Committee: The Legal Committee

Topic: Assessing Australia's legal strategies for bushfire prevention and sustainable land management

Student Officer: Oikonomidou Eftychia

Position: Co-chair

Topic Introduction

Bushfires are widespread in Australia, especially in the late spring and summer. Climate change has increased the frequency and severity of bushfires, resulting in longer fire seasons and more intense weather conditions that promote fire breakouts.

Bushfires frequently have a variety of consequences, including environmental, economic, and social implications, as well as effects on human health. Bushfires have caused enormous harm to Australia's ecosystems, risking the extinction of threatened species and a large amount of land. The "Black Summer" of 2019-2020 was one of Australia's most destructive bushfire seasons, burning an estimated 18.6 million hectares and having a massive impact on biodiversity. Bushfires have also had an influence on Australia's economy, since the costs of property destruction, livestock loss, agricultural and firefighting efforts, and rehabilitation have been unaffordable.On the social component, with the loss of many caused by the bushfires, there has been a displacement of communities as well as psychological consequences.Bushfires pose major health dangers, including direct threats to life and property, as well as indirect effects from smoke inhalation that can cause respiratory disorders and other health problems. Moreover , in order to ameliorate the situation in Australia legal strategies are required not only to prevent more bushfires but also for sustainable land management. Some can be the creation of codes and land use planning to enhance community resilience or strong laws that mandate controlled burns helping to minimize the intensity and spread of bushfires.

Bushfires in Australia pose a huge and expanding threat, with far-reaching environmental, economic, health, and social consequences. Robust legal strategies are required for effective wildfire prevention and sustainable land use. These techniques help to reduce the risk and impact of bushfires, making communities more prepared and resilient, as well as managing and restoring natural ecosystems in a sustainable manner.

Definition of key concepts

Bushfire

Are types of wildfire fires that burn through wild vegetation that is less than 1.8 meters (6 feet) tall. These fires are unpredictable and difficult to control in most cases.

Sustainable Land Management

Sustainable development, approach to social, economic, and environmental planning that attempts to balance the social and economic needs of present and future human generations with the imperative of preserving, or preventing undue damage to, the natural environment.

Remote Sensing

Remote sensing is the acquisition of information about an object or phenomenon without making physical contact with the object, in contrast to in situ or on-site observation. The term is applied especially to acquiring information about Earth and other planets.

Cultural Burns

Are typically small-scale, low-intensity fires that are conducted during specific times of the year, depending on weather conditions, vegetation types, and cultural calendars. These burns are carefully planned and conducted with a deep understanding of local ecosystems, often passed down through generations of Indigenous knowledge to manage the landscape.

Bushfires Act

Refers to numerous pieces of legislation established in different regions to handle wildfire prevention, management, and response issues. These acts are primarily intended to reduce the danger of bushfires, lessen their damage when they do occur, and set frameworks for coordinated emergency responses.

Background Information

Black Summer (2019-2020)

The " Black Summer" as it is known is one of the most damaging bushfire seasons in Australia during 2019-2020 burning an estimated 18.6 million hectares affecting the lives of thousands of Ausgtralians, innumerable wildlife and biodiversity.

The causes of this bushfire season are connected both to the environment and human-included factors with climate change playing a significant role in exacerbating the conditions that caused the flames. The excessive heat, protracted drought, and strong winds created a setting ideal for widespread and intense bushfires. Inadequate land management methods and a variety of ignition sources all contributed to the size and intensity of the fires. Understanding these reasons emphasizes the significance of tackling climate change, improving land management, and strengthening readiness and response efforts to reduce the effect of future bushfires.

Historical Context

Australia, known for its unique and diversified ecosystems, has a long history of bushfires that have dramatically altered its landscapes. The earliest approaches to bushfire management in Australia evolved through several eras, reflecting the progressive accumulation of knowledge about fire ecology, technological developments, and changing community demands. This is an overview of various approaches, covering their evolution from Indigenous practices to modern strategies.

With the introduction of European settlers in 1788, the terrain of wildfire management shifted. Early settlers misinterpreted the significance of fire in Australia's ecosystems, which resulted in the eradication of indigenous fire practices. This suppression resulted in the accumulation of fuels and major changes in vegetation structure, increasing the risk of severe wildfire.

Firefighting in the early colonial period was primitive, relying on volunteer efforts and simple tools like beaters and buckets. It wasn't until the early twentieth century that the importance of organized

firefighting services was understood. Volunteer brigades were formed, and governments began to invest in firefighting equipment and infrastructure. However, the major focus remained on fire suppression, with a preference for extinguishing fires as soon as feasible.

