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TOPICS IN THIS EDITION | INDIGENOUS COMMUNITIES | LOCAL KNOWLEDGE | NORTHERN AUSTRALIA

## DEVELOPING A CULTURALLY APPROPRIATE NATURAL HAZARDS TRAINING PROGRAM FOR INDIGENOUS COMMUNITIES

### ABOUT THIS PROJECT

The *North Australian bushfire and natural hazard training* project began in 2015, as part of the 'building community resilience in northern Australia' cluster of CRC projects. The research is a collaboration between Charles Darwin University, the Aboriginal Research Practitioners Network, emergency management agencies, and several northern Indigenous communities and their leaders.

### AUTHORS

Stephen Sutton, Charles Darwin University.  
Contact [stephen.sutton@cdu.edu.au](mailto:stephen.sutton@cdu.edu.au).

### SUMMARY

Nearly 360,000 people, predominantly Indigenous Australians, live in remote communities in northern Queensland, Northern Territory and northern Western Australia.

There was concern among Indigenous land, fire and emergency managers in these communities that existing fire and emergency management training was inadequate and did not provide tailored, collaborative strategies to keep communities safe from frequent fires, cyclones, storms and flooding.

This project developed training units that provide practical support and reinforcement of capabilities emerging and needed in remote Indigenous communities in northern Australia. Comprising ten units designed for delivery at the Vocational Education and Training Certificate II level,



▲ **Above:** RESEARCHERS WORKED WITH INDIGENOUS COMMUNITIES TO DEVELOP TRAINING UNITS THAT PROVIDE PRACTICAL SUPPORT AND REINFORCEMENT OF LAND MANAGEMENT CAPABILITIES IN REMOTE INDIGENOUS COMMUNITIES IN NORTHERN AUSTRALIA. PHOTO: STEPHEN SUTTON.

the training units interweave a set of philosophical and practical understandings of the management of landscapes for bushfire and natural hazards in a changing climate with new economic stressors and opportunities, as well as the integration of Indigenous knowledge and experience with non-Indigenous approaches.

Researchers used a Participatory Action Research approach to provide a 'next-generation' training program that builds on the current assets in northern Australia, such as ranger programs, and leads to increasing levels of competence,

confidence and resilience. The ten training units have not yet been subject to national accreditation but are designed to map onto the Standards for VET Accredited Courses as set out by the Australian Skills Quality Authority. Following accreditation, training providers will need to be sourced to deliver the training. The skills and knowledge generated during the development of the training units are already being used in communities in central and western Arnhem Land in the Northern Territory. The training units can be accessed through the CRC by contacting [office@bnhrc.com.au](mailto:office@bnhrc.com.au).

### CONTEXT

In northern Australia, Indigenous Australians, as well as pastoral land managers and emergency services, perceive natural hazard management (especially fire management) differently to how it is viewed in southern Australia - it is seen as something that is flexible and responsive to human agency.

This in turn derives from a deeper Aboriginal understanding of the universe which is embedded in the Dreaming. In this worldview, everything in the world has morality, or a 'correct and appropriate' role and behaviour, including fire. Failure to manage fire, resulting in large-scale late dry season bushfires, is understood as a clear consequence of

immoral fire management. Managing fire according to Aboriginal tradition is seen as a moral act that has beneficial spiritual as well as physical consequences.

Technology and practices to achieve fire management, such as the West Arnhem Land Fire Abatement Project, are being shared and developed across northern Australia.

This project is fundamentally aligned with the aspirations and cultural preconceptions of many remote communities. Work is conducted on Country, with family, utilising traditional knowledge and acknowledging Traditional Owners' rights and responsibilities.

## BACKGROUND

Nearly 360,000 of the people living in northern Australia (comprising northern Queensland, the Northern Territory and northern Western Australia) are in communities with varying degrees of remoteness. These communities are predominantly inhabited by Indigenous Australians, with the percentage rising in direct proportion to remoteness.

