous communities in environmental research – but there's a long way to go.*

*Principle of Free Prior Informed Consent is critical. Researchers [must] have the Cultural Authority to do work on country or [be there] with TO knowledge.*

*We can't continue to expect First Nations people to give us permission to access their lands or cultural heritage, or to contribute to our research, [while others] control the agenda and the rights to the data.*