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HAZARDSCRC

COMMUNITY RESILIENCE IN NORTHERN AUSTRALIA

Revealing complexity through action research

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An Australian Government Initiative



Research Institute
for the Environment
and Livelihoods

BUILDING COMMUNITY RESILIENCE IN NORTHERN AUSTRALIA

Objectives

- 1) Articulating key BNH challenges facing Indigenous people and local communities in north Australian and adjacent savanna regions
- 2) Exploring opportunities through emerging economies related to climate change mitigation, carbon trading, and ecosystem services
- 3) Rigorous valuation of potential Ecosystem Services (ES) and associated scenario modelling of Payment for Environmental Service (PES) benefits from emerging land-use options (e.g. savanna burning, carbon sequestration and environmental stewardship arrangements)
- 4) Identifying beneficial culturally appropriate institutional and governance arrangements
- 5) Providing authoritative analysis to help inform relevant policies

KEY PERSONNEL & STAKEHOLDERS

Researchers

Prof Jeremy Russell-Smith, DCBR / RIEL, CDU

Prof Bob Costanza, Crawford School of Public Policy, ANU

Mr Peter Yu, Chair, North Australian Indigenous Land & Sea Management Alliance Ltd (NAILSMA) & colleagues

Dr Kamal Sangha, DCBR / RIEL, CDU

Aboriginal Research Practitioner Network (ARPN members)

Prof Andrew Campbell, DCBR / RIEL, CDU

Cluster Lead End User

Suellen Flint, Director Community Engagement, FESA (WA)

Lead End User for the Northern Hub:

Steve Rothwell, Chief Fire Officer/Director, NT Fire and Rescue Service

DELIVERABLES

Phase 1 (Years 1-4) project outputs:

- 1) annual workshops, towards the development of
- 2) a major book (realistically Year 5)
(indicative title: *Community Development and Resilience: A reimagined future for north Australian Indigenous Lands and Seas*), and
- 3) ≥ 1 refereed journal paper in Years 2 and 3

STATUS

- 1) appointment of ES / PES post-doc, Dr Kamal Sangha, completed 2014
- 2) inaugural workshop held mid-2014; follow-up workshop planned on-country (Ngukurr) mid-2015
- 3) preliminary ES / PES assessments substantially complete for Gunbalanya and Ngukurr communities in association with other northern hub project initiatives
- 4) preliminary ES valuation of biodiversity and cultural values for Fish River Station (NT) substantially complete
- 5) paper accepted for 2015 AFAC / BNHCRC conference
- 6) advanced draft literature review completed (final due mid-2015) addressing ES values and PES opportunities for north Australian Indigenous terrestrial estate.

ARNet researchers undertaking preliminary assessments (scoping study)

2 teams of community-based indigenous researchers have been trained in Ngukurr and Gunbalanya [16 community based practitioners from ARNet]



ARNet scoping study

Tools for the scoping study include 2 questionnaires [1 for community members and 1 for community organizations] developed with the participation of the community-based indigenous researchers in **ARNet** – the Aboriginal Research Practitioners' Network.

Participatory tools include key interviews, ranking and matrices.



ARNet researchers' scoping study

Fieldwork has commenced in Gunbalanya, and will be completed by end of April. Fieldwork is planned for May in Ngukurr.



NGUKURR

(on Roper River 300km south-west of Katherine, NT)

