



Prescribed burning in northern NSW

- Key Topics:
- economics [2]
 - multi-hazard [3]
 - policy [4]

Economics of natural hazards [5]
This project aimed to provide evidence on the economic, social, and environmental impacts of natural hazards, in order to help hazard managers make better decisions about the allocation of resources for the mitigation of natural hazards impacts. The main focus of this research was the development of tools and materials that make it easier for natural hazards managers to estimate the value of mitigation, integrate intangible (non-market) values in economic analyses of mitigation, and evaluate the difference it makes to include non-market values. Through this project, the research team launched an online platform for the Value Tool for Natural Hazards, a searchable database of the best available non-market value estimates relevant to natural hazards; developed the Economic Analysis Screening Tool for the evaluation of the costs and benefits of mitigation options; created an online video course on the economics of natural hazards to explain economic concepts and how they are applied to evaluate different mitigation options; and conducted an online training course for managers and practitioners on how to use economics in natural hazards management.

Project: detail Notabs

Research team

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Description

The key aim of this project was to provide evidence on the economic, social, and environmental impacts of natural hazards, in order to help hazard managers make better decisions about the allocation of resources for the mitigation of natural hazards impacts. Using the tools and materials created in this project, end-users will be better equipped to estimate the tangible (market) and intangible (non-market) impacts of natural hazards and assess how mitigation investments may reduce those impacts.

With this aim in mind, the main focus of this project has been the development of tools and materials that make it easier for natural hazards managers to estimate the value of mitigation, integrate intangible (non-market) values in economic analyses of mitigation, and evaluate the difference it makes to include non-market values.

This project delivered 5 key outcomes:

1. an online platform for the Value Tool for Natural Hazards (a searchable database of the best available non-market value estimates relevant to natural hazards)
2. a non-market valuation study that filled a major knowledge gap identified in the non-market values literature (i.e. the values of cultural heritage, social disruption and mental health, and how these are affected by natural hazards) and updated the Value Tool with the data from this study
3. the Economic Analysis Screening Tool (EAST) for the evaluation of the (market and non-market) costs and benefits of mitigation options
4. a free online video course on the economics of natural hazards, using drawings and simple examples to explain key economic concepts and how they are applied to evaluate different mitigation options
5. an online training course on how to use economics in natural hazards management and delivered it to 4 different groups of end-user managers and practitioners

[Read the final report here.](#) [22]

Related News



30 JUL 2021

New online - July 2021
EMERGENCY MANAGEMENT, LAND MANAGEMENT

[23]



14 MAY 2021

Making better use of research
CAPABILITY, EMERGENCY MANAGEMENT

[24]

How to use economics in natural hazards management

11, 18 and 25 March
22, 29 April and 6 May
20, 27 April, 4 and 11 May
20, 27 May and 3 June

bnhcrc.com.au/events/2021-economics-natural-hazards

06 APR 2021

Extra dates added for economic training
ECONOMICS, MITIGATION

[25]



ECONOMICS OF NATURAL HAZARDS

Veronique Florec
Bushfire and Natural Hazards CRC
University of Western Australia

bnhcrc.com.au/research/naturalhazardeconom

29 MAR 2021

New explainer video series to inform mitigation decisions
ECONOMICS, MITIGATION

[26]

Centre for Environmental
Economics & Policy

to use economics in
natural hazards manager

11, 18 and 25 March
22, 29 April and 6 May
20, 27 April, 4 and 11 May
, 20, 27 May and 3 June

E

bnhcrc.com.au/events/2021-economics-natural-hazards

23 FEB 2021

Course to upskill on economics to inform mitigation priorities
ECONOMICS, MITIGATION

[27]

A photograph showing three plastic water bottles in the foreground. The bottle on the left is yellow, and the two on the right are orange. All three bottles have a logo that reads "bushfire & natural HAZARDS CRC". In the background, there is a sign with a yellow and black hazard pattern and some text that is partially obscured but includes the words "HAZARD ANALYSIS" and "SYSTEM INTO PERIL".