An average of 430,000km<sup>2</sup> is subject to fire each year, while annual widespread flooding also disrupts communities more than 150km from the nearest hospital. Many communities are within 50km from the coast, making them vulnerable to storm surge, erosion and sea level rise. Cyclones are also common, becoming less frequent but more intense with climate change.

This project was initiated following concerns from Indigenous land, fire and emergency managers in northern Australia about the inadequacy of existing training for remote fire and emergency management. People involved in fire and land management in remote Aboriginal communities, in particular, were concerned that existing training did not provide satisfactory levels of skills or knowledge with which an individual or group could effectively manage bushfire and other natural hazards at the landscape scale required in the north – where fire and emergency management is quantitatively and qualitatively different to that in the south. This project established new and relevant training units in fire and emergency management in those northern regions.

## BUSHFIRE AND NATURAL HAZARDS CRC RESEARCH

This research used a Participatory Action Research approach, which encourages participants to frame the enquiry as it changes over the lifetime of the project, as well as the generation of answers and training materials. This approach is based on the previous model of research among north Australian Aboriginal communities that was developed by the Aboriginal Research Practitioners' Network (ARNPNet).

Using this approach, researchers were able to prioritise not just the inclusion of Indigenous communities, leaders, ranger groups and

researchers (including working closely with ARPNNet to conduct and facilitate workshops), but also a focus on the social context of the delivery of disaster management services, exploring how power imbalances constrain development of resilience and trust between agencies and communities.

### Examination of existing training

Researchers conducted several desktop reviews, which examined existing bushfire and natural hazard training opportunities, as well as any leadership training opportunities existing at the time for Indigenous community members. The reviews found that, at the time, existing training largely omitted Indigenous perspectives relevant to northern Australia, particularly in terms of strategic overviews and planning. Relating to leadership training, it was found that where remote communities were able to access training for bushfire and natural hazards, it did not often focus on leadership, or the leadership components did not include bushfire and natural hazards management.

### Development of training through formal engagements

Nine formal 'engagements' were held over the life of the project, including six workshops and three training pilots. The first two of these were invite-only workshops held at Charles Darwin University, while subsequent engagements were conducted in communities across the Northern Territory, including Blyth River, Malyangarnak, Buluhkarduru and Ramingining. *Hazard Note 50*, available at [www.bnhcrc.com.au/hazardnotes/50](http://www.bnhcrc.com.au/hazardnotes/50), details the research process and initial piloting of the training units.

These community-based workshops were open and inclusive of everyone available to attend. At each, different components of the ten training units were presented and refined. A detailed culturally appropriate evaluation was undertaken of each pilot and the feedback incorporated into the next round of pilot training.

## AN INCLUSIVE TRAINING APPROACH

This project identified several key elements of inclusive training when working with cross-cultural groups.

### Culturally appropriate

It is important to establish the sociocultural context that will support the cognitive, emotional and behavioural learning.

## 'NEED TO KNOW'

**'On Country':** For Indigenous people, 'Country' encompasses an interdependent relationship between a person and their ancestral lands and seas. This reciprocal relationship is maintained through cultural knowledge and is based on mutual respect between the land and people. 'On Country' refers to activities conducted on Aboriginal land with the objective of promoting ecological, spiritual and human health.

**Bininj and Yolngu:** Bininj is the local language term for people in western Arnhem Land in the Northern Territory, while Yolngu is the name of the people who live in north eastern Arnhem Land.

Training delivery should be part of a long-term process of collaborative interaction involving a network of Indigenous and non-Indigenous stakeholders – educators, researchers, representatives including Traditional Owners and 'Jungkayi' (guardians) from the community/Country where training is to take place, and other landholder or manager groups and employers.

### Pre-engagement

Working with local Traditional Owners, custodians and knowledge-holders prior to any actual training delivery has been found to be one of the best predictors of success and sustained practice. Researchers encourage Traditional Owners to host the training, invite attendees and to 'own' the process. External trainers and support staff should get to know the people and the Country they are working with and develop a rapport that supports co-creation of knowledge.