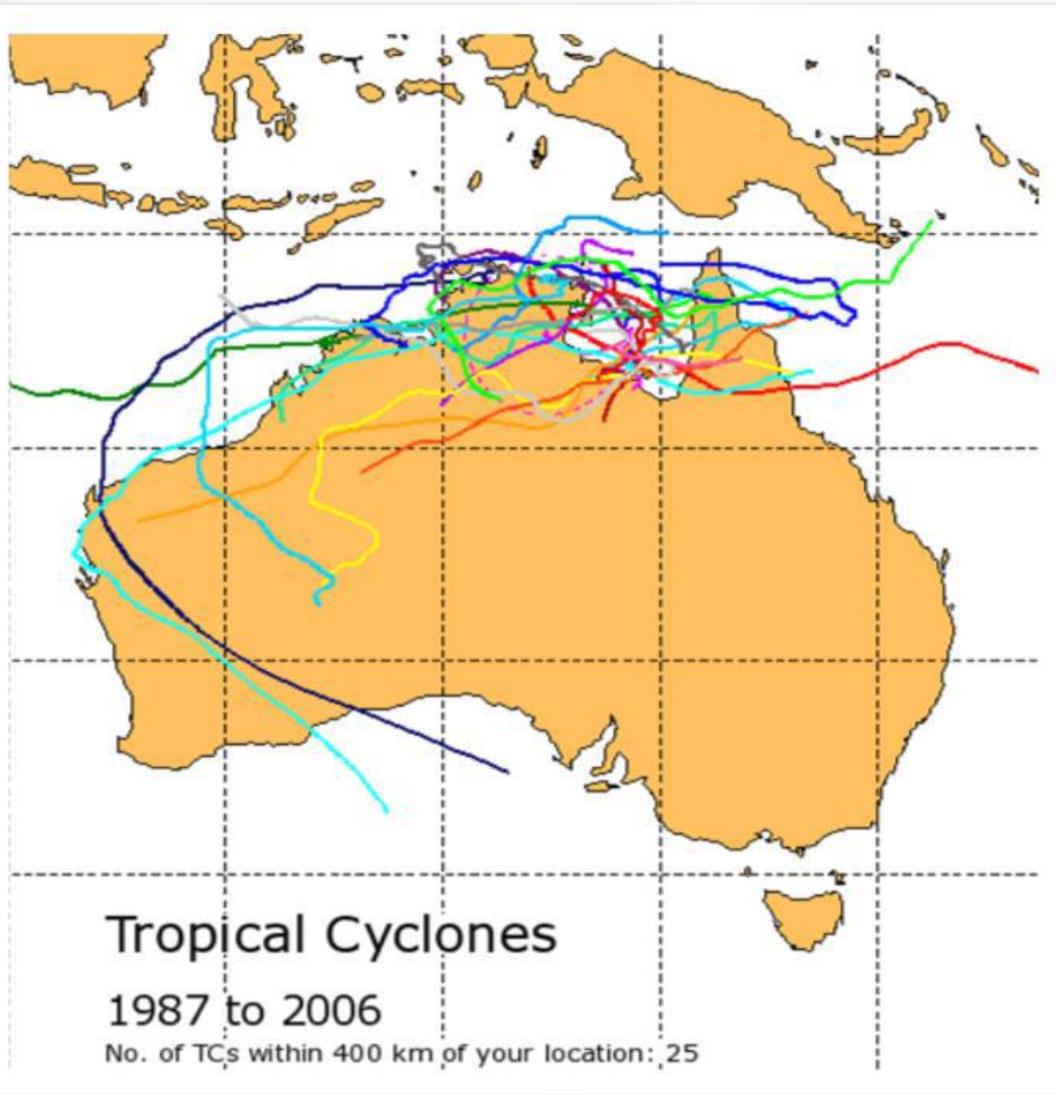


ROPER RIVER IN FLOOD NEAR NGUKURR

(can be 20km wide, 20m deep)