28 JAN 2021

New online - January 2021
COMMUNICATION, EMERGENCY MANAGEMENT

[28]



06 NOV 2020

Latest AJEM edition features CRC research on post-disaster management
EMERGENCY MANAGEMENT, MULTI-HAZARD

[29]



18 NOV 2019

New online - November 2019
EMERGENCY MANAGEMENT, ENGINEERING

[30]



11 SEP 2019

New online - September 2019
EMERGENCY MANAGEMENT, MULTI-HAZARD

[31]



27 JUN 2019

New online - June 2019
COMMUNITIES, EMERGENCY MANAGEMENT

[32]



How to influence people with research

25 JUN 2019

[33]



Intangible value
ECONOMICS, MULTI-HAZARD

12 DEC 2018

[34]



Conference papers available online
EMERGENCY MANAGEMENT, MULTI-HAZARD

18 SEP 2018

[35]



Intangible value
ECONOMICS, MULTI-HAZARD

18 DEC 2017

[36]



New online - November 2017

17 NOV 2017

[37]



Research featured in Journal
EMERGENCY MANAGEMENT, MULTI-HAZARD

08 NOV 2017

[38]



18 SEP 2017

Outstanding achievements recognised
EMERGENCY MANAGEMENT, MULTI-HAZARD

[39]



24 AUG 2017

Researcher selected for Antarctic expedition

[40]



New online - August 2016

16 AUG 2016

[41]



Important research insights
ECONOMICS, FLOOD

24 JUN 2016

[42]



12 JUN 2015































Project news - Economics of Natural Hazards
ECONOMICS, MULTI-HAZARD

[43]

Publications

Year	Type	Citation
2021	Report	Florece, V. [8], Rogers, A. [9] & Pannell, D. J. [10] Economics of natural hazards - final project report [22]. (Bushfire and Natural Hazards CRC, 2021). Google Scholar [44] BibTeX [45] EndNote XML
2021	Report	Florece, V. [8], Rogers, A. [9] & Pannell, D. J. [10] Economic Analysis Screening Tool: Guidelines [47]. (Bushfire and Natural Hazards CRC, 2021). Google Scholar [48] BibTeX [49] EndNote XML [50]
2020	Journal Article	Florece, V. [8] & Rogers, A. [9] Economic analysis of natural hazard mitigation using the Quick Economic Analysis Tool [51]. <i>Australian Journal of Emergency Management</i> 35 , 48-55 (2020). Goog
2019	Journal Article	Rogers, A. [9] <i>et al.</i> Valuing non-market economic impacts from natural hazards [55]. <i>Natural Hazards</i> 99 , 1131-1161 (2019). DOI [56] Google Scholar [57] BibTeX [58] EndNote XML [59]
2019	Journal Article	Florece, V. [8], Burton, M. [60], Pannell, D. J. [10], Kelso, J. [61] & Milne, G. J. [62] Where to prescribe burn: the costs and benefits of prescribed burning close to houses [63]. <i>International Journa</i>
2019	Report	Florece, V. [8], Rogers, A. [9], Hailu, A. [6] & Pannell, D. J. [10] Economics of natural hazards annual report 2018-2019 [68]. (Bushfire and Natural Hazards CRC, 2019). Google Scholar [69] BibTeX [7
2019	Report	Florece, V. [8], Rogers, A. [9], Hailu, A. [6] & Pannell, D. J. [10] Economics of Natural Hazards Annual Report 2017-2018 [72]. (Bushfire and Natural Hazards CRC, 2019). Google Scholar [73] BibTeX
2018	Conference Paper	Bates, J. [76] Research proceedings from the 2018 Bushfire and Natural Hazards CRC and AFAC Conference [77]. <i>Bushfire and Natural Hazards CRC & AFAC annual conference 2017</i> (Bushfire &
2018	Conference Paper	Florece, V. [8], Rogers, A. [9], Hailu, A. [6] & Pannell, D. J. [10] Filling the gaps: how economics can help make important decisions when information is missing [81]. <i>AFAC18</i> (Bushfire and Natur
2018	Report	Rogers, A. [9] <i>et al.</i> Value Tool for Natural Hazards: Guidelines [85]. (Bushfire and Natural Hazards CRC, 2018). Google Scholar [86] BibTeX [87] EndNote XML [88]
2017	Conference Paper	Rumsewicz, M. [89] Research proceedings from the 2017 Bushfire and Natural Hazards CRC and AFAC Conference [90]. <i>Bushfire and Natural Hazards CRC & AFAC annual conference 2017</i> (Bus
2017	Conference Paper	Florece, V. [8] & Pannell, D. J. [10] Where do we put our dollars? Economic analysis of different bushfire management options in Western Australia [94]. <i>AFAC17</i> (Bushfire and Natural Hazards)
2017	Conference Paper	Rogers, A. [9], Gibson, F. L. [98], Florece, V. [8], Hailu, A. [6] & Pannell, D. J. [10] Including the intangible benefits of bushfire mitigation in economic analyses: a 'value tool' for informed decisio
2017	Journal Article	Florece, V. [8], Chalak, M. [103] & Hailu, A. [6] Integrating intangible values in economic analyses of flood mitigation: a case study of the Brown Hill and Keswick creeks catchment in Adelaide
2017	Report	Chalak, M. [103], Florece, V. [8], Hailu, A. [6], Gibson, F. L. [98] & Pannell, D. J. [10] Integrating non-market values in economic analyses of flood mitigation: a case study of the Brown Hill and Ke
2017	Report	Pannell, D. J. [10], Hailu, A. [6], Florece, V. [8], Rogers, A. [9] & Gibson, F. L. [98] Economics of natural hazards: annual project report 2016-17 [112]. (Bushfire and Natural Hazards CRC, 2017). Goc
2016	Conference Paper	Rumsewicz, M. [89] Research proceedings from the 2016 Bushfire and Natural Hazards CRC and AFAC conference [116]. <i>Bushfire and Natural Hazards CRC & AFAC annual conference 2016</i> (Bu
2016	Conference Paper	Chalak, M. [103], Florece, V. [8], Hailu, A. [6], Gibson, F. L. [98] & Pannell, D. J. [10] Integrated economic assessment of flood management options for Adelaide [120]. <i>AFAC16</i> (Bushfire and Natur
2016	Conference Paper	Gibson, F. L. [98], Pannell, D. J. [10], Rogers, A. [9], Kragt, M. [124] & Hailu, A. [6] Non-market valuation in the economic analysis of natural hazards [125]. <i>AFAC16</i> (Bushfire and Natural Hazards)
2016	Report	Pannell, D. J. [10] <i>et al.</i> Economics of natural hazards: Annual project report 2015-2016 [129]. (Bushfire and Natural Hazards CRC, 2016). Google Scholar [130] BibTeX [131] EndNote XML [132]
2016	Report	Gibson, F. L. [98] <i>et al.</i> Non-market valuation in the economic analysis of natural hazards [133]. (School of Agricultural and Resource Economics, Unviersity of Western Australia, 2016). at <http://a
2015	Report	Pannell, D. J. [10], Hailu, A. [6], Gibson, F. L. [98] & Florece, V. [8] Economics of natural hazards: Annual project report 2014-2015 [137]. (Bushfire and Natural Hazards CRC, 2015). Google Scholar
2015	Report	Pannell, D. J. [10] Economics of natural hazards annual project report 2014 [141]. (Bushfire and Natural Hazards CRC, 2015). Google Scholar [142] BibTeX [143] EndNote XML [144]