### Training on Country

It is crucial that training takes place 'on Country' and that activities are tailored to the land where participants will be expected to undertake management roles, which allows for the integration of the local landscape into training activities. Presentations may be embedded in other activities consistent with the Transformative Education approach (for example, a leadership session for women might be conducted while doing traditional crafts or fishing). Practical activities around fire management or other natural hazards can be arranged as timely changes of pace throughout the training program.

### Training the whole Clan

While there was the customary 'target group' for the training, success was also correlated with the invitation of the whole land-holding Clan to attend. Formal training sessions included the 'target group' but would also include a changing range of family members. People were free to move and use the space as they thought appropriate. By training the whole Clan, the 'target group' were able to receive increased levels of moral support from their families, because the knowledge they hold and the work they do is shared. This also creates a greater empathy for their situation, which is particularly important when that work requires ongoing engagement with 'Balanda' (non-Indigenous people).

### Traditional professors as trainers

Training should include experienced members from the organisation and community, and the process should, in part, be viewed as one aspect of inter-generational transfer: the passing on of traditional knowledge from one generation to the next. As well as the obvious advantage of trainees accessing traditional information they may not have, the space created by this training arrangement further secures the framework for incorporating new (non-Indigenous) knowledge into a cross-cultural framework adding to the skills and knowledge of the trainees.

## TRAINING UNITS

In response to the desktop reviews and engagements, the project developed a set of 10 training units that, taken together, drew together the essential elements of Indigenous and non-Indigenous bushfire and natural hazards training in a Vocational Education and Training-style (VET) program. Some of the units are entirely new, while others are adaptations of existing training. The style of training is a blend of traditions, from the non-Indigenous pedagogy of VET and the Bininj and Yolngu knowledge systems, resulting in a program of training that may require additional time and resources.

The materials are designed for delivery at the Certificate II level, allowing for rapid delivery at a single field school over five to ten days. All course guides and instructions allow for the scaling up or down of the units to accommodate needs and timing of participants. For example, ten straight days may not be possible during the dry season when cultural burning is taking place.

## HOW IS THIS RESEARCH BEING USED?

The material has already been utilised in communities, and the skills and knowledge acquired are being used in bushfire and natural hazards and land management in central

and western Arnhem Land in the Northern Territory. Outputs at each stage of the project have been used by local community members to develop their capabilities in bushfire and natural hazard management and leadership. This includes through participation in

## TRAINING UNITS OUTLINE

Below is a summary of the ten training units. You can access the full units and support materials by emailing the CRC at [office@bnhcrc.com.au](mailto:office@bnhcrc.com.au).

- Non-Indigenous and Indigenous bushfire and natural hazards management principles:** This unit acknowledges the existence of a unique Indigenous-led bushfire and natural hazards management regime in the north, placing that system in the wider context of Australia's and the international community's approach. The aim is to provide participants an opportunity to understand their personal perspective and its context, and to then build on that existing scaffold.
- Applying Indigenous fire management processes in north Australian contexts (local variant):** This unit identifies the local bushfire and natural hazards management regime, and explores the local traditions and culture associated with land, fire and natural hazard management. The delivery should be preceded by gathering of some local information from Traditional Owners and djungkayi (meaning 'caretaker'), and these knowledge holders should be included in course delivery. By definition, this course will vary from place to place.
- Community engagement and cultural protocols (local variant):** This unit seeks to connect the existing protocols for bushfire and natural hazards management with traditional Indigenous cultural norms. It assumes that there is considerable ground for improvement of interactions between specialist management agencies and traditional Indigenous communities.
- Fire management and the law:** This unit seeks to give an overview of the nature of Australian law and its authority, and then to explore the relevant and appropriate legislation that applies to the community within which the training is being delivered.
- Digital mapping tools used in bushfire and natural hazards management:** This unit introduces spatial information technology through a series of discussions and practical exercises using current hand-held devices and computing software. The objective is to provide a base for operations, where an individual can begin to use digital mapping tools in the pursuit of the professional and day-to-day lives.
- Apply Standard Operating Procedures (SOP):** This unit is a preliminary exploration of the concept of SOPs and why they exist, including a step-by-step examination of SOPs applied by some local bushfire and natural hazard organisations. Links are made to conceptual SOPs that exist within the local cultural setting.
- Participate in debrief (local variant):** This unit includes a session on the concept of feedback within the Australian bushfire and natural hazards management system and why it is important. Participants are encouraged to find culturally appropriate mechanisms to conduct debriefs in a way that generates improvements in outcomes and safety while avoiding inappropriate cultural interactions.
- Advanced situational awareness and dynamic risk assessment (local variant):** This unit provides some practical examples of dynamic risk assessment and draws out extant examples within the local context. Participants are encouraged to develop their own culturally appropriate mechanisms to assess and avoid risk in different temporal contexts.
- Remote tactical leadership:** This unit builds bridges between the non-Indigenous and Indigenous leadership protocols, providing participants with trajectories for developing their own leadership styles within the contexts of their local communities and bushfire and natural hazards realities.
- Develop operational work plans:** This unit exposes the reality of conducting a program of bushfire and natural hazards preparation and mitigation within the context of local culture, legislation and strategic planning. Participants develop tools for satisfying the needs of funders and Traditional Owners.