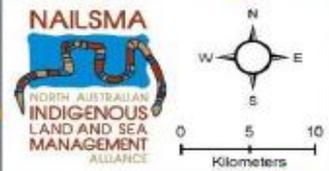
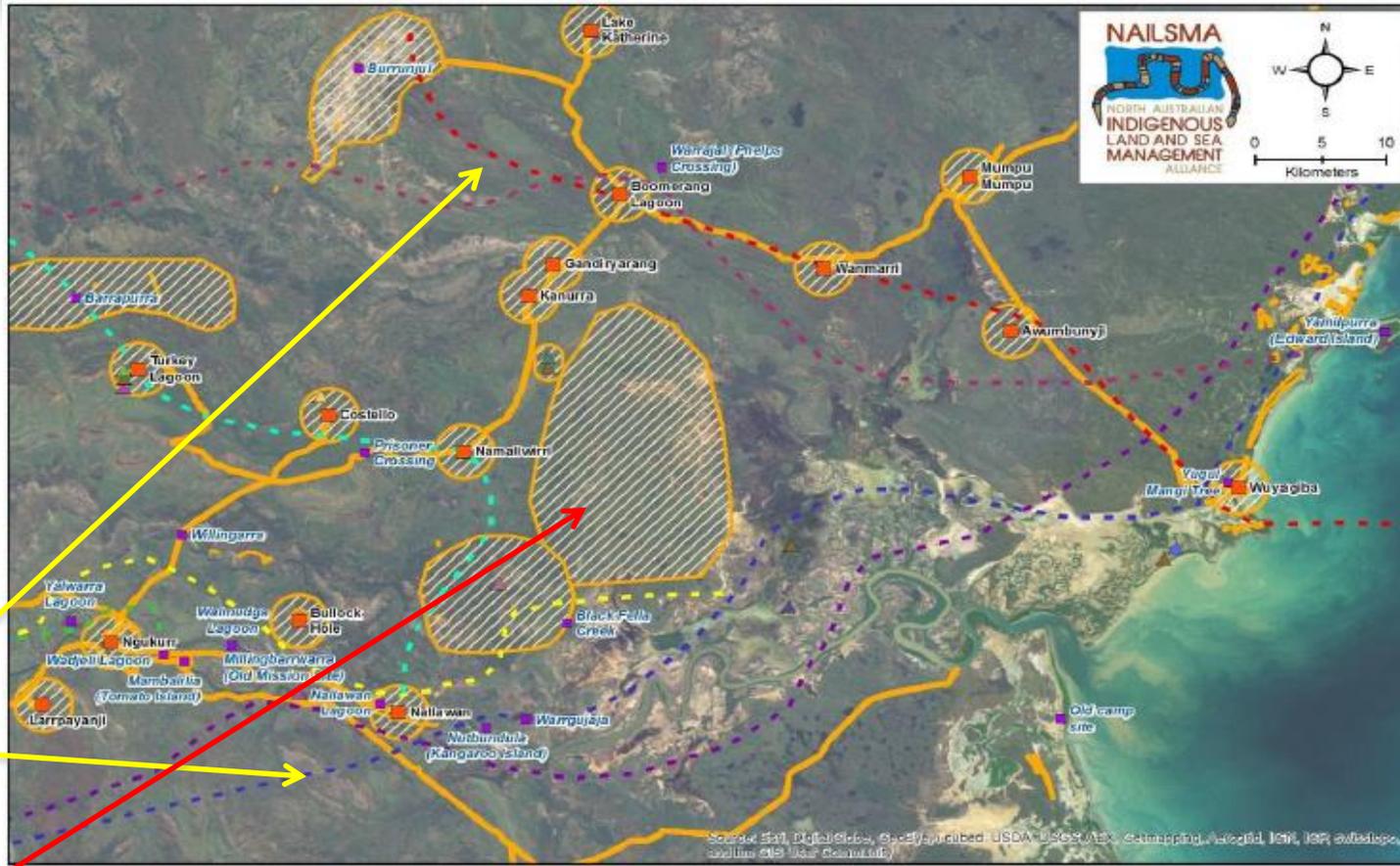


CYCLONE TRACKS OVER ARNHEM LAND



- 25 cyclones affecting Arnhem Land over a 20 year period 1987-2006
- 2 so far this wet season
- Communities perceive that impacts on remote Indigenous communities not taken seriously compared with e.g. Queensland coast