Presentations & Resources

DATE [145]	TITLE [146]	DOWNLOAD	KEY TOPICS
27 Mar 2014	Economics of natural hazards [147]	 891.55 KB	[148] (891.55 KB) emergency manag
10 Apr 2015	Economics of Natural Disasters 2015 NSW RAF Presentation [151]	 618.22 KB	[152] (618.22 KB) multi-hazard [3], p
17 May 2016	Economics of Natural Hazards [153]	 14.46 MB	[154] (14.46 MB) emergency manag
30 Aug 2016	Integrated economic assessment of flood management options for Adelaide - Atakelty Hailu [155]	 1.48 MB	[156] (1.48 MB) planning [157], economics
30 Aug 2016	Non-market valuation in the economic analysis of natural hazards - Atakelty Hailu [159]	 1.03 MB	[160] (1.03 MB), mitigation [161], m
27 Oct 2016	Economics and strategic decisions - cluster overview [162]	 0 bytes	[163] (0 bytes) making [157], economics
15 Dec 2016	What can economics offer emergency services? [164]	 891.78 KB	[165] (891.78 KB) [157], economics
18 Apr 2017	Including Intangible Values in Natural Hazards Decision Making [166]	 712.27 KB	[167] (712.27 KB) multi-hazard [3], p
07 Jul 2017	Understanding the value and challenges of risk mitigation [168]	 4.17 MB	[169] (4.17 MB), mitigation [161], re
07 Sep 2017	Where do we put our dollars? Economic analysis of different bushfire management options in Western Australia [171]	 1.54 MB	[172] (1.54 MB), emergency manag
07 Sep 2017	Including the intangible benefits of bushfire mitigation in economic analyses: a 'value tool' for informed decision-making [174]	 1.01 MB	[175] (1.01 MB) [157], economics
09 Nov 2017	Investing in prescribed burning: how much should we spend? [176]	 267.53 KB	[177] (267.53 KB) policy [4], prescri
17 Apr 2018	Economics of natural hazards [178]	 4.06 MB	[179] (4.06 MB) [157], economics
07 Sep 2018	AFAC18 - Continuing the conversation: A changing world [180]	 0 bytes	[181] (0 bytes) age [182], decision m
18 Sep 2018	How economics can help make important decisions when information is missing [183]	 1.42 MB	[184] (1.42 MB)
09 Jul 2019	Helping decision makers get value for money from public investments in natural hazard mitigation [185]		economics [2], planning [186], po
25 Nov 2020	Intangible value [187]		economics [2], multi-hazard [3], p
23 Feb 2021	Video course introduction Economics of natural hazards [188]	 0 bytes	[189] (0 bytes) [2], mitigation [161], p
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03 Mar 2021	Estimating average annual damage Economics of natural hazards (6/10) [200]	 0 bytes	[201] (0 bytes) [2], mitigation [161], p
03 Mar 2021	Estimating benefits of mitigation options Economics of natural hazards (7/10) [202]	 0 bytes	[203] (0 bytes) [2], mitigation [161], p
03 Mar 2021	Comparing costs and benefits of mitigation options Economics of natural hazards (8/10) [204]	 0 bytes	[205] (0 bytes) [2], mitigation [161], p
03 Mar 2021	Calculating and interpreting benefit-cost analysis results Economics of natural hazards (9/10) [206]	 0 bytes	[207] (0 bytes) [2], mitigation [161], p
03 Mar 2021	Risk and uncertainty Economics of natural hazards (10/10) [208]	 0 bytes	[209] (0 bytes) [2], mitigation [161], p
17 May 2021	Fire Australia Issue Two 2021 [210]	 11.74 MB	[211] (11.74 MB), emergency manag
27 Jul 2021	Economic Analysis Screening Tool [214]	 3.58 MB	[215] (3.58 MB), multi-hazard [3], p
18 Aug 2021	Building economics capacity within emergency management: tools and training for managers and practitioners [216]	 795.87 KB	[217] (795.87 KB) multi-hazard [3], p
08 Aug 2023	Overview of Economic Analysis Screening Tool for economic analysis in natural hazard management [218]	 0 bytes	[219] (0 bytes)