Bushfire management advanced significantly throughout the postwar period. From the 1940s to the 1970s, technical advancements and improved mobility increased firefighting capabilities. Motorized pumps, water bombing aircraft, and the construction of firebreaks were essential components of firefighting methods. Controlled burning and other fuel reduction strategies were used to better minimize the fire risk.

During the 1970s and 1980s, an increasing understanding of fire's ecological function prompted policy and practice changes. Scientific study has demonstrated the necessity of prescribed fire in sustaining ecosystem health. Fire management strategies began to incorporate these findings, balancing suppression efforts with environmental concerns. This period represented the start of a more comprehensive strategy to wildfire control, which included prevention, suppression, and ecological management.

Bushfire management in Australia has shifted towards community education and preparedness since the 1990s. The advancement of sophisticated fire prediction and mapping technology, such as satellite photography and computer modeling, has transformed fire detection and control. These innovations enabled more precise predictions and real-time information sharing, which improved public safety and response capabilities.

Collaboration among government agencies, scientists, and local people has become a key component of modern wildfire management. Indigenous wisdom began to be reintegrated into fire management strategies, recognizing its importance in preserving resilient landscapes. Major blaze disasters, including the 2009 Black Saturday fires and the 2019-2020 Black Summer fires, highlighted the importance of adaptive management and resilience building.

Current Legal Framework

The law plays a vital role in increasing resilience to climate-induced wildfire risk. That function is integrated in all aspects of fire management, including institutional and regulatory instruments for increasing preparedness for, responses to, and recovery from shifting fire regimes across sectors, scales, and players.

Bushfire laws and policies in Australia are implemented at the national, state, and territory levels, as well as locally. Some are expressly regarding fire, such as criminal laws against arson and legislation creating fire departments. Other laws and regulations are indirectly applicable, such as those governing protected areas and the Commonwealth executive's constitutional authority to declare a state of emergency. Laws with indirect application to bushfire are becoming increasingly relevant in planning for and responding to bushfires, as well as the ability to enhance or undermine community resilience.

No extant study describes the broad scope and operation of Australian laws and policies that may be collectively referred to as 'bushfire law'. However, having a wide understanding of Australia's numerous fire-related laws and regulations is beneficial, because post-fire assessments and investigations routinely suggest reform but do not always recognize broader, interconnected legal instruments and obligations.Furthermore, while attempts are being made to build a clear and practical study agenda on bushfires, few scholars have focused on the larger functions of law in this field. We cannot successfully respond to bushfire law reform recommendations unless we have a thorough understanding of the legal instruments and institutions that already control our interactions with fire. Moreover, as catastrophic bushfires become increasingly frequent and destructive, a clear map of the existing legal framework provides a good beginning point for understanding the remarkable complexity of Australia's bushfire laws and policies.

Timeline of Events

Date	Event
1954	Bushfires Act
1961	Establishment of World Wildlife Fund (WWF)
2019-2020	Black Summer : Bushfire season in Australia

Major countries/ organizations and alliances

United States of America (USA)

During the Black Summer season of bushfires the USA sent firefighters to help Australia battle the fires. The two member states collaborate and share scientific information on bushfire and wildlife prevention such as CSIRO which conducts research on fire behavior and develops tools for managing wildfires that can be practical to the U.S. wildlife management practices.

Additionally, the USA strongly supports Australia's approach to bushfire management today and uses similar strategies to enhance its own wildlife prevention.

Canada

Canada is a member state who loves to aid other countries when in need. For Australia when one of the most fires in history was taking place Prime Minister Justin Turdeau sent 100 Canadian fire experts and was always on alert to do more for Australia.Moreover, Canadian firefighters were making pouches,nests as well as wraps to help the Australian wildlife that was hurt. Canadians also felt like they were returning the favor of helping Australians since the two member states have worked together in the past to save lives.

New Zealand

New Zealand is a neighboring country to Australia therefore the Black Summer season of bushfires impacted New Zealand as well. Parts of the country were blanketed with thick smoke which turned the sky a gloomy-looking orange. Auckland, New Zealand's largest city, was soon shrouded by the smoke, soon changing the citizens mood and resulting in multiple citizens to choose to stay indoors. Thus, the city looked inhabitable.

Image:https://cms.accuweather.com/wp-content/uploads/2020/01/Screen-Shot-2020-01-05-at-11.07.38-AM.png?w=632

World Wildlife Fund (WWF)

The World Wildlife Fund is a Swiss based international non-governmental organization founded in 1961 that works in the field of wilderness prevention and the reduction of human impact on the environment.