SOCIAL & CULTURAL ASSETS; NGUKURR from NAILSMA analysis



- Songlines
- Fire management priorities

Social and cultural information

- Outstations
 - PlaceNames
- Important resource utilisation areas**
- ▲ Blackcurrant
 - ▲ Bush turkey
 - ▲ Fishing
 - ▲ Goanna
 - ▲ Hunting
 - ▲ Long neck turtle
 - ▲ Magpie goose

Key areas

Pathways of ancestral beings

- - - Burrindi (Black Goanna)
- - - Gilyirringgilyirring (Mermaid)
- - - Jardugal (Plains Kangaroo)
- - - Murru Murru (Nailtail Wallaby)
- - - Nakaran (Debil Debil)
- - - Ngurra (Catfish)
- - - Sandridge Goanna

- ▨ Key areas for fire management

GUNBALANYA (Oenpelli)



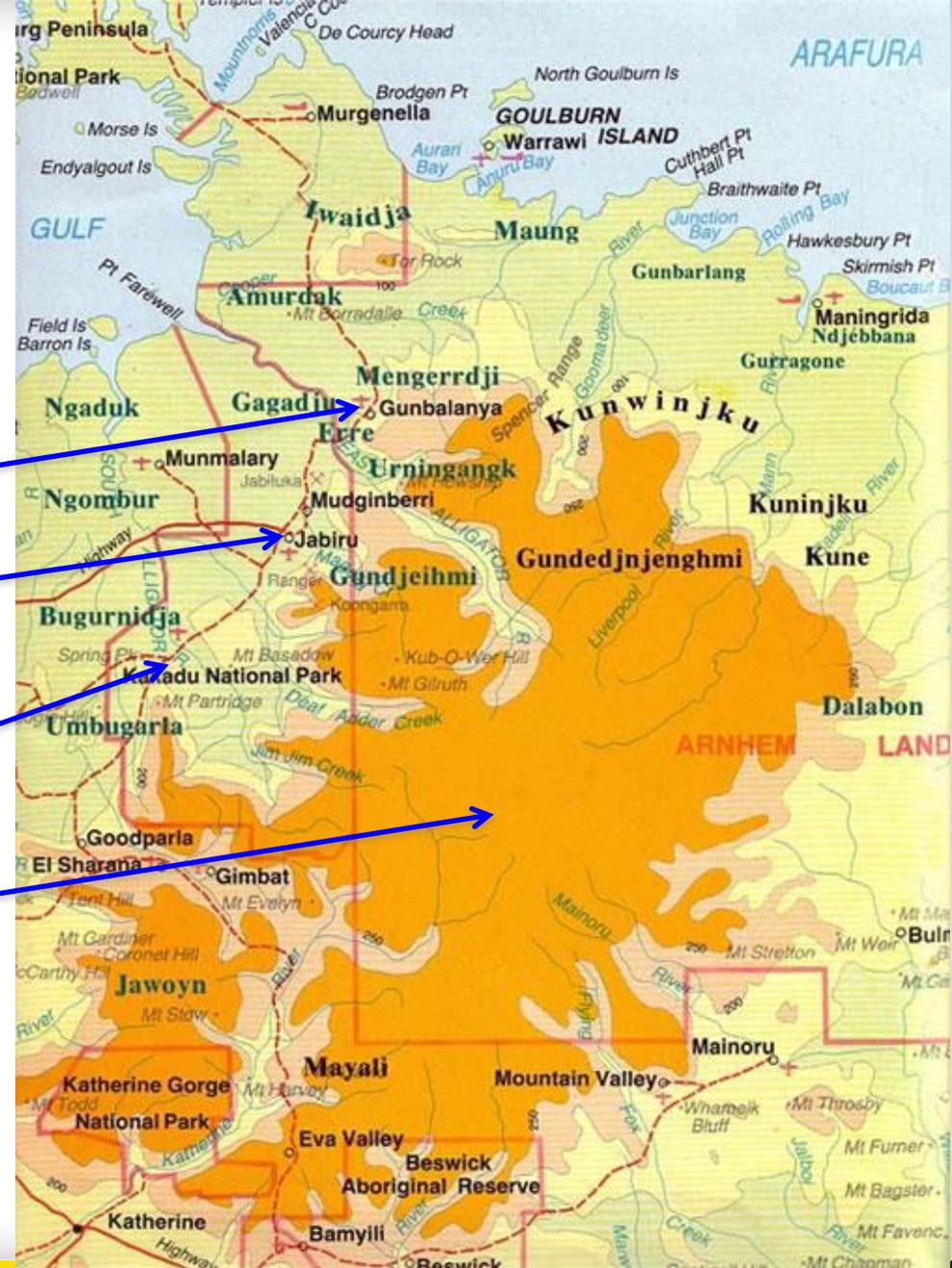
LANGUAGE GROUPS AROUND GUNBALANYA

Gunbalanya

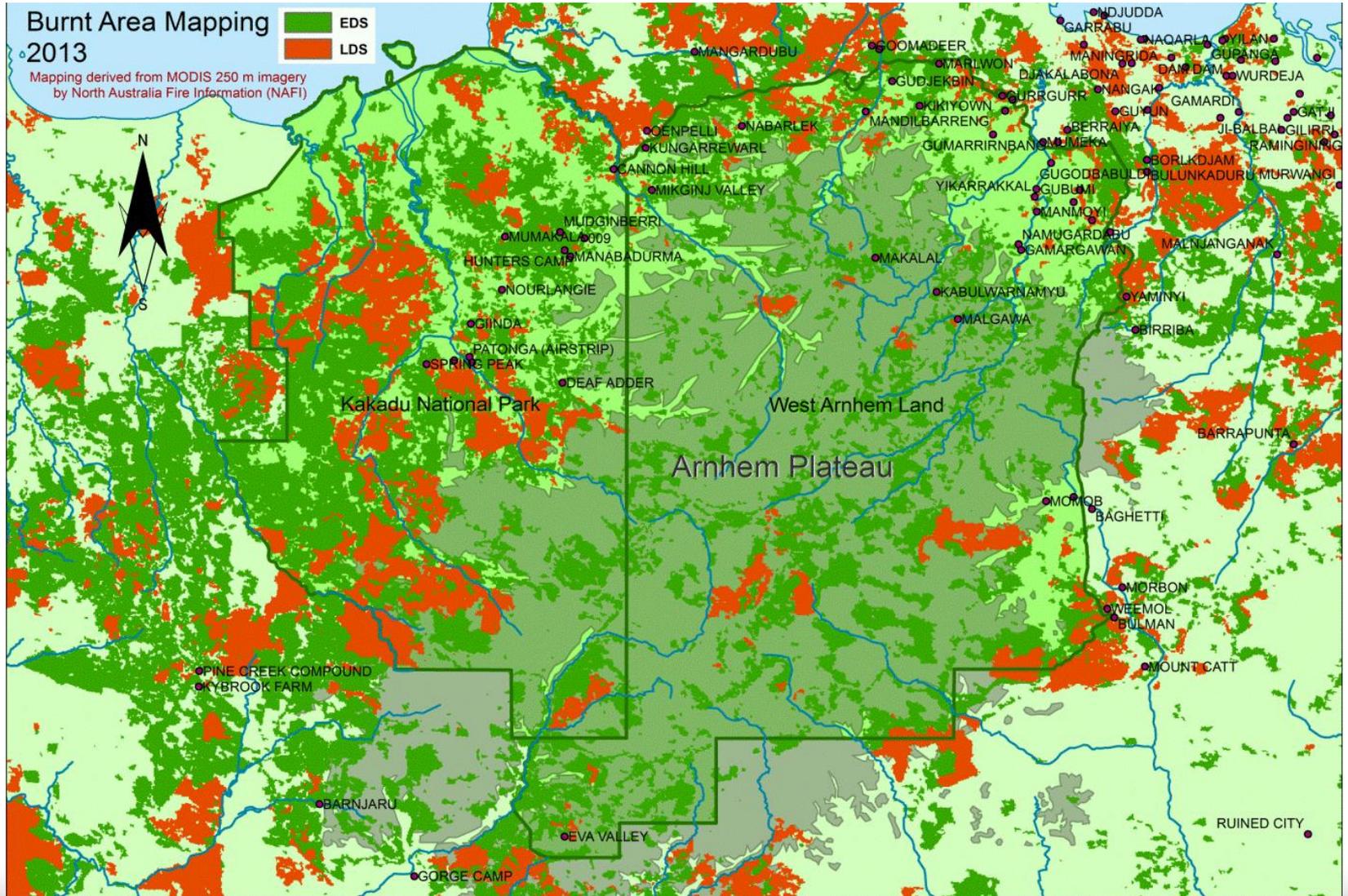
Jabiru

Kakadu National Park

Arnhem Plateau



LANDSCAPE FIRE MANAGEMENT, WEST ARNHEM LAND



PRELIMINARY FINDINGS

ARPNet scoping study

1. Focus group meeting (Darwin):

- Conception and understanding of disaster and resilience needs to be defined in relation to Aboriginal perceptions and beliefs.
- Community vulnerability is a function of both societal and natural hazards. Consequently, vulnerability should be seen as an outcome of ongoing and episodic events that chip away at resilience until ultimately, Aboriginal people feel they and their very existence are under threat.