Posters

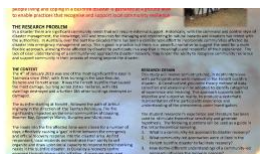


[220] 25 AUG 2019

Economics of natural hazards

[220]

The project tackles a range of economics issues, including estimation of non-financial benefits from hazard...



[221] 18 AUG 2019

Economics of Natural Hazards: Valuing Intangibles

[221]

DECISION MAKING [157], ECONOMICS [2]

Natural disasters impact many things that people value: life, health, belongings, property, essential...



[222] 12 AUG 2016

Economics of natural hazards

[222]
DECISION MAKING [157], ECONOMICS [2]

This project evaluates the tangible and intangible costs and benefits of natural hazards and mitigation...



[223] 29 JUN 2017

Appreciating the whole picture: including intangible values in decision making

[223]
ECONOMICS [2], MULTI-HAZARD [3]

Natural Hazards impact many things that people value: life, health, amenity, safety, recreation and the...



[224] 10 JUL 2016

Quick economic analysis tool: An efficient way to value mitigation

[224]
ECONOMICS [2], MITIGATION [161]

In order to help natural hazards managers with the prioritisation of mitigation options and the efficient...



[225] 27 AUG 2019

Quick Economics: tools that help decision making in natural hazard mitigation

[225]
ECONOMICS [2], MULTI-HAZARD [3]
When there is not enough information or time available to conduct indepth analyses of trade-offs between...



[226] 31 AUG 2020

The Economics of Natural Hazards

[226]
MULTI-HAZARD [3]

Key findings: A free online course on the economics of natural hazards to help practitioners become...

Linked Projects

Optimising post-disaster recovery interventions in Australia

[227]
ECONOMICS AND STRATEGIC DECISIONS [228]
Prof Mehmet Ulubasoglu
Deakin University [229]



[229]

Mapping and understanding bushfire and natural hazard vulnerability and risks at the institutional scale

[230]
ECONOMICS AND STRATEGIC DECISIONS [228]
Prof Roger Jones
Victoria University [231]



[231]

Improved decision support for natural hazard risk reduction

[232]



Scientific diversity and uncertainty in risk mitigation policy and planning [234]

GOVERNANCE AND INSTITUTIONAL KNOWLEDGE [235]

Dr Jessica Weir
Western Sydney University [236]

Using realistic disaster scenario analysis to understand natural hazard impacts and emergency management requirements [237]

SCENARIOS AND LOSS ANALYSIS [238]

Dr Matthew Mason
University of Queensland [239]

An analysis of building losses and human fatalities from natural disasters [240]

SCENARIOS AND LOSS ANALYSIS [238]

Dr Katharine Haynes
University of Wollongong [241]Source URL: <https://www.bnhcrc.com.au/node/229/generate-pdf>