## END-USER STATEMENTS

“The *North Australian bushfire and natural hazard training* project has been an important contributor to the development of remote community resilience to bushfires and natural hazards. By engaging directly with communities, including Traditional Owners and Custodians and their extended families, the project has driven a cross-cultural understanding of effective leadership and decision-making for responding to a natural hazard.

“It has done this by explicitly valuing local, existing knowledge and capacity and

then seeking to enable project participants to add to that existing scaffold new knowledge, approaches and understandings. Over a number of workshops and several years this process has documented what worked and what was appreciated by participants. The results have seen enthusiastic support for the project in the communities where the program took place.

“The full benefit of the program has not yet been achieved however, as the training materials are yet to be captured in a formally accredited process. As lead

end-user this final step is to be encouraged and Bushfires NT stands ready to provide advice and guidance in this area if required.”

**Kenneth Baulch, Director of Policy and Planning, Bushfires NT**

“That’s the real difference from any other project that I have seen, this one is different, we wanna start targeting each clan group, train them so they can be strong leader for own family and clan, they can make their own emergency plan for their community.”

**Elder, Malanganark**

‘research’ workshops, as well as being both deliverers and participants in pilot training courses. Evaluation reports show that the project has already had an impact in the other small remote communities, in which pilot training has been delivered, with locals requesting further training from this research.

## FUTURE DIRECTIONS

The ten training units have not yet been subject to national accreditation but are designed to map onto the Standards for VET Accredited Courses as set out by the Australian Skills Quality Authority. Following accreditation, training providers will need to be sourced to deliver the training.

There is also significant potential for the project to have an ongoing impact beyond north Australia. The materials generate a revised narrative of fire and emergency management in Australia that incorporates the oldest paradigm in the world – the land management skills and knowledge of Indigenous Australians.

While the project set out to provide a service need for northern Australia, the project report – which was delivered following the southern Australian bushfire crisis in 2019/20 – highlighted the need to change the way fire is managed at a landscape level. The training units may assist in developing new understandings

and capabilities in communities in fire-prone Australia generally. In particular, the way in which training was conducted – on Country, with family and at a flexible pace – is strongly recommended as a fundamental element for future training and engagement with Indigenous Australians.

Anecdotal reports of project participants making enquiries about tertiary education opportunities in related fields have included calls from some participants to develop effective community emergency management plans. Preparations have been made to conduct workshops in one community using 3D modelling but are currently on hold due to COVID-19.

## FURTHER READING

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*Hazard Notes* are prepared from available research at the time of publication to encourage discussion and debate. The contents of *Hazard Notes* do not necessarily represent the views, policies, practises or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire and Natural Hazards CRC.

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