- Interest in disasters should extend to small events that may seem minor to the outside but in a community or outstation situation these also place Aboriginal people under significant stress.
- Strong belief that living on country, caring for country and following the Aboriginal way and law has an influence on the nature and type of disasters that affect a community.

Preliminary findings (qualitative)...

- ❑ Many people in the community are not aware of what arrangements or resources are in place for emergency management
- ❑ Skepticism that communicating their views will result in any meaningful change or improved service provision
- ❑ Traditional ways and strategies to respond to disasters (even knowledge about disasters) is disappearing:
 - Old people are passing on
 - Communities are no longer living on their lands and are losing some of their abilities to read and predict disasters
 - Reliance on the new ways and foods makes people more vulnerable during disasters.
- ❑ Some people believe there is a big gap between what the government provides for urban people compared to what they provide for remote communities in support during disasters.
- ❑ Many people are unprepared for disasters [they do not have the resources to prepare – money to buy fuel and stock on necessities, or cars to get out or airfares to leave etc]
- ❑ There is need to consider first how to support outstation mob during disasters and also for government to be aware of what effect outstation mob have on community when they come in during disasters.

OUTPUTS TO DATE

1. **AFAC 2014 Conference presentation:** *Building community resilience to natural hazards in Northern Australia*, Gould, J., Sithole, B. Campbell A., James G., and Sutton, S. 2014. Proceedings, BNHCRC and AFAC Conference, Wellington.
2. **AFAC 2015 Poster:** “Why yous mob only want to talk about big disasters, us mob are vulnerable to small ones too” - Community perspectives about disaster resilience in Gunbalanya NT”
3. **Abstract submitted:** *Developing enterprise opportunities and resilience in remote north Australian communities* Kamaljit K. Sangha, Jeremy Russell-Smith, Andrew Edwards, Cameron Yates, Jackie Gould, Christine Michael, Glenn James and ARPNet
- 4) **Christine Michaels and Glenn James (2015).** Literature Review: Community Resilience in Remote North Australia. Report prepared by NAILSMA Darwin.
- 5) **Christine Michaels and Glenn James (2015).** NAILSMA Scoping Community Resilience Project: Community Asset Mapping Report. NAILSMA Darwin.
- 6) **One postdoc and 4 PhD students** on board, more to come
- 7) Currently looking at options to collaborate with researchers at Elcho Island, to explore the impact of **Cyclone Lam** on Galiwinku

For more info:

Darwin Centre for Bushfire Research

<http://nafi3-dev.firenorth.org.au/nafi3/>

<http://riel.cdu.edu.au/node/2643>