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[1] <https://www.bnhcrc.com.au/files/burning-eucalypts-field-trip-16.jpg> [2] <https://www.bnhcrc.com.au/research/topics/economics> [3] <https://www.bnhcrc.com.au/research/topics/multi-hazard> [4] <https://www.bnhcrc.com.au/research/topics/policy> [5] <https://www.bnhcrc.com.au/research/naturalhazardeconomics> [6] <https://www.bnhcrc.com.au/people/ahailu> [7] <https://www.bnhcrc.com.au/organisations/uwa> [8] <https://www.bnhcrc.com.au/people/vlflore> [9] <https://www.bnhcrc.com.au/people/arogers> [10] <https://www.bnhcrc.com.au/people/dpannell> [11] <https://www.bnhcrc.com.au/people/epikusa> [12] <https://www.bnhcrc.com.au/organisations/dewnr> [13] <https://www.bnhcrc.com.au/people/hfoster> [14] <https://www.bnhcrc.com.au/organisations/emv> [15] <https://www.bnhcrc.com.au/people/mcarter> [16] <https://www.bnhcrc.com.au/organisations/dfes> [17] <https://www.bnhcrc.com.au/people/mcronstedt> [18] <https://www.bnhcrc.com.au/people/mwouters> [19] <https://www.bnhcrc.com.au/people/sflint> 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[http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2BAnalysis%2BScreening%2BTool%3A%2BGuidelines%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1](http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2Bof%2BNatural%2BHazards%2B-%2Bfinal%2Bproject%2Breport%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1) [45] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/8120> [46] <https://www.bnhcrc.com.au/publications/biblio/export/xml/8120> [47] <https://www.bnhcrc.com.au/publications/biblio/bnh-8038> [48] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2BAnalysis%2BScreening%2BTool%3A%2BGuidelines%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [49] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/8038> [50] <https://www.bnhcrc.com.au/publications/biblio/export/xml/8038> [51] <https://www.bnhcrc.com.au/publications/biblio/bnh-7753> [52] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2BAnalysis%2Bof%2BNatural%2BHazard%2Bmitigation%2Busing%2Bthe%2BQuick%2BEconomic%2BAnalysis%2BTool%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [53] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/7753> [54] <https://www.bnhcrc.com.au/publications/biblio/export/xml/7753> [55] <https://www.bnhcrc.com.au/publications/biblio/bnh-6168> [56] <http://dx.doi.org/10.1007/s11069-019-03761-7> [57] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Valuing%2Bnon-market%2BEconomic%2Bimpacts%2Bfrom%2BNatural%2BHazards%22&as_sauthors=Rogers&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [58] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/6168> [59] <https://www.bnhcrc.com.au/publications/biblio/export/xml/6168> [60] <https://www.bnhcrc.com.au/people/mburton> [61] <https://www.bnhcrc.com.au/publications/biblio/?%5Bauthor%5D=522> [62] <https://www.bnhcrc.com.au/publications/biblio/?%5Bauthor%5D=439> [63] <https://www.bnhcrc.com.au/publications/biblio/bnh-5650> [64] <http://dx.doi.org/10.1071/WF18192> [65] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Where%2Bof%2Bprescribed%2Bburn%3A%2Bthe%2Bcosts%2Bband%2Bbenefits%2Bof%2Bprescribed%2Bburning%2Bclose%2Bof%2Bhouses%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [66] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/5650> [67] <https://www.bnhcrc.com.au/publications/biblio/export/xml/5650> [68] <https://www.bnhcrc.com.au/publications/biblio/bnh-5929> [69] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2Bof%2BNatural%2BHazards%2Bannual%2Breport%2B2018-2019%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [70] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/5929> [71] <https://www.bnhcrc.com.au/publications/biblio/export/xml/5929> [72] <https://www.bnhcrc.com.au/publications/biblio/bnh-5420> [73] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economic%2Bof%2BNatural%2BHazards%2Bannual%2Breport%2B2017-2018%22&as_sauthors=Flore&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [74] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/5420> [75] <https://www.bnhcrc.com.au/publications/biblio/export/xml/5420> [76] <https://www.bnhcrc.com.au/people/john-bates> [77] <https://www.bnhcrc.com.au/publications/researchproceedings2018> [78] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Research%2Bproceedings%2Bfrom%2Bthe%2B2018%2BBushfire%2Bband%2BNatural%2BHazards%2BCRC%2Bband%2BAFAC%2BConference%22&as_sauthors=Bates&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [79] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4739> [80] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4739> [81] <https://www.bnhcrc.com.au/publications/biblio/bnh-4773> [82] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Filling%2Bthe%2Bgaps%3A%2Bhow%2BEconomics%2Bcan%2Bhelp%2Bmake%2Bimportant%2Bdecisions%2Bwhen%2Binformation%2Bis%2Bmissing%22&as_sauthors=Flore&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [83] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4773> [84] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4773> [85] <https://www.bnhcrc.com.au/publications/biblio/bnh-8039> [86] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Value%2BTool%2Bfor%2BNatural%2BHazards%3A%2BGuidelines%22&as_sauthors=Rogers&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [87] