

# Do CRCs make a difference?



Bushfires on the Eastern Shore of Hobart - 12 October 2006

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**RMIT University & Bushfire CRC**

**Yes!**

**It's made a big difference  
to me!**

# “Success through innovation”

## **No shortage of reviews:**

- Impact Study of the CRC Program 2012
- Collaboration review 2008
- Economic impact 2006
- 2005; 2003 & a 1998 Commercialisation review;
- **Recent reviews use GDP as their measure.**

# The Bushfire CRC is a public good CRCs

- **Success depends on research results becoming public policy and practice.** Distributional issues are important

## 2004

- “shift more towards commercial outcomes and adoption leading to economic *growth* ... than just economic *benefit*”.

## 2013

- “priority public good” funding stream ...for the CRC Program.  
... deliver ... social and environmental benefits to Australia”.

# Research to policy

- Many scientists argue in their research proposals that **their work will have significant impacts on policy.**
- **This is the “Rational model”** where science is incorporated rapidly into policy and practice which aligns well with the science.

But the pathway from **research output to policy and practice is often long and twisted**

# Late lessons from early warnings: research into policy



# Asbestos: early warnings and actions

- **1898 UK** Factory Inspector Lucy Deane warns of 'evil' effects of asbestos.
- **1906 French** factory – report on 50 deaths in asbestos textile workers.
- **1911** 'Strong suspicion, rat experiments, that asbestos dust is harmful
- **1918 US insurers** refuse cover to asbestos workers
- **1930 UK** Merewether Report finds 66 % of long-term workers in Rochdale factory with asbestosis
- **1931 UK Asbestos Regulations** specify dust control and compensation
- **1935–49 Lung cancer** cases reported in asbestos manufacturing workers
- **1955** Doll establishes high lung cancer risk in Rochdale asbestos workers
- **1959–64 Mesothelioma** cancer identified in asbestos workers, 'bystanders', relatives, in the UK, USA, SA
- **1969 UK Asbestos Regulations**, but ignore users and cancers
- **1982-9 UK media**, trade union and other pressure = tighter controls
- **1998–99 EU and France ban** all forms of asbestos
- **2000–01 WTO** upholds EU/French bans against Canada





20,679\* Physicians  
say "LUCKIES are  
*less irritating*"

\*It's...  
You  
inst...

According to repeated nationwide surveys,

**More Doctors  
Smoke CAMELS  
than any other  
cigarette!**



Zone ("I for Throat, T for Taste")



"I've been a two-pack-a-day man for fifteen years and I've found much milder Chesterfield is best for me."  
*Perry Como*

**NOW...10 Months Scientific Evidence For Chesterfield**

A MEDICAL SPECIALIST is making regular bi-monthly examinations of a group of people from various walks of life. 45 percent of this group have smoked Chesterfield for an average of over ten years.

After ten months, the medical specialist reports that he observed...

no adverse effects on the nose, throat and sinuses of the group from smoking Chesterfield.

**MUCH MILDER  
CHESTERFIELD  
IS BEST FOR YOU**

Copyright 1955 Philip Morris Inc.

First and Only Premium Quality Cigarette in Both Regular and King-Size



CONTAINS TOBACCO OF BETTER QUALITY AND HIGHER PRICE THAN ANY OTHER KING-SIZE CIGARETTE.

**WHAT DISTINGUISHED DOCTORS FOUND ON COMPARING CIGARETTES**

Full reports in medical journals by men high in their profession—regularly offered to physicians on request.

MANY thousands of America's physicians already possess this authoritative reference material on the leading cigarettes regularly smoked in America. For the public, findings may be summed up as follows:

LABORATORY COMPARISONS:  
The four other leading brands were found to average more than three times as irritant... with irritant effects lasting more than five times as long... as the strikingly

contrasted PHILIP MORRIS.  
CLINICAL TESTS (actual smokers):  
When smokers changed to PHILIP MORRIS, every case of irritation of nose or throat—due to smoking—either cleared up completely, or definitely improved.

TO PHYSICIANS: A set of reports (reprinted) available upon request. Please write on professional letterhead—addressing: Research Division, Philip Morris & Co., 115 Fifth Avenue, New York, N. Y.

Scientific proof that this finer-flavored cigarette is far less irritating—therefore safer—for the smoker's nose and throat!

**CALL FOR PHILIP MORRIS**

America's Finest Cigarette





# Policy development

- **Research results have to suit the minister's “personality”**, officials have to support it ... and it (usually) has to survive numerous bureaucratic steps, media and PR people.
- The policy system may be **more concerned with minimising legal and political risk or with equity** and justice, than scientific purity.

# We have to have them and their bureaucracies on side



# Researchers influencing policy maker





# Are CRC researchers responsible? Should we be?



# Research is an industry



# University “research industry” priorities

## **Business targets:**

Every year a top science professor should have:

- Earnt \$720,000 research income, published 12 scientific papers, and have 4 PhD completions.

“High performance” not necessarily connected with “making a difference”. Research quality is often assumed. Nothing about impact.