WWF helped Australia during the bushfire season , the global response to this crisis was immediate. The World Wildlife Fund raised $50 million for the WWF Australian Wildlife & Nature Recovery Fund, with $9 million coming from the US alone. The generous support in particular, enabled them to act quickly and at scale to get emergency funds to the frontline, mobilize resources to help Australia's wildlife, help local communities adapt and recover, and plan the essential work needed to get Australia's wildlife on the road to recovery once the fires were out.

Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC)

The Bushfire and Natural Hazard Cooperative Research Centre is conducting research to create a disaster-resistant Australia. The CRC oversees national research efforts on disasters including bushfires, floods, storms, cyclones, heatwaves, earthquakes, and tsunamis.

The center brings together all of Australia and New Zealand's fire and emergency service agencies with prominent experts in a variety of scientific fields to investigate the causes, repercussions, and mitigation of natural catastrophes. Universities, the Bureau of Meteorology and Geoscience Australia, and a number of international research organizations are among our research partners.

This collaborative project is helping to construct disaster-resilient communities across Australia.

Forest Fire Management Committee of Forestry Australia and the Forest Fire Management Group (FFMG)

The Forest Fire Management Committee (FFMC) of Forestry Australia, as well as the Forest Fire Management Group (FFMG), are organizations that create and implement bushfire prevention and management techniques in Australia.

The FFMC, which is part of Forestry Australia, promotes sustainable forest management techniques, including strategies for mitigating and managing fires. This committee develops rules and recommendations, conducts research, and advocates for efficient forest fire management strategies to save forests, animals, and communities.

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The Forestry and Forest Products Committee oversees the FFMG, which advises government ministries in charge of forest management. It plays an important role in national bushfire management by establishing targets and key performance indicators (KPIs) to guide improvements in fire management techniques. The FFMC, a division of Forestry Australia, focuses on encouraging sustainable Providing regular national reporting on wildfire management achievements helps improve performance, secure resources, and gain public support.

These groups work together to create a coordinated national response to Australia's bushfire difficulties, with the goal of reducing the devastating effects of fires on people, land, and property.

Previous attempts to solve the issue

Risk Management Framework 5Rs

The Risk Management Framework (RMF) is a United States federal government guideline, standard and process for risk management to help secure information systems (computers and networks) developed by National Institute of Standards and Technology (NIST). The RMF, illustrated in the diagram to the right, provides a disciplined and structured process that integrates information security, privacy and risk management activities into the system development life cycle.[1][2]

USAID's Program Cycle Operational Policy (ADS 201) provides guidance to missions and other operating units on how to implement the Program Cycle. A key principle of the Program Cycle is to "Promote Sustainability through Local Ownership." The purpose of this Technical Note is to describe the "5Rs Framework", a practical methodology for supporting sustainability and local ownership in projects and activities through ongoing attention to local actors and local systems.

The 5Rs Framework highlights five key dimensions of systems: Results, Roles, Relationships, Rules and Resources. Collectively these 5Rs can serve as a lens for assessing local systems and a guide for identifying and monitoring interventions designed to strengthen them.

Bushfires Act (1954)

Western Australia's Bush Fires Act 1954 is a critical piece of law aimed at addressing the region's considerable and recurring bushfire threat. The Act is critical in lessening the impact of bushfires because it establishes preventive measures, delineates clear responsibilities, and empowers local authorities and control officials. Its provisions for licenses, firebreaks, firefighting capabilities, and fines form a strong structure to safeguard people, property, and the environment from the devastation caused by bushfires. As bushfire risks evolve, the Act's structure remains critical for coordinating and effective management actions throughout the state.

The Australian Standard 3959[1]

The AS 3959-2018 standard, titled "Construction of buildings in bushfire-prone areas," gives principles for making buildings more resilient to bushfires. It outlines design and construction standards, including materials, design techniques, and building practices that improve structures' ability to survive bushfire damage. The standard specifies different building levels based on bushfire attack levels (BAL), which determine the severity of potential fire exposure. This guideline is critical for maintaining safety and lowering the danger of property destruction in bushfire-prone areas.

Possible solutions

National Bushfire Management Framework

The establishment of a National Bushfire Management Framework can benefit Australia and prevent future bushfires. This framework will be conducted under national law and updated. Some assets of the bushfire framework can be assessing high-risk areas and prioritizing mitigation efforts or educating the community regarding how they might need to act in the case of an unexpected bushfire in order to protect themselves. Additionally, the national bushfire management framework can also focus on research to develop better fire management practices.

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[1] https://www.standardsau.com/preview/AS%203959-2018.pdf

Enhanced Building Codes and Land Use Regulations

The development of stronger building rules and land use laws would seek to lessen the vulnerability of structures and communities in bushfire-prone areas.Enhanced building codes and land use rules focused at bushfire protection typically include several legal procedures designed to lessen the risk and impact of fires in sensitive locations.

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