

THE SAVANNA MONITORING & EVALUATION REPORTING FRAMEWORK (SMERF)



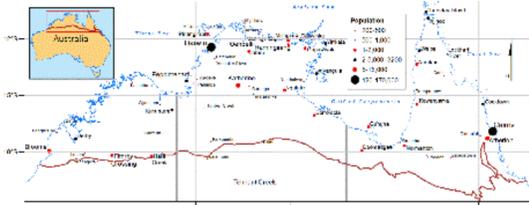
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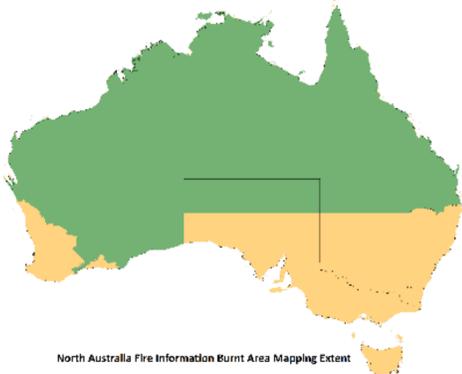
THE WORK UNDERTAKEN THROUGH THE BUSHFIRE & NATURAL HAZARDS CRC IS PART OF A SAVANNA-WIDE PROGRAM OF MOSTLY WEB BASED FIRE MAPPING AND RELATED INFORMATION TO ASSIST LAND MANAGERS WITH FIRE PLANNING ACROSS VERY LARGE TRACTS OF LAND.. WE ARE DEVELOPING THE SAVANNA MONITORING AND EVALUATION REPORTING FRAMEWORK (SMERF) TO PROVIDE EASY TO USE, FLEXIBLE, BUT SOPHISTICATED REPORTS.

Why is there so much savanna burning?

Northern Australia is an extensive area with meagre population and infrastructure.



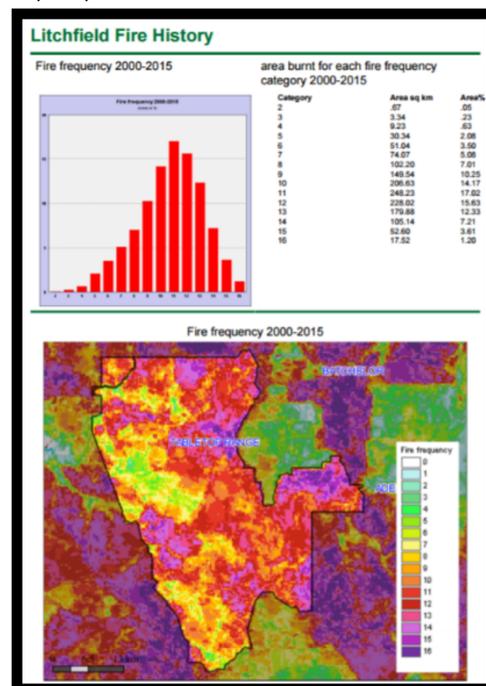
There is considerable summer rain (the "wet") and very little winter rain (the "dry"). In the "wet", grass and trees grow **verdantly**, producing abundant fine fuel. Temperature is relatively high all year, so that when the rain stops at the end of the "wet" the fine fuels dry quickly and are extremely **fire prone**. One simple ignition in the latter half of the "dry" can create a wildfire that will burn for months. Planned, or prescribed, burning is the main tool for halting wildfire by reducing fuel loads. With the potential for so much burnt area each year, extensive fire planning **must** be undertaken. The North Australia Fire Information (NAFI) web site provides **ALL** the fire mapping for north Australia including all of the NT, the Kimberley and WA Rangelands, most of Queensland and the northern 41% of South Australia.



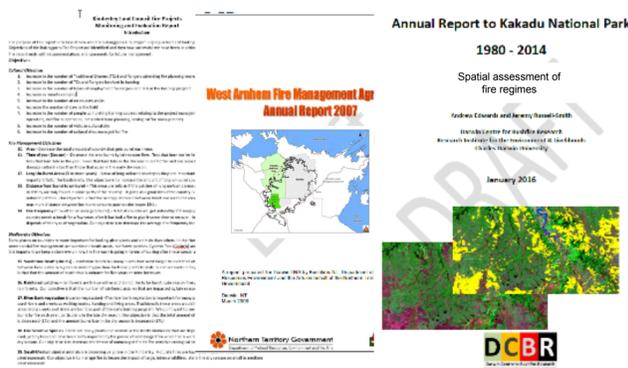
However, to monitor the effects of burning, reasonably sophisticated **spatial analyses** of the fire mapping information are required. These spatial calculations can be readily **automated**.

Background

Monitoring and Evaluation of fire regimes is undertaken at a very rudimentary level in most organisations, with simple calculations of the **area burnt**, the **seasonality**, **severity** and **frequency of fire**, if they report at all.



Some end-users such as the Kimberley Land Council, Kakadu National Park and the West Arnhem Land Fire Abatement project, provide information to stakeholders regarding the efficacy of their fire management in sophisticated reports that assess the effects of the past year's fire against previous years; and a set of Key Performance Indicators (KPIs) related to ecosystems and biodiversity.



What is SMERF?

SMERF is a proposed Savanna Monitoring and Evaluation Reporting Framework grouping together various spatial analyses derived from fire information.

Many end-users in north Australia aspire to a higher level of sophistication in their own Monitoring and Evaluation systems, however, such analyses are demanding, requiring an experienced spatial scientist to derive the various fire layers, create and collate the underlying vegetation or habitat information, and undertake and report on the spatial calculations.

End-user statement

The tools currently available from DCBR are critical to all aspects of fire management and are used daily by Bushfires NT and stakeholders for planning, mitigation, suppression, monitoring, and evaluation and reporting. A recent meeting of the Bushfires Council of the NT (a statutory representative body) identified on-going funding for the continuation of products available on NAFI as one of the highest Territory wide risks for effective fire management. With the emergence of new industries such as carbon farming, bushfire management is rapidly changing requiring decision to be prioritised based on risk. SMERF will provide a suite of science based information to help identify and communicate risk between stakeholders. Bushfires NT wholeheartedly supports the SMERF project

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