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/8039> [88] <https://www.bnhcrc.com.au/publications/biblio/export/xml/8039> [89] <https://www.bnhcrc.com.au/people/michael-rumsewicz> [90] <https://www.bnhcrc.com.au/publications/researchproceedings2017> [91] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Research%2Bproceedings%2Bfrom%2Bthe%2B2017%2BBushfire%2Bband%2BNatural%2BHazards%2BCRC%2Bband%2BAFAC%2BConference%22&as_sauthors=Rumsewicz&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [92] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/3946> [93] <https://www.bnhcrc.com.au/publications/biblio/export/xml/3946> [94] <https://www.bnhcrc.com.au/publications/biblio/bnh-3890> [95] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Where%2Bdo%2Bwe%2Bput%2Bour%2Bdollars%3F%2BEconomic%2BAnalysis%2Bof%2Bdifferent%2BBushfire%2Bmanagement%2Boptions%2Bin%2BWestern%2BAustralia%22&as_sauthors=Rogers&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [96] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/3890> [97] <https://www.bnhcrc.com.au/publications/biblio/export/xml/3890> [98] <https://www.bnhcrc.com.au/publications/biblio/?%5Bauthor%5D=64> [99] <https://www.bnhcrc.com.au/publications/biblio/bnh-4400> [100] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Including%2Bthe%2Bintangible%2Bbenefits%2Bof%2BBushfire%2Bmitigation%2Bin%2BEconomic%2BAnalyses%3A%2Ba%2B%27value%2Btool%27%2Bfor%2Binformed%2Bdecision%22 [101] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/3880> [102] <https://www.bnhcrc.com.au/publications/biblio/export/xml/3880> [103] <https://www.bnhcrc.com.au/publications/biblio/?%5Bauthor%5D=970> [104] <https://www.bnhcrc.com.au/publications/biblio/bnh-4400> [105] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Integrating%2Bintangible%2Bvalues%2Bin%2BEconomic%2BAnalyses%2Bof%2BFlood%2Bmitigation%3A%2Ba%2Bcase%2Bstudy%2Bof%2Bthe%2BBrown%2BHill%2Band%2BKeswick%22 [106] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4400> [107] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4400> [108] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [109] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Integrating%2Bnon-market%2Bvalues%2Bin%2BEconomic%2BAnalyses%2Bof%2BFlood%2Bmitigation%3A%2Ba%2Bcase%2Bstudy%2Bof%2Bthe%2BBrown%2BHill%2Band%2BKeswick%2Bcreeks%2Bcatchment%2Bin%2BAdelaide%22&as_sauthors=Rogers&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdtP=1 [110] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4234> [111] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4234> [112] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [113] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [114] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [115] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [116] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [117] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [118] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [119] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [120] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [121] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [122] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [123] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [124] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [125] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [126] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [127] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [128] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [129] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [130] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [131] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [132] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [133] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [134] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [135] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [136] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [137] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [138] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [139] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [140] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [141] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [142] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [143] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [144] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [145] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [146] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [147] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [148] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [149] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [150] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [151] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [152] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [153] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [154] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [155] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [156] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [157] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [158] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [159] <https://www.bnhcrc.com.au/publications/biblio/bnh-4234> [160]