...a wide range of personalities and motives







BA 99 929 322  
Australia

ONE HUNDRED DOLLARS

SECRETARY TO THE TREASURY  
*John Howard*  
GOVERNOR  
RESERVE BANK OF AUSTRALIA  
THIS AUSTRALIAN NOTE  
IS LEGAL TENDER THROUGHOUT  
AUSTRALIA AND ITS TERRITORIES

100

100

BA 99 929 322

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HC 98 278

# Bushfire CRC

## From a very low base

- **Knowledge base** - > 900 publications;
- **Capacity** – ~ 75 PhDs, 80 post-doc level researchers + numerous academics;
- **The sector** – use of research evidence;
- **Example:** Canberra 2003 fire, versus research capacity after 2009 Black Saturday & input to the Royal Commission.





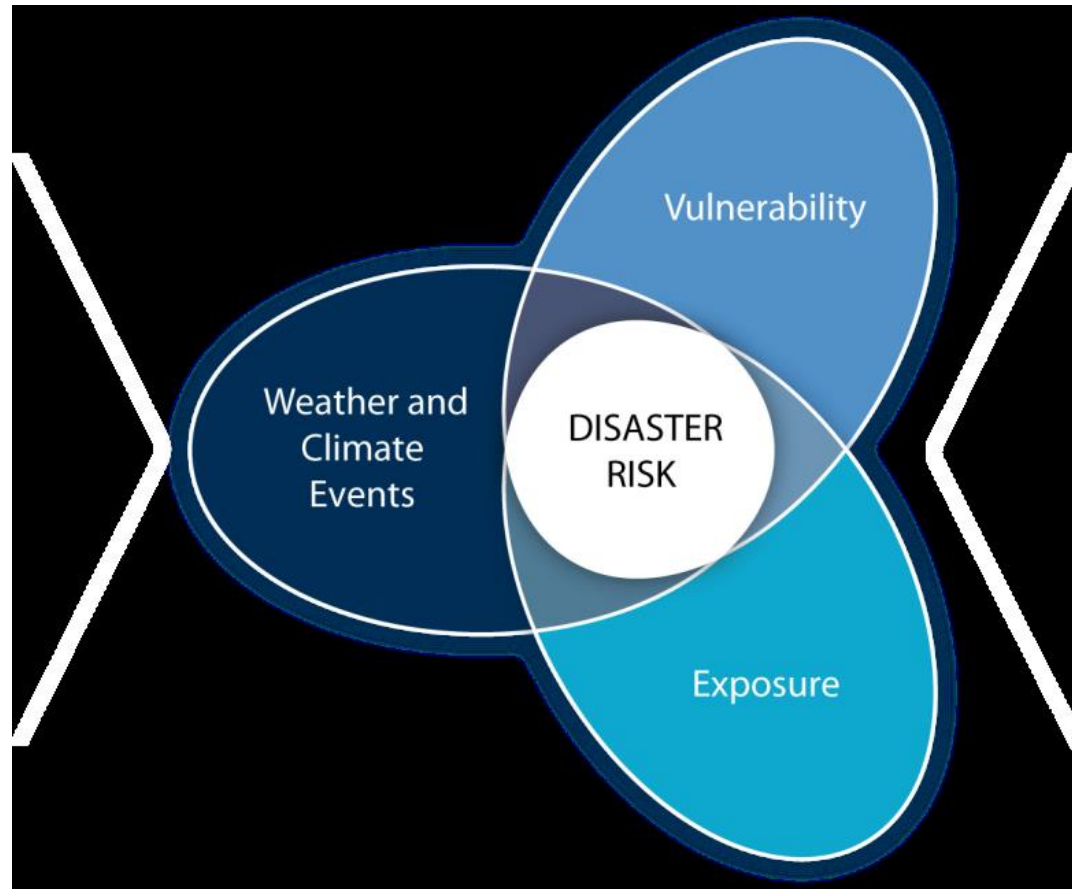
# What others say

## 5<sup>th</sup> Year review Bushfire CRC

- “The CRC has played a leading role in ... a **culture of ‘improvement by research’** evident in all the agency representatives interviewed.” and
- “The Panel has been greatly impressed by the **quality of science and by the rate of adoption of research results ...**”
- “...established an international benchmark for fire research by **creating ...international and national leadership and agenda setting with its research**”.
- the **2012 *Excellence in Innovation for Australia*** report selected CRC research at RMIT as one of 20 cases nationally for its impact on policy and practice.

# Fire risk = hazard + exposure + vulnerability

*Increasing exposure of people and economic assets has been the major cause of long-term increases in economic losses from weather- and climate-related disasters (IPCC SREX 2012)*





# Research on the hazard



# Research on vulnerabilities





# Research on vulnerabilities





# Research on exposure?





# Research on exposure?



# Is there a difference?

- Strong evidence of **wide-ranging tangible and intangible impacts** – from the edge of **extinction**
- Important **gaps and opportunities remain**
- **Learning and research take-up** should themselves be areas of CRC research.
- Is the **research agenda timid?**
- **Is the project model flexible enough?**
- **Research quality & independence** are issues
- Scope for **Global leadership**





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