[110] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4234> [111] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4234> [112] <https://www.bnhcrc.com.au/publications/biblio/bnh-4209> [113] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economics%2Bof%2BNatural%2BHazards%3A%2Bannual%2Bproject%2Breport%2B2016-17%22&as_sauthors=Pannell&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [114] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4209> [115] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4209> [116] <https://www.bnhcrc.com.au/publications/researchproceedings2016> [117] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Research%2Bproceedings%2Bfrom%2Bthe%2B2016%2BBushfire%2Band%2BNatural%2BHazards%2BCRC%2Band%2BAFAC%2Bconference%22&as_sauthors=Rumsewicz&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [118] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/2960> [119] <https://www.bnhcrc.com.au/publications/biblio/export/xml/2960> [120] <https://www.bnhcrc.com.au/publications/biblio/bnh-2947> [121] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Integrated%2Beconomic%2Bassessment%2Bof%2Bfood%2Bmanagement%2Boptions%2Bfor%2BAdelaide%22&as_sauthors=Chalak&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [122] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/2947> [123] <https://www.bnhcrc.com.au/publications/biblio/export/xml/2947> [124] <https://www.bnhcrc.com.au/publications/biblio/bnh-2923> [125] <https://www.bnhcrc.com.au/publications/biblio/bnh-2934> [126] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Non-market%2Bvaluation%2Bin%2Bthe%2Beconomic%2Banalysis%2Bof%2BNatural%2BHazards%22&as_sauthors=Gibson&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [127] <https://www.bnhcrc.com.au/publications/biblio/bnh-2341> [128] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economics%2Bof%2BNatural%2BHazards%3A%2BAnnual%2Bproject%2Breport%2B2015-2016%22&as_sauthors=Pannell&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [129] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/2923> [130] <https://www.bnhcrc.com.au/publications/biblio/export/xml/2923> [131] <https://www.bnhcrc.com.au/publications/biblio/bnh-4116> [132] <http://ageconsearch.umn.edu/record/236941> [133] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/4116> [134] <https://www.bnhcrc.com.au/publications/biblio/export/xml/4116> [135] <https://www.bnhcrc.com.au/publications/biblio/bnh-2341> [136] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economics%2Bof%2BNatural%2BHazards%3A%2BAnnual%2Bproject%2Breport%2B2014-2015%22&as_sauthors=Pannell&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [137] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/2341> [138] <https://www.bnhcrc.com.au/publications/biblio/export/xml/2341> [139] <https://www.bnhcrc.com.au/publications/biblio/bnh-1572> [140] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/1572> [141] <https://www.bnhcrc.com.au/publications/biblio/bnh-1572> [142] http://scholar.google.com/scholar?btnG=Search%2BScholar&as_q=%22Economics%2Bof%2BNatural%2BHazards%2BAnnual%2Bproject%2Breport%2B2014%22&as_sauthors=Pannell&as_occt=any&as_epq=&as_oq=&as_eq=&as_publication=&as_ylo=&as_yhi=&as_sdtAAP=1&as_sdt=1 [143] <https://www.bnhcrc.com.au/publications/biblio/export/bibtex/1572> [144] <https://www.bnhcrc.com.au/publications/biblio/export/xml/1572> [145] https://www.bnhcrc.com.au/node/229/generate-pdf?order=field_date_release&sort=asc [146] <https://www.bnhcrc.com.au/node/229/generate-pdf?order=title&sort=asc> [147] <https://www.bnhcrc.com.au/resources/presentation-slideshow/1050> [148] <https://www.bnhcrc.com.au/file/580/download?token=BCXSZ3uS> [149] <https://www.bnhcrc.com.au/research/topics/emergency-management> [150] <https://www.bnhcrc.com.au/research/topics/prescribed-burning> [151] <https://www.bnhcrc.com.au/resources/presentation-slideshow/1705> [152] <https://www.bnhcrc.com.au/file/5176/download?token=VFOMLwVZ> [153] <https://www.bnhcrc.com.au/resources/presentation-slideshow/2703> [154] https://www.bnhcrc.com.au/file/6197/download?token=M_6f5B8R [155] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3026> [156] https://www.bnhcrc.com.au/file/6520/download?token=k_BatuWs [157] <https://www.bnhcrc.com.au/research/topics/decision-making> [158] <https://www.bnhcrc.com.au/research/topics/flood> [159] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3021> [160] <https://www.bnhcrc.com.au/file/6514/download?token=20O9cJo> [161] <https://www.bnhcrc.com.au/research/topics/mitigation> [162] <https://www.bnhcrc.com.au/resources/presentation-audio-video/3176> [163] <https://www.bnhcrc.com.au/file/6664/download?token=RVxQ04oS> [164] <https://www.bnhcrc.com.au/hazardnotes/25> [165] <https://www.bnhcrc.com.au/file/7005/download?token=c5r5Yamk> [166] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3488> [167] https://www.bnhcrc.com.au/file/7289/download?token=lik_ImZ [168] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3771> [169] <https://www.bnhcrc.com.au/file/7584/download?token=y5G2aa8Q> [170] <https://www.bnhcrc.com.au/research/topics/resilience> [171] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3979> [172] <https://www.bnhcrc.com.au/file/7835/download?token=WCrORS4J> [173] <https://www.bnhcrc.com.au/research/topics/fire> [174] <https://www.bnhcrc.com.au/resources/presentation-slideshow/3980> [175] https://www.bnhcrc.com.au/file/7836/download?token=6r2jDL4_ [176] <https://www.bnhcrc.com.au/hazardnotes/42> [177] https://www.bnhcrc.com.au/file/7998/download?token=WCVEqn9_ [178] <https://www.bnhcrc.com.au/resources/presentation-slideshow/4535> [179] <https://www.bnhcrc.com.au/file/8196/download?token=9GVu8A2y> [180] <https://www.bnhcrc.com.au/resources/presentation-audio-video/5735> [181] <https://www.bnhcrc.com.au/file/10174/download?token=LQCscJQh> [182] <https://www.bnhcrc.com.au/research/topics/climate-change> [183] <https://www.bnhcrc.com.au/resources/presentation-slideshow/4863> [184] <https://www.bnhcrc.com.au/file/8796/download?token=eAaMVN57> [185] <https://www.bnhcrc.com.au/resources/presentation-slideshow/5708> [186] <https://www.bnhcrc.com.au/research/topics/planning> [187] <https://www.bnhcrc.com.au/casestudy/intangibalevalue> [188] <https://www.bnhcrc.com.au/economics-video-course/introduction> [189] <https://www.bnhcrc.com.au/file/12550/download?token=pNvSUMKc> [190] <https://www.bnhcrc.com.au/economics-video-course/video1> [191] <https://www.bnhcrc.com.au/file/12551/download?token=fM72k6z9> [192] <https://www.bnhcrc.com.au/economics-video-course/video3> [193] https://www.bnhcrc.com.au/file/12599/download?token=IY4Lb_z6 [194] <https://www.bnhcrc.com.au/economics-video-course/video4> [195] <https://www.bnhcrc.com.au/file/12600/download?token=DkerGFj0> [196] <https://www.bnhcrc.com.au/economics-video-course/video5> [197] <https://www.bnhcrc.com.au/file/12601/download?token=ALurx2vq> [198] <https://www.bnhcrc.com.au/economics-video-course/video2> [199] <https://www.bnhcrc.com.au/file/12598/download?token=fa-kDyvW> [200] <https://www.bnhcrc.com.au/economics-video-course/video6> [201] <https://www.bnhcrc.com.au/file/12609/download?token=qpMH-Ecv> [202] <https://www.bnhcrc.com.au/economics-video-course/video7> [203] https://www.bnhcrc.com.au/file/12611/download?token=2_WjDf04 [204] <https://www.bnhcrc.com.au/economics-video-course/video8> [205] <https://www.bnhcrc.com.au/file/12613/download?token=XLm50Z8> [206] <https://www.bnhcrc.com.au/economics-video-course/video9> [207] <https://www.bnhcrc.com.au/file/12615/download?token=hzeK4ZiO> [208] <https://www.bnhcrc.com.au/economics-video-course/video10> [209] <https://www.bnhcrc.com.au/file/12617/download?token=bzzfq6JF> [210] <https://www.bnhcrc.com.au/resources/fireaustralia-edition/8005> [211] <https://www.bnhcrc.com.au/file/12775/download?token=GwhU9Kp> [212] <https://www.bnhcrc.com.au/research/topics/capability> [213] <https://www.bnhcrc.com.au/research/topics/northern-australia> [214] <https://www.bnhcrc.com.au/economic-analysis-screening-tool> [215] <https://www.bnhcrc.com.au/file/13063/download?token=9up-wxGt> [216] <https://www.bnhcrc.com.au/hazardnotes/104> [217] <https://www.bnhcrc.com.au/file/13078/download?token=USMw9OFy> [218] <https://www.bnhcrc.com.au/resources/presentation-audio-video/8381> [219] <https://www.bnhcrc.com.au/file/13497/download?token=KngxXTnU> [220] <https://www.bnhcrc.com.au/resources/poster/1199> [221] <https://www.bnhcrc.com.au/resources/poster/1999> [222] <https://www.bnhcrc.com.au/resources/poster/2817> [223] <https://www.bnhcrc.com.au/resources/poster/3706> [224] <https://www.bnhcrc.com.au/resources/poster/4825> [225] <https://www.bnhcrc.com.au/resources/poster/5840> [226] <https://www.bnhcrc.com.au/resources/poster/7769> [227] <https://www.bnhcrc.com.au/research/postdisastereconomics> [228] <https://www.bnhcrc.com.au/research/cluster/economics-decision-making> [229] <https://www.bnhcrc.com.au/organisations/du> [230] <https://www.bnhcrc.com.au/research/vulnerabilityandrisk> [231] <https://www.bnhcrc.com.au/organisations/vu> [232] <https://www.bnhcrc.com.au/research/riskreduction> [233] <https://www.bnhcrc.com.au/organisations/ua> [234] <https://www.bnhcrc.com.au/research/scientificdiversity> [235] <https://www.bnhcrc.com.au/research/cluster/governance-institutional-knowledge> [236] <https://www.bnhcrc.com.au/organisations/uws> [237] <https://www.bnhcrc.com.au/research/disastersscenarioanalysis> [238] <https://www.bnhcrc.com.au/research/cluster/scenarios-loss-modelling> [239] <https://www.bnhcrc.com.au/node/1156> [240] <https://www.bnhcrc.com.au/research/buildinglosses> [241] <https://www.bnhcrc.com.au/organisations/uow>